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New Readers' Guide to the World Almanac

Every important subject covered in the World Almanac is listed in the comprehensive General Index, where it is cross-indexed under a number of headings, making it possible for a reader to quickly find the desired information.

The following hints are intended for the student or new reader so that he may use the General Index to best advantage.

When seeking any information, the reader would do well to check first the Quick Reference Index, which lists general subjects that experience has shown are popular topics often referred to by readers.

If the subject on which the reader is seeking information is not listed in the Quick Reference Index, he should ask the following questions of himself before consulting the General Index:

1. Is the subject famous? A noted personality, place, historical event etc.?

If so, chances are excellent it is specifically listed in the General Index and the reader will need to look no further. Such subjects as Babe Ruth, World War I, the Pentagon, the Alamo and hundreds of others, would fall into this category.

But if the information sought is not sufficiently noteworthy to have its own listing in the General Index, the reader should then ask himself:

2. Into what general category does the information sought fall?

If the reader was seeking information about a lesser known home run hitter

than Babe Ruth, such as Al Kaline, he would not find a separate listing for Rosen, but under the listing "Baseball" would be guided to home run leaders of all time, including Kaline.

In the same way, if the Pentagon did not have its own listing, the reader could locate it in the book under "Washington, D. C.," where he would find a sub-head "public buildings" which would lead him to the pages covering the Pentagon and other public buildings in the Capital. A check under "Buildings, office, world's largest," would also locate the information desired.

All of the subjects cited in these examples could be located by using the Quick Reference Index. Ruth's and Rosen's records come under "Sports Records" in the Quick Reference Index. The Pentagon's Quick Reference Index general listing is "Washington, the Nation's Capital." Information about the Alamo can be located under the Quick Reference Index heading of "Memorable Dates."

But if the Quick Reference Index should fail to turn up the information, a simple rule for using the General Index is:

Work from the specific subject to the more general subject.

Categorize the information wanted, historically, geographically or into any other logical subject heading to which it might reasonably belong.

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Electoral Votes for President, 1952-68

The Constitution, Article 2, Section 1 (consult index), provides for the appointment of electors, the counting of the electoral ballots and the procedure in the event of a tie. (See *Electoral College*, page 914.)

State	1952		1956		1960		1964		1968			State	1952		1956		1960		1964		1968		
	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	3d		R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	3d
Ala.		11		11		25	10					Nev.	3		3		3		3		3		
Alaska.						3		3		3		N. H.	4		4		4		4		4		14
Ariz.	4		4		4		5		5			N. J.	16		16		16		17		7		
Ark.		8		8		8		6		6		N. M.	4		4		4		4		4		
Calif.	32		32		32		40		40		6	N. N. Y.	45		45		45		43		43		
Colo.	6		6		6		8		8		6	N. C.		14		14		14		13		13	
Conn.		8		8		8		3		3	8	N. D.	4		4		4		4		4		
Del.	3		3		3		3		3		3	Ohio.	25		25		25		26		26		8
D. of C.							33		3			Okl.	8		8		47		8		8		
Fla.	10		10		10		14		14		3	Oreg.	6		6		6		6		6		
Ga.		12		12		12		12		12		Penn.	32		32		32		29		29		
Hawaii.						3		4		4		R. I.	4		4		4		4		4		
Idaho.	4		4		4		4		4		4	S. C.		8		8		8		8		8	
Ill.	27		27		27		26		26		18	S. D.	4		4		4		4		4		
Ind.	13		13		13		13		13		13	Tenn.	11		11		11		11		11		
Iowa.	10		10		10		9		9		9	Texas.	24		24		24		25		25		
Kan.	8		8		8		7		7		9	Utah.	4		4		4		4		4		
Ky.		10		10		10		9		9		Vt.	3		3		3		3		3		
La.		10		10		10		10		10		Va.	12		12		12		12		12		
Me.	5		5		5		4		4		4	Wash.	9		9		9		9		9		9
Md.	9		9		9		14		14		10	W. Va.		8				8					
Mass.	16		16		16		21		21		14	Wis.	12		12		12		12		12		7
Mich.	20		20		20		11		10		10	Wyo.	3		3		3		3		3		
Minn.	11		11		11		12		12		7	Totals	442	89	457	74	219	303	52	486	302	191	45
Miss.		8		8		(2)	7		7			Plur.	353		383		384		434	111			
Mo.	13		13		13		4		4														
Mont.	4		4		4		5		5														
Neb.	6		6		6																		

¹In 1956 in Alabama one Democratic elector refused to vote for Stevenson and cast his ballot for Walter B. Jones, making the Democratic total actually 73.

²In 1960 Sen. Harry F. Byrd (D.-Va.) got 15 electoral votes, including those of 8 unpledged Mississippi Democratic electors, 6 unpledged Alabama Democrats and one Oklahoma Republican.

³First Presidential election.

Congressional Apportionment

State	1950	1960	State	1950	1960	State	1950	1960	State	1950	1960
	Census	Census		Census	Census		Census	Census		Census	Census
Ala.	9	8	Ind.	11	11	Neb.	4	3	S. C.	6	6
Alaska	1		Iowa	8	7	Nev.	1	1	S. D.	2	2
Ariz.	2	3	Kan.	6	6	N. H.	2	2	Tenn.	9	9
Ark.	6	4	Ky.	8	7	N. J.	14	15	Texas	22	23
Calif.	30	38	La.	8	8	N. M.	2	2	Utah.	2	2
Colo.	4	4	Me.	3	2	N. Y.	43	41	Vt.	1	1
Conn.	6	6	Md.	7	8	N. C.	12	11	Va.	10	10
Del.	1	1	Mass.	14	12	N. D.	2	2	Wash.	6	7
Fla.	8	12	Mich.	18	19	Ohio.	23	24	W. Va.	6	5
Ga.	10	10	Minn.	9	8	Okl.	6	4	Wis.	10	10
Hawaii	1	2	Miss.	6	5	Pa.	4	4	Wyo.	1	1
Idaho	2	2	Mo.	11	10	Or.	30	27	Totals	437	435
Ill.	25	24	Mont.	2	2	R. I.	2	2			

The chief reason why the Constitution provided for a census of the population every 10 years was to give a basis for apportionment of Representatives among the states. This apportionment is of added importance because it largely determines how many electoral votes are allotted to each state in Presidential elections. See *Electoral College*.

The number of Representatives of each state in Congress is determined by the state's population, except that each state is entitled to one Representative regardless of population. A Congressional apportionment has been made after each decennial census except that of 1920.

Under provisions of a law that became effective Nov. 15, 1941, apportionment of Representatives is made by the method of equal proportions. In the

application of this method, the apportionment is made so that the average population per Representative has the least possible variation between one state and any other. The first House of Representatives, in 1790, had 65 members, or one Representative for each 30,000 of the estimated population, as provided by the Constitution. As the population grew, the number of Representatives was increased but the total membership has been fixed at 435 since 1912 by action of Congress. On the basis of the 1960 census, with 435 Representatives, there was one for each 410,481 persons.

With the admission of Alaska and Hawaii to the Union, the total number of Representatives rose to 437 temporarily. It reverted to 435 with the new apportionment after the 1960 census.

The World Almanac

and Book of Facts for 1969

The 193rd anniversary of the adoption of the Declaration of Independence, 1776, falls on July 4, 1969. The 182nd anniversary of the signing of the Constitution of the United States, 1787, falls on September 17, 1969. The Government declared the Constitution in effect March 4, 1789.

The first edition of the WORLD ALMANAC, a 120-page hand-set volume containing 12 pages of advertisements, was published by the New York World 101 years ago, in 1868. Annual publication was suspended in 1876. Joseph Pulitzer, publisher of the New York World, revived the WORLD ALMANAC in 1886 with the goal of making it a "compendium of universal knowledge." It has been published annually since. In 1931 it was acquired by Scripps-Howard; until 1951 it bore the imprint of the New York World-Telegram, thereafter until 1967 that of the New York World-Telegram and Sun. It is now published in paper and cloth-bound editions by Newspaper Enterprise Association, Inc.

President-elect Richard M. Nixon, commenting Nov. 6, 1968, upon his election, said: "I saw many signs in this campaign. Some of them were not friendly and some were very friendly. But the one that touched me most was one that I saw in Deshler, Ohio, at the end of a long day of whistle-stopping, a little town, I suppose five times the population was there in the dark, almost impossible to see—but a teen-ager held up a sign, 'Bring Us Together.' And that will be the great objective of this Administration at the outset, to bring the American people together."



The Editor acknowledges with thanks the many letters, whether of helpful comment or criticism, that attest the usefulness of the WORLD ALMANAC, and invites suggestions for improvement of its services to readers. Address: 230 Park Avenue, New York, N.Y. 10017.

The WORLD ALMANAC does not decide wagers.

1968—THE YEAR THAT WAS

As the World Almanac enters its second century with this 101st Anniversary Edition, it chronicles the events and developments of a year that was second to none in this long span for surprises, both pleasant and unpleasant, and for shocks, some of which shook not only America but the entire civilized world.

What distinguished 1968 from any of the 100 other years since the establishment of the World Almanac? Here are some of the landmark events, not necessarily in exact order of chronology or importance, which are covered in more detail elsewhere in this edition:

U.S.S. Pueblo—First seizure of a U. S. warship on the high seas in 150 years (captured by North Korea).

Scorpion—U. S. nuclear submarine lost with 99 men aboard.

Dr. Benjamin Spock—Indictment and conviction of famed pediatrician for conspiring to abet draft violations.

Gov. George Romney—Surprise withdrawal of Michigan leader from race for Republican Presidential nomination.

Sen. Eugene McCarthy—Unprecedentedly successful challenge (on a peace platform) to an incumbent President for the White House nomination by a leader of his own party.

Assassinations—The entire world was horrified by the senseless slayings of the Rev. Dr. Martin Luther King, Negro civil rights leader, and Sen. Robert F. Kennedy, brother of the assassinated President John F. Kennedy.

Student Protests—A student rebellion that closed Columbia University in New York City was perhaps the most notable in a wave of college disruptions stemming from racial unrest, anti-war sentiment, and revolt against administrative authority.

Peace Prospects—Hopes for an end to the war in Vietnam were raised by the opening of preliminary talks in Paris and increased significantly after President Johnson announced the cessation of U. S. bombing of North Vietnam.

Johnson Withdrawal—Biggest political bombshell in many years was President Johnson's announcement that he would not seek or accept his party's nomination for another term in the White House.

Biafra Horror—The sympathy and outrage of the world were aroused by the plight of the children of Biafra, starving by the hundreds of thousands because of the revolt of that province against parent Nigeria.

Birth Control—An encyclical by Pope Paul VI against modern methods of contraception caused widespread controversy and threatened a revolt within the Roman Catholic Church.

Presidential Election—The Presidential election year was featured by unprecedented violence in the streets during the Democratic National Convention in Chicago and by the victory of Republican nominee Richard M. Nixon by a razor-thin margin.

Czechoslovakia Invaded—The world trembled when the Soviet Union and its Warsaw Pact puppets invaded Czechoslovakia to snuff out a liberalist movement in that country.

Man to the Moon—Man's drive to land on the lunar surface received fresh impetus from space achievements by the Soviet Union and the United States. The USSR sent two unmanned vehicles around the moon and back to earth and sent a single-manned vehicle into experimental flight. The United States sent a 3-manned Apollo craft into earth orbit for 11 days and announced plans for another 3-man Apollo to orbit the moon before the end of 1968.

PRESIDENTIAL ELECTION, 1968

Republican Richard M. Nixon Victorious in Cliff-Hanger

In one of the most dramatic and suspenseful elections in this century, former Vice President Richard Milhous Nixon was elected the 37th President of the United States Nov. 5, 1968. In his second Presidential bid, the Republican nominee and his Vice Presidential running mate, Maryland's Gov. Spiro T. Agnew, carried 32 states in a 3-way race, garnering 302 of the 538 electoral votes and about 43.4% of the popular vote.

Nixon's proportion of the popular vote was the lowest received by any victorious Presidential candidate since Woodrow Wilson won with 41.9% in a 3-way race in 1912. While the estimated total of 72,000,000 votes in 1968 set a record, analysis of national totals indicated that only about 60% of the 120,000,000 Americans of voting age cast ballots. This was the lowest proportion since 1956, when 60.5% voted as President Eisenhower was chosen for his second term.

The 1968 Election Night vigil was tense as Nixon ran neck-and-neck with his Democratic opponent, Vice President Hubert H. Humphrey. The suspense was intensified by the breakdown of a computer system assembling the nationwide results for major news media. With 270 electoral votes required for a majority, it was not until the following day that Illinois' 26 were assured to Nixon, putting him over the top. Ironically, it was Illinois that had swung the 1960 election from Nixon to John F. Kennedy when Cook County gave the Democrat a 9,000-vote statewide margin.

In the 3-way 1968 election, Nixon received over 31,000,000 votes—3,000,000 fewer than he did in his two-way contest with Kennedy 8 years earlier.

Despite Nixon's very slight lead over Humphrey in the popular vote, the Republican nominee came in a winner by gaining pluralities in several key states where Kennedy had edged him out in 1960. These included the prize electoral plums of California, Illinois, Indiana, New Jersey and Ohio. Yet, Nixon did not carry one major city in the nation.

Humphrey, Muskie Win 191 Electoral Votes

Humphrey and the Democratic Vice Presidential candidate, Maine's Sen. Edmund S. Muskie, received slightly over 43% of the popular vote and won 191 electoral votes from 13 states and the District of Columbia.

Opinion polls had indicated early in the campaign that the 3d party vote might bar an electoral majority to either of the two other candidates. But this threat was dispelled as George C. Wallace won only 5 states and their 45 electoral votes, all in the South—Alabama, Arkansas, Georgia, Louisiana and Mississippi.

Wallace and his Vice Presidential running mate, Gen. Curtis E. LeMay, got over 9,500,000 votes, some 13.5% of the popular total. While somewhat less than had been predicted, the Wallace ticket got the highest 3d party popular vote percentage since Robert M. La Follette received almost 17% in 1924. The Wallace popular vote was the largest in history for a 3d party candidate.

There were varying assessments of the effect of the Wallace candidacy on the results achieved by Nixon and Humphrey. But there was general agreement that the Wallace strength faded toward the end of the campaign. This was attributed in some measure to the "don't waste your vote" theme of both major parties and to union campaigns for Humphrey. Much of Humphrey's homestretch surge, which threatened Nixon's early-start advantage, was held due to President Johnson's halting of the bombing of North Vietnam

shortly before the election.

Although Humphrey and Muskie won their home states—Minnesota and Maine—Nixon and Agnew lost theirs—New York and Maryland. This was contrary to two political traditions—that no Republican can be elected President without carrying New York and that Minnesota always votes with the winner.

Democrats Keep Congressional Control

The Democrats kept control of Congress: the House 243 to 192 and the Senate 58 to 42. This made Nixon the first President to begin his first term confronted by the problem of opposition party control of both houses of Congress since Zachary Taylor faced the same situation in 1848. In 1968 the voters cut the Democratic margin in the Senate from 26 seats to 16 seats, and in the House from 58 to 41.

One of the more notable Senate races was in New York, where Republican Sen. Jacob Javits won a 3d term by over 1,000,000 votes, the biggest margin of his career, while Nixon was losing the state to Humphrey by nearly 400,000. Arizona's former Sen. Barry Goldwater, 1964 GOP Presidential candidate, beat Roy Elson for the seat vacated by retiring Democratic Sen. Carl Hayden. Four-term Sen. Wayne Morse of Oregon, who ran behind Republican State Rep. Robert W. Packwood, demanded a recount.

GOP Scores Gubernatorial Gains

With 21 governorships on the line, the GOP gained 5 in early and decisive gubernatorial results, taking 7 states from the Democrats and losing two. This gave the Republicans 31 governors, the most they had had since the total of 34 they reached in the 1920 Warren G. Harding landslide. Moreover, after the 1968 votes were counted, the GOP had governorships in 6 of the most populous states—California, Illinois, Michigan, New York, Ohio, and Pennsylvania.

The only one of these important gubernatorial posts contested in 1968 was that of Illinois, where Richard Ogilvie, 45, Cook County Board president and former Federal prosecutor, won a key GOP prize by defeating Democratic incumbent Gov. Samuel Shapiro.

But the Republican cause was jolted when two well known GOP governors lost to unknown Democrats: the casualties were Rhode Island's John Chafee, running for his 4th term, and Montana's Tim Babcock, seeking his 3d.

Vermont and Iowa returned to the traditional Republican column, with Deane C. Davis winning over Vermont Lt. Gov. John J. Daley, and Robert D. Ray victorious over Iowa State Treasurer Paul Franzenburg.

Ticket splitting was the order of 1968 Election Day, and this was evidenced right down to the statehouse level as voters resisted predictable patterns. While Humphrey easily carried New York, for example, Republicans regained control of the State Assembly, which they had lost in 1964. The GOP captured control of the California State Assembly for the first time in a decade, but lost control of the Pennsylvania State House of Representatives and Michigan's lower house.

Major Nominating Conventions of 1968

Republican Convention Designates Nixon and Agnew

The Republican National Convention in Miami Beach, Fla., named former Vice President Richard M. Nixon, 54, its Presidential nominee on the first ballot, early Aug. 8, 1968, and later that day ratified his choice of Maryland Gov. Spiro T. Agnew, 49, for Vice President.

The acknowledged front runner in the final weeks before the convention, Nixon defeated New York Gov. Nelson A. Rockefeller and California Gov. Ronald Reagan. Reagan announced his candidacy two days before the balloting, amid speculation of increasing support for him among Southern delegates. Both had worked hard to block a 1st-ballot win for Nixon, with Rockefeller putting strong stock in public opinion polls to boost his image of voter popularity.

Agnew, who made the nomination speech for Nixon, had been one of 3 favorite-son candidates, but had withdrawn in Nixon's favor. No serious threats to Nixon's candidacy were posed by the two others, Michigan's Gov. George W. Romney and Ohio's Gov. James A. Rhodes.

Nixon's choice of Agnew came as a surprise and was attributed to a rumored deal with Sen. Strom Thurmond (S. C.), who was credited largely with winning the Southern delegates for Nixon. Despite a brief liberal Republican flareup of dissent at Agnew's selection, New York Mayor John V. Lindsay of the liberal wing seconded Agnew's nomination, made by Rep. Rogers C. B. Morton (Md.). Both Romney's and Lindsay's names had been placed in nomination—Romney got 186 votes, Lindsay 10—but Romney asked that the nomination be made unanimous, and it was. Agnew received 1,128 votes.

Seconding speeches for Nixon were made by Sens. Howard H. Baker, Jr. (Tenn.) and Mark O. Hatfield (Ore.); Richard Ogilvie, GOP candidate for governor of Illinois, and Gov. John A. Volpe

(Mass.). Nixon's 1st ballot victory came at 1:50 a.m. Aug. 8, when he received all 30 Wisconsin votes which he had won in a primary, giving him more than the 667 votes needed for the nomination. Before switches the 1st ballot total for Nixon was 692; Rockefeller, 277, and Reagan, 182. Nixon's tally went up to 1,238 at the end of the ballot. Reagan, appealing for party unity after Nixon's victory, asked the convention to make it unanimous, but the motion did not come up for a vote. Rockefeller pledged his support to Nixon at an Aug. 8 press conference. Altogether, 12 names were put in nomination.

Ray C. Bliss, chairman of the Republican National Committee, opened the parley at 10 a.m., EST, Aug. 5. The 1,333 delegates heard speeches by ex-Sen. Barry Goldwater (Ariz.), the party's 1964 standard bearer, who called for Republican unity; Sen. Edward Brooke (Mass.), leading GOP Negro spokesman; former President Dwight D. Eisenhower, speaking on closed circuit TV from Walter Reed Army Medical Center in Washington, D. C., where he was recuperating from a 5th heart attack. Mr. Eisenhower, who suffered his 6th attack early the next morning, warned of the dangers of Communism, describing it as "a formidable foe—an expansionist tyranny which respects only toughness and strength."

The keynote address by Washington Gov. Daniel J. Evans reflected the moderate tone of the proposed GOP platform. Blaming the Democratic administration for the frustrations of Vietnam and the urban crisis, he urged that Republicans "unite to rally a great party in the cause of a great nation."

Delegates adopted the platform without controversy. Differences, mostly over the Vietnam plank, on which Nixon and Rockefeller forces compromised, were settled by the committee, headed by Senate GOP leader Everett Dirksen (Ill.).

Democrats Name Humphrey-Muskie Ticket

In one of the most turbulent parleys in U. S. convention history, the Democrats, meeting in the Chicago International Amphitheater Aug. 26-29, 1968, nominated Vice President Hubert H. Humphrey, 57, for the Presidency shortly before midnight Aug. 28 and Maine Sen. Edmund Sextus Muskie, 54, for the Vice Presidency on Aug. 29.

Violence erupted intermittently in the streets as police clashed with anti-war demonstrators, and charges of police brutality and "Gestapo tactics" were leveled from the convention floor at the host city's Mayor, Richard J. Daley, whose security precautions had virtually turned the convention hall into a fortress. In a welcoming address, Mayor Daley, who had bolstered the city's police force with National Guardsmen and regular Army troops, defended his action as a requisite to "law and order" in the face of threatened violence, strikes and some 100,000 expected anti-war demonstrators. Actually, some 10,000-15,000 showed up.

Near pandemonium often threatened to end the convention itself and dramatized the deep party split on the Vietnam issue. One of the wildest sessions came when the convention, after an unprecedented 3-hour debate Aug. 28, rejected an anti-war plank fashioned by followers

of Sens. Eugene J. McCarthy (Minn.) and George S. McGovern (S. D.), the two major losing Presidential candidates, in favor of one endorsing President Johnson's policy.

A record number of challenges over seating of delegates came up. Most claimed bias and inadequate Negro representation. Fifteen challenges involving 13 states were settled at the start of the convention, but those of 4 states—Texas, Georgia, Alabama and North Carolina—ran beyond Credentials Committee hearings and through a stormy first convention, which did not break up until 2:40 a.m. Aug. 27. Pandemonium broke out after defeat of a move to seat Negro challenger Julian Bond, Georgia state Representative, and his group with all his state's votes. Bond had challenged regular delegates picked by Gov. Lester G. Maddox and state party chairman James H. Gray. At the second session, the convention approved a split-vote compromise suggested by Gov. Richard J. Hughes (N. J.), co-chairman of the Credentials Committee.

John M. Bailey, Democratic party chairman, opened the convention. Hawaii Sen. Daniel K. Inouye, delivering the keynote address, stressed that the party was one of change and challenge which could

deal with problems of America; he lauded the Administration's work in civil rights, disarmament, health and education.

Humphrey's name was put in nomination by San Francisco Mayor Joseph L. Alioto, who described him as a "decisive leader." Gov. Terry Sanford of North Carolina and Cleveland Mayor Carl Stokes seconded the nomination.

There were boos which continued throughout the night when Rep. Carl Albert (Okla.), convention chairman, ordered the roll call for nominations over protests by delegates who wanted to recess the session because of the violence in the streets. More jeers accompanied the ye vote taken by Albert

at 12:03 a.m. Aug. 29, when the Illinois delegation asked that Humphrey's nomination be made unanimous. Humphrey's 1st ballot total was 1,761½; he attained the required 1,312 votes at 11:47 p.m., when Pennsylvania cast 103½ for him.

Sen. McCarthy got 601 1st ballot votes and Sen. McGovern 146½. Two other candidates were placed in nomination—the Rev. Channing E. Phillips, of Washington, D. C., the 1st Negro favorite-son for any major party, with 67½ votes, and North Carolina Gov. Dan K. Moore who withdrew before the end of the 1st ballot, with 17½ votes. Sen. Edward M. Kennedy (Mass.) received 12¾ votes though he had opposed a Kennedy draft.

Biographies of Principal Candidates in 1968 Campaign

Republican

Richard Milhous Nixon, 55, Republican nominee for President, was elected Vice President in the Eisenhower landslides of 1952 and 1956. Born in Yorba Linda, Calif., Jan. 9, 1913, the son of Francis Anthony and Hannah Milhous Nixon, he attended Whittier College and Duke University Law School, where he finished 3rd in his class. He joined the Navy in 1942; served in the Pacific and was discharged as lieutenant commander. He was elected to the House of Representatives in 1946 and 1948. In 1950 he moved to the Senate after defeating Helen Gahagan Douglas in a bitter campaign in which he accused her of being "soft on communism." Co-author of the Mundt-Nixon Communist-control bill, in 1948 he achieved prominence as the House Un-American Activities Committee member who forced the showdown that resulted in the Alger Hiss perjury conviction. He lost his bid for the Presidency in 1960, trailing John F. Kennedy by 118,550 popular votes. Beaten for California governor by Edmund G. Brown in 1962, he retired to private life and law practice and, in 1963, moved to New York where he became senior partner in the law firm of Nixon, Mudge, Rose, Guthrie, Alexander & Mitchell. Speaking for party unity, he campaigned for Goldwater in 1964 and for Republican Congressional candidates in 1966. He took to the "long hard road of the primaries" to erase his reputation as a "loser," remaining moderately conservative in government spending and internationalist in foreign policy. A more serene and confident figure than he had been in the two previous campaigns, he stressed the need for "black economic power" and eased his hawkish stand on Vietnam. He and his wife, the former Thelma Catherine Patricia Ryan, have two daughters, Patricia, 22, and Julie, 20.

Republican

Spiro Theodore Agnew, 50, candidate for Vice President, elected governor of Maryland in 1966, began his career as county executive of Baltimore County in 1962 after several years of local activities as a member of the zoning board, president of a junior high school PTA and the Kiwanis. The son of a Greek immigrant whose name was Anagnostopolous, he was little known outside Maryland, conceded that his name "is not a household word." Born Nov. 9, 1913, in Maryland, he attended Johns Hopkins University and worked his way through the University of Baltimore law school, graduating in 1947, after serving 4 years in the Army during World War II. He was recalled for a year during the Korean action. Considered a liberal Republican and reformer at the time of his election, Gov. Agnew pushed through progressive legislation, including the 1st local public accommodation law south of the Mason-Dixon line. He disappointed his moderate supporters with criticism of the Kerner report on urban riots, student sit-ins and Resurrection

City. He is married to the former Elinor Isabel Judefind. They have a son, James, 22, serving with the Navy in Vietnam, and 3 daughters.

Democratic

Vice President Hubert Horatio Humphrey, Jr., 57, was born in Wallace, S. D., May 27, 1911 above his father's drug store. He interrupted his education at the University of Minnesota after two years to return home during the depression of 1931 to help run the family drug store in Huron, S. D. He received a pharmacy degree from the Denver College of Pharmacy in 1933, a bachelor's degree in political science from the University of Minnesota in 1939 and a master's degree from Louisiana State Univ. in 1940. After teaching stints at Minnesota U. and Macalester College, St. Paul, and serving on the regional War Manpower Commission in the early stages of World War II following his rejection by the Army due to a hernia, he was elected Mayor of Minneapolis in 1945 and 1947. He closed gambling houses and brothels, and got enactment of the first municipal Fair Employment Practices law in the country. Elected senator from Minnesota in 1948 and reelected twice, he was considered an overly voluble and intransigent liberal by his colleagues. His eloquence put over the civil rights plank in the 1948 Democratic platform. He was elected majority whip in 1961, after campaigning for the Presidential nomination in 1960 and losing to John F. Kennedy. He became a power in the Senate establishment as his views became gradually more moderate. Chosen by Lyndon B. Johnson to be his running mate in the 1964 election, his support of Johnson's Vietnam policy cost him the loss of much of his former liberal support. He authored two books, "The Cause is Mankind: A Liberal Program for Modern America" and "Moral Crisis: The Case for Civil Rights" in 1964. A member of the United Church of Christ, he is married to the former Muriel Fay Buck and is the father of 4 children.

Democratic

Edmund Sixtus Muskie, 54, Democratic candidate for the Vice Presidency, in 1958 became the first popularly elected Democratic Senator in Maine history. Born Mar. 28, 1914, in Rumford, Me., son of a Polish Catholic tailor whose last name was changed from Marciszewski to Muskie by immigration officials, he worked his way through Bates College, received a law degree from Cornell Law School and was a Navy officer during World War II. He was elected to the Maine House of Representatives in 1946. Before entering the U. S. Senate, he had achieved another record in 1954, when he was the first Democrat to be elected Governor of his state in 20 years, serving two terms. Deemed an expert on urban problems in the Senate, to which he was reelected in 1964, he pushed hard for air and water pollution curbs. He and his wife, the former Jane F. Gray, have 5 children.

Third Party

George Corley Wallace, 49, former Democratic Governor of Alabama, announced his candidacy Feb. 8, 1968, as a 3d party Presidential candidate, pledging he would quell riots with troops and bayonets and work for a change in the "so-called guidelines" on desegregation. A pro-

ponent of states' rights and thought to have mostly sectional and segregationist appeal at first, he drew large audiences of ardent supporters as well as hecklers as he campaigned vigorously throughout the country. This resulted in speculation that he might pull needed votes from

the two major party candidates. On May 7, a slate of Alabama elector candidates won over token opposition to make Wallace the regular Democratic candidate from that state. In 1964, he surprised political observers with the support he drew as Presidential candidate in Democratic state primaries outside his state. Born in Clio, Ala., Aug. 25, 1919, he was state bantamweight champion in high school and boxed professionally to help pay his way through U. of Alabama law school. He served in the Air Force after graduating in 1942. Elected Governor in 1962, he could not succeed himself according to Alabama law. When his wife, Lurleen Burns Wallace, mother of his 4 children, was elected to succeed him in 1966, it was with the understanding that she would be Governor in name only and he would continue to make policies and decisions. She died May 7 while he was on the campaign trail.

Curtis Emerson LeMay, 61, retired Air Force Chief of Staff, was named by George C. Wallace Oct. 3, 1968 to be his Vice Presidential running mate. LeMay, father of the Strategic Air Command, had advocated use of atomic weapons against North Vietnam. Before retiring

in 1965, Gen. LeMay carved out an outstanding career in 35 years in uniform that included running the Berlin blockade airlift and designing the devastating stacked-plane formation that wrought massive destruction on the enemy in Europe and Japan in World War II. Blunt and gruff, known by the military nickname of "Old Ironpants," he was often the man in the lead plane. Daring as a pilot and thorough as a mechanic, he attained the rank of Major General by the end of the war and became a full general in 1951. He was named Air Force Chief of Staff in 1961. Born in Columbus, Ohio, on Nov. 15, 1906, the son of an ironworker of French-Canadian descent, he attended Ohio State U., enrolled in the ROTC program there and gained a reserve commission in the National Guard. He became a flying cadet at California's March Field in 1928. He married Helen Estelle Maitland of Cleveland in 1938; they have a daughter, Patricia. Gen. LeMay, of Los Angeles, is a former board chairman of Networks Electronics Corp. He has written two books, "Mission with LeMay: My Story" and "America Is in Danger," released shortly before announcement of his candidacy.

1968 Platforms of Major Parties

A strong similarity marked the platforms adopted in 1968 by the Democrats and Republicans, especially on 3 key issues—the Vietnam war, the urban crisis, and law and order. Except for GOP criticism and Democratic praise of the Johnson Administration, the parties followed parallel middle-of-the-road paths. Highlights follow:

Democratic—Plank indorsing Johnson Administration policy, adopted Aug. 28, declares: "Our most urgent task in Southeast Asia is to end the war in Vietnam by an honorable and lasting settlement which respects the rights of all the people of Vietnam." Proposes end to bombing of North Vietnam "when this action would not endanger the lives of our troops in the field" and depending on "the response from Hanoi;" a ceasefire for withdrawal of U. S. and Hanoi troops; "fair and safeguarded elections" to form a post-war government, and stepped-up training of South Vietnamese army to allow U. S. military cutbacks.

Republican—Platform adopted Aug. 7 proposes "a progressive de-Americanization" of war. Pledges development of a "clear and purposeful negotiating position" in its "program for peace in Vietnam—neither peace at any price nor a camouflaged surrender of legitimate United States or Allied interests—but a positive program that will offer a fair and equitable settlement to all, based on the principle of self-determination, our national interests, and the cause of long-range world peace."

LAW AND ORDER

Democratic—Reasserts dedication to "principle that equal justice under law shall remain the American creed." Pledges "a vigorous and sustained campaign against lawlessness in all its forms," combined with an attack on the root causes of crime and disorder." Will "implement" recommendations of the President's National Advisory Commission on Civil Disorders "to wipe out, once and for all, the stain of racial and other discrimination from our national life."

Republican—Pledges "all-out" crusade against crime and "vigorous and even-handed administration of justice and enforcement of the law," adding: "We must reestablish the principle that men are accountable for what they do, that criminals are responsible for their crimes." Urges decisive action to suppress civil disorders but advocates measures "to alleviate and remove the frustrations that contribute to riots."

URBAN CRISIS

Democratic—In the framework of Model Cities program will continue attack on poverty in large city slums via "economic development, the rehabilitation or replacement of dilapidated and unsafe housing, job training and placement, and

the improvement of education, health, recreation, crime control, welfare and other public services." Steady extension of Model Cities program. Will marshal private enterprise in "attack on slums and poverty." Pledges new Federal banking structure "to provide capital and investment guarantees for urban projects planned and implemented through local initiative."

Republican—Cites critical need to stem crisis of decaying urban centers. Terms "deepening misery and limited opportunity" of slum residents "intolerable." Prescribes "new mix of private responsibility and public participation." Will accelerate rural development to stem flow of people from countryside to city. Will revise welfare and poverty programs drastically to "liberate poor from the debilitating dependence which erodes self-respect and discourages family unity and responsibility." Proposes employer tax credits to encourage job training and upgrading for disadvantaged. National Job Opportunity Data Bank to aid unemployed.

ECONOMIC POLICIES

Democratic—"The Democratic economic policies that more than doubled the nation's rate of economic expansion in the past 18 years can double and redouble our national income by the end of this century. Such a rate of economic growth will enable us to win total victory in our wars on ignorance, poverty and the misery of the ghetto." Will continue tax cuts when economy is sluggish and hikes to curb inflation.

Republican—Scores Administration "mismanagement." Asserts "inflation robs our paychecks at a present rate of 4½% per year." Cites "crippling" interest rates, declining purchasing power. Will improve management of national debt, reduce heavy interest, seek price stability and tax reform and simplification. Set up Efficiency Commission for the Executive branch and an Office of Executive Management. Will bar "improper Federal competition with private enterprise."

MILITARY POLICIES

Democratic—Calls Soviet invasion of Czechoslovakia a "shocking reminder that we live in a dangerous age" and stresses need to keep U. S.'s "significant lead" in military strength and technology. Asserts "vigilance calls for twin discipline of defense and arms control."

Republican—Deplores "humiliating episode" of U.S.S. Pueblo seizure by North Korea. Charges Administration "frittered away superior military capabilities, enabling the Soviets to narrow their defense gap, in some areas to outstrip us." Calls for reinvigorated National Security Council, improved ocean deterrent capability, simplification of "overcentralized" Defense Department.

The War in Vietnam

Peace Prospects Brighten; Chronology of Conflict

Hopes for an early peace in Vietnam soared with President Johnson's announcement Oct. 31 that he had ordered all air, naval and artillery bombardment of North Vietnam to cease at 8 a.m. Washington time Nov. 1, 1968. At the same time he said broadened peace talks would begin in Paris Nov. 6, with representatives of the South Vietnam National Liberation Front (Vietcong) participating and those of the South Vietnamese Government "free to participate."

Of the presence of Vietcong representatives, the President emphasized that "their attendance in no way involves recognition of the National Liberation Front in any form." But South Vietnamese President Nguyen Van Thieu said his government would not engage in the Paris talks under the conditions, and the talks were postponed indefinitely. Then Thieu proposed that the talks should be conducted principally between South and North Vietnam, with the U.S. and the National Liberation Front in subsidiary roles. U.S. authorities were hopeful that South Vietnam would join the conference soon.

Meanwhile, the undeclared war in Vietnam became on June 23 the longest ever fought by the United States. It had lasted 6 years, 6 months and one day since the death of the first American service man killed by the Vietcong, Dec. 22, 1961. The American Revolution is generally considered to have lasted 6 years and 6 months, ending with Cornwallis' surrender at Yorktown Oct. 19, 1781.

The present war is a sequel to an earlier war between the French and the forces of Ho Chi Minh (the present leader of North Vietnam). At the end of World War II, Vietnamese nationalist and Communist groups were determined to achieve independence, but the French attempted to re-establish colonial rule over the Indo-Chinese states (Cambodia, Laos and Vietnam). The strongest of the Vietnamese nationalist groups was Ho Chi Minh's Communist-led Vietminh (abbreviated name of the League for the Independence of Vietnam). On Sept. 2, 1945, Ho declared Vietnam independent and announced the creation of the Democratic Republic of Vietnam (DRVN). The French recognized the DRVN Mar. 6, 1946, "as a free state within the French union." However, a series of blunders and misunderstandings by both sides led to armed conflict and the beginning of the French-Vietminh war Dec. 19, 1946.

As the war progressed, the French sought to enlist non-Communist support by turning to ex-Emperor of Vietnam Bao Dai as a rallying-point for the Vietnamese. With French approval, he formed on July 1, 1949, the State of Vietnam with its capital in Saigon.

The U. S. recognized the new state Feb. 7, 1950, and to assist it, President Truman announced June 27 that the U.S. was sending a 35-man Military Assistance Advisory Group (MAAG) to Indo-China to advise the troops there in the use of American weapons. Other assistance measures soon followed. On Dec. 23 the U. S. signed a Mutual Defense Assistance Agreement with Vietnam and on Sept. 7, 1951, the U. S. agreed to provide direct economic assistance to the Saigon government.

The following is a chronological listing of major developments thereafter:

May 8 to July 21, 1954—Geneva Conference on Indo-China attended by France, Britain, Russia, U. S., Democratic Republic of Vietnam, State of Vietnam, Laos, Cambodia and Communist China. France and North Vietnam agreed: to partition of Vietnam along 17th parallel, ban on new troops or bases, scheduling of reunification elections in July 1956, creation of International Control Commission composed of India, Canada and Poland to supervise implementation of the agreement. U. S. and South Vietnam do not sign agreement.

May 8, 1954—French stronghold of Dien Bien Phu in North Vietnam falls to Communist forces.

Oct. 24, 1954—President Eisenhower offers South Vietnam economic aid.

Feb. 12, 1955—U. S. agrees to train South Vietnamese army.

Feb. 19, 1955—SEATO protocol extended to offer protective cover of organization to Vietnam.

Oct. 23, 1955—South Vietnamese national referendum deposes Bao Dai, creates republic with Ngo Dinh Diem as first president. Diem says reunification elections as specified by Geneva Conference impossible because of intimidation by North Vietnam. Reunification elections never held.

Oct. 22, 1957—First injuries of U. S. advisers in Vietnam reported.

July 8, 1959—First U. S. troops killed in combat.

May 5, 1960—Upon request of South Vietnam, U. S. increases number of military advisers from 327 to 685.

Oct. 26, 1960—President Eisenhower pledges continued assistance to South Vietnam.

Dec. 1960—North Vietnam announces formation of the National Liberation Front of South Vietnam. Acts of terrorism in the South increase.

Apr. 3, 1961—Kennedy Administration signs Treaty of Amity and Economic Relations with South Vietnam.

Dec. 14, 1961—President Kennedy declares U. S. prepared to help Republic of South Vietnam "preserve its independence."

June 2, 1962—Majority report of International Control Commission says evidence shows North Vietnam to be supporting, organizing and carrying out hostile acts in South Vietnam.

Dec. 1962—U. S. force in Vietnam stands at 4,000 men.

Nov. 1, 1963—President Diem assassinated. Series of coups follows.

Dec., 1963—U. S. force in Vietnam numbers 15,000.

Aug. 2-4, 1964—U. S. destroyers Maddox and C. Turner Joy attacked by North Vietnamese torpedo boats in Gulf of Tonkin. President Johnson orders immediate retaliatory attacks.

Aug. 7, 1964—Congress approves Gulf of Tonkin Resolution giving President power to "take all necessary measures to repel any armed attack against the forces of the United States and to prevent further aggression."

Dec. 1964—U. S. force in Vietnam numbers 23,000.

Feb. 1965—Continuous U. S. bombing raids over North Vietnam started in effort to force Communists to conference table. Hanoi says negotiations will not be considered until U. S. forces withdraw.

Apr. 17, 1965—President Johnson in speech at Johns Hopkins University offers billion dollar aid program to SE Asia as soon as peace is achieved.

May 13-19, 1965—U. S. halts air raids against North Vietnam. No response from Hanoi.

June 8, 1965—U. S. commanders authorized to send American troops into combat.

July, 1965—President Johnson authorizes increase of U. S. force from 75,000 men to 125,000.

Dec. 24, 1965-Jan. 31, 1966—U. S. again suspends bombing of North Vietnam in hope of bringing foe to conference table. Hanoi rejects all peace feelers.

Feb. 6-7, 1966—President Johnson and South Vietnamese Premier Nguyen Ky meet in Honolulu. "Declaration of Honolulu" issued at end of meeting, declaring the two countries will continue to resist aggression.

June 29, 1966—U. S. bombs major installations near Hanoi and Haiphong for first time.

July 30, 1966—U. S. bombs 6-mile-wide demilitarized zone between North and South Vietnam.

Nov. 1966—U. S. forces in Vietnam number 358,000 men, with 33,000 more stationed in Thailand.

Nov. 12, 1966—U. S. dead killed in action in Vietnam from Jan 1, 1961 to date—4,904.

Dec. 2, 1966—UN Secy. Gen. U Thant pledges new effort to end war.

Dec. 30, 1966—Britain proposes peace conference. Hanoi rejects suggestion Jan. 4, 1967.

Dec. 31, 1966-Jan. 2, 1967—New Year's truce.

Jan. 5, 1967—Defense Dept. announces total U. S. casualties since Jan. 1, 1961 are 6,664 dead, 37,738 wounded.

Feb. 8-12—U. S. suspends air raids during Lunar New Year truce and two days beyond. No response from Hanoi.

Mar. 2, 1967—Sen. Robert F. Kennedy proposes Administration halt bombing as part of 3-point peace plan. Secy. Rusk

says there is nothing new in the Kennedy proposals and that Hanoi has already rejected similar peace overtures.

Mar. 20-21, 1967—President Johnson confers with South Vietnamese leaders on Guam. War and election of civilian government in South Vietnam discussed.

Mar. 21, 1967—Ho Chi Minh rejects previously undisclosed proposal by President Johnson in February for peace talks.

Mar. 28, 1967—Peace plan proposal by U Thant calling for stand-still truce, preliminary talks and reconvening of Geneva Conference revealed. Accepted by U. S. and South Vietnam with reservations. Rejected by Hanoi.

Mar. 1967—Total U. S. force in Vietnam stands at 427,000.

Apr. 1, 1967—South Vietnamese constitution goes into effect.

May 2, 1967—U. S. commander in Vietnam, Gen. William C. Westmoreland, urges further buildup of American forces. Domestic debate over war intensifies.

May 11, 1967—U Thant expresses fear Vietnamese war is "initial phase of World War III."

June 23 and 25, 1967—President Johnson and Soviet Premier Kosygin meet in Glassboro, N. J. Discuss Vietnam as well as Mideast crisis. No agreement.

Aug. 3, 1967—President Johnson announces U. S. forces in Vietnam will be increased to 525,000 men by June 1968. Asks for 10% income tax surcharge to finance the war.

Aug. 11, 1967—U. S. extends air raids to within 10 miles of Chinese border.

Aug. 23, 1967—President Johnson appoints 20 Americans to observe South Vietnamese elections.

Sept. 3, 1967—Nguyen Van Thieu elected president, Nguyen Cao Ky, vice president.

Sept. 7, 1967—U. S. announces plans for fortified barrier south of demilitarized zone.

Sept. 29, 1967—In a televised address at San Antonio, President Johnson offers again to stop all bombardment of North Vietnam "when this will lead promptly to

*U. S. Military Casualties in Vietnam

Source: Secretary of Defense. As of Nov. 2, 1968

Casualties from hostile forces action Since Jan. 1, 1961					
	Army	Navy ¹	Marine	Air force	Total
1. Killed	14,645	709	8,626	311	24,291
2. Wounded or injured:					
a. Died of wounds	1,910	89	1,062	27	3,088
b. Nonfatal wounds:					
Hospital care required	56,244	2,310	36,826	500	95,880
Hospital care not required	54,517	3,534	27,754	1,664	87,469
3. Missing:					
a. Died while missing	1,404	127	5	259	1,795
b. Returned to control	46	6	23	81	
c. Current missing	162	116	86	522	886
4. Captured or interned:					
a. Died while captured or interned	9	.....	.....	1	10
b. Returned to control	11	1	4	5	21
c. Current captured or interned	42	131	19	139	331
5. Deaths:					
a. From aircraft accidents/incidents:					
Fixed Wing	57	138	102	470	767
Helicopter	840	39	272	18	1,169
b. From ground action	17,071	748	9,319	110	27,248
†Total deaths	17,968	925	9,693	598	29,184
Casualties Not the Result of Actions by Hostile Forces					
6. Current missing	80	3	2	2	87
7. Deaths:					
a. From aircraft accidents/incidents:					
Fixed Wing	179	84	28	186	477
Helicopter	757	21	160	7	945
b. From other causes	1,992	428	807	158	3,385
Total deaths	2,928	533	995	351	4,807
Combat Deaths for Other Forces (Since Jan. 1, 1961)					
Total deaths	S. Vietnam ² 72,202	Other Free World Forces 2,381	Enemy 411,358		

¹Sum of lines 1, 2a, 3a and 4a. ²Navy figures include Coast Guard. ³Rep. of Vietnam Armed Forces.

*According to military officials, the total of wounded in Vietnam would be less if judged by the standards of World War II and the Korean War.

productive discussion," and says he will send a trusted representative anywhere in the world to talk with a Hanoi spokesman. North Vietnam rejects the offer.

Nov. 2, 1967—Amb. Arthur Goldberg states unequivocally that the U. S. would be willing to have the Vietcong's political arm, the National Liberation Front, participate directly in a reconvened Geneva conference or be present in any discussion of the Vietnam question before the Security Council of the UN.

Nov. 11, 1967—Defense Dept. announces total U. S. casualties since Jan. 1, 1961 are 14,621 dead, 91,971 wounded.

Nov. 17, 1967—President Johnson warns Hanoi not to rely on the 1968 Presidential elections. "I think that whatever interpretation Hanoi might make that would lead them to believe that Uncle Sam, whoever may be President, is going to pull out and it will be easier for them to make an inside deal with another President than will be the present, they'll make a serious misjudgment."

Nov. 19, 1967—Gen. Westmoreland says: "We are winning a war of attrition" and within two years or less we may be able to "phase down the level of our military effort."

Nov. 30, 1967—U. S. casualties since Jan. 1, 1961, reach 15,058 killed, 109,527 wounded, of which some 50,000 required hospitalization, and 914 missing.

Dec. 20, 1967—U. S. troop strength in Vietnam reaches 474,300 men, 1,500 more than American peak strength in Korea during Korean War.

Dec. 24-25, 1967—Allies observe 24-hour Christmas truce.

Jan. 17, 1968—President Johnson, in his State-of-the-Union message, estimates the cost of the war to the U. S. at \$25 billion a year.

Jan. 30, 1968—Viet Cong and North Vietnamese attack 30 provincial capitals

in South Vietnam in Tet offensive. Record casualties were suffered on both sides, but a few days later President Johnson calls the offensive "a complete failure."

Feb. 24, 1968—UN Secy. Gen. U Thant says after visiting Asia and Europe that if bombing of North Vietnam is halted "meaningful talks . . . will take place much earlier than generally supposed."

Mar. 31, 1968—President Johnson announces the unilateral halting of the bombing of 90% of the territory of North Vietnam as a step toward peace and asks for a response from Hanoi.

Apr. 5, 1968—Some 50,000 American and South Vietnamese troops, in Operation Pegasus, succeed in lifting the 76-day siege of the U. S. Marine base at Khesahn.

Apr. 11, 1968—Defense Secy. Clark M. Clifford announces the call-up of 24,000 Army, Air Force and Navy reservists for active duty in Vietnam and the setting of a new troop ceiling of 549,000 for U. S. strength in Vietnam.

May 5, 1968—Communists launch Round II of their Tet offensive with attacks on Saigon and other cities; less serious than original.

May 10, 1968—Preliminary peace talks between U. S. and North Vietnam open in Paris.

June 10, 1968—Gen. Creighton Abrams takes over command of U. S. forces in Vietnam from Gen. William C. Westmoreland, who becomes Army Chief of Staff.

Aug. 29, 1968—U. S. casualties in Vietnam since Jan. 1, 1961, rise to 27,508 killed and 171,809 wounded.

Sept. 30, 1968—U. S. battleship New Jersey, released from mothball fleet, shells enemy targets in the DMZ.

Oct. 31, 1968—President Johnson orders cessation of U. S. aerial, naval and artillery bombardment of North Vietnam the following day, and plans for broadened peace talks in Paris.

Hawaii Song Now Official, Thanks to Peggy and the Almanac

Ways in which the World Almanac can prove useful are endless and often surprising. Recently the World Almanac found itself involved in an action by the State Legislature of Hawaii.

Peggy Cooper, pretty, blonde-haired, 12-year-old daughter of Mr. and Mrs. Robert E. Cooper of Kaneohe, Hawaii, had a 5th grade homework assignment that sent her looking for facts in her World Almanac. There she learned that her state's famous song, Hawaii Pono (My Hawaii), was only the "unofficial state song."

She was upset. She resolved to have Hawaii Pono made the official state song.

"My Daddy and Mommy, who come from Washington and Oregon, were horrified," the Honolulu Advertiser quoted Peggy as saying. "Both their states have official songs."

Peggy's father helped her bring the

problem to the attention of George Toyofuku, a member of the state House of Representatives, who sponsored a bill to make the song the official state anthem. It was enthusiastically approved. The House also passed and presented to Peggy a resolution commending her for her efforts.

In due course, Cornelius D. Downes, Information Officer of the Hawaiian Department of Planning and Economic Development, informed the World Almanac of the new status of Hawaii Pono. Meanwhile, Peggy was quoted in an Advertiser story as saying she started her campaign "to make Hawaii's song official so the next edition of the Almanac could list it along with the others."

In this edition, Peggy and others who are interested will find that Hawaii Pono is now listed as the official state song. (See P. 360.)

Long Holiday Weekends to Begin in 1971

Beginning Jan. 1, 1971, four major holidays will fall on Mondays every year to provide long weekends. A bill signed by President Johnson June 28, 1968, changes the dates for observances of Washington's Birthday, Memorial Day and Veterans Day and gives Columbus Day legal status as a holiday.

The new law applies only to Federal and District of Columbia employees, but most states are expected to go along with the new holiday line-up, which with Labor Day will produce 5 holiday weekends. Under the new law Washington's birthday will fall on the 3d Monday in February; Memorial Day on the last Monday in May; Columbus Day on the 2d Monday in October, and Veterans Day on the 4th Monday in October. (See pages 590 and 591 for 1969 holidays.)

How Degree Days Are Measured

A degree day is a standard measure used by heating engineers to measure the heating season's coldness. The number of degree days in a calendar day is determined by subtracting the day's average

from 65°. If the high on a given day was 60° and the low was 40° the average temperature that day would be 50°. Subtracted from 65°, this would give 15 degree days for that calendar day.

Space 1968: The Comeback Trail to the Moon

From their earliest days in 1961, when cosmonaut Yuri Gagarin and astronaut Alan Shepard flew through space less than a month apart, the United States and Soviet manned space programs have followed remarkably similar paths—even to their treatment at the hands of fate. In 1967, tragedy stunned both countries, as 3 U.S. astronauts died in a launch pad fire, followed, only three months later, by the fatal crash of the USSR's Soyuz 1, which killed its pilot when its reentry parachutes snarled.

Scarcely two weeks separated the two countries' triumphal returns to space in 1968. The first manned Apollo flight followed an exhaustive redesign of the entire spacecraft, as well as a major overturning of space agency officials. The Soviet Union was believed to have had its own design problems, and caution in trying out solutions may have been why only a single cosmonaut was risked in the presumably multi-man Soyuz capsule.

Triumph was far from all-pervading at the National Aeronautics and Space Administration, however. Congressional disenchantment with the huge cost of the U.S. space program resulted in NASA being given its smallest budget in 6 fiscal years. So great became the pressures that agency head James Webb resigned, only 4 days before the first Apollo astronauts blasted off.

Americans to Orbit Moon

Nevertheless, the first manned Apollo flight (Apollo 7) put the U. S. squarely back on the path toward the goal of putting men on the moon before 1970. The success of Apollo 7 impelled NASA to schedule Apollo 8 for the end of 1968—to carry 3 astronauts around the moon. The Apollo 8 plan called for 10 orbits around the moon at an altitude of only 70 miles, although an in-flight decision could choose a less ambitious program. Apollo 8 was to get its lunar push from the mighty Saturn 5 booster, which had been tested twice in unmanned flights (Apollo 7 used a smaller rocket, the Saturn 1B).

Apollo 8, called the most ambitious and riskiest space flight to date, was to be manned by Air Force Col. Frank Borman, commander; Navy Capt. James A. Lovell, Jr., and Air Force Maj. William A. Anders.

One major piece of equipment that did

not make the grade in 1968 was the tricky and troublesome lunar module, the spidery spacecraft with the job of actually transporting the astronauts from an orbit around the moon down to the lunar surface and back again. Troubles with the craft's weight, engines and electrical system pushed its first manned flight all the way into 1969, leaving planners praying that they could get to the moon in the same year.

As the moon race continued, another area of U.S.-Soviet competition showed signs of developing with the USSR announcement of plans for Intersputnik, a communications satellite network seen as a rival to the U.S.-dominated Intelsat system. Though Intelsat has more than 60 member nations and Intersputnik would initially number only 8, the Soviet network would presumably stymie chances of a single, worldwide "satcom" organization.

Outside of the U.S. and USSR, 1968 was a relatively quiet year for space activity, although several countries did conduct limited research with sounding rockets. In 1967, France, England, Italy and Japan launched satellites (all but Japan's were successful), but the only 1968 contender was the European Space Research Organization, a consortium formed to combine the talents and limited resources of several countries. After a failure in 1967, ESRO (whose members include Great Britain, France, West Germany, Italy, the Netherlands, Belgium, Switzerland, Denmark, Sweden and Spain) came back with a pair of space probes, both of which were still working months later at press time.

Back in the U.S., one marked trend was the turning of the vast aerospace industry away from single-minded devotion to space, and toward the growing problems of aircraft. The remarkable X-15 rocket-plane and the giant XB-70 research vehicle were both scheduled for retirement around the end of the year, but overcrowded airports (with poor attendant ground transportation), the supersonic transport, the upcoming generation of giant jets, airbuses to handle a growing volume of flying commuters, and military needs for far-out aircraft of the future provided more than enough problems for the hundreds of thousands of trained scientists and engineers already brought together by the rich promise of space.

1968 Space Calendar

The following are the principal satellites, spacecraft and probes launched in 1968 through Nov. 13. When pertinent and available, initial orbital distances closest to (perigee) and farthest from (apogee) earth are shown in statute miles. The times represent the periods of the orbits. Unsuccessful launches are not listed.

SURVEYOR 7 (U. S.) Jan. 7—Last of the robot moon-landing series, it photographed and analyzed the lunar surface, revealing earth-type basalt and volcanic rock to support the theory that the moon was born either with or from the earth.

GEOS 2 (U. S.) Jan. 11—Second in a series of satellites aimed at more accurately measuring earth's size, shape and gravitational field, using, among other instruments, laser beams bounced off it from the ground. 112.2 minutes, 671-976 miles.

COSMOS 199 (USSR) Jan. 16—This probable sky-spy was the first of some 50 launches this year in the Soviet all-purpose satellite series, which includes everything from weather-watchers to unmanned checkouts of man-intended spaceships. 90.2 minutes, 127-240 miles.

APOLLO 5 (U. S.) Jan. 22—Unmanned

earth-orbiting first flight of the lunar module that will actually set two U. S. astronauts down on the moon and lift them off again. 89.5 minutes, 101-138 miles.

ZOND 4 (USSR) Mar. 2—If it was, as appears likely, intended to visit the moon, it did not make it, though it was successfully launched outward after first parking in orbit around the earth. 89.5 minutes, 131-180 miles.

OGO 5 (U. S.) Mar. 4—With all but one of its two dozen experiments working, the fifth in NASA's most complicated satellite series set out to study a wide range of characteristics of the space surrounding our world. 3,795.9 minutes, 180-91,260 miles.

SOLAR EXPLORER 2 (U. S.) Mar. 5—Designed so that any country listening on the proper frequencies could receive its
(Space continued on page 44)

(Space continued from page 43)

data, this satellite measures X-rays and ultraviolet emissions coming from the sun, though scientists had planned it to end up in a more circular orbit than it did. 98.7 minutes, 324-545 miles.

COSMOS 206 (USSR) Mar. 14—Like many U. S. weather satellites, this Soviet probe gathered cloud-cover photos both by day and (thanks to infrared cameras) by night. 97 minutes, 391-391 miles.

Apollo 6 (U. S.) Apr. 4—The second unmanned test on the huge Saturn 5 booster was considered a success, despite excess vibrations in the first stage, a malfunctioning engine in the second stage and the failure of the third stage to restart in space. 88.2 minutes, 111-226 miles.

OV-1-13, OV-1-14 (U. S.) Apr. 6—Of these two Air Force satellites, launched by the same booster, one failed after only a week, leaving the other alone to measure different types of radiation high above earth's atmosphere. OV-1-13: 199.5 minutes, 341-5,792 miles. OV-1-14: 207.8 minutes, 343-6,193 miles.

LUNA 14 (USSR) Apr. 7—This Soviet probe settled into orbit around the moon, measuring the lunar gravitational field and its relationship with earth.

COSMOS 212, 213 (USSR) Apr. 14, 15—For the second time, a pair of separately launched unmanned Russian satellites met in space, coupled, rode along together and decoupled automatically, demonstrating a maneuvering capability not yet shown by the U. S., although manned U. S. dockings have outstripped the Soviet Union; both spacecraft later landed softly in Soviet territory, a day apart. Orbit while coupled: 89.8 minutes, approximately 123-127 miles.

COSMOS 215 (USSR) Apr. 19—The first optical astronomical observatory to be operated successfully in space, it carried 9 telescopes, stayed aloft some six weeks. 91.1 minutes, 162-265 miles.

MOLNIYA 1-H (USSR) Apr. 21—Eighth satellite in the USSR's Orbita network for domestic communications. 713 minutes, 286-24,668 miles.

COSMOS 218 (USSR) Apr. 25—In orbit for less than one revolution around the earth, this probe was probably a test of the Soviet Fractional Orbital Bombardment System for delivering bombs through space.

ESRO 2B (E. S. R. O.) May 17—The first successful satellite launched by the 10-nation European Space Research Organization carried 7 experiments to monitor solar and cosmic radiation. 98.9 minutes, 265-677 miles.

COSMOS 226 (USSR) June 12—Thirteenth Soviet weather satellite. 96.9 minutes, 375-404 miles.

IDSCS 19-26 (U. S.) June 13—Launched atop a single booster, these 8 satellites added to the Defense Department's Initial Defense Satellite Communications System, largely aimed at keeping the Pentagon in touch with Vietnam and vice versa. Approximate orbits: 1,335 minutes, 20,950-21,150 miles.

RADIO ASTRONOMY EXPLORER (U. S.) July 4—Like a huge letter "X" 1,500 feet long, the RAE listens for radio messages from space. 224.3 minutes, 3,626-3,646 miles.

MOLNIYA 1-I (USSR) July 5—Ninth addition to the Soviet talk-net. 717.7 minutes, 326-24,751 miles.

OV-1-15 (U. S.) July 11—This Air Force research probe carried 9 experiments to study the density of the atmosphere, as well as radiation and other factors which affect it. 95.9 minutes, 91-610 miles. Launched with it was . . .

OV-1-16 (U. S.) July 11—the densest satellite ever launched, this 23-inch sphere weighed some 600 pounds, in order to make it resistant to atmospheric disturbances and currents as it, too, made density measurements. 91.5 minutes, 90-345 miles.

AIR DENSITY EXPLORER C (U. S.) Aug. 8—This 12-foot balloon was lofted to report on atmospheric densities and temperatures over earth's poles, for correlation with seasonal changes and variations in solar activity. 118 minutes, 430-1,554 miles. Aboard the same booster went . . .

INJUN 5 (U. S.) Aug. 8—Designed to study the charged particles in the ionosphere, as well as their effect on low-frequency radio emissions. 118.3 minutes, 423-7,573 miles.

ATS-4 (U. S.) Aug. 10—Though the versatile Applications Technology Satellite, designed to try out new ideas for future development, was working fine, a malfunctioning second-stage booster put it in an undesirable orbit, which made most of its data useless. 88.8 minutes, 106-162 miles.

ESSA 7 (U. S.) Aug. 16—The seventh of the Environmental Science Services Administration's camera-equipped weather satellites was the fifth in the Tiros Operational Satellite System, taking pictures of the entire world every day. 114.9 minutes, 890-917 miles.

RAM C-B (U. S.) Aug. 22—Fired up by one rocket motor and down again by another, this instrumented nose cone was part of the space agency's quest for a way to eliminate the communications blackout that plagues all reentering spacecraft.

ZOND 5 (USSR) Sept. 15—This unmanned Soviet probe became the first spacecraft to loop around the moon and return safely to earth.

OV-2-5, 5-2, 5-4, LES-6 (U. S.) Sept. 26—Half the satellites in this four-in-one Air Force launch were to investigate radiation and solar flares; another studied the effects of low-gravity on the heat transfer of fluids, and the last was an experimental tactical communications satellite. Three of the 4 in synchronous orbits; approximately 1,430 minutes, 22,240-22,240 miles.

ESRO 1 (E. S. R. O.) Oct. 3—A second success for the European Space Research Organization, this time designed to study the northern lights and other phenomena of the ionosphere over the poles. 102.8 minutes, 161-949 miles.

APOLLO 7 (U. S.) Oct. 11—The first manned Apollo flight, and the first U. S. manned flight since Gemini 12 flew 23 months before, carried astronauts Walter M. Schirra, Jr., Don F. Eisele and Walter Cunningham for 163 orbits of the earth. 89.9 minutes, 142-160 miles.

SOYUZ 3 (USSR) Oct. 26—The USSR's first manned flight since cosmonaut Vladimir M. Komarov died in the landing crash of his Soyuz 1 spacecraft on Apr. 24, 1967, it carried only one man, Georgy Beregovoi, in a vessel that presumably can hold several; he twice approached, but did not dock with the unmanned Soyuz 2 capsule launched the day before. 88.3 minutes, 109-127 miles.

PIONEER D (U. S.) Nov. 8—Launched into an orbit around the sun, the fourth in the Pioneer series will provide the most extensive measurements of the solar corona ever made from a satellite.

ZOND 6 (USSR) Nov. 10—Unmanned craft looped around moon and headed back to earth.

HL-10 (U. S.) Nov. 13—The first successful powered flight of NASA's manned "lifting body," a "space plane" designed to provide controlled flight from orbit down to earth.

The Legacy Left by Sen. Robert F. Kennedy

As contained in the eulogy delivered at his funeral services in St. Patrick's Cathedral, New York, June 8, 1968, by his brother, Sen. Edward M. Kennedy.

On behalf of Mrs. Robert Kennedy, her children and the parents and sisters of Robert Kennedy, I want to express what we feel to those who mourn with us today in this cathedral and around the world.

We loved him as a brother and as a father and as a son. From his parents, and from his older brothers and sisters—Joe, Kathleen and Jack—he received an inspiration which he passed on to all of us. He gave us strength in time of trouble, wisdom in time of uncertainty, and sharing in time of happiness. He was always by our side.

Love is not an easy feeling to put into words. Nor is loyalty, or trust or joy. But he was all of these. He loved life completely and lived it intensely.

A few years back, Robert Kennedy wrote some words about his own father and they expressed the way we in his family feel about him. He said of what his father meant to him:

His Father's Love

"What it really all adds up to is love—not love as it is described with such facility in popular magazines, but the kind of love that is affection and respect, order, encouragement, and support. Our awareness of this was an incalculable source of strength, and because real love is something unselfish, and involves sacrifice and giving, we could not help but profit from it.

"Beneath it all, he has tried to engender a social conscience. There were wrongs which needed attention. There were people who were poor and who needed help. And we have a responsibility to them and to this country. Through no virtues and accomplishments of our own, we have been fortunate enough to be born in the United States under the most comfortable conditions. We, therefore, have a responsibility to others who are less well off."

This is what Robert Kennedy was given. What he leaves us in what he said, what he did and what he stood for. A speech he made to the young people of South Africa on their Day of Affirmation in 1966 sums it up the best, and I would read it now:

"There is discrimination in this world and slavery and slaughter and starvation. Governments repress their people; and millions are trapped in poverty while the nation grows rich; and wealth is lavished on armaments everywhere.

"These are differing evils, but they are the common works of man. They reflect the imperfection of human justice, the inadequacy of human compassion, our lack of sensibility toward the sufferings of our fellows.

Human Brotherhood

"But we can perhaps remember—even if only for a time—that those who live with us are our brothers, that they share with us the same short moment of life; that they seek—as we do—nothing but the chance to live out their lives in purpose and happiness, winning what satisfaction and fulfillment they can.

"Surely this bond of common faith, this bond of common goal, can begin to teach us something. Surely we can learn, at least, to look at those around us as fellow men. And surely we can begin to work a little harder to bind up the wounds among us and to become in our own hearts brothers and countrymen once again.

"Our answer is to rely on youth—not a time of life but a state of mind, a temper of the will, a quality of imagination, a predominance of courage over timidity, of the appetite for adventure over the love of ease. The cruelties and obstacles of this swiftly changing planet will not yield to obsolete dogmas and outworn slogans. They cannot be moved by those who cling to a present that is already dying, who prefer the illusion of security to the excitement and danger that come with even the most peaceful progress. It is a revolutionary world we live in; and this generation, at home and around the world, has had thrust upon it a greater burden of responsibility than any generation that has ever lived.

"Some believe there is nothing one man or one woman can do against the enormous array of the world's ills. Yet many of the world's great movements, of thought and action, have flowed from the work of a single man. A young monk began the Protestant Reformation, a young general extended an empire from Macedonia to the borders of the earth, and a young woman reclaimed the territory of France. It was a young Italian explorer who discovered the New World, and the 32-year-old Thomas Jefferson who proclaimed that all men are created equal.

"These moved the world, and so can we all. Few will have the greatness to bend history itself, but each of us can work to change a small portion of events, and in the total of all those acts will be written the history of this generation. It is from numberless diverse acts of courage and belief that human history is shaped.

"Each time a man stands up for an ideal, or acts to improve the lot of others, or strikes out against injustice, he sends forth a tiny ripple of hope, and crossing each other from a million different centers of energy and daring, those ripples build a current that can sweep down the mightiest walls of oppression and resistance.

Moral Courage

"Few are willing to brave the disapproval of their fellows, the censure of their colleagues, the wrath of their society. Moral courage is a rarer commodity than bravery in battle or great intelligence. Yet it is the one essential, vital quality for those who seek to change a world that yields most painfully to change. And I believe that in this generation those with the courage to enter the moral conflict will find themselves with companions in every corner of the globe.

"For the fortunate among us, there is the temptation to follow the easy and familiar paths of personal ambition and financial success so grandly spread before those who enjoy the privilege of education. But that is not the road history has marked out for us.

"Like it or not, we live in times of danger and uncertainty. But they are also more open to the creative energy of men than any other time in history. All of us will ultimately be judged and as the years pass we will surely judge ourselves, on the effort we have contributed to building a new world society and the extent to which our ideals and goals have shaped that effort.

"The future does not belong to those who are content with today, apathetic toward common problems and their fellow man alike, timid and fearful in the face of new ideas and bold projects. Rather it will belong to those who can blend vision, reason and courage in a personal commitment to the ideals and great enterprises of American society.

Shaping the Future

"Our future may lie beyond our vision, but it is not completely beyond our control. It is the shaping impulse of America that neither fate nor nature nor the irresistible tides of history, but the work of our own hands, matched to reason and principle, that will determine our destiny. There is pride in that, even arrogance, but there is also experience and truth. In any event, it is the only way we can live."

This is the way he lived. My brother need not be idealized, or enlarged in death beyond what he was in life, to be remembered simply as a good and decent man, who saw wrong and tried to right it, saw suffering and tried to heal it, saw war and tried to stop it.

Those of us who loved him and who take him to his rest today, pray that what he was to us and what he wished for others will some day come to pass for all the world.

As he said many times, in many parts of this nation, to those he touched and who sought to touch him:

"Some men see things as they are and say why. I dream things that never were and say why not."

The Negro in American History

By Kenneth C. Johnston, of the World Almanac staff

The contributions made by Negroes to the growth of America have been numerous and varied, but many have gone unmentioned or unstressed in history books.

The names of many of these sometimes forgotten men and women of America's past have appeared in previous editions of the World Almanac, scattered in various sections, but were not singled out and labeled Negro or Black or Afro-American.

With growing interest in this field, with students seeking more knowledge of it, and with schools seeking ways to provide such knowledge, the World Almanac has gathered a list of some of these outstanding Americans of African descent and has briefly noted their contributions.

Among sources for the following facts were the New York Public Library, a series of articles produced by Newspaper Enterprise Association, and several publications sponsored by the B'nai B'rith Anti-Defamation League.

Names of many other notable Negroes, such as entertainers and athletes, are not included. They are well known and have appeared elsewhere in this book.

EXPLORERS AND SETTLERS

Pedro Alonso Nino, navigator of the Nina, one of Christopher Columbus' three ships on his first voyage of discovery to the New World, 1492.

Estevanico (also called Esteban) led the first Spanish explorations into the Arizona and New Mexico area, 1539.

Francisco, one of the founders of the town of Bushwick in what is now Brooklyn, N. Y., a landowner who was named by Peter Stuyvesant, with another free Negro, Anton, to a militia company in 1660.

Jean Baptiste Point du Sable, fur trader and first settler of Chicago, 1779.

James P. Beckwourth (1798-c. 1867), western fur-trader, scout, after whom Beckwourth Pass in northern California is named.

York, one of several Negroes in the Lewis & Clark Expedition, 1804-06; a servant, he also served as an interpreter; a "giant" in size, he was admired by Indians for his strength and friendliness.

Matthew A. Henson (1866-1955), with Robert E. Peary and 4 Eskimos, discovered the North Pole, 1909; Henson planted the U. S. flag at the Pole.

SOLDIERS, PATRIOTS

Crispus Attucks, (c. 1723-1770), leader of a group fired on by British soldiers in Boston, Mar. 5, 1770, and one of the 5 slain in that action which became known as the "Boston Massacre."

Peter Salem, one of the defenders at the Battle of Bunker Hill, June 17, 1775, shot and killed Maj. John Pitcairn, one of the British commanders (who earlier that year had ordered his troops to fire on the Minutemen at Lexington).

Salem Poor, commended by the Massachusetts Legislature for performing like "an experienced officer . . . a gallant soldier" at Bunker Hill.

James Lafayette, who served as a soldier and spy for the Marquis de Lafayette during the American Revolution.

(About 5,000 Negroes served in the Continental Army, mostly in integrated units, some in all-Negro combat outfits.)

Harriet Tubman, after escaping from slavery made repeated trips to the South and led more than 300 slaves to freedom as an Underground Railroad conductor; served as nurse and spy for Union Army in the Civil War.

(Some 200,000 Negroes served in the Union Army during the Civil War; 38,000 gave their lives; 22 won the Medal of Honor, the nation's highest award. Thousands of Negroes helped in the winning of the West; serving after the Civil War in two Negro cavalry and two Negro infantry regiments. In the Spanish-American War, 4 Negro regiments fought at San Juan Hill.)

Isalah Dorman (19th Century), U. S. Army interpreter, killed with Col. George Custer at Battle of the Little Big Horn (1876).

Pvt. Henry Johnson of Albany, N. Y., the first American decorated by France in World War I with the Croix de Guerre.

(Of 367,000 Negroes in the Armed Forces in World War I, 100,000 served in France. The all-Negro 8th Illinois Regiment received more combat citations than any other American regiment in France; the all-Negro 369th Regiment was the first Allied combat unit to cross the Rhine.)

Dorie Miller of Waco, Tex., a Navy mess attendant on the battleship Arizona during the Pearl Harbor attack, took over an anti-aircraft gun from a dying white sailor and shot down 4 Japanese bombers, Dec. 7, 1941; awarded the Navy Cross by President Franklin D. Roosevelt.

(More than 1,000,000 Negroes served in the U. S. Armed Forces in World War II; all-Negro fighter and bomber AAF units and infantry divisions gave distinguished service. In 1954 the policy of all-Negro units was finally abolished.)

Brig. Gen. Benjamin O. Davis, Sr., born 1877, first Negro general (1940) in U. S. Army, rose through ranks to inspector general, retired 1948.

Lt. Gen. Benjamin O. Davis, Jr., b. 1912, first Negro West Point graduate in 20th Century (1936), first Negro Air Force general (1954), had distinguished service as pilot and commander in World War II.

Brig. Gen. Frederic E. Davison, b. 1917, 3d Negro to become a general (1968 in Vietnam.)

Commander Samuel L. Gravelly, Jr., first Negro to command a Navy ship since the Civil War, became captain of the destroyer Taussig (1966).

(As of mid-1968, Negroes were 10.5% of the total number of Americans serving in Vietnam; 13.7% of the 25,616 U. S. servicemen killed there between 1961 and June 30, 1968, were Negroes, according to the Defense Department. Further figures show Negroes comprised 14.8% of Army forces in Vietnam, 1961-1965, and suffered 18.3% of Army casualties. Of the total U. S. population, by 1968 Census estimate, 11.1% were Negroes.)

SCIENTISTS, INVENTORS

Benjamin Banneker (1731-c. 1806), author of annual almanacs (1791-1802) containing tide tables, coming eclipses, medical formulas (called the first scientific publication by an American Negro); built what has been called the first American clock of all American parts (1761); served on commission which surveyed and helped lay out the future city of Washington, D. C.

Lewis Temple (1800-1854), invented toggle harpoon for whaling industry (c. 1840).

Henry Blair (19th Century), obtained patent (believed the first issued to a Negro) for a corn-planter (1834) and for a cotton-planter (1836).

Norbert Rillieux (1806-1894), held many patents; invented a vacuum pan evaporator which revolutionized the sugar-refining industry (1846).

Elijah McCoy (1844-c. 1928), held some 75 patents; a pioneer inventor of automatic machinery lubricators; his lubricating cup was in general use for years in locomotives, steamers, factories.

Lewis H. Latimer (1848-1928), associate of Thomas Edison, made drawings for Alexander Graham Bell's first telephone, wrote textbook on the Edison Co. lighting system in New York City; supervised installation of first electric street lighting in New York.

Jan Matzeliger (1852-1889), invented lasting machine which cut shoe industry costs in half and brought higher wages to shoe workers.

Granville T. Woods (1856-1910), held over 50 patents mostly in electric and telegraph fields; one was for "Induction Telegraphy," a system for communicating to and from moving trains.

Dr. Daniel Hale Williams (1856-1931), performed one of first two open-heart operations (1893); founded Provident, Chicago's first Negro hospital; first Negro elected a fellow of the American College of Surgeons.

George Washington Carver (c. 1864-1943), agricultural scientist, philanthropist; brought about an agricultural revolution in the South, finding ways to enrich the soil, adding to its one-crop cotton economy not only emphasis on peanuts, sweet potatoes and soybeans, but discovering some 300 industrial uses for by-products he synthesized from them; created a school-on-wheels to dem-

onstrate soil-fertilization on farms.
Andrew J. Beard (19th Century), invented an automatic coupler for railroad cars (1897).
Dr. William A. Hinton (1883-1959), developed the Hinton and Davies-Hinton tests for detection of syphilis; first Negro professor at Harvard Medical School (1949).
Percy Julian, b. 1898, chemist; extracted sterols from soybeans, cutting cost of the drugs; synthesized physostigmine (1935) used in treatment of glaucoma.
Dr. Charles Richard Drew (1904-1950), pioneer in development of blood banks; director of American Red Cross blood donor project in World War II.

WRITERS, EDUCATORS

Amos Fortune (c. 1710-1801), educator; ex-slave, owned tanning business in Jaffrey, N. H., created a school fund which is still operating.
Jupiter Hammon (c. 1720-1800), a Long Island N. Y. poet, the first Negro American to have his works published.
Phillis Wheatley (c. 1753-1784), poet, second American woman and first Negro woman to have her works published; b. in Senegal, enslaved, taken to Boston, freed 1773.
John B. Russwurm (1799-1851) with Samuel E. Cornish (1793-1858), founded the nation's first Negro newspaper, *Freedom's Journal* (1827) in N. Y. City.
William Wells Brown (1815-1884), b. a slave, first American Negro to publish a novel (*Clotel*), as well as a drama, a travel book, 3 histories.
Frederick Douglass (1817-1895), author, editor, orator, diplomat; a runaway slave (b. Frederick Bailey), edited the abolitionist weekly, *The North Star*, in Rochester, N. Y., before the Civil War; became U. S. Minister and Consul General to Haiti; also was marshal and recorder of deeds for the District of Columbia.
Booker T. Washington (1856-1915), founder and first president of Tuskegee Institute (1881); author of a dozen books including *Up From Slavery*; social reformer.
Charles Waddell Chesnut (1858-1932), novelist; best-known for his short stories including *The Conjure Woman*.
William Edward Burghardt Du Bois (1868-1963), historian, sociologist, a founder of the NAACP (1909) and founding editor of its magazine *The Crisis*; author of *The Souls of Black Folk* (1903) and other books.
James Weldon Johnson (1871-1938), poet, song-lyricist, novelist; first Negro admitted to Florida bar; a U. S. consul in Venezuela and Nicaragua; a founder of the NAACP.
Paul Laurence Dunbar (1872-1906), poet, novelist; won fame with *Lyrics of Lowly Life* (1896).
Langston Hughes (1902-1967), a major American poet; also author of stories and song lyrics.
Countee Cullen (1903-1946), poet, winner of numerous literary prizes.
Richard Wright (1908-1960), best-selling novels; *Native Son* (1940), *Black Boy* (1945), etc.
Willard Motley (1912-1965), novelist; wrote *Knock on Any Door* (1947).
Ralph Ellison, b. 1914, novelist, winner of 1952 National Book Award for *Invisible Man*.
Frank Yerby, b. 1916, most successful of American Negro novelists; some 19 novels with over 20,000,000 copies sold, including *The Foxes of Harrow*, *Vixen*, etc.
Gwendolyn Brooks, b. 1917, poet, novelist; first Negro to win a Pulitzer Prize (1950), for one of her volumes, *Annie Allen*.
James Baldwin, b. 1924, best-seller author, playwright; *Another Country* (1962), *The Fire Next Time* (1963) etc.
Lorraine Hansberry (1930-1965), playwright; won N. Y. Drama Critics Circle award with *Raisin* in the Sun (1959).
LeRoi Jones, b. 1934, poet, author of prize-winning off-Broadway plays.

PUBLIC OFFICIALS

Hiram E. Revels (1822-1901), first Negro U. S. Senator, elected in Mississippi, served 1870-1871.
Blanche Kelso Bruce (1841-1898), elected U. S. Senator from Mississippi, he served 1875-1881.
Dr. Mary McLeod Bethune (1875-1955), adviser to Presidents Franklin D. Roosevelt and Harry Truman; division administrator in National Youth Administration (1935).
Clifton Wharton, b. 1899, U. S. Ambassador to Norway (1961-1964).
James C. Evans, b. 1900, director of President Eisenhower's "People to People" program.

Dr. Ralph Bunche, b. 1904, first American Negro to win the Nobel Peace Prize (1950); became Undersecretary of the United Nations (1950).
Dr. Robert C. Weaver, b. 1907, first Negro member of the U. S. Cabinet; Secretary of the Department of Housing & Urban Development (1966).
Harold A. Stevens, b. 1907, first Negro Presiding Justice of the New York State Supreme Court's Appellate Division (1969, First Department).
Adam Clayton Powell, b. 1908, became first Negro Congressman since 19th Century Reconstruction days to have legislation passed by both houses of Congress (elected to his first term 1944).
Thurgood Marshall, b. 1908, first Negro U. S. Solicitor General (1965); first Negro to be made a Justice of the U. S. Supreme Court (1967); as a lawyer led the legal battery which won the historic decision from the Supreme Court declaring segregation of public schools unconstitutional (1954).
William H. Hastie, b. 1904, first Negro Federal Judge (appointed 1937); Governor of Virgin Islands (1946-1949); became Judge, U. S. Circuit Court of Appeals (1949).
Edward W. Brooke, b. 1919; Attorney General of Massachusetts (1962); first Negro elected to U. S. Senate since 19th Century Reconstruction (1967).
Mrs. Constance Baker Motley, b. 1921; first Negro woman Borough President of Manhattan, N. Y. City (1965); Judge, U. S. District Court (1966).
Carl T. Rowan, b. 1925, prize-winning journalist; public official; director of the U. S. Information Agency (1964), making him the first Negro to sit on the National Security Council; U. S. Ambassador to Finland (1963).
Robert C. Henry, elected Mayor of Springfield, Ohio (1965), first Negro Mayor of a moderate-sized city in the 20th Century.
Carl B. Stokes, b. 1927, elected Mayor of Cleveland (1967).
Richard G. Hatcher, b. 1933, elected Mayor of Gary, Ind. (1967).
Lucius A. Amerson, b. 1934, elected sheriff of Macon County, Ga. (1966).

LABOR, CIVIL RIGHTS LEADERS

Denmark Vesey, b. in 18th Century, organized a slave revolt in 1822 in Charleston, S.C.; it failed and he and 46 others were executed.
Nat Turner (1800-1831), led slave revolt in Virginia in 1831; he and 16 others were hanged.
Marcus Garvey (1887-1940), founded Universal Negro Improvement Assn. (1911), sought to promote a Back to Africa movement.
Willard Townsend (1895-1957), organized (1935) the United Transport Service Employees (redcaps, etc.); Vice President of AFL-CIO.
Elijah Muhammad, b. 1897, founded the Nation of Islam or Black Muslims (1931).
A. Philip Randolph, b. 1889, organized the Brotherhood of Sleeping Car Porters (1925); organizer of 1941 and 1963 March on Washington movements; Vice President of AFL-CIO.
Walter White (1893-1955), Executive Secretary, NAACP, (1931-1955).
Roy Wilkins, b. 1901, became Executive Secretary, NAACP (1955).
Bayard Rustin, b. 1910, an organizer of the 1963 March on Washington; Executive Director of the A. Philip Randolph Institute.
The Rev. Dr. Ralph David Abernathy, b. 1916, an organizer (1957) of the Southern Christian Leadership Conference; its President (1968).
James Farmer, b. 1920, a founder of the Congress of Racial Equality (1942); its National Director (1961-1965).
Whitney M. Young, Jr., b. 1921, Executive Director of the National Urban League (1961); author, lecturer, newspaper columnist.
Floyd McKissick, b. 1922, National Director of CORE (1966).
Malcolm X (1925-1965), founded the Organization of Afro-American Unity (1963).
The Rev. Dr. Martin Luther King, Jr. (1929-1968), led 382-day, Montgomery, Ala., boycott which brought 1956 U. S. Supreme Court decision holding segregation on buses unconstitutional; founder and President of the Southern Christian Leadership Conference (1957); leader of rights marches; won Nobel Peace Prize (1964).
Roy Innis, b. 1934, National Director of CORE (1968).
Stokely Carmichael, b. 1944, National Chairman of the Student Nonviolent Coordinating Committee (1966-1967).
H. Rap Brown, b. 1944, National Chairman of SNCC (1967).

Laws Passed by 90th Congress, 2nd Session (1968)

The Second Session of the 90th Congress convened Jan. 15, 1968, and adjourned Oct. 14, 1968. The First Session had convened Jan. 10, 1967, and adjourned Dec. 15, 1967.

Together, the two Sessions produced notable legislation in the fields of consumer protection, civil rights, crime control, education and conservation.

President Johnson, despite his "lame duck" status during the Second Session, saw most of his proposals enacted, though many were in altered form.

The President's nomination of Associate Supreme Court Justice Abe Fortas to be Chief Justice of the United States was blocked in the Senate, which also put off a vote on the nuclear non-proliferation treaty.

Important legislation passed by the Second Session and signed by the President included:

Tax Surcharge. This was the 10% surcharge on individual and corporate income taxes which had been asked by the President during the First Session. It was finally approved during the Second Session, but Congress coupled the action with a \$6 billion mandatory cut in planned spending for the fiscal year.

Foreign Aid. Congress appropriated only \$1.75 billion, \$1.2 billion less than the Administration requested and the smallest sum in the 21-year history of the program.

Crime Control. This act authorized \$100,000,000 in the fiscal year 1969 and \$300,000,000 in fiscal 1970 in grants to states and municipalities to improve law enforcement agencies. It also granted Federal, state and local law officers broader rights to use wiretapping and eavesdropping in criminal investigations. It further carried provisions designed to counteract, in part, recent Supreme Court decisions on "voluntary" confessions and on legal representation during police "line-ups."

Gun Control. In its crime control bill (above), Congress included bans on the mail order sale of handguns and ammunition to individuals, and over-the-counter sales of handguns to residents of other states and to anyone under 21; it provided for licensing of gun dealers and made it a crime for felons, mental incompetents, illegal aliens, etc., to possess firearms.

In a second gun control act, Congress banned mail order interstate sales of rifles and shotguns and prohibited their sale to persons under 18. But Congress did not act on the President's request for registration of all guns and for licensing of gun owners.

Consumer Protection. The Wholesome Poultry Act gave the states two years to develop inspection systems meeting Federal requirements, and provided financial and technical aid to them.

The Truth-in-Lending Act required that beginning July 1, 1969, consumers be informed of the complete cost of credit,

requiring disclosure of interest rates in department store and catalogue house revolving charge accounts, disclosure of annual interest rates in credit advertising, disclosure of "true" annual interest rates of first mortgages on housing. It banned loan-sharking.

Congress also passed acts for gas pipeline safety and for protection against radiation from color TV and other appliances.

Housing. Congress authorized an ambitious housing program, to spend \$5.3 billion to provide 1,700,000 new or rehabilitated housing units over a 3-year period.

Conservation. Legislation established the 58,000-acre Redwood National Park in California, the North Cascades Park in Washington, a nationwide system of trails and scenic rivers, and authorized \$1.3 billion for the Central Arizona Project to develop a water resource program for the Colorado River basin.

Drug Control. This act set penalties for manufacture, sale or possession of LSD and other drugs. Courts were authorized to suspend sentences of first offenders in possession cases.

Civil Rights. The open-housing measure imposed a Federal ban on discrimination in the sale and renting of about 80% of the nation's housing. It also set up penalties for persons who cross state lines to incite riots.

Education. Congress authorized a \$7.3 billion, 3-year extension of Federal aid to higher education; appropriated a record \$20,900,000 for the teacher corps; authorized a 4-year vocational education program.

Defense. Congress appropriated \$71.8 billion for defense.

Urban Renewal. Congress appropriated \$14.7 billion for Department of Housing and Urban Development programs, making substantial cuts in urban renewal, model cities and rent supplements.

FIRST SESSION LEGISLATION

In the First Session (1967) of the 90th Congress, legislation included:

Air Pollution Control. This authorized a 3-year program, giving HEW the power to shut down factories or immobilize all pollution sources in a city during an emergency; it gave states the initiative in setting clean air standards.

New GI Benefits. Congress increased pensions and education and job-training benefits and raised home loan maximums to \$25,000.

Product Safety. A national commission was created to inform the public of dangerous products.

Educational TV. A corporation was established to help finance educational TV and radio programs.

Changes in U. S. Mission to the UN in 1968

Representatives and Alternates to the 23rd General Assembly, as of Nov. 13, 1968

Arthur J. Goldberg, United States Ambassador to the United Nations since July 20, 1965, resigned that post on April 25, 1968, and was replaced by President Johnson with George W. Ball, former Under Secretary of State. Ambassador Ball resigned Sept. 26, 1968; the President named James Russell Wiggins, editor and executive vice president of the Washington Post, to succeed him.

REPRESENTATIVES

James R. Wiggins, Sen. Stuart Symington, Sen. John Sherman Cooper, William C. Foster, Brewster C. Denny.

ALTERNATES

William B. Bufum, Raymond D. Nasher, Jean Picker, Louis Stulberg, Marvin L. Warner.

PRINCIPAL OFFICERS

Permanent Rep. to the UN—James R. Wiggins.
Senior Advisor—Seymour M. Finger.
International Organization Affairs—Joseph J. Sisco.
Legal Advisor—Leonard C. Meeker.
Security Council—Richard F. Pedersen.
Economic and Social Council—Arthur E. Goldschmidt.
Arms Control and Disarmament Agency—Samuel DePalma.

Major Decisions of the U. S. Supreme Court, 1968

The court affirmed a Federal court ruling that the Texas loyalty oath for teachers and other state employees was an unconstitutional infringement on freedom of association; this was the 6th state loyalty oath law found invalid by the Supreme Court since 1961. (Jan. 15.)

Turned down a 6th appeal by Morton Sobell, convicted as an atom spy in 1951 with Julius and Ethel Rosenberg; Sobell, serving a 30-yr. prison term, contended that the Government had used perjured testimony against him. (Jan. 15.)

Upheld a Federal court decision declaring unconstitutional a 1962 Louisiana law giving state tuition grants for students in private, segregated schools. (Jan. 15.)

Affirmed a lower court ruling upholding the right of the Secy. of Health, Education and Welfare to withhold Federal welfare funds from Alabama because state officials refused to agree to eliminate racial discrimination in the welfare program. (Jan. 15.)

Kindergarten Prayer Unconstitutional

Upheld a lower court decision that declared unconstitutional a verse prayer recited by kindergarten children in DeKalb, Ill., even though the word God had been deleted. (Jan. 22.)

Affirmed a Federal court decision upholding the constitutionality of a New York State law requiring teachers in public schools and tax-exempt private schools to swear to uphold the Federal and state constitutions. (Jan. 22.)

Gambling Stamp Thrown Out

In two related decisions, each by a 7-1 vote with Chief Justice Earl Warren dissenting, declared unconstitutional a Federal law requiring gamblers to buy a \$50 gambling stamp annually and to pay a 10% excise tax on their gross wagers, and struck down a section of the National Firearms Act making it a crime to possess an unregistered firearm. (Jan. 29.)

Refused to review the third appeal by James R. Hoffa, Teamsters president, to reach the court, challenging his jury tampering conviction. (Jan. 29.)

Declined to examine an appeal by a Negro citizen group contending that there was racial discrimination in the routing of an interstate highway section through a Negro district of Nashville, Tenn. (Jan. 29.)

Granted an appeal by 3 Des Moines, Iowa, public school children who had been suspended from school because they wore black armbands in protest against the war in Vietnam. (Mar. 4.)

Upheld unanimously a Federal District Court ruling that Alabama could not segregate jail or prison inmates on the ground that such racial separation was necessary to avoid threatened racial violence. (Mar. 11.)

In an 8-0 ruling interpreting the Civil Rights Act of 1964, held that proprietors of public accommodations found guilty of refusing services to Negroes must pay lawyers' fees of the plaintiffs. (Mar. 18.)

One-Man, One-Vote Extended

In a landmark 5-3 decision, extended its one-man, one-vote doctrine to local governments, holding that if county, city and town governments elect their representatives from single-member districts the districts must be substantially equal in population. (Apr. 1.)

Ruled, 8-0, that the Federal Government must pay more than a century's interest to the Peoria Tribe of Indians of Okla-

homa on \$172,726 it failed to pay to the tribe in 1857 for land ceded by treaty. (Apr. 1.)

In a 6-2 ruling, declared unconstitutional the death penalty provision of the Federal Kidnapping Law, commonly known as the Lindbergh Law. The court held that the law still can be enforced except for the death penalty provision; the law makes it a Federal crime to transport a kidnapped person across a state line. (Apr. 8.)

Upheld a lower court decision holding that the Los Angeles Times' 1964 purchase of 3 San Bernardino newspapers for \$15,000,000 violated antitrust laws and ordered the Times to divest itself of the newspapers. (Apr. 22.)

Rights of Criminals

In a series of decisions broadening the rights of criminal defendants and convicted persons, held: that a state prison inmate serving the first of two consecutive sentences may attack the second conviction in Federal habeas corpus proceedings; that state courts must grant defendants jury trials in criminal cases; that defendants in state criminal contempt cases must be granted jury trials except in petty cases; that in joint Federal trials a confession that incriminates one defendant cannot be admitted in evidence if it also incriminates a co-defendant. (May 20.)

In a 7-1 decision on an appeal by David P. O'Brien, who burned his draft card in 1966, upheld a 1965 law that makes it a crime to burn or otherwise destroy or mutilate a draft card. (May 27.)

Struck a blow at capital punishment by holding, 6-3, that persons cannot constitutionally be sentenced to death by juries from which all persons with conscientious scruples against the death penalty have been eliminated. (June 3.)

In a 7-0 decision, upheld the authority of the Federal Communications Commission to regulate community antenna television systems, known as CATV. (June 10.)

Book Aid to Church Pupils

Upheld, in a 6-3 decision, a 1965 New York State law requiring public school districts to lend textbooks to students in private and parochial schools. (June 10.)

In a 7-2 ruling that prohibits racial discrimination in all sales and rentals of real estate, turned the century-old civil rights law of 1866 into a sweeping fair housing statute. (June 17.)

Over the dissent of Justice William O. Douglas, let stand a lower court ruling that Dallas public schools could constitutionally require long-haired male students to have their hair cut. (Oct. 14.)

Agreed to review a lower court decision that owners of the two daily newspapers in Tucson, Ariz., violated the antitrust laws by sharing a common press and circulation and advertising departments. (Oct. 22.)

Held unconstitutional an Arkansas law that made it a crime to teach the Darwinian theory of evolution in the public schools; the case, the result of the challenge of the law by Mrs. John O. Epperson, a school teacher, was reminiscent of the 1925 Tennessee "monkey trial," in which John T. Scopes was convicted for teaching evolution and which pitted Clarence Darrow against William Jennings Bryan as counsel. (Nov. 12.)

CORPORATIONS AND STOCKS

More Than 24,000,000 Persons Own Shares in U. S. Industries

In 1968, more than 24,000,000 persons in the United States owned shares in American industry, as compared to only 8,630,000 in 1956.

The N. Y. Stock Exchange listed 1,750 issues of 1,274 companies—a total of 12.7 billion shares, valued at \$668 billion.

Trading activity grew. Average daily volume on the N. Y. Exchange was over 12,600,000 shares in 1968, compared to 9,899,000 in 1967.

The American Exchange listed 1,088 is-

sues of 1,013 companies—totaling 2.04 billion shares, which were valued at \$55 billion.

Average daily volume on the American Exchange was over 6,128,000 in 1968; 4,475,000 in 1967.

U. S. corporations boosted their sales volumes. The N. Y. Exchange in 1968 reported 108 of its listed companies had sales or revenues in 1967 of over \$1 billion; last year it listed 99 in its "Billionaires Club" for 1966.

50 U. S. Companies with Largest Annual Sales or Revenues

As listed in 1968 in The Exchange, magazine of the N. Y. Stock Exchange, for 1967

Company	Sales or revenues (in millions)	Net profit	Company	Sales or revenues (in millions)	Net profit
General Motors Corp.	\$20,026.3	\$1,627.3	Penney (J.C.) Co.*	2,746.0	89.5
Standard Oil Co. (N. J.)	14,409.4	1,232.3	Goodyear Tire & Rubber	2,637.7	127.1
American Tel. & Tel. Co.	13,009.2	2,110.3	Gen. Tel. & Electronics	2,622.2	213.5
Ford Motor Co.	10,515.7	84.1	Bethlehem Steel Corp.	2,594.1	130.4
General Electric Co.	7,741.2	361.4	Union Carbide Corp.	2,545.6	170.7
Sears, Roebuck & Co.*	7,330.1	384.3	International Harvester*	2,541.9	93.0
Mobil Oil Corp.	6,345.8	385.4	Procter & Gamble*	2,438.7	174.1
Chrysler Corp.	6,213.4	200.4	North Amer. Rockwell*	2,438.5	68.3
Great A. & P. Tea Co.*	5,458.8	55.9	Eastman Kodak Co.	2,391.5	352.3
Int'l. Business Machines	5,345.3	651.5	Lockheed Aircraft Corp.	2,335.5	54.4
Texaco Inc.	5,121.4	754.4	National Dairy Products	2,318.6	76.1
Gulf Oil Corp.	5,109.6	578.3	General Dynamics Corp.	2,253.3	57.0
United States Steel Corp.	4,067.2	172.5	Continental Oil Co.	2,233.0	149.0
Standard Oil of Calif.	3,788.9	421.7	United Aircraft Corp.	2,212.3	57.3
Shell Oil Co.	3,657.7	284.8	Armour & Co.*	2,156.7	22.3
Standard Oil Co. (Ind.)	3,536.3	282.3	Penn Central Co.	2,074.3	71.4
Safeway Stores, Inc.	3,360.9	50.9	Phillips Petroleum Co.	1,981.6	164.0
du Pont de Nemours	3,078.8	313.9	Reynolds (R.J.) Tobacco	1,911.4	151.0
Radio Corp. of America	3,014.1	147.5	Montgomery Ward*	1,879.0	17.4
McDonnell Douglas Corp.	2,933.8	0.9	Firestone Tire & Rubber*	1,875.4	102.3
Westinghouse Electric	2,900.7	122.5	Ling-Temco-Vought	1,833.3	34.0
Boeing Co.	2,879.7	83.9	Tenneco, Inc.	1,777.7	138.5
Swift & Co.*	2,834.7	26.7	Sun Oil Co.	1,765.3	163.0
Kroger Co.	2,806.1	25.7	General Foods Corp.*	1,739.7	103.5
International Tel. & Tel.	2,760.6	122.8	Union Oil Co. of Calif.	1,683.7	145.0

*Fiscal year other than calendar year.

30 Largest Industrial Companies Outside the U. S.

As listed for 1967 in the Fortune Directory, © 1968 Time Inc.

Company	Sales	Net profit	Company	Sales	Net profit
	(or * loss)	(or * loss)		(or * loss)	(or * loss)
	(add 000)	(add 000)		(add 000)	(add 000)
Royal Dutch/Shell N-B	\$8,376,022	\$742,550	Renault F	1,519,123	4,557
Unilever B-N	5,559,950	209,275	Daimler-Benz G	1,491,000	46,082
British Petroleum B	2,973,575	176,550	Farbenfabriken Bayer G	1,458,900	66,840
ICI (Imperial Chem Ind) B	2,691,700	158,950	Yawata Iron & Steel J	1,375,634	43,070
National Coal Board B	2,438,822	958	Cie Francaise des Petroles F	1,343,310	55,968
Phillips' Gloeilampenfab N	2,401,833	98,000	British-American Tobacco B	1,320,396	148,652
Volkswagenwerk G	2,333,750	75,000	British Motor B	1,308,182	*11,130
Montecatini Edison I	2,092,320	74,720	Ente Naz'le Idrocarburi I	1,294,880	5,760
Siemens G	1,984,250	39,943	Matsushita Elec Indl J	1,279,625	75,889
Fiat I	1,910,597	51,475	Nissan Motor J	1,272,847	62,683
Nestle S	1,795,792	37,217	Badische Anilin & Soda		
Hitachi J	1,749,125	75,039	Fabrik G	1,259,000	64,863
Mitsubishi Heavy Ind J	1,650,786	46,253	Tokyo Shibaura Elec J	1,258,478	38,558
Farwerke Hoechst G	1,650,250	58,938	Tokyo Motor J	1,257,777	69,963
August Thyssen-Hutte G	1,637,600	23,598	Krupp-Konzern G	1,232,500	N.A.
			Finsider I	1,203,240	24,812

Nation of Hqs: N Netherlands, B Britain, G Germany, I Italy, S Switzerland, F France, J Japan.

Stocks Most Widely Held by Investment, Insurance Cos., Trust Funds

As listed in 1968 in Stocks on the Big Board, published by the N. Y. Stock Exchange (In order of number of companies etc. which held shares, Sept. 1968)

General Motors	Mobil Oil Corp	Standard Oil (Cal)	General Foods
Intrnatl Bus Machs	Union Carbide	Dow Chemical	Texas Utilities
Standard Oil (NJ)	du Pont Inc	Phillips Petrol	Southern Co
Amer Tel & Tel	Sears, Roebuck	Merck & Co	Westinghouse Elec
Texaco, Inc.	Ford Motor Co	Amer Elect Power	Commonwealth Ed
General Electric	Gen Tel & Elec	Southern Cal Ed	Goodyear Tire & R
Eastman Kodak	Xerox Corp	Minn Mng & Mfg	Chase Mnhnhtn Bnk
Gulf Oil Corp	Standard Oil (Ind)	Monsanto Co.	Amer Cynamid

Selected Common Stocks: Prices, Symbols, Dividends, Yields

As compiled from lists of stocks active on the New York (NY) and American (Am) Stock Exchanges

Company	Ticker Symbol	Stock Exch.	High and Low 1968 to Oct. 21	Price Oct. 21	Indicated Div. \$	Yield %
ACF Industries.....	ACF	NY	68½- 39¼	55½	2.20	4.1
Aerofjet-General.....	AJT	Am	34¼- 22¼	31	1.00	3.1
Air Reduction.....	AN	NY	36½- 28¼	31½	1.50	4.7
Alcan Alum. Ltd.....	AL	NY	27½- 21¼	26½	1.10	4.3
Allied Artists.....	AAP	Am	18½- 9¾	13¼	...	...
Allied Chemical.....	ACD	NY	43- 34	35½	1.90	5.3
Allis-Chalmers.....	AH	NY	38¼- 24	30	.50	1.8
Alloys Unlimited.....	AU	Am	52½- 32¼	49¼	.07	0.2
Alum. Co. Amer.....	AA	NY	81½- 62½	74½	1.80	2.5
Amerada Petroim.....	ARC	NY	94½- 75	87½	3.00	3.5
Amer Can Co.....	AC	NY	54½- 45¾	53½	2.20	4.4
Amer Cyanamid.....	ACY	NY	32½- 22¼	31½	1.25	4.0
Amer Elec. Power.....	AEP	NY	40½- 32½	36¾	1.52	4.1
Amer Home Prods.....	AHP	NY	67½- 50½	58½	1.30	2.2
Amer Hosp. Sup.....	AHS	NY	39- 24¾	30	.22	0.8
Amer Motors.....	AMO	NY	15½- 10¼	13¾	...	...
Amer Tel & Tel.....	T	NY	55½- 48	55½	2.40	4.4
Amer Tobacco.....	AT	NY	35½- 30½	34½	1.90	5.5
Amplex.....	APX	NY	38- 26½	36½	...	...
Anaconda Co.....	A	NY	55- 39	53	2.50	4.9
Arkansas La Gas.....	AKG	Am	40¼- 34¾	37¾	1.70	4.5
Armour & Co.....	AM	NY	54- 32¼	53½	1.60	3.0
Atlas Corp.....	AZ	NY	7- 4¾	5½	...	...
Automatic Radio.....	ART	Am	25½- 15¾	17½	...	...
Baxter Labs.....	BAX	NY	54½- 33¼	41¼	.16	0.4
Bendix Corp.....	BX	NY	54½- 35	45½	1.40	3.0
Benguet Consol.....	BE	NY	14¾- 7¾	13	...	...
Bethlehem Steel.....	BS	NY	34¼- 28¾	32¾	1.60	5.0
Boeing Co.....	BA	NY	90¼- 52½	58½	1.20	2.1
Borden Inc.....	BN	NY	36¾- 28¾	31¾	1.20	3.9
Borg-Warner.....	BOR	NY	35- 25½	34¼	1.25	3.6
Boston Edison.....	BSE	NY	46½- 37¾	42¼	2.08	4.9
Brazilian Lt & P.....	BL	Am	20¼- 12¼	18¾	1.00	5.6
Bristol-Myers.....	BMJ	NY	83½- 59¼	75¾	1.20	1.6
Brooklyn Union Gas.....	BU	NY	32¾- 28	31¾	1.68	5.3
Brown Shoe.....	BWS	NY	59½- 40½	53½	1.40	2.6
Brunswick Corp.....	BC	NY	19½- 12½	19½	...	...
Budd Co.....	BF	NY	37- 20¼	32¾	.80	2.4
Bunker-Ramo.....	BR	NY	21¼- 11¼	17½	...	...
Burroughs Corp.....	BGH	NY	239¼-157	222	1.00	0.4
Campbell Chib.....	CCH	Am	11½- 7	8½	...	...
Campbell Soup.....	CPB	NY	34¾- 26¼	30¾	1.00	3.3
Caterpillar Trtr.....	CTR	NY	47¾- 36¾	46¾	1.20	2.7
Celanese Corp.....	CZ	NY	70- 50½	68	2.00	2.9
Central & S West.....	CSR	NY	48- 39¾	41¾	1.70	4.2
Chase Mhntn Bk.....	CMB	NY	87½- 61½	85	2.40	2.8
Chesapeake & Ohio.....	CO	NY	75- 60½	73½	4.00	5.5
Chesebrough-Pond.....	CBM	NY	48½- 34¾	41¾	.84	2.1
Chock Full O Nut.....	CHF	NY	24¼- 14¾	18½	.60	3.4
Chrysler.....	C	NY	72¾- 48	71¾	2.00	2.9
Cities Service.....	CS	NY	65½- 43¼	61	2.00	3.3
Cluett, Peabody.....	CLU	NY	38¾- 22¾	38	.80	2.2
Coca-Cola Co.....	KO	NY	81½- 61¾	72¾	1.20	1.7
Collins Radio.....	CRI	NY	101½- 53	61¾	.80	1.3
Columbia Gas Sys.....	CG	NY	30¾- 25¾	30	1.52	5.0
Commert Solvents.....	CV	NY	45½- 25¼	28¼	.80	2.8
Commonwealth Edison.....	CWE	NY	51½- 41¾	45¾	2.20	4.7
Commonwealth Oil.....	CWO	NY	29- 18½	24¾	.60	2.4
Com Sat Corp.....	CQ	NY	64¾- 41½	55½	...	...
Computer Apletins.....	CPD	Am	42¾- 20¾	21¼	...	...
Computer Sciences.....	CSZ	Am	64¾- 31¾	56¾	.10	0.2
Consol Edison.....	ED	NY	35½- 31¾	33¾	1.80	5.4
Consol Oil & G.....	CGS	Am	47- 11¾	29¼	...	...
Consumers Power.....	CMS	NY	45¼- 26¾	41¾	1.90	4.5
Cont Air Lines.....	CAL	NY	24¼- 17	20¾	.50	2.4
Cont Can.....	CCC	NY	62- 45½	61¾	2.20	3.8
Cont Oil.....	CLL	NY	75- 63¼	73¾	2.80	3.8
Control Data.....	CDA	NY	156- 124¼	141¾	...	...
Corn Products.....	CFG	NY	45¾- 36	43¾	1.70	3.8
Curtiss-Wright.....	CW	NY	31¾- 20¾	28½	1.00	3.6
Daylin.....	DLN	Am	43¾- 18	29¾	.40	1.1
Delta Air Lines.....	DAL	NY	36¾- 23	35¾	.40	1.2
Detroit Edison.....	DTE	NY	29¾- 24	25¾	1.40	5.4
Dietaphone.....	DC	NY	28½- 23	26¾	.51	2.0
Diebold.....	DBD	NY	45½- 23¾	43¾	.40	0.9
Dixilyn.....	DXL	Am	39½- 22	30¾	...	...
Dow Chemical.....	DOW	NY	87¾- 70¼	84¼	2.40	2.9
Dreyfus Corp.....	DRY	NY	36¾- 22¾	31¾	.90	2.7
du Pont.....	DD	NY	177½-148	175½	5.00	2.9
Dymo Industries.....	DMO	NY	26¾- 17¾	22¾	...	...
Dynamics Corp.....	DCA	NY	25¼- 16¾	22¾	.40	1.7
Eastern Air Lines.....	EAL	NY	48- 26	30	.50	1.8

Company	Ticker Symbol	Stock Exch.	High and Low 1968 to Oct. 21	Price Oct. 21	Indicated Div. \$	Yield %
Eastman Kodak	EK	NY	86½ - 64½	81½	1.07	1.3
El Paso Nat Gas	ELG	NY	21½ - 18	19½	1.00	5.1
Electronic Assoc.	EA	NY	27½ - 18	23½	...	...
Emerson Electric	EMR	NY	104½ - 84	95½	1.68	1.8
Endicott Johnson	EJN	NY	49½ - 24½	49½	.50	1.0
ESB Inc.	ESB	NY	32 - 24½	27½	1.20	4.1
Ethyl Corp.	EY	NY	37½ - 27½	35½	.60	1.7
Eversharp	EVR	NY	20½ - 13½	18½	...	...
Ex-Cell-O	XLO	NY	41 - 28½	34½	1.20	3.6
Fairchild Camera	FCI	NY	92½ - 52	81½	.50	0.6
Fairchild Hiller	FEN	NY	23½ - 14½	17½	...	...
Fedders Corp.	FJQ	NY	50½ - 19½	48½	.60	1.3
Federal Resources	FDR	Am	13½ - 8½	11½	...	...
Federated Dep St.	FDS	NY	42½ - 34½	37½	.95	2.6
Firestone Tire	FIR	NY	65 - 47½	64½	1.50	2.3
First Chartr Fin.	FCF	NY	42½ - 21½	35½	...	...
First Natl Stors.	FST	NY	38½ - 24	37½	...	...
Flintkote Co.	FO	NY	36½ - 20½	32½	1.00	3.2
Flying Tiger Lin.	FLY	NY	29 - 17½	24½	.10	0.4
Food Fair Stores	FFS	NY	23½ - 15½	22½	.90	4.1
Ford Motor Co.	F	NY	60½ - 48	59½	2.40	4.2
Foxboro Co.	FOX	NY	64½ - 37½	49½	.60	1.2
Freeport Sulphur	FT	NY	77½ - 37	40½	1.40	3.6
Fruehauf Corp.	FTR	NY	42 - 31	35½	1.70	4.6
Genl Cigar Co.	GCR	NY	34½ - 21½	31½	1.20	3.8
Genl Dynamics	GD	NY	66 - 42½	43½	1.00	2.2
Genl Electric	GE	NY	100 - 80½	97½	2.60	2.8
Genl Foods	GF	NY	93½ - 65	87	2.40	2.7
Genl Instrument	GRL	NY	63½ - 40½	57½	...	...
Genl Mills	GIS	NY	43½ - 34	40	.80	2.1
Genl Motors	GM	NY	89½ - 72½	89	4.05	4.7
Genl Pub Util.	GPU	NY	31 - 25	29½	1.60	5.5
Genl Tel & Tel	GEN	NY	46½ - 36½	43½	1.48	3.5
Genl Time	GLI	NY	47 - 24½	42½	.80	1.9
Genl Tire & Rub.	GY	NY	33½ - 23½	32½	1.00	3.2
Getty Oil	GET	NY	110½ - 80½	104½	.72	0.7
Gillette Co.	GS	NY	61½ - 44½	54½	1.20	2.2
Goldfield Corp.	GV	Am	14½ - 7½	10½	...	...
Goodrich (B.F.)	GR	NY	47½ - 38½	42½	1.72	4.1
Goodyear Tire	GT	NY	62½ - 45½	61	1.50	2.5
Grace (W.R.)	GRA	NY	48½ - 32½	48½	1.50	3.2
Grand Union Co.	GUX	NY	26½ - 19½	26½	.60	2.3
Grant (W.T.)	GTY	NY	45½ - 30	42	1.30	3.3
Great A & P Tea	GAP	NY	33½ - 26½	32½	1.60	5.0
Great Nthrn Pap.	GPP	NY	75 - 47½	72½	1.40	1.9
Great Nthrn Ry	GN	NY	60½ - 49½	59½	3.00	5.3
Great Westrn Fin.	GWF	NY	30½ - 12½	27½	...	...
Greyhound Corp.	G	NY	26½ - 19½	26½	1.00	4.1
Grumman Aircft.	GQ	NY	38½ - 29½	29½	1.00	3.2
Gulf Oil	GO	NY	42½ - 33½	40½	1.50	3.6
Gulf & Wstn Inds.	GW	NY	66½ - 38½	49½	.30	0.6
Gulf States Utls.	GTU	NY	28 - 20½	24½	.88	3.7
Harvey Aluminum	HAR	NY	54½ - 32½	34½	1.20	3.4
Heller (W.E.)	HLR	NY	24½ - 11½	24	.60	2.7
Hercules	HPC	NY	52½ - 33½	51½	1.20	2.4
Hershey Foods	HSY	NY	33½ - 24½	29½	1.10	3.8
Hess Oil & Chem	HES	NY	58½ - 33½	56½	.30	0.5
Hewlett-Packard	HWP	NY	91½ - 59½	80½	.20	0.3
Hilton Hotels	HIT	NY	48½ - 27	48	.80	1.8
Hitco	HIT	NY	49½ - 30½	43	.15	0.4
Holiday Inns	HIA	NY	73½ - 39½	73	.35	0.5
Honeywell Inc.	HON	NY	139½ - 89½	125	1.10	0.9
Hotel Corp Amer.	HCA	NY	19½ - 11	12½	...	...
Houdaille Inds.	HH	NY	25½ - 14½	24½	.80	3.1
Household Fin.	HFC	NY	47½ - 29½	44½	1.10	2.5
Houston Lt & Pow.	HOU	NY	48½ - 39½	42	1.12	2.7
Howard Johnson	HJ	NY	53½ - 33½	50½	.40	0.3
Illinois Cent In.	IL	NY	72½ - 50½	67½	1.50	2.2
Ingersoll-Rand	IR	NY	51½ - 39	51½	2.00	4.1
Inland Steel	IAD	NY	40½ - 30½	37	2.00	5.4
Int Bus Machs.	IBM	NY	375 - 280	327	2.60	0.8
Int Harvester	HR	NY	38 - 30½	37½	1.80	5.0
Int Min & Chem	IGL	NY	30½ - 18½	22	.50	2.4
Int Nickel, Can.	N	NY	47½ - 36½	37½	1.24	3.2
Int Paper	IP	NY	36½ - 25½	36½	1.35	3.8
Int Tel & Tel	ITT	NY	62 - 44½	61½	.85	1.4
Itek Corp.	ITK	NY	138½ - 77½	99	...	...
Jewel Companies	JWL	NY	47½ - 31	47½	1.40	3.0
Johns-Manville	JM	NY	81 - 54	78½	2.20	2.9
Johnson & Jnsn.	JNJ	NY	97½ - 74½	89½	.65	0.7
Jones & Laughlin	JL	NY	79½ - 45½	71	2.70	3.9
Joy Mfg.	JOY	NY	36½ - 28½	32½	1.40	4.3
Kaiser Alum. & Ch.	KLU	NY	48½ - 34½	42	1.00	2.6
Kaiser Inds.	KI	Am	24 - 16½	20½	...	...
Kayser-Roth	KYR	NY	37½ - 27	35½	.60	1.7
Kelsey-Hayes	KW	NY	51 - 33	51	1.30	2.7
Kennecott Copper	KN	NY	47½ - 37½	47½	2.00	4.4

Company	Ticker Symbol	Stock Exch.	High and Low 1968 to Oct. 21	Price Oct. 21	Indicated Div. \$	Yield %
Kilde (Walter)	KDE	NY	87 - 53½	66½		
Kimberly-Clark	KMB	NY	75½ - 48½	73½	2.20	3.1
KLM Airlines	KLM	NY	75 - 44½	61	1.10	1.8
Kresge (S.S.)	KG	NY	46½ - 26	42½	.34	0.8
Kroger Co.	KR	NY	35 - 22½	34½	1.30	3.9
Lear-Siegler	LSI	NY	53½ - 31½	51½	.90	1.8
Leesona Corp.	LSO	NY	58½ - 28½	53½	.40	0.7
Levin Townsend	LTX	Am	67½ - 27½	65	.40	0.6
Libby-Owens-Frd.	LOF	NY	70½ - 46½	67	2.80	4.1
Libby McNili & L.	LJ	NY	19½ - 14½	18½		
Liggett & Myers	LM	NY	44½ - 35½	42½	2.50	6.0
Ling-Temco-Vgt.	LTV	NY	135½ - 80	90½	1.33	1.4
Lionel Corp.	LIO	NY	11½ - 7½	10		
Litton Inds.	LIT	NY	104½ - 62	81½		
Lockheed Aircrf.	LK	NY	60½ - 40½	57	2.20	3.8
Loews Theatrs.	LTR	NY	135 - 42	125½	.40	0.3
Lone Star Gas	LSG	NY	32 - 22	25½	1.12	4.3
Long Island Ltg.	LLT	NY	29½ - 24½	27	1.24	4.5
Lorillard	LLA	NY	45 - 70½	70	2.70	3.8
LTV Aerospace	LTA	Am	45 - 26½	37½	.80	2.0
LTV Electro	LTE	Am	35½ - 19½	19½	.50	2.5
Magnavox Co.	MAG	NY	59½ - 36½	58½	1.00	1.8
Martin Marietta	MML	NY	29½ - 17½	27½	1.00	3.8
Massey-Ferguson	MSE	NY	21½ - 15	20½	1.00	4.9
May Dep Stores	MA	NY	49½ - 34½	46½	1.60	3.5
McDonnell Dglass.	MD	NY	59½ - 43½	47½	.40	0.9
Melville Shoe	MES	NY	96½ - 35	56½	1.10	2.0
Merck & Co.	MRK	NY	96½ - 73½	90	1.80	2.1
Middle Sth Util.	MSU	NY	26½ - 20½	22½	.82	3.6
Minn Mg & Mfg.	MMM	NY	119½ - 81	108½	1.45	1.4
Miss River	MIS	NY	28 - 18½	24	1.20	5.2
Mobil Oil Corp.	MOB	NY	59½ - 42½	56½	2.00	3.5
Mohasco Inds.	MOH	NY	42½ - 22½	42	1.00	2.5
Monsanto Co.	MTC	NY	54½ - 40½	54	1.60	3.0
Montgomery Ward	M	NY	43½ - 22½	43	1.00	2.6
Motorola	MOT	NY	153½ - 97	134½	1.00	0.8
Natl Airlines	NAL	NY	39½ - 24	37	.30	0.8
Natl Biscuit	BI	NY	53½ - 43	46½	2.10	4.6
Natl Cash Reg.	NCR	NY	164½ - 99½	127	1.20	0.9
Natl Dairy Prod.	ND	NY	46½ - 33½	46	1.60	3.7
Natl Lead	LT	NY	74½ - 58½	74	3.25	4.8
Natl Steel	NS	NY	50½ - 41½	49½	2.50	5.2
New England El.	NES	NY	30½ - 25½	28½	1.48	5.1
New Park Mg	NKM	Am	13½ - 8	11		
Newark Elect	NEC	Am	18½ - 10½	17½	.40	2.3
Nlag Mohwk Pow.	NMK	NY	22½ - 19	21½	1.10	5.3
Norfolk & Western	NFK	NY	115½ - 87½	114½	6.00	5.2
N Amer Rockwell	NR	NY	41½ - 32½	41	2.00	6.0
Northeast Utils.	NEA	Am	25½ - 16½	21		
Northeast Util.	NU	NY	19½ - 15½	17½	.94	5.3
Northwest Airlines	NWA	NY	92½ - 66	84	.80	1.0
Occidental Pet.	OXY	NY	55½ - 28	46½	.40	1.0
Ogden Corp.	OG	NY	52 - 32	38½	.80	2.3
Ohio Edison	OEC	NY	29½ - 27½	27½	1.42	5.3
Okla Gas & El.	OGE	NY	27½ - 20½	23½	1.04	4.7
Olin Mathieson	OLM	NY	72½ - 32½	40	1.20	3.0
O'Klep Copper	OKP	Am	128½ - 89	107½	10.89	10.1
Otis Elevator	OT	NY	56½ - 39	55	2.00	3.6
Owens-Corning	OCF	NY	87½ - 59½	80½	1.40	1.8
Owens-Illinois	OI	NY	71½ - 44½	69½	1.35	1.9
Pacific Gas & El.	PCG	NY	36½ - 30½	34½	1.50	4.3
Pacific Petrolms.	PP	NY	23½ - 14½	21½	.15	0.7
Pan Amer Sulphur	PAS	NY	41½ - 27	33½	1.50	4.7
Pan Am Wild Afr	PN	NY	27½ - 19½	26	.40	1.5
Parke, Davis	PDC	NY	33 - 23	28½	1.00	3.6
Penney (J.C.)	JCP	NY	47½ - 27½	46½	1.00	2.2
Penn Central	PC	NY	86½ - 53½	70	2.40	3.4
Pennsylvania P&L	PPL	NY	32½ - 27½	31	1.56	5.1
Pepsico Inc.	PEP	NY	52½ - 36½	48½	.90	1.9
Prizer (Chas)	PFE	NY	77½ - 56½	72	1.45	2.0
Philadelphia El.	PE	NY	32½ - 27½	30½	1.64	5.4
Phillips Petrol	P	NY	70½ - 53½	69½	2.60	3.8
Polaroid Corp.	PRD	NY	133½ - 87½	109½	.32	0.3
Potter Instruments	PIC	Am	38½ - 20½	28½		
Procter & Gamble	PG	NY	100½ - 81½	88½	2.40	2.7
Pub Serv E & G	PEG	NY	35½ - 29½	32½	1.60	5.0
Purex Corp.	PRX	NY	38½ - 27½	34½	.78	2.3
Quaker Oats	OAT	NY	53½ - 34½	53½	1.30	2.6
Radio Corp Amer	RCA	NY	55 - 44½	47½	1.00	2.0
Ralston Purina	RAL	NY	27½ - 20½	23½	.60	2.5
Raytheon Co	RTN	NY	54 - 33½	46	.59	1.1
Reichhold Chem.	RCI	NY	18½ - 13	18½	.40	2.4
Republic Steel	RS	NY	46 - 39½	45½	2.50	5.6
Revlon Inc.	REV	NY	92 - 70½	86½	1.40	1.6
Reynolds Metals	RLM	NY	50½ - 33½	37½	.90	2.5
Reynolds Tobacco	RJR	NY	46½ - 39½	40½	2.20	5.4
Rheem Mfg	RHE	NY	63½ - 47½	63	1.40	2.2
Rheingold Corp.	RG	NY	22½ - 15½	22	.20	0.9
Roan Sletn Trust	RST	NY	11½ - 7	10½	1.06	10.0
Rohr Corp.	RHR	NY	36½ - 26½	30½	.80	2.7
Royal Dutch Pet.	RDR	NY	55½ - 37½	55½	1.60	2.9
Ryder Systems	RDR	NY	54½ - 28½	54½	.80	1.5

Company	Ticker Symbol	Stock Exch.	High and Low 1968 to Oct. 21	Price Oct. 21	Indicated Div. \$	Yield %
Safeway Stores.....	SA	NY	31½ - 23¼	27½	1.10	4.1
Sanders Assoc.....	SAA	NY	66½ - 41¾	50½	.30	0.6
Schenley Inds.....	SH	NY	57 - 32½	46	1.30	2.7
Scientific Data.....	SDS	NY	117½ - 72½	80½	...	...
SCM Corp.....	SCM	NY	61¼ - 35¾	41	.58	1.4
Scott Paper.....	SPP	NY	34¾ - 22¼	34½	1.00	2.9
Scurry-Rubow.....	SRB	Am	48¾ - 23¾	36¾	...	...
Sears, Roebuck.....	S	NY	72¼ - 56¾	70¼	1.30	1.9
Seeburg Corp.....	SBG	NY	43¼ - 19½	32	.60	1.5
Shell Oil.....	SUO	NY	72¾ - 56½	72¾	2.30	3.3
Sinclair Oil.....	L	NY	87½ - 72	79½	2.80	3.4
Singer Co.....	SMF	NY	88½ - 62¾	82¾	2.40	3.0
Southern Cal Ed.....	SCE	NY	37¾ - 31	33¾	1.40	4.2
Southern Co.....	SO	NY	30¾ - 24	26¾	1.08	4.0
Southern Nat Gas.....	SGA	NY	54¾ - 39	48¼	1.40	2.8
Southern Pacific.....	SX	NY	42½ - 26¾	40½	1.60	4.1
Spartans Inds.....	SPT	NY	28 - 18	24½	...	...
Sperry Rand.....	SY	NY	63¾ - 41¾	43¾	.40	0.9
Squibb Beech-Nut.....	SQB	NY	47¾ - 35¼	43¾	1.50	3.5
Standard Oil Cal.....	SD	NY	68 - 57½	67¾	2.70	4.0
Standard Oil (Ind).....	SN	NY	60¾ - 50½	59¾	2.10	3.6
Standard Oil (NJ).....	J	NY	80¾ - 66¾	79¾	3.65	4.6
Standard Oil (Ohio).....	SOH	NY	71¾ - 60¾	65¾	2.50	4.0
Stauffer Chem.....	STF	NY	46¾ - 36¾	46¾	1.80	3.9
Stevens (J.P.).....	STN	NY	65½ - 52	61	2.25	3.7
Struthers Wells.....	SUW	Am	29¼ - 15½	17¼	...	...
Studebaker-Worth.....	SKW	NY	72¼ - 47¾	59	1.00	1.7
Sun Chemical.....	SNL	NY	32¾ - 19¾	30	.40	1.4
Sun Oil.....	SUN	NY	76¾ - 60¼	76¾	1.00	1.3
Sunbeam Corp.....	SMB	NY	51¾ - 35¾	44½	1.18	2.6
Sunray DX Oil.....	SDX	NY	51¾ - 37¾	47¼	1.50	3.1
Swift & Co.....	SWX	NY	33¾ - 23¼	29	.60	2.0
Syntex Corp.....	SYN	Am	79 - 53½	68¾	.40	0.6
Technicolor Inc.....	TK	Am	45½ - 20¾	42¾	.40	0.9
Teledyne.....	TDY	NY	143¾ - 90¼	98	...	...
Tenneco Inc.....	TGT	NY	30¾ - 24¾	27¾	1.28	4.7
Texaco Inc.....	TX	NY	86½ - 71¼	86¼	2.90	3.4
Texas Eastn Tran.....	TET	NY	30¾ - 21¾	30¾	1.20	4.0
Texas Gulf Sul.....	TG	NY	49¾ - 29	31	.40	1.3
Texas Instruments.....	TXN	NY	114¾ - 86¾	84¾	.80	0.8
Texas Utilities.....	TXU	NY	61¾ - 49¼	54¾	1.60	2.9
Textron Inc.....	TXT	NY	57¾ - 40	46	.80	1.8
Thiokol Chem.....	THI	NY	21¾ - 15¼	18	.40	2.3
Toledo Edison.....	TED	NY	36¾ - 29¾	31¾	1.48	4.6
Transamerica.....	TA	NY	77¼ - 43¾	75¼	1.00	1.3
Transitron Elec.....	TRN	NY	21¾ - 13¾	14¾	...	...
Trans World Air.....	TWA	NY	50¼ - 35	45¾	1.00	2.2
Tri-Continental.....	TY	NY	35 - 27	34¼	.91	2.6
Union Carbide.....	UK	NY	50¾ - 40¾	45¾	2.00	4.3
Union Oil Cal.....	UCL	NY	70 - 49¾	67¾	1.40	2.1
Union Pacific.....	UP	NY	60¾ - 37½	58½	2.00	3.4
United Air Lines.....	UAL	NY	66½ - 34	46¾	1.00	2.3
United Aircraft.....	UA	NY	83¼ - 57¾	65¾	1.80	2.8
United Fruit.....	UF	NY	76½ - 45½	75	1.40	1.9
United Nuclear.....	UNC	NY	42¾ - 30½	31½	...	...
US Gypsum.....	USG	NY	95¼ - 65¾	86½	3.20	3.7
US Industries.....	USI	NY	36¾ - 18¾	29¾	.40	1.3
US Plywood-Cham.....	UPC	NY	71½ - 45	65½	1.50	2.1
US Smelting.....	UV	NY	72 - 53¾	65½	1.00	1.6
US Steel.....	X	NY	45 - 38	44¾	2.40	5.4
Varian Assoc.....	VAR	NY	34¼ - 22	25¾	...	...
Veeder Inds.....	VR	NY	42¼ - 31¾	39¾	1.45	3.8
Vernitron.....	VRN	Am	55 - 26¾	53¾	...	...
Viewlex Inc.....	VIX	Am	32¾ - 14¾	24¾	...	...
Virginia El Pow.....	VEL	NY	35 - 26¾	29¼	1.08	3.6
Vornado Inc.....	VNO	NY	37¾ - 20	25¾	...	...
Ward Foods.....	WD	NY	53½ - 33½	44½	...	...
Warner-Lambert.....	WLA	NY	55¾ - 39¾	53¾	1.00	1.8
Webb (Del E.).....	WBB	NY	17 - 6¾	14¾	...	...
Well-McLain.....	WML	Am	52¾ - 24½	47	.80	1.8
West Va Pulp & P.....	WP	NY	32½ - 20½	31½	1.00	3.1
Westates Petrol.....	WPT	Am	11¼ - 5¼	8¾	...	...
Western Air Lns.....	WAL	NY	45 - 24¼	41¼	1.00	2.4
Western Bancorp.....	WBC	NY	42¼ - 27¾	42	1.20	2.9
Western Union Tel.....	WU	NY	50¼ - 31	38½	1.40	3.7
Westinghouse El.....	WX	NY	78¾ - 59¾	74¾	1.80	2.4
Weyerhaeuser.....	WY	NY	76¾ - 36¼	71¾	1.40	2.0
Wolverine WW.....	WWW	NY	23¾ - 14¾	20½	.50	2.7
Woolworth.....	Z	NY	33¾ - 21¾	32½	1.00	3.1
Wurlitzer Co.....	WUR	NY	26½ - 18¾	24	.80	3.2
Xerox.....	XRX	NY	328¼ - 229	272	1.60	0.6
Youngstown S & T.....	YB	NY	46¼ - 28¾	43	1.80	4.4
Zapata Off-Shore.....	ZOS	NY	87 - 36¾	72¼	...	...
Zenith Radio.....	ZE	NY	65¼ - 50¾	57¼	1.35	2.4

'Yes, Virginia, There Is a Santa Claus'

(Often called the most famous newspaper editorial ever written, this classic first appeared in the New York Sun Sept. 21, 1897,

We take pleasure in answering at once and thus prominently the communication below, expressing at the same time our great gratification that its faithful author is numbered among the friends of The Sun:

"Dear Editor:

I am 8 years old.

Some of my little friends say there is no Santa Claus.

Papa says 'If you see it in The Sun it's so.'

Please tell me the truth, is there a Santa Claus?

Virginia O'Hanlon,
115 West 95th Street"

Virginia, your little friends are wrong. They have been affected by the skepticism of a skeptical age. They do not believe except they see. They think that nothing can be which is not comprehensible by their little minds. All minds, Virginia, whether they be men's or children's, are little. In this great universe of ours man is a mere insect, an ant, in his intellect, as compared with the boundless world about him, as measured by the intelligence capable of grasping the whole of truth and knowledge.

Yes, Virginia, there is a Santa Claus. He exists as certainly as love and generosity and devotion exist, and you know that they abound and give to your life its highest beauty and joy. Alas! how dreary would be the world if there were no Santa Claus! It would be as dreary as if there were no Virginias. There would

be no childlike faith then, no poetry, no romance to make tolerable this existence. We should have no enjoyment, except in sense and sight. The eternal light with which childhood fills the world would be extinguished.

Not believe in Santa Claus! You might as well not believe in fairies! You might get your papa to hire men to watch in all the chimneys on Christmas Eve to catch Santa Claus, but even if they did not see Santa Claus coming down, what would that prove? Nobody sees Santa Claus, but that is no sign that there is no Santa Claus. The most real things in the world are those that neither children nor men can see. Did you ever see fairies dancing on the lawn? Of course not, but that's no proof that they are not there. Nobody can conceive or imagine all the wonders there are unseen and unseeable in the world.

You tear apart the baby's rattle and see what makes the noise inside, but there is a veil covering the unseen world which not the strongest man, nor even the united strength of all the strongest men that ever lived, could tear apart. Only faith, fancy, poetry, love, romance, can push aside that curtain and view and picture the supernal beauty and glory beyond. Is it all real? Ah, Virginia, in all this world there is nothing else real and abiding.

No Santa Claus! Thank God he lives, and he lives forever. A thousand years from now, Virginia, nay ten times ten thousand years from now, he will continue to make glad the heart of childhood.

More About Virginia

Note: Virginia O'Hanlon, the little girl who wrote her famous letter to the New York Sun in 1897, became Mrs. Edward M. Douglas. She retired in 1959 as assistant principal of a public school for physically handicapped children in Brooklyn, N. Y. She had been a teacher and administrator in the New York City public school system for more than 48 years.

The man who answered her letter for the Sun was Francis Pharcellus Church (1839-1906), an editorial writer who, according to contemporary accounts, undertook the assignment with considerable reluctance. But the product of his mellow wisdom and sound craftsmanship has been reproduced in every conceivable form, in every quarter of the globe.

The Sun, in which it first appeared, was merged in 1950 into the New York World-Telegram and Sun, a Scripps-Howard newspaper which also was the publisher of the World Almanac. Now published by Newspaper Enterprise Association, the World Almanac is happy to renew its association with "Yes, Virginia," thus making it available to new generations of children and adults.

Population and Area of Canada by Provinces

Province, territory	Capital	Area in square miles			Population		
		Land	Fresh water	Total	1961 Census	1966 Census	Apr. 1, 1968 est.
Newfoundland.....	St. John's.....	143,045	13,140	156,185	457,853	493,396	505,000
Prince Edward Is.	Charlottetown.....	2,184	.....	2,184	104,629	108,535	110,000
Nova Scotia.....	Hallifax.....	20,402	1,023	21,425	737,007	756,039	760,000
New Brunswick.....	Fredericton.....	27,835	519	28,354	597,936	616,788	624,000
Quebec.....	Quebec.....	523,860	71,000	594,860	5,259,211	5,780,845	5,923,000
Ontario.....	Toronto.....	344,092	68,490	412,582	6,236,092	6,960,870	7,283,000
Manitoba.....	Winnipeg.....	211,775	39,225	251,000	921,686	963,066	969,000
Saskatchewan.....	Regina.....	220,182	31,518	251,700	925,181	955,344	959,000
Alberta.....	Edmonton.....	248,800	6,485	255,285	1,331,944	1,463,203	1,520,000
British Columbia.....	Victoria.....	359,279	6,976	366,255	1,629,082	1,873,674	2,002,000
Yukon Territory.....	Whitehorse.....	205,346	1,730	207,076	14,628	14,382	15,000
Northwest Territories.....	Yellowknife.....	1,253,438	51,465	1,304,903	22,998	28,738	30,000
Total.....		3,560,238	291,571	3,851,809	18,238,247	20,014,880	20,700,000

Late 1968 Revision of Canadian Postal Rates

Canadian postal rates were considerably revised, effective, Nov. 1, 1968: the new rates follow:

First Class: Six cents for first ounce, 4¢ each additional ounce. Postcards, 6¢ to Canadian destinations. **Air Mail:** All first class mail goes by air at standard rates where such will speed delivery.

Printed Matter: Books, newspapers, magazines, etc., mailed by the public, including unsealed Christmas and other greeting cards, 5¢ first two oz., 3¢ each additional 2 oz. up to 1 lb.

International: Surface mail to Great Britain, Northern Ireland and elsewhere in the Commonwealth, Republic of Ireland, France, Spain—Letters 12¢ for first oz., 7¢ each additional oz. Postcards, 6¢. To U. S., North and South America—Letters 7¢. **Air Mail** to U. S., North, Central & South America—Letters 10¢ each oz.

Other rates, registration fees and special delivery fees unchanged from table on Page 489.

Deaths—Dec. 1, 1967 to Nov. 1, 1968

A

Alter, Dr. Dinsmore, 80; astronomer; Oakland, Calif., Sept. 20.
 Anthony, Norman, 74; editor of Judge and Ballyhoo; Poughkeepsie, N. Y., Jan. 12.
 Arana, Lt. Gen. Arturo Ossorio, 65; leader of revolution that overthrew Juan Peron; Buenos Aires, Dec. 6.
 Arce, Dr. Jose, 86; Argentine doctor, headed UN Gen. Assembly; Buenos Aires, July 28.
 Armour, Thomas Dickson (Tommy), 72; golfer; Larchmont, N.Y., Sept. 11.
 Arno, Peter, 64; cartoonist; New Yorker magazine; New York, Feb. 22.
 Atkinson, Guy F., 93; built \$510,000,000 Mangla Dam in West Pakistan; Los Angeles, Sept. 12.

B

Bache, Harold, 73; chairman and president Bache & Co.; New York, Mar. 15.
 Bainter, Fay, 74; actress; Auntie Belle in "Jezebel"; Hollywood, Apr. 16.
 Baird, Cora, 64; puppeteer; New York, Dec. 6.
 Baker, Dorothy, 61; novelist; "Young Man with a Horn"; Terra Bella, Calif., June 17.
 Barnes, Henry A., 61; New York Traffic Commissioner; New York, Sept. 16.
 Beckett, Scotty, 38; child film star of Our Gang comedies; Hollywood, May 10.
 Benaderet, Bea, 62; star of TV series "Petite Jack" and "The Beverly Hills Cop"; Los Angeles, Calif., Oct. 13.
 Berman, Stanley, 41; renowned gate crasher; New York, Feb. 25.
 Bernstein, Abe, 76; Prohibition era boss of Detroit Purple Gang; Detroit, March 7.
 Biddle, Francis, 82; Attorney Gen.'s Under President F. D. Roosevelt; Cape Cod, Oct. 4.
 Boggess, Lynton R. (Dusty), 64; National League umpire; Dallas, Tex., July 8.
 Borovsky, Alexander, 79; concert pianist; Waban, Mass., Apr. 20.
 Botcher, Anthony, 56; mystery writer and critic; Oakland, Calif., Apr. 29.
 Brinton, Crane, 70; educator; author of "The Anatomy of Revolution"; Cambridge, Mass., Sept. 7.
 Brookes, Sir Norman, 90; Australian tennis player; Melbourne, Sept. 28.
 Brown, Elmer, 66; pres. International Typographical Union; Colorado Springs, Feb. 27.
 Brown, Judge Joe, 60; presided in Ruby Oswald case; Dallas, Feb. 20.
 Brucker, Wilbur M., 74; Secretary of the Army, 1955-1961; Detroit, Oct. 28.
 Burger, Carl, 79; wildlife illustrator and author; Mt. Kisco, N. Y., Dec. 30.

C

Cadogan, Sir Alexander, 83; wartime adviser to Winston Churchill, former British UN delegate; London, July 9.
 Cam, Dr. Helen, 82; historian; first woman professor at Harvard; Orlington, Eng., Feb. 9.
 Carroll, Paul Vincent, 68; Irish playwright; "Shadow and Substance"; London, Oct. 20.
 Cassidy, Marshall, 76; thoroughbred racing notable; devised starting gate; Glen Cove, N. Y., Oct. 23.
 Chaplin, Charles Jr., 42; actor; son of comedian; Hollywood, Mar. 20.
 Churchill, Randolph, 57; journalist, son of Winston Churchill, Suffolk, Eng., June 6.

Clark, Jim, 32; twice world auto racing champion; Hockenheim, W. Germany, April 7.
 Clifford, Gordon, 65; lyricist; wrote "Paradise" and "I surrender Dear"; Las Vegas, Nev., June 11.
 Cluett, Sanford L., 91; inventor of Sanforized cloth; Palm Beach, Fla., May 18.
 Coleman, Warren, 87; actor and singer; Crown in 1935 production of Porgy and Bess; West Tisbury, Mass., Jan. 13.
 Cominsky, J. R., 69; publisher of Saturday Review; Asbury Park, N. J., Aug. 2.
 Conocher, Charlie, 58; hockey player; Toronto, Dec. 30.
 Cox, Channing H., 89; governor of Massachusetts, 1921-24; West Harwich, Mass., Aug. 20.
 Crawford, Samuel Earl (Wahoo Sam), 88; baseball Hall of Fame outfielder; Los Angeles, Calif., June 15.
 Crocker, Edward, 72; diplomat; received formal declaration of WWII from Japanese; New York, Apr. 6.
 Culin, Maj. Gen. Frank L. Jr., 75; commander 87th Infantry Div. in World War II; Pebble Beach, Calif., Dec. 31.
 Currie, Finlay, 90; actor; convicted in "Great Expectations"; Gerrards Cross, Eng., May 9.

D

Daniel, Robert P., 65; president of Virginia State College; Petersburg, Va., Jan. 5.
 Davis, Jefferson, 84; hobo king; founded Hobos of America in 1908; Cincinnati, April 5.
 Dehn, Adolf, 72; painter-lithographer; New York, May 19.
 Dekker, Albert, 62; actor; Hollywood, Calif., May 6.
 Desmond, James, 59; N. Y. Daily News political writer; biography of Gov. Nelson A. Rockefeller; New York, July 27.
 Dickinson, L. J., 94; former U. S. Senator from Iowa; Des Moines, June 4.
 Dimitroff, Dr. George Z., 66; astronomer; former head of Harvard Observatory; Hartland, Vt., Jan. 1.
 Dirks, Rudolph, 91; cartoonist, painter; created "Katzenjammer Kids"; New York, Apr. 20.
 Dodd, Frank C., 92; book publisher; former head of Dodd, Mead & Co.; New Canaan, Conn., Jan. 4.
 Donges, Dr. Eben, 69; president-elect of South Africa; Cape Town, Jan. 10.
 Duchamp, Marcel, 81; giant of modern art; "Nude Descending a Staircase"; Neuilly, France, Oct. 1.
 Dunbar, Dr. Paul D., 86; head of FDA, 1944-51; Rockledge, Fla., Aug. 22.
 Duncan, Hank (Henry James), 71; jazz pianist; Jamaica, N. Y., June 7.
 Duryea, Dan, 61; actor; played unsavory characters; Hollywood, Calif., June 7.

E

Edens, Dr. Hollis A., 67; president of Duke University, 1949-60; Atlanta, Ga., Aug. 7.
 Egan, the Rev. Joseph, 70; former pres., Loyola University, Chicago; Aurora, Ill., July 18.
 Elsler, Gerhart, 71; professional communist revolutionary; Berlin, Mar. 21.
 Elman, Harry (Ziggy), 54; jazz trumpeter; "And the Angels Sing"; Los Angeles, Calif., June 26.
 Erickson, Frank, 72; "King of the bookmakers"; witness at 1951 Kefauver hearings; New York, Mar. 2.
 Erwin, Ray, 62; newspaperman; columnist for Editor & Publisher; New York, Jan. 21.

Erwin, Stuart, 64; actor; "The Stu Erwin Show"; Beverly Hills, Dec. 21.
 Eshel, Arieh, 56; Israeli Amb. to Canada; Ottawa, Oct. 9.
 Everett, Walker G., 64; artist and president of Art Students League; New York, Sept. 15.

F

Ferber, Edna, 82; novelist; "So Big," "Show Boat," "Giant"; New York, Apr. 16.
 Fernandes, Raul, 90; Brazilian diplomat; last surviving signer of Treaty of Versailles; Rio De Janeiro, Jan. 6.
 Fisher, Vardis, 73; won Harper prize for historical novel on Mormons in 1939; Twin Falls, Idaho, July 9.
 Fitts, Dudley, 65; literary critic, translator and educator; Lawrence, Mass., July 10.
 Flavin, Martin, 84; Pulitzer Prize author and playwright; Carmel, Calif., Dec. 27.
 Florey, Lord, 69; Nobel prize for medicine for work on penicillin; London, Feb. 21.
 Foley, Clyde Julian (Red), 58; Country singer; Fort Wayne, Ind., Sept. 19.
 Francis, Kay, 63; film star; epitome of glamour in 1930s; New York, Aug. 26.
 Fraunheim, George, 55; president of American Automobile Assn.; Miami, Apr. 5.
 Freeman, Howard, 65; actor; Gen. Bush in "No Time for Sergeants"; New York, Dec. 11.
 Fry, Rev. Dr. Franklin Clark, 67; former president of Lutheran Church in America; New Rochelle, N. Y., June 6.
 Fry, Dr. William J., 50; inventor of instrument used in bloodless brain surgery and an artificial heart; Urbana, Ill., July 21.

G

Gagarin, Yuri A., 34; first man to orbit the earth; Moscow, Mar. 27.
 Gannon, Archbishop John Mark, 91; dean of U. S. Roman Catholic hierarchy before 1966 retirement; Erie, Pa., Sept. 5.
 Gersl, Rev. Francis J., 88; former dean of Loyola U. graduate school; Chicago, Sept. 30.
 Gestido, Gen. Oscar Daniel, 66; President of Uruguay; Montevideo, Dec. 6.
 Gish, Dorothy, 70; actress; Rappallo, Italy, June 4.
 Gitlin, Irving, 49; TV producer; NBC "White Paper" series; New York, Dec. 12.
 Gray, Harold, 74; cartoonist; creator of Little Orphan Annie; La Jolla, Calif., May 9.
 Grayson, Harry M., 74; N.E.A. sports editor for 30 years; New York, Sept. 30.
 Groh, Henry Knight (Heinie), 78; infidel with N. Y. Giants and Cincinnati Reds; famous for "bottle bat"; Cincinnati, Aug. 22.
 Guareschi, Giovanni, 60; author of "Don Camillo" books; Cervia, Italy, July 22.

H

Hackenschmidt, George, 90; world wrestling champion; London, Feb. 19.
 Hahn, Dr. Otto, 89; Nobel prize winner for chemistry in 1944; Göttingen, Germany, July 28.
 Hall, Alexander, 74; film director; "Little Miss Marker"; San Francisco, July 30.
 Hall, Diederich, 69; designed Lindbergh plane, Spirit of St. Louis; San Diego, Calif., May 2.
 Hall, Juanita, 66; actress; Bloody Mary of "South Pacific"; Bay Shore, N. Y., Feb. 28.
 Hallinan, Archbishop Paul J., 56; head of Roman Catholic

Archdiocese of Atlanta; Atlanta, Mar. 27.
 Hammond, Bray, 81; won Pulitzer prize for history in 1958; Middlebury, Vt., July 20.
 Harding, Jack, 71; member first round-the-world flight team, 1924; San Diego, Calif., May 26.
 Harroun, Ray, 89; first winner of Indianapolis 500 in 1911; Anderson, Ind., Jan. 19.
 Hay, George D., 72; originated radio's Grand Ole Opry; Virginia Beach, Va., May 9.
 Hines, Gen. John L., 100; oldest West Point graduate; Army chief of staff, 1924-26; Washington, D. C., Oct. 13.
 Holt, Harold, 59; Australian Prime Minister; Portsea, Australia, Dec. 17.
 Holt, Rev. Dr. Ivan Lee, 81; Methodist bishop, president of World Methodist Conference; Atlanta, Ga., Jan. 12.
 Horton, Rev. Dr. Douglas, 77; head of Congregational Christian Churches; dean of Harvard U. Divinity School; Berlin, N. H., Aug. 21.
 Hoyt, Henry, 53; diplomat; U. S. Ambassador to Uruguay; Montevideo, Dec. 16.
 Humphreys, Dr. Richard F., 57; president of Cooper Union; New York, Aug. 8.
 Hurley, Robert, 72; ex-governor of Connecticut; West Hartford, May 3.
 Hurst, Fannie, 78; novelist; "Back Street," New York, Feb. 23.

I, J

Infeld, Leopold, 69; physicist; collaborator of Einstein; Warsaw, Jan. 16.
 Jara, Gen. Heriberto, 88; hero of 1910 Mexican revolution; Mexico City, Sept. 17.
 Johnson, Daniel, 53; Premier of Quebec; Manicouagan, Quebec, Sept. 25.
 Jones, Dr. Bob, Sr., 84; evangelist and founder of Bob Jones University; Greenville, S. C., Jan. 16.
 Judd, Lawrence McCully, 81; former Territorial Governor of Hawaii; Honolulu, Oct. 4.

K

Kahanamoku, Duke, 77; Olympic swimming champion; Honolulu, Jan. 22.
 Kanzler, Ernest, 75; industrialist; adviser of Henry Ford 2d; Dearborn, Mich., Dec. 10.
 Keller, Helen, 87; blind and deaf from infancy, overcame handicaps to become accomplished writer and symbol of indomitable human spirit; Westport, Conn., June 1.
 Kelton, Pert, 61; character actress; Ridgewood, N. J., Oct. 30.
 Kennedy, Sen. Robert F., 42; U. S. Senator from New York; Los Angeles, Calif., June 6.
 Klang, Chipping H. C., 59; retired permanent UN delegate for Republic of China; New Rochelle, N. Y., Sept. 9.
 Kimmel, Rear Adm. Husband, 86; commander of Pacific Fleet at time of Pearl Harbor attack; Groton, Conn., May 14.
 Kinder, Ellis, 54; former major league pitcher; Memphis, Tenn., Oct. 16.
 King, Dr. Martin Luther, 39; Nobel Peace Prize winner; Memphis, Apr. 4.
 Knapp, Dr. Arthur Blair, 63; president of Denison University; Granville, Ohio, May 14.
 Kurnitz, Harry, 60; playwright and screen writer; "Requiem Figure," Los Angeles, Mar. 18.

L

Lehr, Bert, 72; comic actor; Cowardly Lion in "The Wizard of Oz," New York, Dec. 4.
 Lambert, Walter D., 89; geodesist; Washington, Oct. 27.

Larrick, George P., 66; Commissioner of Food and Drug Administration, 1954-65; Washington, D. C., Aug. 11.
 Latzo, Pete, 65; beat Mickey Walker for world's welterweight championship in 1926; Atlantic City, N. J., July 7.
 Lawrence, Maj. Robert H. Jr., 31; first U. S. Negro astronaut; Edwards Air Force Base; Calif., Dec. 8.
 Leonard, Robert Z., 78; Hollywood film director; "Strange Interlude"; Beverly Hills, Calif., Aug. 27.
 Lichtenberger, Rt. Rev. Arthur, 68; retired presiding Bishop of the Episcopal Church of U. S.; Bethel, Vt., Sept. 3.
 Lillis, Donald C., 66; stockbroker and president of N. Y. Jets football team; Westbury, R. I., July 23.
 Lindsay, Howard, 78; playwright; "Life With Father," New York, Feb. 11.
 Little, Lawson, 57; golfing champion; Pebble Beach, Calif., Feb. 1.
 Lobert, Hans, 86; major league ball player; manager of Philadelphia Phillies in 1942; Philadelphia, Sept. 14.
 Lohr, Lenox R., 76; president, Chicago's Museum of Science and Industry; manager, World's Fair, 1933-34; Chicago, May 28.
 Lorne, Marion, 82; comic actress; "Gary Moore Show," New York, May 9.
 Lucas, Scott W., 76; former Dem. senator from Illinois; Rocky Mount, N. C., Feb. 22.

M

MacNider, Gen. Hanford, 78; hero of 2 World Wars; Sarasota, Fla., Feb. 17.
 Macrae, Elliot B., 67; publisher; president E. P. Dutton & Co.; New Canaan, Conn., Feb. 13.
 Maney, Richard, 77; theatrical press agent; Norwalk, Conn., June 30.
 Marina, Princess, Duchess of Kent, 61; member of Greek royal family and widow of Prince George, Duke of Kent; London, Aug. 27.
 Marsh, Mae, 72; movie actress; Little Sister in "The Birth of a Nation"; Hermosa Beach, Calif., Feb. 13.
 Martin, Homer, 66; 1st president of U. S. United Auto Workers; Los Angeles, Jan. 22.
 Martin, Joseph, 83; former Republican Speaker of the House from Massachusetts; Hollywood, Fla., Mar. 6.
 Massey, Vincent, 80; former Gov. General of Canada; London, Dec. 30.
 Matthews, Zachariah, 66; Botswana's Ambassador to the U. S.; Washington, May 11.
 Mayo, Dr. Charles W., 70; retired surgeon of Mayo Clinic and son of co-founder; Rochester, Minn., July 28.
 McAndrew, William R., 53; president of NBC News, Bronxville, N. Y., May 30.
 McCord, Jim Nance, 89; twice governor of Tennessee; Nashville, Tenn., Sept. 2.
 Michaux, Solomon Lightfoot, 84; Negro founder of Good Neighbor League; Washington, Oct. 20.
 Meitner, Lise, 89; pioneer in nuclear physics; Cambridge, England, Oct. 25.
 Menke, Capt. Bill, 88; owner of the Goldenrod, last Mississippi River showboat; St. Louis, July 15.
 Mennen, William G., 83; chairman, Mennen Co.; Morristown, N. J., Feb. 17.
 Mercer, Sir Stewart Graham, 78; headed British Secret Intelligence Service, WWII; London, May 30.

Middleton, George, 87; playwright; former head of Dramatists' Guild; Washington, Dec. 23.
 Miller, Rev. Dr. Kenneth Dexter, 81; former president of New York City Mission Society; Livingston, N. J., July 6.
 Miller, Max, 68; author; "I Cover the Waterfront," La Jolla, Calif., Dec. 27.
 Millin, Sarah, Gertrude, 79; So. African novelist and historian; Johannesburg, July 6.
 Molyneux, Robert E., 51; comic art director for Newspaper Enterprise Association; Cleveland, Ohio, Sept. 18.
 Montgomery, Wes, 45; jazz guitarist voted first in 1968 Downbeat poll; Indianapolis, Ind., June 15.
 Morano, Francesco Cardinal, 96; oldest Cardinal in Roman Catholic Church; Rome, July 12.
 Morgan, Dr. Agnes Fay, 84; pioneer in science of nutrition; Berkeley, Calif., July 20.
 Morrow, Doretta, 40; soprano; "Kismet," London, Feb. 28.
 Mulholland, Winbert F. (Bert), 84; trainer of thoroughbred horses; Germantown, Pa., July 12.
 Mullins, Lawrence A. (Moon), 60; star fullback on Knute Rockne teams at Notre Dame University, 1928-30; Chicago, Aug. 10.
 Murch, Walter, 60; painter; noted for his realistic machines; New York, Dec. 11.
 Musmanno, Michael A., 72; Nuremberg trial judge; Justice of Pennsylvania Supreme Court; defended Sacco and Vanzetti; Pittsburgh, Oct. 12.

N

Najmy, Justin, 70; apostolic bishop of Melchite Rite Catholics; Manchester, N. H., June 11.
 Nash, Sir Walter, 86; former prime minister of New Zealand; Auckland, N. Z., June 4.
 Newman, Bernard, 70; author; "Spy," London, Feb. 19.
 Nordhoff, Heinz, 69; head of Volkswagen Co.; Wolfsburg, Germany, Apr. 12.

O

O'Brien, Donough Edward Foster (Baron of Inchiquin), 71; head of Ireland's O'Brien family, descendant of King Brian Borus; Dublin, Oct. 19.
 O'Connor, Edwin, 49; novelist; "The Last Hurrah" Boston, Mar. 23.
 O'Keefe, Dennis, 60; star in 1930s and 1940s; Hollywood, Calif., Aug. 31.
 Oppenheimer, Fritz, 69; international lawyer; Nairobi, Kenya, Feb. 4.

P

Pacini, Alfredo Cardinal, 79; member of Roman Curia; Rome, Dec. 23.
 Parran, Dr. Thomas, 75; U. S. Surgeon General 1936-48; Pittsburgh, Feb. 15.
 Parsons, Adm. Edwin C., 75; last surviving ace of Lafayette Escadrille; Sarasota, Fla., May 2.
 Philippe, Gerald L., 59; chairman of Gen'l Electric Co.; Greenwich, Conn., Oct. 18.
 Phillips, William, 89; former U. S. Ambassador to Italy; Sarasota, Fla., Feb. 23.
 Pickerill, Elmo, 82; held wireless operator license No. 1, learned to fly from the Wright brothers; Mineola, L. I., Jan. 14.
 Pierce, Rear Adm. Maurice R., 80; commanded dirigible Shenandoah; San Diego, Calif., July 22.
 Pike, S. Sidney, 68; introduced skywriting to America in 1922; Wyckoff, N. J., Feb. 23.
 Pillsbury, John, 90; retired head

of Pillsbury Mills, Inc., West Palm Beach, Jan. 31.
 Pitler, Jake, 73; coach for Brooklyn Dodgers; Binghamton, N. Y., Feb. 3.
 Poling, Rev. Dr. Daniel A., 83; leader in American Protestantism; Philadelphia, Pa., Feb. 7.
 Pool, Joe Richard, 57; Representative (D., Tex.); Houston, July 14.
 Power, Sen. Charles G., 80; Canadian legislator for 51 years; Quebec, May 30.
 Price, Ellen, 89; dancer; model for Copenhagen's Little Mermaid statue; Copenhagen, Mar. 6.
 Proctor, Mortimer, 78; former Gov. of Vermont; Proctor, Vt., Apr. 28.

Q

Quasimodo, Salvatore, 66; poet, writer; won 1959 Nobel Prize for literature; Naples, Italy; June 14.
 Queeny, Edgar Monsanto, 70; former head of Monsanto Co.; Ladue, Mo., July 7.

R

Raboy, Mac, 53; drew "Flash Gordon" comic strip; Mount Kisco, N. Y., Dec. 22.
 Rand, James Henry, 81; co-founder, Sperry Rand Corp.; Freeport, Grand Bahama Island, June 3.
 Rand, Christopher T. E., 56; writer, roving reporter for The New Yorker; Mexico City, Sept. 26.
 Read, Sir Herbert, 74; poet and art critic; Malton, England, June 12.
 Reid, Dr. Henry J. E., 72; head of NASA's Langley Research Center; Gloucester, Va., July 30.
 Reis, Ben, 72; dress designer; New York, Oct. 17.
 Reuther, Roy, 58; organizer of United Auto Workers; Detroit, Jan. 10.
 Richter, Conrad, 78; novelist; Pulitzer Prize and National Book Award winner; Pottsville, Pa., Oct. 30.
 Robertson, Norman A., 64; Canada's Ambassador to U. S. 1957-58; Ottawa, July 16.
 Ryan, Ben (Bennett A.), 77; vaudeville entertainer; wrote Inka-Dinka-Do for Jimmy Durante, other songs; Leonia, N. J., July 5.

S

St. Denis, Ruth, 91; pioneer of modern dance; Hollywood, Calif., July 21.
 Sande, Earl, 69; jockey; member of Racing Hall of Fame; Jacksonville, Ore., Aug. 20.
 Schnelria, Dr. Theodore C., 66; curator of Animal Behavior Dept. of American Museum of Natural History; New York; Aug. 20.
 Sanger, Dr. Paul W., 62; heart surgeon; led early work on artificial arteries; Houston, Tex., Sept. 8.
 Savage, John, 88; engineer; designed Hoover and Grand Coulee Dams; Englewood, Colo., Dec. 28.
 Schick, Dr. Bela, 90; pediatrician; developed Schick diphtheria test; New York, Dec. 6.
 Schindler, Dr. Rudolf, 80; gastroenterologist; invented flexible gastroscope; Munich, W. Germany, Sept. 7.
 Schmidt, Gen. Harry, 81; led Marine attack on Iwo Jima in WWII; San Diego, Feb. 10.
 Sears, Eleonora, 87; pioneer sportswoman; Palm Beach, Fla., Mar. 26.
 Serafini, Tullio, 89; opera conductor; Rome, Feb. 2.
 Shipley, Rev. Dr. Guy Emery, 86; Episcopal clergyman; editor of The Churchman; Ar-

cadia, Calif., April 18.
 Silver, Eliezer Rabbi, 87; former pres. of Union of Orthodox Rabbis of the United States and Canada; Cincinnati, Feb. 7.
 Sinnott, Edward, 79; plant geneticist; former dean of Yale University's Graduate School; New Haven, Conn., Jan. 6.
 Smathers, Rev. Dr. Eugene, 60; headed United Presbyterian Church, U.S.A.; Big Lick, Tenn., Aug. 16.
 Smith, Elmo, 58; publisher of Albany Democrat-Herald and former governor of Oregon; Albany, Ore., July 15.
 Smith, Howard, 73; actor; Charley in Broadway's "Death of a Salesman"; Hollywood, Jan. 10.
 Sorensen, Charles E., 86; Henry Ford's production chief helped turn out 80,000,000 cars; built B-24 bomber assembly line plant; Washington, D.C., Aug. 13.
 Spellman, Francis Cardinal, 78; archbishop of New York Archdiocese; New York, Dec. 2.
 Stallings, Laurence, 73; co-author "What Price Glory?"; Pacific Palisades, Feb. 28.
 Stanton, Edwin F., 67; 1st U. S. Ambassador to Thailand; Devon, Conn., Aug. 29.
 Stark, Albert (Dolly), 71; colorful National League umpire of '20s and '30s; New York, Aug. 24.
 Steenbock, Dr. Harry, 81; biochemist; discovered value of Vitamin D; Madison, Wisc., Dec. 25.
 Sydney, Basil, 73; actor; "Strange Interlude"; London, Jan. 10.

T

Talman, William, 51; actor; district attorney in "Perry Mason" TV series; Encino, Calif., Aug. 30.
 Thomas, George A., 57; Chief of Iroquois Indian Confederacy; Syracuse, N. Y., Oct. 22.
 Tone, Franchot, 63; actor played sophisticates on stage and screen; New York, Sept. 18.
 Tooker, John I., 73; New York ship salvage expert; supervised raising of French liner Normandie in 1943; Hialeah, Fla., Sept. 14.
 Tower, Oswald, 84; arbiter of amateur basketball rules; West Caldwell, N. J., May 28.
 Tracy, Lee, 70; actor; played brash, breezy newspaper types; Santa Monica, Calif., Oct. 18.
 Trussell, C. P., 76; N. Y. Times reporter; won 1949 Pulitzer prize for reporting on national affairs; Washington, Oct. 2.
 Tryggvadottir, Nina, 55; Icelandic painter, muralist; New York, June 19.
 Treneer, J. Maurice, 86; developed Alka-Seltzer for Miles Laboratories; Elkhart, Ind., July 2.

U

Upson, Ralph Hazlett, 80; aeronautical engineer; balloon racing champion, 1913-21; Burien, Wash., Aug. 13.
 Usinger, Dr. Robert L., 55; entomologist; led 1964 expedition to Galapagos Islands; San Francisco, Sept. 30.

V

Vall, Virginia, 70; silent screen actress; wife of former film star Charles Farrell; Palm Springs, Calif., Sept. 24.
 Van, Gus, 80; vaudeville star; Van and Schenck; Miami Beach, March 12.
 Vandenberg, Arthur H., Jr., 60; son of late Michigan Senator; Miami, Jan. 18.
 van Paassen, Pierre, 72; author; "Days of Our Years"; New York, Jan. 8.

Van Voorhis, Cornelius Westbrook, 64; narrator of radio and movie documentary "The March of Time"; noted for sonorous sign-off: "Time Marches On"; New Milford, Conn., July 13.
 Vogt, William, 68; former head of Planned Parenthood Federation of America; author of "Road to Survival"; New York, July 11.
 Vovis, Dr. John, 87; co-founder of Save the Children Federation; Duarte, Calif., Jan. 12.

W

Wallace, Lurleen, 41; governor of Alabama; Montgomery, May 7.
 Ward, Marvin (Bud), 54; twice winner of national amateur golf championship; San Mateo, Calif., Jan. 2.
 Waring, J. Waties, 87; ex-Federal judge; opened S. C. polls to Negroes in 1947; New York, Jan. 11.
 Warner, Milo J., 76; former national commander of the American Legion; Toledo, Ohio, Jan. 1.
 Wheeler, Bert, 72; comic of vaudeville, films and theater; New York, Jan. 18.
 Wheeler, Elmer, 62; created sales catch-phrases; Mexico, Oct. 2.
 White, George, 78; Broadway producer of "Scandals"; Hollywood, Calif., Oct. 10.
 Whiteman, Paul, 77; bandleader; "King of Jazz"; Doylestown, Pa., Dec. 29.
 Wilfred, Thomas, 79; artist and inventor; pioneer in use of colored light projections as an art medium; Nyack, N. Y., Aug. 15.
 Wilhelm, Dr. Richard H., 59; head of Princeton University chemical engineering dept.; Center Harbor, N. H., Aug. 6.
 Willan, Dr. Healey, 87; composer; Toronto, Feb. 18.
 Williams, R. Norris, 2nd, 77; former national tennis champion; Bryn Mawr, Pa., June 2.
 Williamson, George, 70; leading scholar on T. S. Eliot and John Donne; Carmel, Calif., Sept. 8.
 Wininger, Bo, 45; professional golfer; Oklahoma City, Dec. 7.
 Winters, Yvor, 87; poet; 1960 Bollingen prize winner; Palo Alto, Calif., Jan. 25.
 Wismer, Harry, 56; sports broadcaster; helped establish American Football League; New York, Dec. 4.
 Wolfst, Sir Donald, 65; actor; "Room at the Top"; London, Feb. 17.
 Wood, Craig, 66; golfer; won Masters and U. S. Open; Palm Beach, Fla., May 8.
 Woolrich, Cornell, (William Irish), 64; writer of mystery stories; New York, Sept. 25.
 Wrubel, Dr. Marshal H., 44; astrophysicist; Boulder, Colo., Oct. 26.
 Wyatt, Commodore Ben H., 74; mapped Alaska by air for Navy; military governor of Marshall Islands during Bikini Atoll atom bomb testing; Coronado, Calif., Sept. 14.

Y, Z

Yashin, Aleksandr, 55; Soviet writer and poet; Moscow, July 11.
 Young, Nedrick, 54; once-blacklisted screenwriter won Academy Award under assumed name; Hollywood, Calif., Sept. 16.
 Zbyszko, Wladek, 75; wrestler in the 1920s and 1930s; Savannah, Mo., June 10.
 Zorach, Marguerite, 80; painter and widow of sculptor William Zorach; B'klyn, N.Y., June 27.

Medical Developments During 1968

A rapid succession of human heart transplants followed the dramatic success on January 2 of Dr. Philip Blaiberg's surgery in Capetown, South Africa. Dr. Christiaan Barnard, initiator of this specific transplant in December 1967 with Louis Washkansky, who died 18 days afterward, explains Blaiberg's survival as partly due to his younger age and healthier condition; also to the use of anti-lymphocyte globulin in preventing a late rejection.

At the time the World Almanac went to press, 80 heart transplants throughout the world had been reported, the largest number in Houston, Tex., by Dr. Denton A. Cooley of Baylor University. Numerous meetings, attended by the leading transplant surgeons, included discussions of the moment of death and moral issues relating to heart donors. Consensus appeared to be that death occurs when the brain ceases functioning and that the heart is no more than a pump that can be replaced at the discretion of the surgeon. Hope for a perfected artificial heart, now being sponsored by the National Heart Institute, Bethesda, Md., is growing, but awaits testing of materials that will not cause clotting, as well as a better power source and control mechanism among other things. Animal hearts also may be used successfully once the rejection problem is solved.

Liver transplants by Dr. Thomas Starzl in Denver, Colo., kept patients alive for a period of months, the longest for 13½ months as of Nov. 15.

A completely synthetic penicillin was achieved by Dr. Ajay K. Bose, professor of chemistry at Stevens Institute of Technology, Hoboken, N. J., who says the new form can be synthesized by a reasonably short process.

Drug for Parkinson's Disease

Response of 28 patients with shaking palsy, or Parkinson's disease, to oral doses of the drug, L-dopa, was reported by Dr. George C. Cotzias and his co-workers at the Brookhaven National Laboratory at Upton, N. Y. The therapeutic effect of the drug is believed related to an increase in the compound dopamine, which is deficient in parkinsonian patients. Dr. Cotzias believes there is a possibility that L-dopa may have a beneficial effect on persons with tremors or rigidity from other causes besides parkinsonism.

Cancer and Chromosomes

An excess of a chromosome called E-16, one of the 46 chromosomes normally found in a cell, was strikingly high in cancer cells studied at Lawrence Radiation Laboratory, Livermore, Calif. Dr. John W. Gofman, who reported the finding, denied that the discovery indicates that cancer can be inherited. Although chromosomes are the mechanism of inheritance, cancer itself could have produced the excess of the E-16 chromosome.

Results of laboratory studies have suggested that venereally transmitted type 2 herpes virus is a prime suspect as a cause of cancer of the cervix, or neck of the womb. The findings confirm evidence that this type of cancer may be fundamentally a venereal disease caused by a virus.

L-asparaginase, an anticancer enzyme that attacks malignant cells while bypassing healthy ones, has been successful in treating some cases of acute leukemia that no longer responded to other drugs. Government support of research brought about increased production of the enzyme, which has been in short supply.

Syphilis Vaccine Foreseen

A vaccine against syphilis may be several years away, but a beginning has been made by Mexican and United States health officials. They have infected chimpanzees in Mexico with the nonvenereal disease pinta, which is caused by *Treponema carateum*. Syphilis is caused by the microorganism *Treponema pallidum*, and patients with pinta appear to have immunity to the venereal infection.

Hong Kong Flu

Eight pharmaceutical companies were put to work on a new influenza vaccine following a flu epidemic in Hong Kong that reached its peak in the summer of 1968. Considering the amount of travel between the Asian city and the U. S., it was to be expected that the new strain would cross the Pacific. The Division of Biologics Standards of the National Institutes of Health provided seed virus of the Hong Kong 1968 Asian flu strain to aid the drug companies in developing the new vaccine.

Pooled Blood Plasma Stopped

The risk of hepatitis from pooled human blood plasma was found to be so great that a committee of the National Research Council recommended discontinuing its use.

Warnings also were issued against individual blood transfusions from former servicemen who had had malaria, which can be transmitted in their blood.

New Anesthetic

A new general anesthetic, ketamine hydrochloride, was recommended as the safest ever developed. It is neither a barbiturate nor a narcotic, and unlike conventional anesthetics, it does not depress all areas of the central nervous system. It leaves the patient with his eyes open but disconnected from his surroundings and unresponsive to pain. It is particularly useful in dental extractions and other types of oral surgery.

Cost of Drugs

Brand-name drugs cost elderly persons an estimated \$41,500,000 more than they would have paid for drugs prescribed by generic name, a Health, Education and Welfare Department task force reported in a study of 175,000,000 prescriptions written for older people in 1966, the last year for which figures were available. Considerable controversy exists on the matter of equivalency, as well as actual cost, however, and the Pharmaceutical Manufacturers Association's officials called the report an illusion without proper documentation. The task force found that 409 drugs were used most frequently by the elderly. Most of these drugs were available from only one supplier and under brand names. The 339-page report, titled *The Drug Users*, pointed out that of the 10 most frequently used drugs, 8 were still under patent and no equivalent was available under its generic name.

Doctors who prescribed so-called diet pills containing digitalis and thyroid hormone were chastised by the American Medical Association after Senate hearings that included testimony on the dangerous effects and possible death resulting from such prescriptions.

Improvements in treatment of the mentally ill focused on modernization of physical plants such as St. Elizabeth's Hospital, the 113-year-old Federally run hospital, the largest in the U. S. devoted to mental illness. The National Institute of Mental Health took St. Elizabeth's from

the Health, Education and Welfare agency's jurisdiction and placed it under a National Center for Mental Health Services, Training and Research. Improved drugs have made it possible to continue treatment of the mentally ill in their homes rather than keep them for long-term custodial care in huge institutions. The cottage system also has been adopted in many hospitals.

Army Reports Developments

The Army Medical Department named 9 areas in which there have been major developments since the start of the Vietnamese war. These achievements include:

Inflatable hospitals, spray adhesive to control internal bleeding, tissue adhesive called cyanoacrylates, that will enable a physician to repair organs without suturing, shock treatment in the management of shock and wounds, an artificial hand run by rechargeable batteries, improved preservation of blood by the addition of adenine, burn treatment by sulfamylon creme that has been life-saving, a malaria preventive called Diformyl DDS (Diaminodiphenyl sulfone), which when given

once a week kept human volunteers from contracting the disease, and an oral vaccine that has been effective in reducing the occurrence of infectious diseases.

The measles eradication program reduced the number of cases from 203,000 in 1966 to 62,000 at the time of last estimate. The rubella vaccine to prevent German measles was tested to the point that it is expected to be licensed with safety. Isolation of the infectious mononucleosis virus raised hopes that a vaccine will be forthcoming. The development of silastic sheath for nerve repair showed great promise. Synthetic corticotropin showed significant results in asthma treatment. The discovery of the amino acid sequence of thyrocalcitonin was expected to have effects on studies of bone resorption in old age. Some persons were saved from blindness by the glueing of plastic contact lenses directly to the cornea. The Boston arm showed control over an artificial arm by signals from the brain. Cross circulation between a patient and baboon at the Medical College of Virginia saved the patient's life.

Medical Signs and Abbreviations

Source: American Medical Association

℥ (Lat. Recipe) take	ad. to, up to	gargarisma a gargle	q. 3 h. every three hours
℥ drachm	adde add	gt. grain	q.i.d. four times daily
℥ 5 fluid drachm	ad libitum at pleasure	gtt. drops	q.s. as much as is sufficient
℥ 5 ounce	agit. shake	b.s. at bedtime	sig. sign, write
℥ 5 fluid ounce	aqua water	Inject. injection	solutio a solution
ss half an ounce	b.i.d. twice daily	lb. pound	ss. one-half
℥ 1 one ounce	cap. capsule	m. mix	stat. at once
℥ 1 ss one ounce and a half	cum, or c. with	non. rep. or n.r. do not repeat	sub. to be taken
℥ 1℥ two ounces	dilute dilute	p.c. after meals	tab. tablet
℥ 1℥ scruple	e.m.p. as directed	pill. pill	t.i.d. three times daily
℥ 1℥ minim, or drop	fac (mist) let a mixture be made	p.r.n. as circumstances may require	ung. ointment
℥ 1℥ pint	fiant (fb). make	pulvis powder	ut dict. as directed
℥ 1℥ of each	filtra. filter		
a.c. before meals			

Suicides in Selected Countries

Source: World Health Organization

Source: World Health Organization							
MALE		Death rates per 100,000 population, 1964		FEMALE			
West Berlin	56.3	Puerto Rico	12.3	West Berlin	30.9	Israel	5.1
Hungary	40.9	Bulgaria	12.6	Hungary	17.1	Netherlands	4.9
Austria	33.2	Hong Kong	11.5	Denmark	15.3	Puerto Rico	4.5
Finland	30.9	Norway	11.4	China Taiwan	14.2	Panama	4.3
Czechoslovakia	29.6	New Zealand	9.7	Germany, Fed. Rep.	13.9	Canada	4.1
Sweden	28.7	Scotland	9.6	Austria	13.7	Northern Ireland	4.0
Germany, Fed. Rep.	27.0	Netherlands	8.2	Japan	12.9	Portugal	3.8
Denmark	26.8	Venezuela	8.1	Czechoslovakia	12.2	Poland	3.4
Switzerland	24.3	Italy	7.7	Sweden	10.9	Venezuela	3.4
China Taiwan	23.9	Northern Ireland	6.9	Switzerland	10.0	Norway	3.2
France	22.4	Panama	6.2	Australia	9.9	Italy	3.2
Belgium	20.1	Israel	5.9	United Kingdom	9.8	Iceland	2.1
Australia	19.1	Chile	4.8	Finland	9.5	Greece	1.8
Japan	17.5	Greece	4.7	Hong Kong	8.1	Mauritius	1.4
United States	16.1	Mauritius	4.4	Belgium	8.2	Chile	1.2
Iceland	15.7	Mexico	2.8	France	7.8	Mexico	0.9
Portugal	15.6	Nicaragua	2.3	Scotland	6.8	Philippines	0.6
Poland	13.9	Philippines	1.0	New Zealand	6.2	Nicaragua	0.6
United Kingdom	13.8	Malta and Gozo	0.6	United States	5.6	Nicaragua	0.1
Canada	12.3			Bulgaria	5.4	Malta and Gozo	—

New Federal Agency Takes Over Narcotics Fight

Federal narcotic and drug control forces were consolidated Apr. 8, 1968, when Reorganization Plan 1 of 1968 created the Bureau of Narcotics and Dangerous Drugs. Transferred to the new bureau were the functions of two previously existing agencies, the Bureau of Narcotics of the Treasury Dept. and the Bureau of Drug Abuse Control of the Dept. of Health, Education and Welfare.

Meanwhile, latest available Government statistics showed the number of active narcotic addicts in the United States at the end of 1967 as 62,045, an increase of 2,325 over the figure of a year earlier. Nearly 80% of them were reported from 4 states, as follows: New York 32,347, California 7,457, Illinois 6,567, and New Jersey 2,834. Ten cities accounted for 75% of the national total, as follows: New York City 30,543, Chicago 6,489, Los Angeles 1,997, Detroit 1,642, Baltimore 1,348, Philadelphia 1,296, Washington, D. C. 1,106, Newark 1,004, San Diego 587, and Buffalo 550.

The Meaning of "One Inch of Rain"

An acre of ground contains 43,560 square feet. Consequently, a rainfall of 1 inch over 1 acre of ground would mean a total of 6,272,640 cubic inches of water. This is equivalent of 3,630 cubic feet.

As a cubic foot of pure water weighs about 62.4 pounds, the exact amount varying with the density, it follows that the weight of a uniform coating of 1 inch of rain over 1 acre of surface would be 226,512 pounds, or 113¼ short tons.

The weight of 1 U. S. gallon of pure water is 8.345 pounds. Consequently a rainfall of 1 inch over 1 acre of ground would mean 27,143 gallons of water.

Principal Foreign Rivers

Source: National Geographic Society, Washington, D. C. (Length in miles)

River	Outflow	Lgth	River	Outflow	Lgth	River	Outflow	Lgth
Albany.....	James Bay.....	610	Kootenay.....	Columbia Riv.....	407	Rio Roosevelt		
Amazon.....	Atlantic Ocean.....	3,900	Lena.....	Laptev Sea.....	2,680	River of		
Amu.....	Aral Sea.....	1,600	Loire.....	Bay of Biscay.....	625	Doubt.....	Madeira River.....	950
Amur.....	Tartar Strait.....	2,700	Mackenzie.....			Saguenay.....	St. Lawrence.....	475
Angara ¹	Yenisey.....	1,150	Peace.....	Beaufort Sea.....	2,635	St. John.....	Bay of Fundy.....	418
Athabasca.....	St. Albans.....	765	Marus.....	Amazon Riv.....	2,100	St. Lawrence ²	Gulf of St. Law.....	1,900
Back.....	Chantry Inlet		Magdalena.....	Caribbean Sea.....	1,000	St. Maurice.....	St. Law. River.....	325
	of Arctic Ocean.....	605	Marne.....	Selne River.....	325	Salween.....	Martaban Gulf.....	1,750
Brahmapu-			Mekong.....	S. China Sea.....	2,600	Sao Francisco	Atlantic Ocean.....	1,800
tra.....	Bay of Bengal.....	1,800	Meuse.....	North Sea.....	575	Saskatchewan	Lake Winnipeg.....	1,205
Bug.....	Dnieper River.....	500	Murray.....			Selne.....	English Chan.....	482
Bug.....	Wisla River.....	450	Darling.....	Indian Ocean.....	2,310	Shannon.....	Atlantic Ocean.....	224
Churchill.....	Hudson Bay.....	1,000	Negro.....	Amazon.....	1,400	Si.....	So. China Sea.....	1,250
Congo.....	Atlantic Ocean.....	2,718	Nelson.....	Hudson Bay.....	1,600	Sungari.....	Amur River.....	1,150
Danube.....	Black Sea.....	1,770	Niger.....	Gulf of Guinea.....	2,600	Syr.....	Aral Sea.....	1,850
Dnieper.....	Black Sea.....	1,420	Nile.....	Mediterranean.....	4,145	Tajo, Tagus.....	Atlantic Ocean.....	565
Dniester.....	Black Sea.....	580	Ob-Ittysh.....	Gulf of Ob.....	3,460	Thames.....	North Sea.....	215
Don.....	Sea of Azov.....	1,210	Oder.....	Baltic Sea.....	535	Tiber.....	Tyrrhenian Sea.....	252
Drava.....	Danube River.....	450	Orange.....	Atlantic Ocean.....	1,300	Tigris.....	Euphrates.....	1,150
Dvina, North	White Sea.....	800	Orinoco.....	Atlantic Ocean.....	1,700	Tisza.....	Danube River.....	800
Ebro.....	Mediterranean.....	577	Ottawa.....	St. Lawrence R.....	696	Tocantins.....	Para River.....	1,640
Elbe.....	North Sea.....	724	Paraguay.....	Parana River.....	1,500	Ural.....	Caspian Sea.....	1,570
Euphrates.....	Persian Gulf.....	1,700	Parana.....	Rio de la Plata.....	2,500	Uruguay.....	Rio de la Plata.....	1,000
Fraser.....	Georgia Strait.....	850	Peace.....	Slave River.....	1,195	Usamacinta.....	Gulf of Mexico.....	690
Gambia.....	Atlantic Ocean.....	700	Pilcomayo.....	Paraguay Riv.....	1,000	Volga.....	Caspian Sea.....	2,290
Ganges.....	Bay of Bengal.....	1,560	Pisa.....	Adriatic Sea.....	405	Weser.....	North Sea.....	500
Garone.....	Bay of Biscay.....	322	Puise.....	Amazon Riv.....	2,000	Wisla.....	Bay of Danzig.....	665
Hamilton.....	Atlantic.....	208	Red River N.	Lake Winnipeg.....	355	Yangtze.....	East China Sea.....	3,400
Huang.....	Yellow Sea.....	3,000	Rhine.....	North Sea.....	820	Yapura.....	Amazon River.....	1,500
Indus.....	Arabian Sea.....	1,900	Rhone.....	Gulf of Lion.....	500	Yellow (see Huang)		
Irrawaddy.....	Bay of Bengal.....	1,250	Rio de la			Yenisey.....	Kara Sea.....	2,080
Japura.....	Amazon River.....	1,500	Plata ²	Atlantic Ocean.....	150	Yukon.....	Bering Sea.....	1,979
Jordan.....	Dead Sea.....	200	Rio Grande.....	Gulf of Mexico.....	1,855	Zambezii.....	Indian Ocean.....	1,600

¹The Angara is the only outlet of Lake Baykal, USSR, and drops 1,140 ft. in 1,150 miles.²The Rio de la Plata is the estuary formed by the Parana and Uruguay Rivers.³The source of the St. Lawrence River is in the State of Minnesota. The St. Lawrence is viewed as a part of the Great Lakes Waterway and its source is considered the head of the St. Louis River which flows into Lake Superior. The St. Louis River rises in Minnesota.

Area (sq. miles) of great river basins—Amazon (2,053,318); Congo (1,339,923); Nile (1,119,652); Mississippi-Missouri (1,243,700); La Plata (1,198,000); Ob-Ittysh (1,132,000); Yenisey (1,004,000); Lena (934,000); Amur (712,000); Mackenzie-Peace (696,700); Yangtze (666,000); St. Lawrence (565,200); Volga (533,000); Huang (288,000); Danube (315,000); Colorado (246,000); Rio Grande (171,890).

Famous Fairs and Expositions

1851 May 1.....	Great Exhibition opened, Crystal Palace, Hyde Park, London.
1853 July 14.....	New York World's Fair opened, Crystal Palace.
1867 Apr. 1.....	International Exhibition opened, Paris.
1873 May 1.....	International Exhibition opened, Vienna.
1876 May-Nov.....	Centennial Exposition, Philadelphia.
1889 May 6-Nov. 6.....	Universal Exposition, Paris.
1893 May 1-Oct. 30.....	World's Columbian Exposition, Chicago.
1898 June 1-Oct. 31.....	Trans-Mississippi International Exposition, Omaha.
1900 Apr. 15.....	International Exposition opened, Paris.
1901 May 1-Nov. 2.....	Pan-American Exposition, Buffalo.
1904 Apr. 20-Dec. 1.....	Louisiana Purchase Exposition, St. Louis.
1905 June 1.....	Lewis and Clark Centennial Exposition opened, Portland, Ore.
1907 Apr. 26.....	Jamestown, Va., Tercentenary Exposition opened.
1909 June 1-Oct. 16.....	Alaska-Yukon-Pacific Exposition, Seattle.
1909 Sept. 25-Oct. 2.....	Hudson-Fulton Celebration, New York.
1910 Apr. 23.....	International Exhibition opened, Brussels.
1913 Apr. 26.....	International Exposition opened, Ghent, Belgium.
1915 Feb. 20-Dec. 4.....	Panama-Pacific International Exposition, San Francisco.
1915.....	Panama-California Exposition, San Diego.
1922-23.....	Brazilian Exposition, Rio de Janeiro.
1924-25.....	British Empire Exposition, Wembley.
1926 May 31-Nov. 30.....	Sesquicentennial Exposition, Philadelphia.
1931.....	International Colonial and Overseas Exposition, Paris.
1933 May 27-Nov. 12.....	Century of Progress Exposition, Chicago.
1934 May 26-Oct. 31.....	Century of Progress Exposition, Chicago.
1936.....	Texas Centennial Exposition, Dallas.
1936-1937.....	Great Lakes Exposition, Cleveland, Ohio.
1939 Feb. 18-Oct. 29.....	Golden Gate International Exposition, San Francisco.
1939 Apr. 20-Oct. 31.....	New York World's Fair.
1940 May 11-Oct. 21.....	New York World's Fair.
1947 Apr. 26-Oct. 30.....	Jamestown, Va., 350th Anniversary Festival.
1958 Apr. 17-Oct. 19.....	World's Fair, Brussels.
1962 Apr. 21-Oct. 21.....	Century 21 Exposition, Seattle, Wash.
1964 Apr. 22-Oct. 18.....	New York World's Fair.
1965 Apr. 21-Oct. 17.....	New York World's Fair.
1967 Apr. 28-Oct. 27.....	Universal and International Exhibition (Expo. 67), Montreal, Canada.
1968 Apr. 6-Oct. 6.....	HemisFair 1968, San Antonio, Texas.
1970.....	Osaka World's Fair, Osaka, Japan.

Miss Universe Pageant and Miss U.S.A.

Martha Vasconcellos, of Brazil, was crowned Miss Universe, 1968, at Miami Beach on Saturday, July 13, 1968. She received a \$10,000 cash award; a \$10,000 service contract; a chinchilla jacket valued at \$7,500, plus numerous other prizes.

Dorothy Anstett, of Kirkland, Washington, was elected Miss USA on Saturday, May 18, 1968. She received a \$5,000 cash award; a \$5,000 service contract and numerous other prizes.

First Miss Black America

Saundra Williams, 19, of Philadelphia, a student at Maryland State College, was chosen over 7 other contestants as the first Miss Black America in Atlantic City, N. J., Sept. 8. The contest was held in the Ritz Carlton Hotel, to protest what its sponsors termed "the white stereotype" of the Miss America Pageant, held at the same time in nearby Convention Hall. Miss Williams was awarded a trophy, a one-week vacation in Puerto Rico, and a modeling contract.

Multi-TV Set Homes Double in 6 Years

The number of American households with two or more television sets more than doubled since 1962 as multi-set households reached an estimated 14,700,000 by June 1967, according to the U. S. Department of Commerce.

Sixteen out of 17 homes had television, reaching 96% of the population. Nearly 11,000,000 homes had color sets and more than 23,000,000 had UHF sets. More than one set was most likely to be found in homes with either color or UHF.

Number of Radio and TV Sets In Use

Source: Electronic Industries Assn.

(In Millions)

Year	Auto radios	Home radios	Total radios	Television receivers B & W	Color	Phono- graphs
1950.....	18	81	99	10.6	...	16.8
1955.....	29	91	120	37.4	...	24.0
1960.....	40	116	156	55.5	..2	34.0
1961.....	41	127	168	57.6	..4	35.7
1962.....	43	140	183	60.8	..8	37.0
1963.....	45	151	196	65.0	1.6	39.0
1964.....	47	161	208	70.0	3.0	42.0
1965.....	55	172	227	75.0	5.0	45.0
1966.....	64	188	262	78.5	9.7	48.0
1967.....	73	195	268	81.5	12.7	51.0

Commercial Broadcast Stations on the Air

(Includes Puerto Rico, Virgin Islands and Guam)

Source: Federal Communications Commission.

Year	Total on air	AM radio	FM radio	Television
1965	5,814	4,040	1,270	572
1966	5,986	4,004	1,393	589
1967	6,253	4,085	1,560	608
1968	6,708	4,203	1,850	655

Days Between Two Dates

Table covers period of two ordinary years. For leap year, one day must be added after Feb. 28

Example—Days between July 4, 1969, and Dec. 25, 1970, subtract 185 from 724; answer is 539 days.

Day	Mo.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Day	Mo.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	32	60	91	122	152	182	213	244	274	305	335		1	366	397	425	456	486	517	547	578	609	639	670	701	
2	2	33	61	92	122	153	183	214	245	275	306	336		2	367	398	426	457	487	518	548	579	610	640	671	702	
3	3	34	62	93	123	154	184	215	246	276	307	337		3	368	399	427	458	488	519	549	580	611	641	672	703	
4	4	35	63	94	124	155	185	216	247	277	308	338		4	369	400	428	459	489	520	550	581	612	642	673	704	
5	5	36	64	95	125	156	186	217	248	278	309	339		5	370	401	429	460	490	521	551	582	613	643	674	705	
6	6	37	65	96	126	157	187	218	249	279	310	340		6	371	402	430	461	491	522	552	583	614	644	675	706	
7	7	38	66	97	127	158	188	219	250	280	311	341		7	372	403	431	462	492	523	553	584	615	645	676	707	
8	8	39	67	98	128	159	189	220	251	281	312	342		8	373	404	432	463	493	524	554	585	616	646	677	708	
9	9	40	68	99	129	160	190	221	252	282	313	343		9	374	405	433	464	494	525	555	586	617	647	678	709	
10	10	41	69	100	130	161	191	222	253	283	314	344		10	375	406	434	465	495	526	556	587	618	648	679	710	
11	11	42	70	101	131	162	192	223	254	284	315	345		11	376	407	435	466	496	527	557	588	619	649	680	711	
12	12	43	71	102	132	163	193	224	255	285	316	346		12	377	408	436	467	497	528	558	589	620	650	681	712	
13	13	44	72	103	133	164	194	225	256	286	317	347		13	378	409	437	468	498	529	559	590	621	651	682	713	
14	14	45	73	104	134	165	195	226	257	287	318	348		14	379	410	438	469	499	530	560	591	622	652	683	714	
15	15	46	74	105	135	166	196	227	258	288	319	349		15	380	411	439	470	500	531	561	592	623	653	684	715	
16	16	47	75	106	136	167	197	228	259	289	320	350		16	381	412	440	471	501	532	562	593	624	654	685	716	
17	17	48	76	107	137	168	198	229	260	290	321	351		17	382	413	441	472	502	533	563	594	625	655	686	717	
18	18	49	77	108	138	169	199	230	261	291	322	352		18	383	414	442	473	503	534	564	595	626	656	687	718	
19	19	50	78	109	139	170	200	231	262	292	323	353		19	384	415	443	474	504	535	565	596	627	657	688	719	
20	20	51	79	110	140	171	201	232	263	293	324	354		20	385	416	444	475	505	536	566	597	628	658	689	720	
21	21	52	80	111	141	172	202	233	264	294	325	355		21	386	417	445	476	506	537	567	598	629	659	690	721	
22	22	53	81	112	142	173	203	234	265	295	326	356		22	387	418	446	477	507	538	568	599	630	660	691	722	
23	23	54	82	113	143	174	204	235	266	296	327	357		23	388	419	447	478	508	539	569	600	631	661	692	723	
24	24	55	83	114	144	175	205	236	267	297	328	358		24	389	420	448	479	509	540	570	601	632	662	693	724	
25	25	56	84	115	145	176	206	237	268	298	329	359		25	390	421	449	480	510	541	571	602	633	663	694	725	
26	26	57	85	116	146	177	207	238	269	299	330	360		26	391	422	450	481	511	542	572	603	634	664	695	726	
27	27	58	86	117	147	178	208	239	270	300	331	361		27	392	423	451	482	512	543	573	604	635	665	696	727	
28	28	59	87	118	148	179	209	240	271	301	332	362		28	393	424	452	483	513	544	574	605	636	666	697	728	
29	29	...	88	119	149	180	210	241	272	302	333	363		29	394	...	453	484	514	545	575	606	637	667	698	729	
30	30	...	89	120	150	181	211	242	273	303	334	364		30	395	...	454	485	515	546	576	607	638	668	699	730	
31	31	...	90	151	...	212	243	...	304	...	365	...		31	396	...	455	...	516	...	577	608	...	669	...	731	

A Guide to Avenue Addresses in N.Y.C.

To find the location of a number on the following Avenues of Manhattan, cancel the last figure of the number, divide the remainder by 2 and add the given key number.

Thus: Where is 596 Seventh Avenue? Divide 59 by 2 -30, plus 12—42nd Street.

Ave. A.....	add	4	Up to 600	add	18	Above 1800.....	add	20	Pt. Wash. Ave.....	add	158
Ave. B.....	add	3	Up to 775	add	20	8th Ave.....	add	9	Lenox Ave.....	add	110
Ave. C.....	add	3	From 775 to 1286			9th Ave.....	add	13	Lexington Ave.....	add	23
Ave. D.....	add	3	see exception below:			10th Ave.....	add	13	Madison Ave.....	add	27
1st Ave.....	add	4	Up to 1500	add	45	11th Ave.....	add	15	Manhattan Ave.....	add	100
2nd Ave.....	add	3	Up to 2000 Mt. Morris Pk.			Amsterdam Ave.....	add	59	Park Ave.....	add	34
3rd Ave.....	add	10	Above 2000.....	add	24	Audubon Ave.....	add	165	Pleasant Ave.....	add	101
4th Ave.....	add	8	Ave. of Americas (6th)			Columbus Ave.....	add	60	St. Nicholas Ave.....	add	110
5th Ave. to 200.....	add	13	subtract 12 or 13			Convent Ave.....	add	127	Wadsworth Ave.....	add	175
Up to 400.....	add	16	7th Ave.....	add	12	Edgecomb Ave.....	add	134	West End Ave.....	add	

EXCEPTIONS

Broadway: Up to 754 below East 8th St.

Above 754, apply above rule but deduct following key numbers:

From 754 to 858 deduct 29.

From 857 to 958 deduct 25.

Above 1000 deduct deduct 31.

Note: From Washington Square North most crosstown streets have 100 numbers to the block. Numbering of these streets starts east and west from Fifth Avenue.

Riverside Drive: Below 567, drop last figure, add 75; do not divide by two.

Above 577, drop last figure, add 78.

Central Park West: Drop last figure, add 60.

5th Avenue: From 775 to 1286, drop last figure and deduct 18 from remainder.

Late News Developments

New York City Teachers End Strike

The New York City school strike, the nation's first major confrontation over the issue of decentralization of a large school system, finally came to an end **Nov. 19**. The United Federation of Teachers voted 6-to-1 to call off the 5-week strike, after the city made new concessions weakening the posture of the experimental local school board and strengthening the protections guaranteed members of the teachers' union. The strike, actually 3 successive strikes, had kept most of the city's 50,000 teachers and 1,100,000 pupils out of classes for 36 of the first 48 days of the fall term.

Nixon, Humphrey Meet in Florida

Vice President Humphrey, enroute to a Virgin Islands vacation **Nov. 8**, stopped over in Miami for an amiable half-hour airport discussion with vacationing President-elect Nixon, in which he pledged his support of the man who had defeated him 3 days before in the race for the Presidency. Humphrey was accompanied by Maine Sen. Edmund S. Muskie, who had been his Vice Presidential running mate.

U. S. Bishops Rule on Pill

In an 11,000-word pastoral letter, **Nov. 15**, U. S. Catholic bishops meeting in Washington said Catholic married couples who decide in good conscience to use contraceptives should not feel cut off from the church and its sacraments. The bishops agreed 180-8 that "circumstances may reduce moral guilt," although they described artificial contraception as an "objective evil."

Greek Plotter Spared

Following worldwide appeals, including one from Pope Paul VI, Greece's army-backed government **Nov. 21** decided to spare the life of Alexandros Panagoulis, the 30-year-old army deserter who tried to kill Premier George Papadopoulos on Aug. 13. He had been sentenced to die **Nov. 17**.

Assassin Misses Ayub

Pres. Mohammed Ayub Khan of Pakistan escaped an apparent assassination attempt **Nov. 10** when a youth's two pistol shots missed him on the platform on which he was sitting.

Nip Plot to Kill Nixon

A Yemini Arab, a naturalized citizen of the U. S., and his two sons were arrested **Nov. 9** in Brooklyn, N. Y., for an alleged Arab plot to assassinate President-elect Richard M. Nixon. The father, Ahmed Rageh Namer, 43, and his sons, Hussein Namer, 20, and Abdo Namer, 18, were all described as shipping clerks.

Warren Firm on Retiring

Chief Justice Earl Warren was firm in his intention to retire, according to reports **Nov. 14**. He was also said by friends to be ready to swear in Richard M. Nixon as 37th President of the United States, and deprecated any talk of ill feeling between him and the President-elect.

10 Meet on Money Crisis

With the international monetary system threatened for the 3d time in a year by waves of speculation, top financial officials of the 10 wealthiest non-Communist countries met in Bonn **Nov. 20** to try to resolve the crisis. The French, German, London and Brussels markets were closed down—Brussels "until further notice." With the French franc foundering, it was expected the others would attempt to remedy the situation with massive loans, but that the franc would have to be devalued.

Ray Trial Delayed

Judge W. Preston Battle **Nov. 12** approved the postponement of James Earl Ray's trial for the murder of the Rev. Dr. Martin Luther King, Jr. until March 3, 1969, to give his new counsel, Perry Foreman of Houston, time to prepare the defense.

Nixon Names 1st Aide

In his 1st choice of staff aides **Nov. 12**, President-elect Nixon named Bryce Nathaniel Harlow, 52, of Oklahoma, to serve as his assistant for legislative and Congressional affairs. Harlow held a similar job in the Eisenhower administration.

UK Train Robbery Suspect Seized

After a 5-year search, Bruce Reynolds, last of the suspects in Britain's great train robbery Aug. 8, 1963, was seized **Nov. 8** in Torquay, a fashionable resort town on the Devon coast. Reynolds was a suspected member of the gang that halted a Glasgow-London mail train and made off with bank notes worth more than \$7,000,000.

Yale Going Coed in 1969

Yale University announced **Nov. 14** it would go coed for the first time in its 267-year history with the admission of 500 undergraduate women in September, 1969 to "enhance its contribution to the generations ahead." Ultimate goal was 1,500 girl students, without reducing male undergraduate enrollment, which is now 4,000.

Gomulka Asks Red Unity

Wladyslaw Gomulka, Poland's Communist chief, **Nov. 11** appealed for unity and urged 37 foreign Red delegations attending the Polish Communist party's 5th congress in Warsaw to openly discuss the "differences existing among us."

DISASTERS

A cyclone in Orissa State, India, **Nov. 1** killed 35 . . . Twenty-two died in a forest fire west of Algiers, Algeria, **Nov. 1** . . . Seven were killed, two injured when a car carrying Boy Scouts to a weekend canoe trip collided with another car near Grand Ledge, Mich., **Nov. 2** . . . More than 100 perished in floods and landslides in northwestern Italy **Nov. 1-3** . . . One died, 10 were injured in a southwest Yugoslav earthquake **Nov. 3** . . . A fuel tank explosion in Iloilo, Philippines, **Nov. 10** killed

13, injured 57 . . . Some 12 tornadoes along West Florida coast **Nov. 9** killed two, injured 24, caused more than \$1,000,000 in damage . . . A bus plunged into a river near Sotik, Kenya, **Nov. 10**, killing 14 . . . Bus-tanker truck crash in Accra, Ghana, **Nov. 12** killed 22 . . . Two French Army helicopters crashed near Dax, France, **Nov. 14**, killing all 5 aboard . . . Brighton, England, hotel fire **Nov. 17** killed 7, injured 4 . . . Coal mine fire trapped 78 of 99 miners in Mannington, W. Va., **Nov. 20**.

Addenda, Changes

AWARDS, MEDALS, PRIZES (PP. 234-244)

Harmon International Aviators Trophy—Major William J. Knight.

Louisa Gross Horwitz Prizes—for research in biochemistry, \$12,500 each: Dr. H. Gobind Khorana and Dr. Marshall W. Nirenberg.

Albert Lasker Medical Research Awards—Dr. William F. Windle, Dr. John H. Gibson, Jr., Sen. Lister Hill (\$10,000 each); Dr. Marshall W. Nirenberg, Dr. H. Gobind Khorana (\$5,000 each).

National Medal for Literature—\$5,000, Marianne Moore, poet.

Nobel Prizes for 1968—**Peace Prize**: Rene Cassin, France. **Physics**: Luis W. Alvarez, United States. **Chemistry**: Lars Onsager, United States. **Medicine and Physiology**: Robert W. Holley, H. Gobind Khorana and Marshall W. Nirenberg, all United States. **Literature**: Yasunari Kawabata, Japan.

BASEBALL (P. 806)

Most Valuable Players—Bob Gibson, St. Louis Cardinals, was selected as the most valuable player in the National League for the 1968 season. The American League most valuable player was Dennis McLain of the Detroit Tigers.

Rookies of the Year—Stan Bahnsen, of the New York Yankees, was chosen rookie of the year in the American League for 1968. The National League rookie of the year was Johnny Bench of the Cincinnati Reds.

CANADIAN TAXES (P. 489)

Prime Minister Trudeau's government presented its first budget Oct. 22, calling for a 2% increase in income tax levies, limited to a maximum of \$120 a year on each taxpayer, taking effect Jan. 1, 1969, and adding new levies on insurance companies.

DEATHS (PP. 65-92)

Philby, Mrs. Eleanor Carolyn Kearns, 54; wife of Harold (Kim) Philby, Soviet spy; Mendocino, Calif., Nov. 14.

Lewanika, Sr Mwanawina, III, 78, leader of Lozi of Barotseland, Zambia; Lusaka, Nov. 13.

Briskin, Samuel, 71; Hollywood producer; Los Angeles, Nov. 6.

Bea, Augustin Cardinal, 87; guided ecumenical decrees; Rome, Nov. 16.

Clapper, Mrs. Olive Ewing, 72; widow of Raymond Clapper, Scripps-Howard political columnist; Washington, Nov. 11.

Wanger, Walter, 74; film producer; \$37,-000,000 "Cleopatra"; New York, Nov. 18.

Corey, Wendell, 54; actor; Hollywood, Nov. 8.

Magnuson, Dr. Paul B., 84; former medical director of Veterans Administration; Washington, Nov. 5.

Munch, Charles, 77; conductor of Boston Symphony, 1949-1962; Richmond, Va., Nov. 6.

Mohr, Gerald, 54; actor; Stockholm, Nov. 10.

Papandreou, George, 80; former Premier of Greece; Athens, Nov. 1.

Gatch, Lee, 66; artist; Trenton, N. J., Nov. 10.

Uihlein, Edwin C., Jr., 22; heir of Schlitz fortune; Milwaukee, Nov. 12.

EQUATORIAL GUINEA (P. 548)

Independence—Equatorial Guinea, a Spanish province, became independent Oct. 12; Francisco Macias Nguema became president.

GREAT CITIES OF NORTH AMERICA

Dayton, Ohio (P. 399)—The new editor of The Journal Herald is Charles T. Alexan-

der; the new managing editor is Ralph Langer.

Los Angeles, Calif. (P. 408)—Telephone number of the Los Angeles Herald-Examiner is 213-748-1212. Circulation daily 667,902; Sunday 687,850.

Regina, Canada (P. 423)—The correct spelling is Mackenzie Art Gallery; the CCF is now known as the New Democratic party.

Tampa, Fla. (P. 433)—The telephone number of The Tampa Tribune and the Tampa Times has been changed to (813) 224-7711.

GREECE (P. 517)

Greek voters approved a new Constitution Sept. 29; it took effect Nov. 10; it cut down powers of the King and Parliament and increased those of the Premier; elections and certain rights were left in abeyance until the regime should decide to restore them.

HEADS OF STATE, PRIME MINISTERS (PP. 576-7)

Congo-Brazzaville—Pres. Alphonse Massamba-Debat was ousted Sept. 4; Alfred Raoul was named interim president.

Italy—Premier Giovanni Leone resigned Nov. 19.

Libya—Wanis el-Gaddafi became premier Sept. 4.

Mali—Pres. Modibo Keita was ousted Nov. 19.

Panama—Pres. Arnulfo Arias was ousted Oct. 11; Col. Jose M. Pinilla was named provisional president.

Peru—Pres. Fernando Belaunde Terry was ousted Oct. 3; Gen. Juan Velasco Alvarado became provisional president.

Portugal—Premier Salazar suffered a brain hemorrhage and resigned; Marcelo Caetano became premier Sept. 27.

Syria—Premier Youssef Zayyin was removed; Chief of State Nureddin al-Attassi took over the post.

HORSE RACING (P. 820)

Beau Brummel won the \$125,000 added Garden State Stakes for two year olds.

MEDAL OF HONOR WINNERS (P. 740)

(*Awarded Posthumously)

Late in 1968 the following additional Medal of Honor winners were announced:

***Pfc. Gary W. Martini**, U. S. Marine Corps, of Charleston, W. Va.

***Capt. James A. Graham**, U. S. Marine Corps, of Forestville, Md.

***First Sgt. Maximo Yabes**, U. S. Army, of Lafayette, Colo.

Capt. Angelo J. Liteky, U. S. Army chaplain, of Washington, D. C.

Sgt. Sammy L. Davis, U. S. Army, of Martinsville, Ind.

Capt. James A. Taylor, U. S. Army, of Arcata, Calif.

Specialist 5 Dwight H. Johnson, U. S. Army, of Detroit, Mich.

Specialist 4 Gary G. Wetzel, U. S. Army, of Oak Creek, Wis.

QUEBEC PREMIER (P. 489)

After the death of Premier Daniel Johnson, a Quebec Legislative Assembly caucus of National Union party members on Oct. 2 chose Jean-Jacques Bertrand, Minister of Justice, to become Premier of the province.

UNITED NATIONS MEMBERS (P. 569)

New Members—The UN roster rose to 126 nations as Swaziland became a member Sept. 24 and Equatorial Africa Nov. 14.

UNITED STATES POPULATION (P. 592)

Total estimated population—As of Oct. 1, 1968, the population of the U. S., including servicemen overseas, was estimated by the Bureau of the Census at 201,750,000.

Chronology of Year's Events

Reported Month by Month in 4 Categories:

National, International, General and Disasters

December 1, 1967, to November 1, 1968

December—1967

NATIONAL

McCarthy Called "Stalking Horse"—Gov. John B. Connally of Texas accused Sen. Eugene McCarthy Dec. 1 of being "a stalking horse" for the Presidential aspirations of Sen. Robert F. Kennedy. Connally said McCarthy's candidacy for the Democratic nomination, which had been announced the previous day, "can't do anything but result in a greater division in the party." In an apparent answer to Connally's charge, McCarthy declared in a speech in Chicago Dec. 2 that there was "no conspiracy, collusion or common plan" between himself and Kennedy.

Draft Demonstrations—Some 585 anti-draft demonstrators were arrested in New York Dec. 5-8 as they unsuccessfully sought to close down the Army's induction center at 39 Whitehall St. by marching and blocking the entrance. Among those arrested were Dr. Benjamin Spock and poet Allen Ginsberg. The New York demonstration was part of a national Stop-The-Draft-Week program initiated by some 40 anti-war groups. Anti-war demonstrators also were arrested in Madison, Wis., Manchester, N. H., Cincinnati, O., and New Haven, Conn.

LBJ Hits House Republicans—In a nationally televised speech before the AFL-CIO convention in Bal Harbour, Fla., Dec. 12, President Johnson accused Republican members of the House of defending the status quo in "vote after vote" like so many "wooden soldiers." The President then ticked off 7 bills that had been opposed by more than a majority of the House Republicans and accused them of voting an enthusiastic "yes" only, "... when they could vote to recommit a good bill, to bury it in a blanket of rhetoric beneath the wave of Republican reaction." The GOP received equal TV time to answer the President Dec. 15 and Senate Republican leader Everett Dirksen (Ill.) said, "... the wooden soldiers have not only been sustaining the commander-in-chief, but we have been sustaining the live soldiers in Vietnam, which is infinitely more important."

McCloskey Wins House Seat—Republican Paul N. McCloskey, Jr., won election to the House of Representatives from California's 11th Congressional District Dec. 12. The previous month, McCloskey had defeated former child screen star Mrs. Shirley Temple Black for the Republican nomination for the seat.

Vietnam Christmas Truce—American and Allied forces in Vietnam observed a 24-hour Christmas truce Dec. 24-25 which they later reported was violated by 108 enemy-initiated incidents. The Viet Cong had declared unilaterally they would observe a 3-day truce Dec. 24-27. At the end of the 24-hour period the U. S. resumed air attacks on North Vietnam and reported destroying 23 trucks in a 150-truck convoy 90 miles south of Hanoi.

INTERNATIONAL

Thailand Guerrillas—Increased Communist guerrilla activity forced the government of Thailand Dec. 1 to declare martial law in 5 provinces. An estimated 2,000 members of the Communist Patriotic Front were believed operating in the country which previously had imposed

martial law in 7 other provinces where the rebels had been particularly active.

U. S.-France Consular Treaty—Secy. of State Dean Rusk and French Ambassador to the U. S. Charles Lucet exchanged texts of a new consular treaty in Washington Dec. 7. The new treaty between the two countries replaced one in effect for the last 100 years.

Cyprus Crisis Settled—The Greek government began removing its troops from the island of Cyprus Dec. 8 in accordance with a pact signed by Greece, Turkey and Cyprus that averted a war between Greece and Turkey. In mid-November clashes between Greek and Turkish Cypriots had brought the two countries to the brink of war, but mediation efforts by special U. S. envoy Cyrus Vance, the UN and NATO succeeded in heading off the conflict and bringing the principals to the negotiation table.

Czechoslovakian Unrest—An unheralded visit to Prague Dec. 8 by Russian Communist Party Gen. Secy. Leonid Brezhnev reportedly saved Czech President and Communist Party boss Antonin Novotny from being ousted by Slovak dissidents in the Presidium. Novotny was reportedly accused of inept economic and party leadership and anti-Slovakian policies in the year 3 writers were kicked out of the party in a crackdown by the Central Committee.

King Flees Greece—In an attempt to oust the military junta that seized control of Greece in April, King Constantine broadcast Dec. 13 an appeal to the Greek people to support him in re-establishing a democratic government. Within hours it was apparent that the King had failed to rally the necessary military power to overcome the junta, and Dec. 14 Constantine fled to exile in Rome with his family and close advisers. In the face of the attempted coup, the junta Dec. 13 named a new cabinet with Col. George Papadopoulos as Premier and appointed a "regent" and "viceroys" to replace the King. The junta said in a broadcast the same day that "adventurers ... misled the King." Subsequent negotiations by the junta for Constantine's peaceful return to Greece failed, and in late December Constantine and his entourage remained in Rome.

New UN Member—By acclamation the UN Assembly admitted to membership the People's Republic of Southern Yemen Dec. 14. Southern Yemen, formerly the British territory of Aden, thus became the 123rd member of the world organization.

Dahomey Coup—In a bloodless coup Dec. 17 a 15-man military junta led by Maj. Maurice Kouandete ousted the Dahomey government of President Christophe Soglo. The coup followed a 5-day general strike that had paralyzed the country the previous week. The junta set up a provisional government Dec. 18 and announced new elections would be held in 6 months.

France Opposes Britain—Opposition by France once again successfully stymied an attempt of Britain to join the European Economic Community or Common Market Dec. 19. Though 5 of France's partners in the Common Market favored negotiating Britain's application for mem-

bership, it became apparent that France would not alter its previous position and the issue was not brought to a vote for fear of provoking a French veto. Britain's membership bid "remained on the agenda," the Council said.

New China A-Test—Communist China conducted its 7th atmospheric nuclear test Dec. 24, the Atomic Energy Commission announced. The test took place in the Lob Nor area of China, the AEC said, and was "in the low yield range." For the first time, the Chinese failed to announce or confirm a nuclear test.

GENERAL

Cardinal Spellman Dies—Francis Cardinal Spellman, archbishop of the New York Archdiocese of the Roman Catholic Church, died in New York Dec. 2. The body of the 78-year-old Cardinal, who had headed the New York Archdiocese since 1939, was placed on view in St. Patrick's Cathedral Dec. 3. Nine Cardinals took part in a requiem mass Dec. 7 which was attended by President Johnson and Vice President Humphrey. Cardinal Spellman was interred in a crypt beneath the high altar of St. Patrick's.

White House Wedding—President Johnson's daughter Lynda, 23, was married to Marine Capt. Charles Robb, 28, in a White House ceremony Dec. 9. It was the first White House marriage of a President's daughter in 53 years.

Harold Holt Drowns—Australian Prime Minister Harold Holt disappeared in the surf while swimming off Cheviot Beach, Portsea, Victoria, Dec. 17. An air and sea search failed to recover the 59-year-old Holt's body and Dec. 19, John McEwen, leader of the Country Party, was sworn in as caretaker prime minister. Funeral services were held in Melbourne Dec. 22, and President Johnson attended the rites. President Johnson then went on to visit Thailand, South Vietnam and the Vatican, where he met with Pope Paul Dec. 23, before returning to Washington Christmas Eve.

First Human Heart Transplant Operations

Shortly before 1 a.m. Dec. 3, Denise Ann Darvall, 24, died at Grote Schuur Hospital in Capetown, South Africa, from injuries received in an auto accident. Within 5½ hours the dead woman's heart was beating in the chest of Louis Washkansky, and the world had witnessed the first successful human heart transplant operation.

Washkansky, a 55-year-old grocer whose own heart was damaged beyond repair, lived for 18 days before dying Dec. 21 from double pneumonia.

The historic operation was performed by a 30-man surgery team led by Prof. Christian N. Barnard, 44. The chief post-operative danger was considered to be rejection of the foreign heart by the body's immunological defense mechanism. To suppress the rejection process, Washkansky was given large doses of steroids to overcome the body's natural defense, a procedure that also seriously weakened his ability to fight off infection.

Dr. Barnard's achievement was hailed by most medical authorities around the world, though some thought the operation upon a human subject to be premature in light of many unanswered questions connected with such an experimental technique.

Nevertheless, Dr. Barnard's pioneering was rapidly followed by an unsuccessful attempt to transplant the heart of an infant who had died of brain damage into a 2½-week-old baby at Maimonides Hospital in Brooklyn Dec. 6. The child, born

Vatican Peace Pleas—Pope Paul VI's Christmas Message, delivered Dec. 23, appealed for peace in the world and in Vietnam. In a speech Dec. 22 the Pontiff called for a halt to the bombing of North Vietnam and seemed to offer his services toward achieving peace. In a message to the heads of government and churches, revealed Dec. 15, the Pope suggested that Jan. 1, 1968, and all future New Year's days be observed as a "Day of Peace."

DISASTERS

Sixty-seven killed Dec. 8 when Faucett Airlines plane crashed near Midway, Peru . . . 9 women trampled to death in Vitoria, Brazil, Dec. 9 in stampede to get free Christmas presents for children . . . Twin-engine plane crashed into Lake Monona, Wis., Dec. 10, killing 7 . . . Earthquake in Koyana Nagar, India, reported Dec. 11 to have killed 172, left 1,000 homeless . . . Collapse of apartment house in Camboriu, Brazil, Dec. 11 killed 6 . . . 18 persons dead, 15 injured in Iwiny, Poland, Dec. 13 when small lake broke its bank and flooded community . . . Navy plane with 14 aboard reported missing Dec. 14 on flight from Alaska to Oak Harbor, Washington . . . 46 killed Dec. 15 in bridge collapse at Point Pleasant, W. Va. . . . Accidental quarry explosion Dec. 16 killed 9 near Schaffhausen, Switzerland . . . 4 men burned to death, 30 injured Dec. 18 when 60,000 pounds of molten metal fell on them in steel mill in Houston, Tex. . . . Tornado killed 4, injured 29 in northern Alabama Dec. 18 . . . RAF plane crashed near Ft. William, Scotland, Dec. 21, killing 13 . . . Father and 4 children burned to death in house fire Dec. 25 at Lake Winnepaug, Conn. . . . Bus overturned and fell in river near Tafi Del Valle, Argentina Dec. 25, killing 16, injuring 20 . . . Apartment house explosion in Moscow Dec. 25 killed 9 . . . 9 children died in house fire Dec. 29 in Mont Laurier, Quebec . . . 9 dead, 30,000 homeless reported in flood in Brazil Dec. 29 . . . Twin-engine Beechcraft crashed into Lake Pontchartrain, La., Dec. 31, killing 6.

with a deformed heart, lived 6½ hours after surgery and Dr. Adrian Kantrowitz, who headed the surgical team, said death was not due to rejection.

On Jan. 2, 1968, Dr. Barnard performed the world's 3rd heart transplant operation. The recipient this time was Dr. Philip Blaiberg, 58, a retired dentist. In a 5-hour operation, Dr. Blaiberg was given the heart of Clive Haupt, 24, who had died of a stroke. Haupt, under South Africa's policy of apartheid, was classified as a "Cape colored." Dr. Blaiberg is white.

It was Mar. 16 when Dr. Blaiberg, accompanied by his wife, Eileen, and Dr. Barnard, stepped through the doors of Grote Schuur Hospital and went home. Other transplant recipients were not as fortunate.

Mike Kasperak, a 54-year-old steel worker, was given Jan. 6 the heart of Virginia Mae White, 43, a housewife who had died of a massive brain hemorrhage. The operation was performed at Stanford University Medical School by a surgical team headed by Dr. Norman Shumway. Kasperak died Jan. 21 from a variety of medical complications.

By the end of August, 1968, a total of 34 human-to-human heart transplants had been performed and 11 of the recipients were still alive. At that time the longest-surviving recipient was Dr. Blaiberg, who had again shown improvement after sharp setbacks in June and July because of hepatitis and lung complications.

January—1968

NATIONAL

Curtail Foreign Investments—In an effort to bring the U. S. balance of international payments into line, President Johnson Jan. 1 placed restrictions upon American investments abroad, and introduced a program to curb American travel to Europe, cut down on government spending in foreign countries and stimulate U. S. export sales. The measures were designed to cut the payments deficit by \$3 billion in 1968. The 1967 payments deficit was between \$3½ and \$4 billion.

Eshkol-LBJ Confer—Israeli Premier Levi Eshkol renewed his country's request that the U. S. sell weapons to Israel when he met with President Johnson Jan. 7-8 at the President's ranch in Texas. In a joint statement Jan. 8 the President agreed to consider the request in light of Soviet military aid given to Arab countries since the Israeli-Arab war of June 1967.

Swedes Give GIs Asylum—Four American sailors who deserted in Japan in 1967 because of their objections to the Vietnam War were given asylum by Sweden Jan. 9 on "humanitarian grounds." Other American servicemen, reportedly deserters from Army camps in West Germany, were also reported seeking political asylum in Sweden.

U. S.—Cambodia—The U. S. and Cambodia agreed Jan. 12 on a policy to keep Cambodia from becoming embroiled in the Vietnam War. Viet Cong and North Vietnamese troops reportedly had been using Cambodia as a sanctuary for raids into Vietnam. In December reports circulated that a policy of "hot pursuit" by American and South Vietnamese forces was being

considered in which the Allied forces would pursue the enemy into Cambodia.

U. S. Aides Slain in Guatemala—Two U. S. embassy military attaches were slain and two others wounded Jan. 16 as part of a terror campaign by the Communist Rebel Armed Forces insurgents. In leaflets distributed in Guatemala City the same day, the Rebel Armed Forces said the shootings were in retaliation for the slaying Jan. 12 of Rogelia Cruz Martinez, Miss Guatemala of 1960, who was suspected of leftist sympathies.

State of The Union—In a televised State-of-the-Union message before a joint session of Congress Jan. 17, President Johnson once again called upon Congress to enact a 10% income tax surcharge to reduce an estimated \$20 billion budget deficit for 1968 to some \$8 billion in 1969. The President also stressed the need for funds to attack the problems of decaying cities, unemployment, poverty and pollution, while continuing to spend \$25 billion a year for the war in Vietnam. He outlined many specific areas where he hoped to see legislation, such as gun control, auto insurance and hazardous radiation. He reported that the fiscal budget for 1969 was \$186 billion.

H-Bomb Plane Crashes—A Strategic Air Command B-52 carrying 4 unarmed hydrogen bombs crashed and exploded Jan. 22 on frozen North Star Bay near Thule, Greenland, while on an alert flight. Radioactive material was spread over a wide area but there was no nuclear explosion. The wreckage burned through the ice and sank to the bottom of the bay. Six of the 7 crewmen survived after bailing out.

Cabinet Resignation—John Gardner, 55, resigned as Secy. of Health, Education

Pueblo and 83-Man Crew Seized

The U. S. Navy electronic intelligence ship Pueblo and its 83-man crew were seized in the Sea of Japan Jan. 23 by 4 North Korean patrol boats and taken prisoner to the port of Wonsan.

An early Defense Department report said 4 crewmen had been injured when the 906-ton vessel, loaded with sophisticated radar and electronic intercept equipment, was ordered to surrender or be fired upon by the North Korean boats and two circling MiG planes.

The North Koreans claimed that the Pueblo had violated the 12-mile limit of its territorial waters, but the U. S., initially, insisted it had been in international waters about 30 miles from shore.

In an atmosphere of mounting crisis the U. S. demanded at a meeting of the Mixed Armistice Commission in Panmunjon Jan. 24 the immediate release of the ship and its crew. This was to be the first of many inconclusive meetings.

The Administration initiated a number of diplomatic and military moves designed to bring pressure on the North Koreans.

Secy. of State Dean Rusk Jan. 24 said the seizure was "in a category of actions to be construed as an act of war."

President Johnson Jan. 25 ordered to active duty 14,787 Navy and Air Force reservists to bolster a build-up of American forces in Korea. In a show of force, the nuclear powered aircraft carrier Enterprise and task force were shifted to positions off the North Korean coast in the Sea of Japan.

At the request of the U. S. the UN Security Council convened Jan. 26 to consider the incident. On Jan. 24 the American ambassador to the Soviet Union

formally requested that the Russians try to persuade North Korea to release the ship and its crew.

Congressional reaction varied, from a demand that the Administration issue an ultimatum to North Korea to warnings against the U. S. taking any rash action.

The war scare crisis peaked Jan. 26 when President Johnson in a nationwide television report castigated North Korea for recent military incidents along the demilitarized zone between North and South Korea and called the Pueblo seizure a "wanton and aggressive act" which "cannot be accepted." But at the same time, he called upon the world community to dissuade North Korea from its aggressive course and return the ship and crew.

For a short time after this speech it was unclear what the Administration's course would be. But as the days passed it became apparent that diplomatic action, further meetings at Panmunjon and persuasion would be pursued.

The North Koreans used the incident to full propaganda advantage, presenting to the world a series of alleged confessions and apologies by the Pueblo's captain, Comdr. Lloyd M. Bucher and members of the crew; calls for admission of guilt by the U. S., and threats to try the crew members as criminals.

Secy. of Defense Robert McNamara said in a TV interview Feb. 4 that it was possible the Pueblo had entered North Korean territorial waters before its capture. McNamara said the intrusion could have occurred during a period of radio silence by the Pueblo Jan. 10-21, but there was no way of knowing for sure until the crew was questioned.

and Welfare **Jan. 25**, denying that his resignation was prompted by dissatisfaction with the Administration's Vietnam policy. President Johnson accepted the resignation, effective **Mar. 1**, "with regret." The White House said Gardner's departure "had nothing to do with Vietnam."

Clifford Defense Secretary—Clark M. Clifford, 61, was unanimously confirmed by the U. S. Senate to the office of Defense Secretary **Jan. 30**. President Johnson **Jan. 19** nominated Clifford to succeed Robert McNamara whose resignation from the post was announced **Nov. 29, 1967**. Clifford had been an adviser to both Presidents Truman and Kennedy.

INTERNATIONAL

Cuba Rations Gas—Cuban Premier Fidel Castro announced **Jan. 2** the imposition of gasoline and fuel oil rationing. Castro said the rationing was necessary because of Cuba's expanding economy and the inability of Russia to supply the growing demand for petroleum. The rationing came upon the 9th anniversary of the Castro regime.

Nigeria Truce Offer—The government of Nigeria offered **Jan. 5** to stop all military action against the break-away state of Biafra if the secessionists agreed to "discuss and negotiate" their differences with the Nigerian federal government. On **Jan. 16** the Biafran government accused Britain of planning to send 1,000 troops to aid the federal government. The British denied the charge the same day.

New Prime Minister—John Grey Gorton, 56, was sworn in **Jan. 10** as prime minister of Australia. Gorton, a member of the Senate, had been elected Liberal Party leader the previous day. The new prime minister succeeded John McEwen, who headed a caretaker government following the drowning of Harold Holt in December.

Papandreou Assails Junta—Andreas Papandreou, freed in a general Christmas amnesty by the ruling Greek military junta, flew to exile in Paris **Jan. 16**. Pap-

andreou, 48, the son of ex-Premier George Papandreou and a former naturalized U. S. citizen, declared in a statement **Jan. 18** that the Greek regime was "oppressive and dictatorial" and said the democratic countries of the world had a moral responsibility to help oust the junta by denying them the weapons from which their power stems.

British Spending Cuts—In a series of moves designed to "make devaluation work," British Prime Minister Harold Wilson announced **Jan. 16** the complete withdrawal of British troops from the Far East and Persian Gulf by 1971; cancellation of 50 F-111 jets ordered from the U. S.; a prescription charge of 30 cents in the National Health Service care program; postponement until 1973 of plans to make school attendance mandatory until age 16 instead of the present age 15, and increased welfare payments to those "most in need" only.

Atom Inspection Pact—A revised draft of a treaty designed to halt the spread of nuclear weapons was submitted to the 18-member UN Disarmament Committee **Jan. 18** by the U. S. and USSR. The new draft of the treaty included an article providing for international inspection and control systems. The first version of the treaty, submitted in August 1967 by the two countries left the question of inspection and control unsettled.

Novotny Ousted—Antonin Novotny was ousted from his post as first secretary of the Czechoslovak Communist Party and replaced by 46-year-old Alexander Dubcek **Jan. 25**. Novotny reportedly lost a power struggle to Dubcek within the 10-member party presidium. The election of Dubcek, a Slovak, was viewed as a victory by the moderates over the Stalinist conservatives. Novotny retained his job as Czech president.

Kosygin Visits India—A state visit was paid to India by Soviet Premier Aleksei N. Kosygin **Jan. 25-31**. Kosygin's trip co-

Viet Cong Hits Cities in Tet Offensive

Viet Cong and North Vietnamese forces believed to number 50,000 struck at 30 provincial capitals in South Vietnam **Jan. 30** on what was supposed to be the first day of a mutually agreed upon Tet or lunar New Year truce.

The ferocious Communist attacks caught Allied forces off guard, and Saigon and Hue became major battlefields with the Communists occupying buildings of the U. S. embassy in Saigon for 6 hours before being wiped out. In Hue, block by block fighting continued until **Feb. 24** when the last North Vietnamese troops holed up in the Imperial Palace were finally destroyed. Other cities also fell into Communist hands for a short time.

The attacks against the cities were launched, North Vietnam said **Jan. 30**, "to punish the American aggressors" for unilaterally canceling the Tet cease-fire agreement **Jan. 29** in South Vietnam's 5 northern provinces.

A clandestine Viet Cong broadcast **Jan. 30** urged the South Vietnamese to overthrow their government, saying "... the revolution we waited and yearned for has broken out ..."

Feb. 2 President Johnson called the enemy offensive "a complete failure" both militarily and psychologically and predicted a new Communist offensive just below the demilitarized zone, particularly at the U. S. Marine base at Khe Sanh, where 5,000 GIs were virtually surrounded by an estimated 20,000 to 40,000 Com-

munist.

U. S. commanders reported **Feb. 8** record American casualties for any single week of the war to date with 416 killed and 2,757 wounded from **Jan. 28** to **Feb. 3**. South Vietnamese casualties for the same period were 784 killed and 2,230 wounded with the Communists losing 15,515 men.

Gen. William C. Westmoreland, commander of American forces in South Vietnam, said **Feb. 25** that the enemy had "suffered a military defeat," but had won "some temporary psychological advantage."

The Tet offensive did fail to make any lasting military head-way or to create a popular uprising against the government. But it did create 350,000 new refugees and put a halt, temporarily, to the pacification program.

In addition, the surprising enemy military capability, in areas often said by American military leaders to be secure from such attacks, had a strong psychological impact on much of the American public, which had been led to believe the U. S. had turned the corner in its fight for South Vietnam.

The Administration's conduct of the war came in for much criticism and President Johnson at a press conference **Feb. 16** stressed his continued confidence in Gen. Westmoreland. But **Mar. 22** President Johnson named Westmoreland Army Chief of Staff, an assignment that would bring him home by July.

incided with the 18th anniversary of India's independence. A joint statement by the Soviet Premier and Indian Prime Minister Indira Gandhi was issued Jan. 31 urging an "unconditional stoppage" of the bombing of North Vietnam. A halt in the bombing would "create conditions for negotiations aimed at a political settlement," the statement said.

GENERAL

Dr. Spock Indicted—Dr. Benjamin Spock, 64, well-known pediatrician and child-care author, was indicted along with four other outspoken critics of the Vietnam war by a Federal grand jury in Boston Jan. 5. The four were accused of conspiring to abet, aid and counsel violations of the Selective Service Act. The four indicted with Dr. Spock were the Rev. William Sloane Coffin Jr., 43, chaplain of Yale University; novelist Mitchell Goodman, 44; Marcus Raskin, 33, of the Institute for Policy Studies; and Michael Ferber, 23, a graduate student at Harvard. After the indictment, Dr. Spock told a press conference that resisting the draft was "a very patriotic endeavor requiring enormous amounts of courage—the most effective way of opposing the war."

Singer Assails Vietnam War—Singer Eartha Kitt at a White House luncheon and meeting of 50 white and Negro women Jan. 18 angrily denounced the war in Vietnam and blamed it for the rioting and juvenile delinquency throughout the country. The luncheon given by Mrs. Lyndon B. Johnson, was for the purpose of discussing the Administration's proposals for combating crime on the streets. Miss Kitt told Mrs. Johnson: "You send the best of this country off to be shot and maimed. They rebel in the streets . . . They don't want to go to school because they're going to be snatched off from their mothers to be shot in Vietnam." Mrs. Johnson, in a trembling voice and with tears in her eyes replied: "Because there is a war on—and I pray that there will be a just and honest peace—that still doesn't give us a free ticket not to try to work for better things such as against crime in the streets, better education and better health for our people."

DISASTERS

Eight killed in head-on auto crash Jan. 6 near Harrisonburg, Va. . . Manchester-London express train hit truck near Hixon, England, Jan. 6, killing 13, injuring 50 . . . 43 killed Jan. 7 near Hamyang, S. Korea, when bus plunged into river . . . Brooklyn, N. Y., tenement fire killed 9 children, 4 adults Jan. 9 . . . Marine Corps C-54 crashed Jan. 10 near Battle Mountain, Nev., killing 19 . . . 5 dead in house fire near Zebulon, N. C., Jan. 14 . . . Jan. 15 earthquakes hit western Sicily, 206 dead, 80,000 homeless . . . 125 mph. winds swept Scotland Jan. 15, killing 20 . . . Blizzards in Jordan reported Jan. 16 to have killed 13 . . . Lebanese storm killed 12, injured 25 Jan. 16 . . . USAF jet tanker crashed and burned on take-off in Minot, N. D., Jan. 17, killing all 13 aboard . . . Pile-up of 18 vehicles in fog near Louisville, Ky., Jan. 17, killed 5, injured 15 . . . 7 killed in Chacabuco, Argentina, when 750-ft. TV tower under construction collapsed Jan. 18 . . . Thai Airways International jet collided in mid-air with Thai army plane near Bangkok Jan. 21, 6 aboard army plane killed . . . Boat capsized in Ganges near Benares, India, Jan. 22, drowning 40 . . . Jan. 22 heat wave in Rio de Janeiro, Brazil, reported to have killed 29 . . . 12 reported dead in collision of American freighter and Japanese fishing boat Jan.

25 off Kyushu, Japan . . . New quake in Sicily killed 7, injured 55 Jan. 25 . . . Israeli sub Dakar with 69 aboard reported missing off Cyprus Jan. 25 . . . French submarine Minerva reported missing in Mediterranean Jan. 27 with 52 aboard . . . 20 reported killed Jan. 28 in avalanches in Swiss alps . . . Train crash near General Camara, Brazil, killed 24 Jan. 28 . . . 7 feared dead in shopping center explosion in Ingram, Pa., Jan. 30.

February—1968

NATIONAL

LBJ's Economic Report—President Johnson submitted to Congress Feb. 1 his Economic Report on the state of the country's economy. The President warned of the dangers of inflation, stressing the need for his proposed 10% tax surcharge and a tighter rein on wages and prices. The President told Congress we must " . . . put our financial affairs in order . . . slow down the wage-price spiral . . . restore equilibrium in our international accounts . . . deal more effectively with our urban problems . . . expand the opportunities available to every citizen—especially our disadvantaged."

LBJ On Education—President Johnson in a special message to Congress Feb. 5 urged passage of a \$3½ billion education program for 1969 to be administered by the Office of Education. The President called his message "The 5th Freedom," which he said was the "freedom from ignorance." Specific bills proposed were an Educational Opportunity Act of 1968 dealing with student loans, scholarship programs and Federal fellowships and a Network for Knowledge Act to spur the pooling of information by colleges through computer networks.

LBJ On Crime—In a message to Congress Feb. 7 President Johnson outlined a series of proposals to deal with crime in the United States and said that \$557,000,000 in Federal expenditures would be needed in this area in fiscal 1969. The President's proposals ranged from passage of the Safe Streets & Crime Control Act proposed Feb. 6, 1967, to effective gun control laws and a Right to Privacy Act. The President made it clear that states and cities had the major responsibility for the control and prevention of crime.

State Visit by Wilson—On an official state visit to the U. S. Feb. 8-9, British Prime Minister Harold Wilson conferred with President Johnson. The two discussed the balance-of-payments deficit, Britain's withdrawal of all its forces from the Far East by 1971, and Wilson's visit to the Soviet Union Jan. 22-24. In Moscow, Wilson had talked with the leaders of the Soviet Union, and in a joint statement Jan. 24 both countries backed a "political settlement" to the Vietnam war.

Vietnam War—UN Secy. Gen. U Thant, following his tour of Asian and European capitals Feb. 7-14, said Feb. 24 that if the U. S. bombing of the North was stopped "meaningful talks . . . will take place much earlier than generally supposed . . ." But in South Vietnam Allied forces continued mopping up operations in Hue, and the Communists sustained military pressure by shelling military posts and cities throughout South Vietnam in a co-ordinated attack Feb. 18. The Communists also continued to tighten the siege of the Marine outpost of Khe Sanh.

Pueblo Meetings—Meetings between U. S. and North Korean officials at Panmunjom to discuss the Pueblo incident were held Feb. 14, 15, 19, 20, and 26. The question of

the release of the Pueblo and its crew was not resolved and other violations and aspects of the Korean armistice were discussed by the negotiators. The U. S. State Department warned North Korea **Feb. 18** not to punish the Pueblo crew as it had threatened to do.

Vance Reports to LBJ—Special envoy Cyrus Vance reported to President Johnson in Washington **Feb. 15** upon his return from South Korea after concluding his special mission there. Before Vance left Seoul **Feb. 15** a joint statement was issued by him and the South Korean government noting the increasing North Korean belligerency. The statement indicated at least a temporary rejection by the U. S. of South Korean demands for major U. S. strikes against any new North Korean aggression.

Payments Deficit—The U. S. balance-of-payments deficit totalled \$1.832 billion in the final 3 months of 1967, the Commerce Department reported **Feb. 15**. The total deficit for 1967 was \$3.572 billion. The last quarter deficit was described by Treasury Secy. Fowler as "the worst . . . since the 3rd quarter of 1950 following the outbreak of the Korean war."

LBJ On War Talks—President Johnson in a press conference **Feb. 16** said he did not think the North Vietnamese were any more ready to negotiate today than they had been over the last 2 years. Recent peace probes by the U. S., the President said, had gone "as far as honorable men could go." The following day, **Feb. 17**, the President visited Pope Air Force Base in N. C., and El Toro (Calif.) Marine Corps Naval Station where he talked with combat troops on their way to Vietnam.

New Commerce Secretary—The Senate confirmed the nomination of Cyrus Rowlett Smith, 68, as Secretary of Commerce **Feb. 29**. Smith, chairman of the board of American Airlines, was designated for the office by the President **Feb. 16**. He succeeded Alexander B. Trowbridge, 37, who resigned for reasons of health. The new secretary took office **Mar. 1**.

Tonkin Attack Hearings—Administration officials and members of the Senate Foreign Relations committee engaged in a hassle **Feb. 20-26** over the facts concerning the attacks on 2 U. S. destroyers by the North Vietnamese in August, 1964,

which led to the passage by Congress of the Gulf of Tonkin resolution. In its hearings into the matter, the Committee heard closed-door testimony by Secy. of Defense Robert McNamara **Feb. 20**. McNamara issued a public statement after his appearance declaring that intelligence reports of a "highly classified and unimpeachable nature" had established that the 2nd Tonkin attack of Aug. 4 had taken place. Sen. J. W. Fulbright (D.-Ark.) **Feb. 21** accused McNamara of "giving only one side of the story."

LBJ Dallas Speech—In a speech in Dallas, Tex., **Feb. 27**, President Johnson declared that the enemy's Tet offensive in Vietnam had failed and told his audience: "There must be no weakening of will that would encourage the enemy and prolong the bloody conflict." The President said U. S. and South Vietnamese forces had "answered aggression's onslaught with one strong voice," declaring, "No retreat." "That must be our answer, too, here at home. No retreat from responsibility of the hour and the day."

McNamara's Medal—The Medal of Freedom was presented to departing Secy. of Defense Robert McNamara by President Johnson in a White House ceremony **Feb. 28**. The President praised the outgoing secretary, named to head the World Bank. McNamara's successor, Clark M. Gifford, was sworn into office at the White House **Mar. 1**.

INTERNATIONAL

Pro-Soviet Cubans Tried—Thirty-five persons were convicted of anti-revolutionary activity in Havana **Feb. 3** and sentenced to terms in jail ranging up to 15 years. The chief defendant was Anibal Escalante, 58, former Cuban Communist Party secretary, who got 15 years for allegedly giving "false information" to Russian, Czechoslovak and East German officials and promulgating "propaganda" unfavorable to Fidel Castro.

Canadian Constitution—The long process of revising the Canadian constitution was begun **Feb. 5-7** when a Federal Provincial Constitutional Conference was held in Ottawa. The conference was attended by Prime Minister Lester Pearson and the 10 provincial premiers. The conference agreed that French and English should both be official Canadian languages, and

Report To The President On Civil Disorders

After 7 months of study the President's National Advisory Commission on Civil Disorders released **Feb. 29** a summary of its 1,400-page report on the summer riots of 1967.

The commission's major findings were:

- The U. S. "is moving toward 2 societies, one black, one white—separate and unequal," but it is still possible to head off this division.

- White racism is the chief cause of the Negro violence and riots.

- To reverse the situation calls for unprecedented levels of "funding and performance" but "there can be no higher priority for national action and no higher claim on the nation's conscience."

The 11-member commission, headed by Gov. Otto Kerner of Illinois, was appointed by President Johnson July 27, 1967, to investigate the nature of the riots, discover their causes and determine how future riots could be avoided.

The commission found that the riots were not organized or part of any conspiracy but happened because of an accumulation of social ills such as unem-

ployment, inadequate housing, discriminatory police practices and various complex social processes.

As to the cause of the riots, the underlying factor was found to be "... the racial attitude and behavior of white Americans toward black Americans."

The commission made more than 150 specific recommendations for removing the causes of racial unrest. Some of the recommendations:

- Creation of 2,000,000 new jobs in the next 3 years.

- Decentralization of city governments to make them more responsive to the needs of their people.

- A national system of income supplements based on need.

- New low and moderate income housing.

The commission report received the backing of most of the civil rights leaders in the country.

But there was much adverse reaction, especially to the central findings of the commission that white racism was the root cause of the riots.

it set up a series of committees to draw up a new constitution.

Israeli-Jordan Fighting—The Jordan River was the scene of clashes between Israeli and Jordanian forces during the 3 weeks ending Feb. 16, with Israeli planes hitting military targets up to 10 miles inside Jordan. Feb. 1 UN Secy. General U Thant said a clash between Israeli and Egyptian forces could permanently stop the clearing of the Suez Canal. An exchange of gunfire across the canal Jan. 30 led to the cancellation of an agreement to clear the southern part of the canal.

Pearson Confidence Vote—Canadian Prime Minister Lester B. Pierson hurried back to Ottawa from a Jamaican vacation Feb. 20 following the defeat in the House of Commons Feb. 19 of a major Liberal tax measure. By Feb. 28 Pearson had whipped up sufficient support to have the House give his Liberal government a 138-119 vote of confidence.

GENERAL

Nixon Enters Race—Former Vice President Richard Nixon Feb. 1 formally declared himself a candidate for the Republican nomination for President. Nixon's candidacy was announced in an open letter to New Hampshire voters as an opening shot in his primary election campaign in that state.

Wallace 3rd Party Candidate—George C. Wallace, former Democratic Governor of Alabama, announced in Washington Feb. 8 his candidacy for the Presidency on a 3rd party ticket. If elected, Wallace said, he would keep peace in the streets if it took "30,000 troops . . . with 2-foot-long bayonets." He also said he would change the "so-called civil rights laws" which are in reality "an attack on property rights . . . free enterprise . . . and local government."

Report On Newark Riot—A 478-page report on the July, 1967, Newark riot was issued by the Governor's Select Commission on Civil Disorder in New Jersey Feb. 10. The report found "excessive and unjustified force" by the National Guard and police and asked for a grand jury probe of charges of corruption in Newark's government. The report contained 100 specific recommendations for change covering the areas of city government, housing, police, municipal courts, welfare, employment, riot procedures and anti-poverty programs.

ADA Backs McCarthy—By a vote of 65-47, the national board of Americans for Democratic Action Feb. 10 endorsed the Presidential candidacy of Sen. Eugene McCarthy (D-Minn.). Within 3 days after the vote several prominent labor leaders and Administration backers resigned from the ADA board. It was the first time in 20 years that the organization did not support an incumbent Democratic president.

Draft Deferments Curtailed—Draft deferments for most graduate students and all occupational deferments were eliminated Feb. 16 by the National Security Council. Deferments would be granted only to graduate students in critical areas in medicine, optometry, dentistry, veterinary medicine, and those students who will have completed 2 or more years of graduate work by June, 1968, the Council said.

Romney Quits Race—In a surprise announcement in Washington Feb. 28, Michigan's Gov. George Romney pulled out of the Republican race for the Presidential nomination. The move came just 12 days before the New Hampshire primary and

Romney said he was withdrawing because he had failed to get the broad-based Republican support he had hoped to achieve. There was speculation that private polls had indicated he would do poorly in New Hampshire. The fact that New York's Gov. Rockefeller, one of his main supporters, had said Feb. 24 that he was himself available for a draft was also thought to be a factor in the decision.

DISASTERS

Boston hotel fire Feb. 4 killed 9, injured 15 . . . British fishing trawler with 19 aboard reported lost off Iceland Feb. 5 . . . 6 killed in head-on crash between pickup truck and tractor trailer near Findlay, Ohio, Feb. 6 . . . F-100 jet crashed into house in Indianapolis Feb. 8, killing pilot and 2 residents . . . Father and 8 children dead in fire Feb. 11 in Howick, Quebec . . . 11 killed in house fire in Franklin, Pa., Feb. 11 . . . Fire in Acapulco hotel killed 4 Feb. 11 . . . 18 dead Feb. 12 in Hong Kong fire . . . Boeing 727 Chinese Nationalist Civil Air Transport crashed at Taipei International Airport Feb. 16, killing 21 . . . Arson blaze in tavern in Moberly, Mo., killed 12 Feb. 16 . . . Earthquake rocked Greek Islands in Aegean Sea Feb. 16, killing 19 . . . Holland, Pa., house fire Feb. 18 killed 4 . . . House fire Feb. 21 near Gleichen, Alberta, killed 7 children . . . Bus plunged off cliff near Ponte Nova, Brazil, Feb. 24, killing 13 . . . Shrewsbury, Eng., mental hospital fire killed 22, injured 14 Feb. 26 . . . Gas tank truck exploded in Mexico City Feb. 26, 8 killed, 70 injured.

March—1968

NATIONAL

Pueblo Letter—An open letter, allegedly from the crew of the Pueblo, was received by President Johnson Mar. 4. The letter told the President the U. S. must admit the Pueblo had violated North Korean waters, apologize for the act and give promises it would not happen again, before the Pueblo crew would be released.

Westmoreland to New Post—Gen. William C. Westmoreland was named by President Johnson Mar. 22 to the post of Army chief of staff. Following confirmation by the Senate, Westmoreland was scheduled to give up his command in Vietnam and take up his new duties in Washington July 2.

Shriver Ambassador to France—R. Sargent Shriver was named ambassador to France by President Johnson Mar. 22. The former head of the Peace Corps and Office of Economic Opportunity succeeded Charles E. Bohlen, who was appointed Deputy State Undersecretary for political affairs in December, 1967.

New HEW Secretary—Wilbur Joseph Cohen, 55, was named by President Johnson Mar. 22 to head the department of Health, Education and Welfare. Cohen succeeded John Gardner, who resigned Mar. 1.

NORAD Extended—The U. S. and Canada agreed Mar. 30 to extend the 10-year North American Air Defense Command (NORAD) treaty another 5 years. The pact, designed for the defense of North America from long-range bombing attack, would not commit Canada to partake in continental defense against missiles, Canadian External Affairs Min. Paul Martin had told a Parliamentary committee Mar. 7.

INTERNATIONAL

Britain Curbs Immigration—A bill drastically restricting the immigration of Asian British citizens to Great Britain became

law Mar. 1 when the House of Lords rejected by a vote of 109-85 a motion to kill the law. The controversial legislation was approved by the House of Commons Feb. 27 by a vote of 372-62. The bill was passed to curb the possible immigration by some 200,000 Asians from Kenya, where non-citizens were being deprived of jobs.

Belgium Government Ousted—The Belgium parliament was dissolved by King Baudouin Mar. 1 in anticipation of new elections after several attempts to form a new government had failed. The administration of Premier Paul Vanden Boeynant resigned Feb. 7 after failing to solve a language problem between the Flemish-speaking and French-speaking students at the Roman Catholic University of Louvain. The Flemish students had demanded the ouster of all French-speaking students.

Nasser Drops War Charge—President Nasser of the United Arab Republic admitted in an interview published Mar. 4 that U. S. planes had not aided Israel in the June 1967 war. In an interview printed in Look magazine, Nasser said that the approach of Israeli planes from the Mediterranean had been misinterpreted, since American aircraft carriers were known to be in the same general area.

Rhodesian Hangings—The Rhodesian government defied Great Britain and hanged 3 black Africans Mar. 6 and two others Mar. 11. Queen Elizabeth had commuted the sentences of the 5 convicted murderers Mar. 2, but Rhodesia's High Court ignored the decree and ordered the executions.

Warsaw Student Riots—Apparently inspired by the liberalizing trend in Czechoslovakia, students at Poland's University of Warsaw Mar. 8-9 clashed with police, shouting: "Down with censorship" and "Long live Czechoslovakia." The student clashes were followed Mar. 11 by protests by office and factory workers who fought police and militia men in downtown Warsaw. The Communist party blamed the riots on Zionists. Polish Communist anti-Semitism had reportedly been on the rise since the Israeli-Arab war of 1967.

Panama Crisis—The National Assembly of Panama Mar. 14 voted to impeach President Marco Robles for interfering in the political campaign for a scheduled May 12 election. The Assembly accused Robles

of dismissing public employees and misusing state funds in behalf of National Liberation Party candidate David Samudio and against opposition leader Dr. Arnulfo Arias. Robles said Mar. 15 he would not recognize the Assembly's action and would wait for a Supreme Court ruling on the move. He ordered the country's only military force, the National Guard, to ignore the Assembly vote. The still defiant Assembly Mar. 24 voted to oust Robles and named Max Delvalle, 57, to succeed him. Robles again refused to recognize the Assembly's action and was backed by the 4,800-man Guard unit. Mar. 24-29 saw numerous clashes between the Guard and populace as the political stalemate continued.

Israeli-Arab Clashes—An Israeli force of 15,000 men crossed into Jordan Mar. 21 and wiped out guerrilla bases used to stage raids into Israel. The action was unanimously condemned by the UN Security Council Mar. 24. A second incident occurred Mar. 29 when Israeli and Jordanian forces fought an 8-hour artillery duel along the Jordan River in which Israel used airplanes. The UN Security Council met Mar. 30-Apr. 4 but was unable to decide upon a course of action.

Novotny Quits—The democratization of Czechoslovakia increased in tempo Mar. 22 when President Antonin Novotny resigned his post. The resignation was forced Mar. 21 by the National Assembly committee, which unanimously recommended that he resign. His ouster was viewed by many as the end of Stalinism in Czechoslovakia.

GENERAL

ACLU Reverses Position—By a vote of 26-20 the national board of the American Civil Liberties Union decided Mar. 2 to defend persons accused of counseling evasion of the draft. The action reversed a previous stand on the subject taken by the board in January.

Bishop Cooke Appointed—The Most Rev. Terence J. Cooke was named auxiliary bishop and vicar general of the New York archdiocese of the Roman Catholic Church by Pope Paul VI, Mar. 8. The 47-year-old successor to the late Cardinal Spellman became auxiliary bishop in 1965 and was appointed episcopal vicar for Manhattan and the Bronx in 1966. Bishop Cooke was selected by the Pontiff

Gold Crisis: Two-Price System Emerges

International gold buying fever on a gigantic scale hit the markets of the world Mar. 1, fed by the fear and belief that the U. S. would be unable to continue to maintain the \$35-an-ounce price of gold.

In just 10 trading days, an estimated 900 tons of gold was sold in the London market, which normally handles 3 to 5 tons daily. By Mar. 15 speculation had pushed the price of gold in the Paris market to an all-time high of \$44.36 an ounce.

At a 2-day meeting in Basel, Switzerland, Mar. 9-10 the U. S. and its 6 European partners in the London Gold Pool stressed their determination to continue to sell gold to all comers at \$35 an ounce. But the declaration failed to stem the speculative tide and when 225 tons of gold were sold in London Mar. 14, Britain closed the London market until Apr. 11 at the request of the U. S. All other European gold markets, with the exception of Paris, also closed down. France had withdrawn from the London Gold Pool in 1967.

The London Gold Pool members met in Washington Mar. 17 to face the crisis of

their rapidly dwindling gold reserves and agreed that all gold transactions between governments would continue to be made at \$35 an ounce, but that they would no longer sell gold to private investors.

The reasons for the crisis, called by many economists the worst threat to the world's economy since the 1930s depression, seemed obvious to many.

The U. S. balance of payments for 1967 chalked up a \$3.572 billion deficit and Congress continued to delay action on President Johnson's proposed tax increases.

Further, speculators had taken off after the U. S. dollar following the devaluation of the British pound Nov. 18, 1967, and even some governments, possibly France, which openly wanted a return to the gold standard, were believed to be behind a large part of the buying.

The new two-price system, many economists believed, was only a temporary answer to the crisis and would have to be followed by U. S. monetary reform and other changes in the international monetary system if a show-down international financial crisis was to be averted.

over many senior prelates, and it was believed he had been singled out by Cardinal Spellman as a possible successor before he died.

Convict Air Force Captain—Air Force Capt. Dale E. Noyd was convicted **Mar. 8** in Clovis, N. M., of disobeying an order to train pilots for Vietnam duty. Noyd, 34, a 12-year veteran, said he conscientiously opposed the war in Vietnam but was not a pacifist. He had attempted to resign his commission but the Air Force refused to accept the resignation. **Mar. 9** he was sentenced to a year at hard labor and dismissed from the Air Force.

DISASTERS

Seven children killed in farmhouse fire **Mar. 1** near Lake City, Mich. . . . Air France Boeing 707 jetliner crashed into mountain **Mar. 5** at Pointe-A-Pitre, Guadeloupe, killing 63 aboard . . . Coal mine fire and blast killed 21 miners in Patterson, La., **Mar. 5** . . . Rooming house fire in Houston, Tex., **Mar. 6** killed 8 . . . 9 servicemen drowned **Mar. 7** when canoe capsized in Potomac near Quantico, Va. . . . Bus and car collided near Baker, Calif., **Mar. 7**, 20 killed, 12 injured . . . 150 feared dead in mountain slide that buried Luhonga, Congo, **Mar. 8** . . . DC-6 crashed at Saint-Denis, Reunion Island, **Mar. 9**, 19 dead . . . Storm in north Congo killed 10 **Mar. 9** . . . Hyderabad, India, express train hit bus **Mar. 9**, killing 9, injuring 44 . . . Private plane crashed into Lake Michigan **Mar. 9** killed 6 . . . Meriden, Conn., apartment house fire killed 5 **Mar. 9** . . . 26 killed, 80 injured **Mar. 15** when a trolley and train collided in Santa Maria De La Alameda, Spain . . . Ship and oil barge collision and fire killed 15, injured 25 **Mar. 16** near Pointe A La Hache, La. . . . Berserk woodsman killed 7, wounded 3 **Mar. 16** in Ironwood, Mich. . . . Bus and truck collided near Lagoas, Nigeria, **Mar. 16**, killing 19, injuring 12 . . . 9 died when twin-engine Beechcraft BE-18 crashed

while landing at Municipal Airport in Rapid City, S. D., **Mar. 17** . . . Car crash in Benson, N. C., **Mar. 17**, killed 6 . . . 27 killed **Mar. 18** when bus left road near Rampur, India . . . 6 women phone operators died in leap from building to escape fire in Pusan, S. Korea, **Mar. 18** . . . 31 killed, 34 injured **Mar. 20** when trains collided at Yalvigi, India . . . Irish International Viscount 4-engine turboprop crashed into Irish Sea **Mar. 24**, killing 61 . . . Omaha, Neb., hotel fire **Mar. 26** killed 5 . . . 60 reported drowned **Mar. 28** when boat capsized near Chapra, India . . . Two-car crash killed 8 **Mar. 29** near Unionville, Mich.

April—1968

NATIONAL

Khesanh Siege Lifted—Operation Pegasus, launched **Apr. 1** with a force of 30,000 Americans and South Vietnamese to relieve the U. S. Marine base at Khesanh, succeeded in lifting the siege by **Apr. 5**, 76 harrowing days after what had loomed as another Dienbienphu. Much of the 20,000-man North Vietnamese force which had surrounded the 6,000-man garrison since January was believed to have withdrawn to Laos before the Allied drive had started. A relief column from Calu, 15 miles to the east, met little enemy resistance as it moved along the only overland supply road to the base. Maj. Gen. John J. Tolson, commander of the 1st Cavalry Div. (Airmobile), which supplied most of the troops, headed the operation. Until the main relief column arrived **Apr. 8**, armed helicopters attacked North Vietnamese in forward positions as allied forces advanced and nearly 1,000 U. S. relief troops were flown to the base **Apr. 6**.

Heavy Fighting in Vietnam—Operation Complete Victory, a 5-nation allied force of 100,000 men, **Apr. 8** launched the biggest drive of the war to clean up Communist forces in the 11 provinces around Saigon,

Campaign '68: A Year of Political Surprises

"I shall not seek, and I will not accept, the nomination of my party for another term as your President."

With these 20 words, President Lyndon B. Johnson **Mar. 31** climaxed a series of startling domestic, political developments which already had turned the Presidential campaign year of 1968 into one of the most unusual on record.

The President dropped his political bombshell toward the end of a 40-minute, nationally televised speech dealing with Vietnam in which he also announced the unilateral halting of the bombing of 90% of the territory of North Vietnam. He asked Hanoi to make some movement toward the peace conference table.

After his speech, it was reported that the President had been thinking of not seeking re-election for some time and that he almost had made the withdrawal announcement in his State-of-the-Union message.

But many political observers saw the surprising showing of Minnesota's Sen. Eugene J. McCarthy in the New Hampshire primary election **Mar. 12** and the subsequent entry of Sen. Robert F. Kennedy into the race for the Democratic presidential nomination as possible contributing factors in the President's decision.

Sen. McCarthy, an avowed foe of the Administration's Vietnam policy, polled a surprising 42% of the Democratic vote in New Hampshire against a 48% organized write-in for President Johnson. On the

Republican side, Richard Nixon got 79% of the vote, and Gov. Nelson Rockefeller 11% on a write-in.

The possible political implications of McCarthy's strength apparently were not lost upon Sen. Robert Kennedy, who **Mar. 16** officially announced his candidacy for the Democratic nomination. Many recalled that just a few months earlier Kennedy had been saying he would support President Johnson for re-election and that he couldn't see himself as a candidate under any circumstances.

The President's withdrawal from the race brought one other candidate into the field, Vice President Hubert Humphrey, who officially announced his candidacy **Apr. 27**.

The developments on the Republican side of the campaign were almost as unusual as the turnabout in the Democratic race.

Michigan's Gov. George Romney in a surprise move **Feb. 28** pulled out of the race, leaving the former Vice President Nixon the only avowed Republican seeking the nomination.

New York's Gov. Rockefeller pulled his own surprise **Mar. 21** by declaring he was not an active candidate at a press conference many believed had been called to announce his active candidacy. But President Johnson's decision apparently also had its influence here, and Gov. Rockefeller held another press conference **Apr. 30** and this time did the expected, entering the race.

but failed to make contact with an estimated force of 18,000-20,000 believed to be there. A ground sweep **Apr. 1** to clear the coastal plain from Hue to Quangtri of North Vietnamese believed to be infiltrating the Ashau Valley was backed by heavy B-52 raids **Apr. 8-13** near the Cambodian border. As of **Apr. 13**, the U. S. Command reported 503 of the enemy and 57 Americans killed in the ground action. **Apr. 10**, a U. S. report said the enemy's Tet offensive had cost \$173,633,000 in damage, with 115,276 homes damaged or razed. Operation Delaware in the Ashau Valley, described as one of the enemy's "top logistical support bases," by Gen. Tolson, started **Apr. 19**. Ten U. S. helicopters were reported shot down by enemy antiaircraft, while 20 Americans and 50 North Vietnamese were reported killed the first day. U. S. planes carried out 155 raids over North Vietnam **Apr. 23** and 111 **Apr. 24**.

Reserve Call-Up—A major call-up of reservists to active duty in Vietnam by 3 of the armed forces was announced by Defense Secy. Clark M. Clifford **Apr. 11**. It was to affect 24,000 Army, Air Force and Navy Reservists, of whom about 10,000 would go to the war zone in coming weeks to back up the 11,000 combat troops sent in February after the enemy's Tet offensive. The only previous call during the

war occurred in the wake of the Pueblo incident, when 14,787 Air and Naval Reservists were ordered to active duty (Jan. 5). But these men had not gone overseas by mid-April. A new troop ceiling of 549,000 for U. S. strength in Vietnam was also announced by Clifford.

Johnson Signs Rights Bill—President Johnson **Apr. 11** signed the civil rights bill, banning racial discrimination in the sale or rental of 80% of the nation's housing, a day after the House passed it 250-171, spurred by the assassination of the Rev. Dr. Martin Luther King, Jr. and the widespread riots that followed. The House action was termed "a victory for every American" by the President, having come after "a long, tortuous and difficult road." The measure also made it a Federal crime to harm civil rights workers, to cross a state line to incite a riot or to instruct persons in the use of firearms or Molotov cocktails in riots. It further guaranteed broad rights to American Indians in their dealings with authorities from tribal to state or Federal levels.

North Korean Raids—North Korean soldiers ambushed a U. S. Army truck 1,000 yards below the demilitarized zone **Apr. 14**, killing 2 American and 2 South Korean soldiers and wounding 2 from the U. S. **Apr. 18** the Seoul government report-

Assassin's Bullet Kills Martin Luther King

A sniper's bullet killed the Rev. Dr. Martin Luther King, Jr., 39, Nobel prize winner and leader of the nonviolence civil rights movement, in Memphis, Tenn., **Apr. 4**.

Fear and violence mounted as the shock of the assassination spread across the nation and set off a wave of Negro rioting and looting in U. S. cities.

By **Apr. 14**, at least 46 persons were killed, more than 2,600 were injured and more than 21,270 arrested. In less than 24 hours after King's murder, as rioting spread in Washington, D. C., President Johnson ordered Federal troops to protect the nation's capital. Across the nation, National Guard troops were alerted and the U. S. Army took "precautionary measures." Of the 55,000 troops involved, 21,000 were Federal and 34,000 were National Guardsmen.

Apr. 4-11 saw racial violence in 125 cities in 29 states and the District of Columbia. Baltimore, Chicago, Kansas City, Mo., and Washington, D. C., were hardest hit. More than 2,600 fires were set. Property damage in assured losses alone was more than \$45,000,000.

President Johnson, expressing the nation's grief in a TV address lauding the slain Negro leader, urged "every citizen to reject the blind violence that has struck Dr. King, who lived by nonviolence."

Dr. King, who had returned to Memphis to prepare a 2d march in support of a strike by city garbage collectors, most of whom are Negroes, was shot on the balcony of his motel room. The assassin presumably had fired from a nearby rooming house.

Atty. Gen. Ramsey Clark flew to Memphis **Apr. 5**, where he said the FBI was hunting the assassin, a white man who was reported to have been seen fleeing the area in a late-model car, in several states. Plans for the Memphis march King was to lead were completed by the Rev. Ralph David Abernathy, 42, named to succeed King as president of the Southern Christian Leadership Conference

(SCLC) **Apr. 5**. Mrs. Coretta Scott King, the slain leader's widow, took her husband's place at the head of some 42,000 silent marchers, including thousands of whites, on **Apr. 8**.

On **Apr. 6**, when King's body was put on view at Atlanta's Ebenezer Baptist Church, of which he had been pastor, Mrs. King called for "a creative rather than a destructive way" of solving the racial crisis to fulfill her husband's dream.

The President canceled a Hawaii conference on Vietnam **Apr. 5** and conferred with Negro leaders. He proclaimed Sunday, **Apr. 7**, a day of mourning.

After funeral services at the church **Apr. 9** and memorial services at Morehouse College, dozens of national leaders joined 50,000-100,000 marchers who followed King's coffin on a farm wagon pulled by 2 Georgia mules on its 3½-mile course to South View Cemetery. The American flag was flown at halfstaff at all Federal facilities in the U. S. and abroad until the interment.

The entire nation paused in tribute as television cameras brought the proceedings into homes; memorial services, marches and rallies were held; schools and public facilities as well as businesses and stock exchanges were closed; dockmen and seamen in seaports stopped work; sports events and Hollywood's Oscar awards were postponed, and the Presidential campaign halted. Memorial services also were held abroad.

Shortly after Dr. King's murder, an intensive manhunt was started for Eric Starvo Galt, later revealed to be James Earl Ray, 40, who had escaped from the Missouri State Penitentiary a year earlier after serving 7 years of a 20-yr. term for armed robbery and theft. Ray was arrested at a London airport June 8 under the name of Raymond George Sneyd, an alias he used to get a Canadian passport. He reportedly flew from Toronto to London May 6, on to Lisbon, Portugal, and then back to London. Charged with the slaying of Dr. King, he was extradited and taken to Memphis to await trial.

ed 3 South Korean soldiers missing and presumed dead following an attack **Apr. 17** on an 11-man patrol south of the DMZ by 20 North Koreans. More clashes broke out inside the zone **Apr. 20** and **21**, with one American killed and 3 wounded on the latter day, when a U. S. 2d Infantry Div. patrol was attacked by North Korean troops. A UN Command spokesman said at least 3 North Koreans were killed.

Ball Succeeds Goldberg—President Johnson named George W. Ball to succeed Arthur Goldberg as chief representative to the United Nations **Apr. 25**, when he announced Goldberg's resignation. A coolness marked the exchanges between Johnson and Goldberg at the event. According to reports, Goldberg wanted to play a bigger role in Vietnam policy. Later, Goldberg said he could work better for peace in private life. Ball, 58, was former Undersecretary of State.

INTERNATIONAL

Francophone Military Units—Canada announced a program to boost the use of French in its armed forces **Apr. 2**. At the present time about 16,000 of the 103,000 men speak French. Under the program both French- and English-speaking bases would be set up throughout the country. Ultimate goal is to have at least 20% of each unit made up of men whose parent tongue is the other official language. The only all-French speaking unit now is the Royal 22nd Regiment.

Central African Union—In a move to join economic and defense forces, 3 African states—Congo (Kinshasa), Chad and the Central African Republic—formed the United States of Central Africa **Apr. 2**.

The new, loosely-knit federation, covering 1,637,757 square miles and a population of 21,400,000, changed its name to the Union of Central African States. **Apr. 3**.

SEATO Parley—The 13th annual Ministerial Council meeting of the Southeast Asia Treaty Organization (SEATO) **Apr. 2** and **3** in Wellington, New Zealand, closed with a communique indorsing the limitation of bombing in North Vietnam but warning that Communist aggression in Southeast Asia must be halted.

UN Council Urges Observers—The UN Security Council **Apr. 4** urged the stationing of UN observers on the Israeli-Jordanian cease-fire line to prevent further violence. Jordan opposed UN patrols on its territory on the grounds that it could permanently solidify Israel's hold on Jordan's west bank. The Israeli army reported **Apr. 8** that a few dozen Israeli soldiers in helicopters had crossed 18 miles into Jordan to pursue and kill "about half a dozen" Arab infiltrators. The Israelis also destroyed a house used as a base by the terrorists, described as members of the Egyptian 141st Commando Battalion. A Jordan note to the Council **Apr. 8** accused Israel of "new acts of aggression," while an Israeli note, admitting the incursion, explained it was "in pursuit of saboteurs." Thirteen Arab infiltrators were killed by an Israeli patrol on the occupied west bank **Apr. 28**. Defense Min. Moshe Dayan warned **Apr. 26** that the Jordan Valley would become a battlefield if Jordan did not curb the saboteurs.

Changes in Czechoslovakia—Gen. Ludvik Svoboda, 72, newly elected president of Czechoslovakia, named Oldrich Cernik premier **Apr. 6**. Among Cernik's new cab-

Students Rebel at Columbia U.

A left-wing led student protest at Columbia University **Apr. 23** grew into a major upheaval marked by bloody clashes with police and virtually paralyzed one of the nation's top educational institutions for two weeks.

Some 150 students met at noon **Apr. 23** to protest the proposed construction of a gymnasium in neighboring Morningside Park, which was opposed by Negroes in nearby Harlem, as well as the school's ties with the Institute of Defense Analyses (IDA). Mark Rudd, president of the campus chapter of Students for a Democratic Society (SDS), led the group which included members of the Students' Afro-American Society and some residents of Harlem.

Afterwards, they invaded Hamilton Hall, headquarters of Columbia College, and held 3 officials hostage for 24 hours. The Negro protesters ordered the others out early **Apr. 24**. The white rebels then marched to Low Library, where they took over and ransacked the office of Dr. Grayson Kirk, president of the university. By now the strike had gone beyond its original aims and "Student Power" had become the battle cry. Asserting their right to partake in the "restructuring of the university," the young rebels demanded complete amnesty, which Dr. Kirk refused **Apr. 25**.

The protesters' number had grown to about 700 when they took over a 5th building **Apr. 26**. Classes were canceled the same day and the campus was sealed off after 250 Negro high school students invaded the area shouting "Black Power."

The administration announced suspension of work on the gym **Apr. 26**.

More than 300 anti-protesters, bolstered by several university athletes, were bent

on removing the rebels and, fearing it might touch off intra-mural violence, Dr. King called on city police **Apr. 29** to clear out the buildings.

At 2 a.m. **Apr. 30**, 1,000 New York policemen moved in with nightsticks and in forcibly removing the white protesters, 132 students, 4 faculty members and 12 policemen were injured. The 85 Negro students in Hamilton Hall departed in orderly fashion. **May 8**, according to a university report, 707 persons had been arrested. Of these 524 were registered students, 181 were not Columbia students and 2 were faculty members. Of the students, 239 arrested were from Columbia College, representing 8.79% of the college's total enrollment. Also, 111 Barnard College students were arrested, representing 6.01% of the undergraduate girls' college total enrollment.

In a **May 1** student rally, the demonstrators and police clashed again, with 5 policemen and 6 students hurt.

Other campuses both large and small were also rocked by revolt. At Northwestern U., in Evanston, Ill., **May 3** Negro students seized the business office for 36 hours, demanding separate housing, more scholarships for Negroes, more Negro faculty and more Negro literature and art taught by teachers they had approved. The school agreed. At Stanford U., California, 200 students stormed and occupied a building **May 6** to protest the suspension of 7 who had led a demonstration November 1967 against Central Intelligence recruiting on campus.

Student turmoil also hit Bowie State College, Bowie, Md.; Cornell U.; Duke U.; Trinity College; U. of Oregon; Ohio State U.; Princeton U.; U. of Chicago; Cheyney State College; Roosevelt U., Southern Illinois U., and others.

inet members were Gen. Josef Pavel, interior minister, one of the victims of Stalinist purges in the 1950s. The Communist Party Central Committee **Apr. 4** announced major changes in the makeup of the party presidium, with membership cut from 14 to 11. The CP **Apr. 9** published its long-awaited "action program" for reforming communism in the country, pledging new guarantees of freedom of speech, press, assembly and religious observance.

Trudeau Heads Canada Liberals—Justice Min. Pierre Elliott Trudeau, 48, a French Canadian who opposed the Quebec separatist movement, was elected leader of Canada's Liberal Party **Apr. 6** and succeeded retiring Lester B. Pearson, 70, as prime minister **Apr. 20** in Ottawa. He dissolved Parliament **Apr. 23**, calling for a general election **June 23**. Trudeau **Apr. 30** announced a shift in his 23-member "caretaker" cabinet, sworn in **Apr. 20**, giving decision-making powers to 4 key committees instead of keeping the prior system of 14 standing committees.

Sierra Leone Coup—In a successful coup d'état, non-commissioned Sierra Leone officers replaced the military government of Col. Andrew Juxon-Smith with a 14-member Anti-Corruption Revolutionary Movement **Apr. 18**. Charging that Juxon Smith's National Reform Council had been "more corrupt and selfish" than the civilian regime it had replaced **Mar. 1967**, a Sierra Leone radio broadcast promised restoration of civilian rule. Col. John Bangura, in exile since the 1967 coup, returned to head a 7-man junta **Apr. 19**.

Rightists Gain—West Germany's National Democratic Party (NPD), a neo-Nazi party formed in 1964, won 9.8% of the total votes and 12 of the 127 seats in the Landtag (state assembly) elections in Baden-Württemberg **Apr. 28**. The NPD's share of the vote was higher than in any previous state election contested by the party. Observers viewed the election as a backlash vote after 5 days of student rioting in several major West German cities as well as an indication of NPD's prospects in the general elections of the Bundestag (federal parliament) in 1969. NPD gains hurt the Social Democratic Party (SPD) most.

GENERAL

NYSE Sales Peak—Trading volume on the N. Y. stock exchange hit a record 17,730,000 shares **Apr. 1**, the first of 3 new highs **Apr. 1-10** after President Johnson's announcement of North Vietnam bombing curbs. The 2d record was 19,290,000 shares traded **Apr. 3**. A third record day, with 20,410,000 shares sold, came **Apr. 10**. The 3d record was attributed to continued optimism on peace in Vietnam and backlog orders piled up during the exchange's closing in tribute to Martin Luther King **Apr. 9**. An all-time high record to date was established **June 13**, when 21,350,000 shares were traded.

Wisconsin Primary—Sen. Eugene J. McCarthy (D., Minn.) won the Wisconsin Democratic Presidential primary **Apr. 2** with 57.6% of the vote to President Johnson's 35.4%. He also won 52 of 60 delegates. Former Vice President Richard M. Nixon, with no major opposition, polled 81.3% of the Republican primary votes and all 30 of the state's GOP delegates.

Nationwide Phone Strike Ends—A nationwide telephone strike, started **Apr. 18** by 200,000 members of the AFL-CIO Communications Workers of America, ended **May 5** with a 3-year contract providing

wage and fringe benefit hikes totaling 19.58% over 3 years. The highly-automated phone service was near normal during the strike against American Telephone & Telegraph Co.—affiliated Bell Telephone firms in 15 states and Western Electric Co. in 40 states.

Pennsylvania Primary—Sen. Eugene J. McCarthy (D., Minn.), the only Presidential candidate of either party in the Pennsylvania primaries **Apr. 23**, polled 76½% of his party's vote. Former Vice President Richard M. Nixon won 76.3% of the GOP write-in vote.

Humphrey Enters Race—Vice President Hubert H. Humphrey, 56, entered the Democratic Presidential race **Apr. 27**. Humphrey, who declared his candidacy on a nationally televised program before 1,700 friends and supporters since it was too late to enter the primary races, called for "a new American patriotism." On a TV program **Apr. 28**, Humphrey said he would run on the Administration's record but added that "I am my own man."

Rockefeller Says He'll Run—Gov. Nelson A. Rockefeller (R., N.Y.) entered the race for the Republican Presidential nomination **Apr. 30**, 40 days after he had said he would not be an active candidate. He said he had been urged to participate by people of all political persuasions and had finally been moved to change his position by "the gravity of the crisis we face as a people."

DISASTERS

Tornadoes in Northern Arkansas Apr. 3 killed 6, caused extensive damage . . . **Hotel fire in Shrewsbury, Eng., Apr. 3** killed 5 . . . **Gunpowder explosion and fire in downtown Richmond, Ind.,** sporting goods store **Apr. 6** destroyed 2 blocks, with 43 dead, 11 missing, 100 injured . . . **BOAC Boeing 707 jetliner Apr. 8** caught fire on takeoff, crash landed, falling apart in air, killing 5; 121 safe . . . **32 dead in Chilean plane crash Apr. 8** . . . **Bus accident killed 6, injured 50 Apr. 8** in Lahore, W. Pakistan . . . **Greek freighter Apr. 8** struck rock off Orkney Islands, killing 7; 2 missing . . . **An interisland ferry with 700 aboard sank in Wellington Harbor, New Zealand, Apr. 10** after hitting a reef during 120-mph storm, leaving 47 dead and 6 missing . . . **The first flight of Aerovias Rojas DC-3 crashed into a mountain 60 miles north of Mexico City, killing 18 Apr. 10** . . . **Five children died in Apr. 13 house fire in Davisboro, Ga.** . . . **Faridpur District, East Pakistan, cyclone Apr. 11** killed 1000, injured 1,000 . . . **Eight migrant workers drowned Apr. 14** when their station wagon fell into creek near Rocky Mount, N. C. . . . **Tornado hit Greenwood, Ark., Apr. 19**, leaving 12 dead, 48 injured . . . **South African Airways Boeing 707 crashed on takeoff at Windhoek, South-West Africa, Apr. 20**; 122 killed, 6 survivors . . . **Eleven were killed, 24 injured when bus plunged into ravine at Recife, Brazil, Apr. 23** . . . **Tornadoes along 125-mile stretch of Ohio River Apr. 23** killed 11, injured 200 in Ohio and Kentucky . . . **Biplane in airshow near San Luis Obispo, Calif., Apr. 27** crashed, killing 4 . . . **Pilot and 5 members of Lamar State College of Technology track team and coach died in plane crash Apr. 28** at Beaumont, Tex. . . . **Fifty feared dead when earthquake hit large area of western Iran Apr. 30.**

May—1968 NATIONAL

Tariff Aid for U.S.—In a move to aid the U.S. in reducing its balance-of-payments deficit, 16 of its major trading partners

agreed **May 1** to step up the 20% tariff cuts due Jan. 1, 1970, on American exports under the Kennedy Round agreement to Jan. 1, 1969. At the same time, they put off for one year to Jan. 1, 1970, the 20% tariff cut the U.S. was to make Jan. 1, 1969.

Poor March on Washington—Nine poor people's caravans from all parts of the country **May 2-17** converged by mule train, bus, cars, railroad and on foot on Washington, where volunteers put up temporary shelters on a 16-acre site dubbed Resurrection City, U.S.A. in West Potomac Park. Sponsored by the Southern Christian Leadership Conference, the poor people's campaign was planned by the late Martin Luther King to prod the Congress and the Administration into taking action on behalf of more than 29,000,000 Americans. The Rev. Ralph D. Abernathy, King's successor as SCLC president, was march leader.

Preceding the poverty pilgrims with a delegation, Abernathy **Apr. 29** met with Cabinet members and Congressmen to present a long list of legislative demands, including 2,000,000 jobs, massive housing programs, larger welfare payments and a guaranteed minimum income for everyone. As demonstrations got under way **May 21**, an air of bedlam often hovered over the camp, with a lack of organization and disunity in staff leadership. There was a shortage of funds, cooking, bathing and sanitation and heavy rains compounded the problems by turning the grassy area into a bog, forcing many to leave the campsite. On **May 15** the local food committee had been able to raise only a third of the \$90,000 needed to feed the 3,000 campers for 30 days. Most of the demonstrators were Southern Negroes; some Indians, Mexican Americans and Appalachian whites. There was some racial tension and **May 22** 200 Chicago and

Detroit Negro youth gang members were sent home for "beating whites." Sympathetic officials intervened when some of the demonstrators got out of hand, and **May 23** a bipartisan ad hoc committee of Congressmen was formed to help the marchers present their demands.

Agriculture Secy. Orville Freeman **May 23** promised Abernathy and 200-300 demonstrators that he would enlarge the department's food distribution program. Resurrection City closed down **June 23** when the Interior Dept.'s permit for the campsite expired. The campaign ended far from the dramatic goals of the leaders and 124 persons were arrested after they refused to leave **June 24**. Several hundred others, including Abernathy, were arrested for an illegal demonstration on Capitol grounds.

Communists Launch Tet II—Communists launched the expected Round II of their country-wide Tet offensive **May 5**. But it was "a far cry" from the original, a U.S. Command spokesman said. They shelled, mortared and rocketed 122 targets, including 40 cities and towns, 7 air bases and other Allied installations but only about a dozen of the targets struck had ground attacks. Saigon, under heaviest attack through **May 7**, was hit hard only in some areas such as the Chinese Cholon district.

Some 80,000 refugees jammed bridges and streets in flight to safer parts of town as the fight raged fiercely for a week around Saigon's Y bridge and near Tan Son Nhut, where South Vietnam paratroopers fought two days in an old French military cemetery to drive out entrenched troops. Only 5 small portions of the city, with some 2,000 houses and shacks were destroyed. Due to the swift reaction of the city's 500,000 government defenders, civilian dead were a few hundred, less

Student Riots Precipitate Chaos in France

A protest **May 2** by 6 New Left student militants at the University of Nanterre mushroomed into a movement of civil and economic disobedience by some 10,000,000 Frenchmen and threatened to end the 10-year regime of President Charles de Gaulle's 5th Republic in chaos.

Led by Daniel Cohn-Bendit, 23, the youthful militants' protest against "imperialism" caused officials to close the suburban campus of the University of Paris. **May 3** Nanterre shutdown protests by 1,000 students at the 715-year-old Sorbonne, heart of the University of Paris, led to its closing after pitched battles with police and precipitated 10 days of fierce Latin Quarter street fighting, with students behind barricades of burned cars tossing paving stones and gasoline bombs. The bloody fighting won the sympathy of France overnight and thousands of students also took to the streets in provincial cities, fired by the deep discontent permeating the country's overcrowded, inadequate and archaic university system.

Communist and Catholic labor groups staged a nationwide 24-hour sympathy strike **May 1**, while in Paris more than half a million workers, students, teachers and opposition leaders marched for 4 hours, singing the Internationale and giving vent to anti-De Gaulle feelings.

By **May 14**, when students occupied the Sorbonne, an epidemic of wildcat strikes started to sweep the country, halting nearly all of the country's industrial production, commerce and transportation.

When De Gaulle rushed back from a state visit to Romania **May 18**, he found

France in a state of economic paralysis not far removed from civil war.

Premier Pompidou's government survived a parliamentary effort to overthrow it **May 22** with 11 votes to spare after a censure motion was introduced by Francois Mitterand, leader of the Federation of the Democratic and Socialist Left.

More than half of France's 19,000,000 workers were on strike by **May 24** and the rest couldn't get to work. The red flag of rebellion flew over factories, mines and shipyards seized by workers. Even after a De Gaulle radio appeal **May 24** for a return to law and order, the violence and rioting continued to spread, with new student-police clashes **May 23-25**. Farmers in southwest France staged a protest **May 24**, demanding price supports and subsidies, banks closed and even the tax collectors walked out.

In his **May 24** appeal, De Gaulle announced he would submit a program of broad reform to the people through a referendum in June and added he would resign if his "mandate for renewal" should be turned down.

Some 200,000 marchers led by Communists chanted "Adieu De Gaulle" when he left suddenly for his country home **May 29** amid speculation that he was resigning. Ex-Premier Pierre Mendez-France declared the same day he was ready to form a "popular government." But De Gaulle returned in a fighting mood, assured of Army support, and dissolved the National Assembly **May 30**. Blaming the Communists for the chaos, he called for new parliamentary elections **June 23** and **30**.

than one-twentieth of those at Tet. At week's end Communist dead were estimated at 2,500. On **May 13** the U. S. and South Vietnam commands said Allied troops had overcome the enemy's main thrust against Saigon and that 5,270 North Vietnam and Viet Cong had been killed, compared to 154 Americans and 362 South Vietnamese slain.

April Riot Costs—Using Federal troops in the April riots following the assassination of the Rev. Dr. Martin Luther King Jr. cost \$5,375,400, the Defense Dept. reported **May 18**. Altogether, 35,390 soldiers, Marines and National Guardsmen were deployed in Washington, D.C., Baltimore and Chicago, with 22,074 soldiers on standby. Insurance companies would pay \$67,-000,000 for losses incurred, the American Insurance Association estimated **May 15**, with biggest damage payments of \$24,-000,000 going to Washington, D.C.

Nuclear Submarine Lost—The nuclear-powered U.S. submarine Scorpion, two days overdue at Norfolk, Va., after a 3-month training exercise with the 6th Fleet in the Mediterranean, was reported missing **May 29**. The Scorpion, with 99 men aboard, was listed as "presumed lost" **June 5**, after a fruitless search by the Navy.

INTERNATIONAL

Israeli Jerusalem Parade—Israel marked its 20th anniversary **May 2** with an armed forces parade, the biggest in its history, through Jerusalem despite Arab protests and terrorist threats. The parade, featuring equipment captured in the June 1967 war, was scored **May 2** by the UN Security Council which had urged its cancellation **Apr. 27**. Protest demonstrations were held in Damascus, Beirut and Jordan **May 2**. A protest strike by two west-bank Jordan towns was punished **May 5** with Israel travel restrictions for their residents. Eleven Arab women protest marchers in East Jerusalem were detained **Apr. 25** after a clash with police.

Apartheid Measure Approved—A bill to abolish Parliamentary representation for South Africa's colored (mixed-race) population was passed in the House of Assembly **May 3**. The measure, one of 3 designed to reinforce the government's apartheid policy, ended colored representation by 4 white deputies at the end of the current Parliament in 1971.

Israeli-Arab Clashes—Israeli authorities reported **May 3** that their troops had killed

17 Arab guerrillas in 3 separate clashes **Apr. 30-May 2**. One Israeli soldier was killed in the bloodiest encounter **May 2** at the southern end of the Dead Sea when 12 Arab commandos were killed. Later, two Israeli soldiers and a civilian were killed when their jeeps ran over mines apparently planted by the slain commandos.

Biafra Talks Start—After 10 months of fighting between Nigeria and the secessionist government of Biafra, the two sides met in London **May 6** and agreed **May 8** on Kampala, Uganda, as the site for peace negotiations. The civil war had come to an impasse. Fearing genocide at the hands of other tribes if defeated, Biafra's Ibo tribesmen fought on desperately even though Nigeria's well equipped army of 85,000 men had captured all but one of Biafra's major cities, including the capital of Enugu, squeezing the rebel army of about 35,000 into an interior area only a third as large as the 29,000 sq. mi. it originally held. The Federal government had stepped up its bombing, using Russian MiGs and Czechoslovakian Delfin jet planes and bombs, with pilots believed to be Egyptian and Sudanese. Some 200,-000 Ibo refugees had crowded into about 300 camps throughout Biafra, which claimed the bombing raids were aimed at schools and hospitals, killing hundreds of civilians in January and February and about 300 from **Apr. 21-27**. Angered over Britain's alleged military aid to Nigeria, Biafran demonstrators **May 4** burned down 5 British buildings and thousands marched through the streets of 3 towns chanting anti-British slogans. Gabon recognized Biafra **May 8**; Tanzania, the first country to do so, **Apr. 13**, expressed its concern for the slaughter of the Ibos and their struggle for independence.

North Korean Charges Denied—North Korea claimed **May 7** its forces had captured a group of U.S. agents sent to its side of the DMZ to commit murder and subversion. The charge was denied by a UN Command spokesman and at a meeting of the Mixed Armistice Commission in Panmunjom **May 17**, U.S. Maj. Gen. Gilbert H. Woodward, senior UN command delegate, warned North Korea was "approaching another serious miscalculation" in a plan to foment a new war. **Apr. 27** North Korean troops had attacked UN command troops near the demilitarized zone, killing 2 South Korean soldiers and wounding 2 Americans.

Vietnam Preliminary Peace Talks Open in Paris

After a 34-day impasse on selecting a site for preliminary peace negotiations, the U.S. and North Vietnam agreed **May 3** on Paris. Hanoi designated ex-Foreign Min. Xuan Thuy head of its delegation. Hanoi said **May 4** its purpose in the talks was "the unconditional cessation of U.S. bombing raids and other acts of war" against North Vietnam. Secy. of State Dean Rusk declared **May 5** "an honorable peace" in Southeast Asia hinged on a stop to Communist infiltration of South Vietnam and its neighbors.

The parley started **May 10** with Amb.-at-Large Averell Harriman, 76, as U.S. delegation chief and Cyrus R. Vance, 51, his deputy. Thuy, 55, now Min. of State and secretary of the Central Committee of the North Vietnamese Communist party, had as his adviser Col. Ha Van Lau, who had served as liaison officer with the International Control Commission of North Vietnam. After discussing procedure **May 10** and **11**, both sides restated their previous conditions **May 13**. No progress was made at talks **May 15** and **May 18**

as Hanoi still demanded unconditional halt of U.S. bombing and the Americans asked for some military reciprocation in exchange for a halt in raids.

The impasse continued. Amb. Harriman **May 20** denied there was a deadlock, but charged the North Vietnamese had been using the meetings for propaganda purposes. As Thuy continued to press for a halt in U.S. bombing raids **May 22** and **27**, Harriman rejected "the suggestion now urged by you that the only reason for our meetings is to give the hour and date for the cessation of bombing."

Thuy refused to discuss seriously Harriman's suggestion **May 31** that the DMZ be restored as a truly neutral buffer zone although the U.S. diplomat charged the 320th North Vietnam Div. had crossed the DMZ **May 26** to attack the allies at Dongha.

At a press conference **May 29** a Hanoi spokesman berated President Johnson for his charge **May 28** that North Vietnam was obstructing the Paris talks, asserting the Americans were responsible.

UK Bolsters NATO Force—A 40% increase of Britain's share in NATO troop strength, announced **May 10**, was made possible by England's planned withdrawal east of Suez by 1971, Defense Min. Denis Healey said. The UK boost included naval forces and vessels for the allied Mediterranean command.

End of Bombing Urged—UN Secy. Gen. U Thant, urging "an unconditional end of the bombing of North Vietnam," asserted **May 13** it "had only hardened the determination of the North to prosecute the war and not to negotiate under duress."

Jerusalem Merger Opposed—Declaring all Israeli actions in Jerusalem since the capture of the Jordanian area in June, 1967 invalid, the UN Security Council in a resolution **May 21** opposed Israel's administrative unification of the Jordanian and Israeli sectors of the city. Thirteen of the Council's 15 members approved the resolution, while the U.S. and Canada abstained.

UN Rhodesia Travel Ban—In another step to isolate the white minority government of Premier Ian D. Smith, the UN Security Council **May 29** unanimously approved a resolution calling on all members to impose a total embargo on all trade with or travel to Rhodesia.

GENERAL

Rockefeller Launches Campaign—Gov. Nelson A. Rockefeller (R., N.Y.) scored the Administration's foreign policy in a speech kicking off his campaign for the GOP Presidential nomination in Philadelphia **May 1**. He termed U.S. policy in Western Europe "sterile" and said the war in Vietnam should be "de-Americanized." At the University of Iowa **May 2** he urged lowering the voting age to 18 and called for a national lottery to end the "inequitable" draft laws.

Humphrey Starts Campaign—In his first week as Presidential candidate, Vice President Humphrey told 5,000 delegates to the African Methodist Episcopal Church's quadrennial session in Philadelphia **May 2** he would strive for "a new and complete national commitment to human rights." At Kent (Ohio) State University **May 3** and at Bucknell University in Lewisburg, Pa., **May 4** small groups of students walked out on his speeches, but at the latter school some 3,000 in the audience cheered him when he decried "the censorship of walking out." In Washington **May 7** he told the American Meat institute the Federal role in farm policy was "here to stay." The United Steelworkers of America (AFL-CIO) endorsed him on **May 9**. On **May 10** in Baltimore, Maryland's 49-vote delegation agreed to cast a unit vote for him.

Nixon on Campaign Trail—Former Vice President Richard Nixon, the GOP Presidential contender, in a radio address **May 2**, detailed a program for tax incentives and guaranteed loans to bring businesses to urban slums. In Fort Wayne, Ind., **May 3** he stressed the need for a "moratorium" on Vietnam discussion, adding: "Let's not destroy the chance for peace with a mouthful of words from some irresponsible candidate." In a policy paper in New York **May 8**, he asserted the role of poverty as a cause of increased crime "has been grossly exaggerated" and attributed the rise to "the success of the criminals in this country."

AFL-CIO Suspends UAW—The United Autoworkers of America was suspended **May 16** by the AFL-CIO for nonpayment of dues for 3 months. The suspension climaxed a bitter feud between AFL-CIO

president George Meany and UAW president Walter P. Reuther. During the UAW convention in Atlantic City **May 4-10**, delegates on **May 9** approved withholding the dues, which were to be put in escrow pending a special convention sought by the UAW to hear the auto union's demands for reform.

ADA Parley Backs McCarthy—The Americans for Democratic Action in Washington **May 19** endorsed Sen. Eugene J. McCarthy for the Democratic Presidential nomination, upholding the previous approval of ADA's national board. The group praised "his courage in New Hampshire and Wisconsin," adding that his campaign "forced a change in the Administration's Vietnam policy and induced President Johnson's renunciation of further political activity."

Rap Brown Convicted—H. Rap Brown, chairman of the Student Nonviolent Coordinating Committee (SNCC), was convicted in New Orleans Federal Court **May 22** for violating the Federal Firearms Act, sentenced to 5 years in prison and fined \$2,000. A jury of 9 whites and 3 Negroes found him guilty of carrying a .30 caliber carbine on a plane trip from New Orleans to New York Aug. 18, 1967. He was released on \$15,000 bond.

McCarthy Wins in Oregon—Sen. Eugene J. McCarthy (Minn.) defeated Sen. Robert F. Kennedy (N. Y.) in the Oregon Presidential primary **May 28** with 45% of the vote. Kennedy, who had been winner in a pre-primary NBC poll, received 39%. In the GOP primary, Richard M. Nixon won 73% of the vote. Gov. Ronald Reagan (Calif.) received 23% and Gov. Nelson A. Rockefeller (N. Y.) 4% in write-ins.

DISASTERS

Nineteen members of a wedding party were killed **May 1** when a truck plunged into a ravine near Benares, India . . . All 85 aboard perished when a Braniff International 4-engine turboprop Electra crashed **May 3** during a lightning storm near Dawson, Tex. . . . Coal mine explosion in St. Etienne, France, **May 3** killed 6 . . . Seven teenagers died **May 4** when their car hit a gravel truck near Grand Forks, British Columbia . . . An explosion followed by fire **May 6** destroyed 3 tankers in La Plata harbor, Argentina, killing 10 . . . Four of 25 miners died in flooded coal mine near Hominy Falls, W. Va., **May 6** . . . At least 20 persons died of bubonic plague in Lesotho **May 8** . . . Six died and 30 were injured in passenger express and freight train crash in Vijayavada, India, **May 8** . . . Twelve wedding guests were killed **May 9** when balcony of house in Patna, India, collapsed . . . Earth tremors in Iranian province of Azerbaijan **May 11** killed 40 . . . Ten reported dead and several missing in **May 12** floods in western Algeria . . . Dozens of tornadoes struck 10-state area of Midwest and South, killing at least 72 **May 15** . . . Earthquake hit Japan's northern and eastern seaboard **May 16**, leaving 37 dead, 217 injured, 10 missing and 1,200 houses razed or damaged . . . Five perished in floods near Lake Maracaibo, Venezuela, **May 18** . . . Chartered helicopter crashed in Paramount, Calif., on way to Los Angeles from Disneyland **May 22**, killing 23 . . . Seven schoolchildren and teacher drowned when canoe capsized in Tamaya River near Pucallpa, Peru, **May 22** . . . Ferry sank in Yellow Sea off Kunsan, South Korea, **May 24**, drowning 14 . . . Three of 24 aboard missing when Brazilian cargo ship Fernadias sank 90 miles from Salvador, Brazil, **May 26** . . . Eight of 9

drowned **May 26** when 15-foot boat capsized off Wells Beach, Me. . . . Four died in light plane crash on Greenwich, Conn., golf course **May 26** . . . U.S. nuclear submarine Scorpion, with 99 men aboard, lost between Azores and Norfolk, Va., **May 27** . . . Gas explosion at nursery school in Hapeville, Ga., **May 29** killed 7 children and 2 adults.

June—1968

NATIONAL

Battle of Saigon—Communist rockets and snipers continued to punish Saigon **June 3-15**, adding new destruction to the ravages of Tet and making the battle of

Saigon one of the Vietnam war's toughest. The mayor's office **June 11** reported that 117,000 persons had left or lost their homes since **May 5**, when the Reds resumed their assault on the city. In the same period, 433 civilians had been killed and 3,660 wounded, while South Vietnamese troops had killed 2,880 Communists and captured 328. Allied forces, mostly American, had slain 2,436 and captured 105. Of South Vietnamese losses, 261 were killed and 1,032 wounded. Besides homes, other civilian targets like schools and hospitals were hit. **June 7**, 25 civilians perished in such a bombardment. The guerrilla warfare was "cheap" for the enemy, said a

Sen. Robert F. Kennedy Fatally Shot by Assassin

Sen. Robert F. Kennedy, 42, cut down by an assassin's bullet in the Hotel Ambassador, Los Angeles, **June 5** at about 12:16 a.m. PDT, died **June 6** at 1:44 a.m. PDT in Good Samaritan Hospital, where a team of top surgeons had worked for 4 hours to remove bullet fragments from his brain.

His suspected assassin later identified as Sirhan Beshara Sirhan, 24, a slight Jordanian Arab who had lived in the Los Angeles area for 11 years, was seized by members of the Senator's party after a struggle.

The Senator from New York was killed less than 5 years after the assassination of his older brother, President John F. Kennedy, and two months after that of the Rev. Martin Luther King, Jr.

The tragedy, which occurred about 3 minutes after he had left a rally celebrating his victory in the California and South Dakota primaries, brought Presidential campaigning to a standstill. President Johnson, expressing the nation's shocked grief **June 5** ordered Secret Service protection for all Presidential candidates of major parties. Urging "an end to violence," he announced he was creating a commission of distinguished citizens to study the subject. Declaring "our public life is diminished by his loss," the chief Executive **June 6** proclaimed **June 9** a day of mourning and read the **June 5th** statement in which he had called on Congress "in the name of an aroused nation—to give America the gun control law it needs."

An outraged and sad nation kept a close radio and TV vigil during the crucial hours he lay comatose between life and death, with his wife Ethel, expecting their 11th child, at his side. World and national leaders sent condolences to the bereaved Kennedy family, but to grieved Kennedy campaigners who had traveled with him it had not come as a surprise. They had feared for his safety, both from the crush of adoring mobs and from those who hated him, but he had waved the suggestion of extra guards aside, saying: "If anyone wants to kill me it won't be difficult."

It wasn't. As he and a small group of aides passed through a serving kitchen on the way to a press conference, the Senator paused to shake hands when the unobtrusive assassin started shooting a .22 caliber pistol. Of 8 bullets, 3 felled Kennedy, while 5 other persons around him were hit, but not fatally, by the shots. The surgical team, headed by Dr. Henry M. Cuneo of the University of Southern California, found the fatal bullet had entered the cerebellum after penetrating the mastoid bone behind the right ear.

While Kennedy lay on the floor bleeding, his alleged assailant was subdued by 8 men, including Roosevelt Grier, Los Angeles Rams football lineman, and Rafer

Johnson, an Olympic champion. Both the athletes and police protected the assassin from the threatening mobs after officials, fearful of "another Lee Oswald case like in Dallas," demanded he be kept alive.

Mayor Samuel W. Yorty revealed that Sirhan, an unemployed clerk, had entered in a notebook found in his home later **June 5** "the necessity to assassinate Sen. Kennedy before **June 5**," the anniversary of the Arab-Israeli war. Yorty said **June 6** the notebook expressed evidence of "Communist sympathies." The release of such information was scored by the Civil Liberties Union and State Atty. Gen. Thomas Lynch on the ground that it could affect the legality of the evidence and the course of the trial. Sirhan was indicted **June 7** by a Los Angeles County Grand Jury of 1st degree murder and on 5 counts of assault with intent to kill the other 5 persons shot. With the lesson of Dallas in mind, he was held in strict isolation under heavy guard. His trial was scheduled to start Dec. 9.

On **June 6**, a Presidential jet flew the body of Sen. Kennedy back to New York, where it lay in state in St. Patrick's Cathedral from 5:30 a.m. **June 7** until 5 a.m. **June 8**. More than 151,000 persons, according to a police estimate, stood in a line stretching for more than a mile and sometimes for as long as 7 hours, for a glimpse of the mahogany coffin. Standing vigil over the bier, 3 at a time, were some 600 men, ranging from New York Gov. Rockefeller, to the Rev. Ralph Abernathy, leader of the Poor People's March. The requiem mass **June 8** was attended by President Johnson, the major Presidential candidates, members of Congress, the Cabinet and other public figures.

In a reading that was unusual at a Roman Catholic funeral, Sen. Edward Kennedy (D., Mass.) said his brother "should be remembered simply as a good and decent man, who saw wrong and tried to right it, saw suffering and tried to heal it, saw war and tried to stop it."

Thousands lined the street to watch the motorcade bringing the body and the funeral party to a 21-car funeral train in Pennsylvania Station for the trip to Washington. Crowds waiting in stations along the way delayed the train 4½ hours and, in the first nighttime burial at Arlington National Cemetery in memory, Robert F. Kennedy was laid to rest near his brother John.

On **June 15**, the late Senator's mother, Mrs. Rose Kennedy, 77, and his brother, Sen. Kennedy, in a brief TV message taped at the Hyannis Port, Mass., home of ex-Amb. Joseph P. Kennedy, thanked Americans for their expressions of sympathy. With the elder Kennedy sitting in a wheelchair beside them, Mrs. Kennedy pledged the family to "carry out the principles for which Bobby stood."

U. S. military official, since he was doing as much damage as in prior battles but with fewer men. Hanoi's aim officials said, was a city in ruins with homeless, unhappy people ripe for an uprising against the government.

U. S. Hits Saigon Attacks—No progress was made at the 7th and 8th sessions of the Paris peace talks at North Vietnam continued to demand an end of U. S. bombing in the North **June 5** and U. S. Amb.-at-Large W. Averell Harriman charged 40,000 Hanoi troops were fighting in Laos in violation of the 1962 Geneva neutralization accord. Harriman **June 12** held the North Vietnamese military responsible for attacks on Saigon with "no military objective" but "to terrorize people." Xuan Thuy, the Hanoi representative, countered: "If the U. S. pulls out of Saigon, the combat will cease around Saigon." The stalemate continued at the **June 19** and **26** sessions, with each side accusing the other of stepping up the war.

Abrams Succeeds Westmoreland—Gen. William C. Westmoreland turned over command of U. S. armed forces in Vietnam to Gen. Creighton W. Abrams, his former deputy, **June 10**. Westmoreland left for the U. S. the following day to assume his new duties as Army Chief of Staff.

LBJ on Gun Controls—In a message to Congress **June 24**, President Johnson urged registration of every firearm and licensing of every gun owner, with registrations to go into a computer listing at the FBI's National Crime Information Center. Calling for minimal Federal standards, he said licensing should be carried out by the states. However, he added, Federal licensing should be required for states not meeting the standards within two years.

Chief Justice Resigns—President Johnson announced the resignation of Earl Warren as Chief Justice of the U. S. **June 26**. At the same time he nominated Associate Supreme Court Justice Abe Fortas, 58, to head the country's highest tribunal and Judge Homer Thornberry of the 5th Circuit Court of Appeals to replace Fortas. Warren, 77, resigned "solely because of age," after 14 years. Often criticized by conservatives, Warren had written the opinion in 3 milestone decisions: 1954, school desegregation; 1964, "one man, one vote," leading to legislative reapportionment; and 1966, outlining of rules for interrogation of criminal suspects.

De Gaulle Emerges Triumphant Again

As the student and labor revolt which had rocked France in "the days of May" abated and most of the country's 8,000,000-man work force returned to work during the first week of June, there were isolated pockets of resistance. On **June 7**, when the stock exchange reopened, 4,000 striking workers and 200 militant students battled police at the nationalized Renault assembly plant at Flins. The first violent clash between workers and police, it left a dozen injured and was denounced by the Communist-led General Confederation of Labor, which blamed "student agitators."

President De Gaulle jumped the gun **June 7** on the 3-week campaign for the 2-stage national elections, which got under way **June 10**. De Gaulle promised a "society of participation," unlike Communism or Capitalism, which he termed "bad solutions from the human point of view." Premier Georges Pompidou **June 12** opened the government's drive, calling for a clear Gaullist majority to save France from a Communist takeover. Also on **June 12**, as some street fighting continued, 11

U. S. Leaves Khesanh—In a tactical shift to mobility, to cope with increased Communist strength and activity in the DMZ, the U. S. Command **June 27** announced the Marines were withdrawing from the military base of Khesanh.

INTERNATIONAL

Jordan River Clash—Heavy casualties were reported on both sides when Israeli and Jordanian forces fought all day **June 4** along the northern sector of the Jordan River near the Sea of Galilee. The fighting, with Israeli air attacks on Jordan, was termed their most serious encounter since **Mar. 21** by Amman. The UN Security Council convened **June 5** to consider the outbreak but called off debate because of Sen. Robert F. Kennedy's assassination.

Italian Premier Resigns—Premier Aldo Moro and his cabinet resigned **June 5** after the Unified Socialist Party pulled out of Italy's coalition government **June 1**. The party withdrew because it had lost seats in the **May 19** and **20** parliamentary elections, although the other two in the coalition—Moro's Christian Democrats and the reformist Republicans—had scored gains. Many Socialist leaders attributed the losses to such concessions to Moro's more conservative party as delay in reform of the tax and educational systems and governmental organization.

Southeast Asia Defense Parley—At the end of a two-day Kuala Lumpur, Malaysia, parley on defenses needed in Southeast Asia after Britain withdraws from that country and Singapore in 1971, 5 nations **June 11** reaffirmed their pledge to maintain the defense of the area. They include Great Britain, Australia, New Zealand, Singapore and Malaysia.

A-Ban Treaty Signed—After 4 years of intensive negotiations on measures to halt the proliferation of nuclear weapons, the UN General Assembly **June 12** adopted by a 95-4 vote a resolution commending the draft nuclear non-proliferation treaty submitted by the UN 18-nation Disarmament Committee (ENDC) **Mar. 15**. The endorsement fulfilled a UN General Assembly resolution adopted in 1960 and cleared the way for ratification **July 1**, when 62 nations, including the U. S., Soviet Union and Britain signed.

New Belgian Cabinet—Belgium's 132-day political crisis ended **June 17**, when the new premier, Gaston Eyskens, 63, formed a two-party coalition government with a

extremist student groups were dissolved and protests banned during the campaign. Police cleared the Sorbonne of 200 students without incident **June 16**.

In the relative calm of the campaign, opposition leaders denounced De Gaulle's tactics. Francois Mitterand, leader of the Federation of the Democratic Socialist Left, scoffed: "Two months ago, you would have voted anti-Gaullist, and 2 months from now you would vote anti-Gaullist again." However, De Gaulle won with a grand sweep both on **June 23** and in the runoff **June 30**. Gaullists and their allies won 43.73% of the 22,500,000 votes in the first round, their candidates winning 142 constituencies, thus electing them to the Assembly without undergoing a runoff round. **June 30** they won 294 seats in the 487-seat Assembly, making De Gaulle's party the first in some 100 years to win an outright majority there. The Communists and Mitterand's party lost more than half the seats they had held, their combined total being only 90 votes.

cabinet of 16 Social Christians and 13 Socialists. The two parties had agreed **June 12** on a program for the new center-left government, including the passage of constitutional amendments to give formal recognition to the country's two language regions. The crisis had been precipitated by the demands of each ethnic group, the Dutch-speaking Flemings and the French-speaking Walloons, for greater regional autonomy.

Trudeau Wins—With a decisive victory in the House of Commons elections **June 25**, the Liberal Party gave Canada its first majority government since 1962 and assured its leader, Pierre Elliott Trudeau, a solid mandate as prime minister. The Liberals won 155 of the 264 seats in Commons, compared to the 128 they had held. The Conservatives went down from 94 to 72 seats. On **July 5**, Trudeau announced his new 29-man cabinet, including 8 new members, 15 ministers from his interim cabinet who had their portfolios shifted, and 6 key ministers who, like Trudeau, kept their old posts.

GENERAL

Helen Keller Dies—Helen Adams Keller, 87, blind and deaf writer who was an inspiration to others for more than half a century, died **June 1** in Westport, Conn., after a stroke. Miss Keller, born **June 27**, 1880, in Tuscumbia, Ala., lost sight and hearing after serious illness at 19 months. A legend in her lifetime, she corresponded with the poet John Greenleaf Whittier at 9 and was named with Napoleon as one of "the two most interesting characters of the 19th Century" by Mark Twain. Her first book, "The Story of My Life," was published in 1902—two years before she graduated from Radcliffe. Her early years with her teacher, Anne Mansfield Sullivan, who rescued her from what Miss Keller called the "no world," were depicted in a play and film, "The Miracle Worker." A tireless worker for other handicapped people, she traveled extensively to raise money for the American Foundation for the Blind.

Rockefeller Steps Up Drive—Convinced "the tide has turned" in his favor at Milwaukee **June 3**, Gov. Nelson A. Rockefeller (R., N. Y.), launched a full-speed-ahead campaign for the GOP Presidential nomination **June 10**, after a campaign moratorium following Sen. Robert F. Kennedy's assassination. At Allegheny College in Meadville, Pa., that day he stressed the need for education for the poor. Later, after a Presidential candidate briefing at the White House, he said candidates must not be deterred by the danger of assassination and must "go to the people." Speaking at the National Press Club in Washington **June 11**, he said "a profoundly new mood" would emerge in America after the assassination, calling for "nothing short of a new government, a new party in power and a new leader at the head of the party." He visited the Watts district in Los Angeles **June 11**, challenged Richard Nixon to a debate **June 13**. Pennsylvania Gov. Raymond P. Shafer **June 15** gave up his favorite-son status to back Rockefeller.

California Primaries—Sen. Robert F. Kennedy won California's Democratic Presidential primary and the state's 172 Democratic National Convention delegate votes **June 4**, prior to his assassination. His 46% of the total Democratic vote topped Sen. Eugene J. McCarthy's 42%. State Atty. Gen. Thomas C. Lynch, who headed a 3d slate including supporters of both Senators and Vice President Humphrey, drew 12%. In the GOP primary, unopposed Gov.

Ronald Reagan won as favorite son Presidential candidate.

McCarthy Challenges Humphrey—Asserting the "issues remain essentially the same," Sen. Eugene J. McCarthy **June 12** said in resuming his campaigning after Senator Kennedy's assassination that he would find it difficult to support Vice President Humphrey because of Humphrey's "wholehearted" backing of the Administration's Vietnam policy. Denying he would lead a new party, he said he intended to "work this out within the Democratic party." Addressing Idaho Democratic women at the party's state convention **June 14**, McCarthy accused Humphrey of "not dealing with the issues," adding that "our party should take the most difficult issues to the people, even if it destroys the party." He urged **June 15** that the national convention should "withhold final judgment" until the candidates appeared before it to present their views.

Dr. Spock Convicted—Dr. Benjamin Spock, 65, noted baby doctor, was found guilty **June 14** in Boston Federal District Court with 3 others of conspiring to counsel young men to evade the draft. Convicted with Dr. Spock were the Rev. William Sloane Coffin, Jr., 43, Yale University chaplain; Michael Ferber, 23, Harvard University graduate student; and Mitchell Goodman, 44, author from Temple, Me. A 5th defendant, Marcus Raskin, 34, of Washington, D. C., was found not guilty. The government indictment had cited 10 "overt acts" it contended one or more of the defendants had committed in the conspiracy. The defendants contended they were concerned over the legality of the Vietnam war and the constitutionality of the draft. After the verdict, asserting he would "press my case," Dr. Spock said: "My main defense was I believed a citizen must work against a war he considers contrary to international law." The 4 were sentenced **July 10** to two years in Federal prison by Judge Francis J. W. Ford, who presided over the case. However, execution of the sentences was waived pending steps for appeal.

N. Y. Theater Strike—A 4-day strike, which shut down 19 Broadway shows and 10 touring companies **June 17-20**, ended with a 3-year contract **June 20**. The strike, called by the 15,935-member Actors Equity Association against the League of N. Y. Theaters, idled some 800 performers and several thousand members of other theatrical unions. The new pact called for an increase in weekly pay to \$155 over 3 years and banned replacing anyone with a foreign performer.

New York Primaries—Sen. Eugene J. McCarthy (D., Minn.) won at least 52 of New York's 123 elected delegates in the state's Democratic primary **June 18**, besting delegates supporting Vice President Humphrey and the late Sen. Robert F. Kennedy for the Presidency. Gov. Nelson A. Rockefeller, GOP contender for the Presidency, won 77 of 82 delegates, the remaining 5 going to Richard M. Nixon.

End "Fight, Talk"; Humphrey—Urging an end to "fight and talk," Vice President Humphrey **June 21** called on North Vietnam to join in an immediate cease-fire in Vietnam. The U. S., he said, was "prepared for a cease-fire any hour of the day." Admitting Hanoi "has shown no such interest," he added hopefully: "It may."

DISASTERS

Four workmen were killed and 4 injured when a 300-ft. crane boom collapsed atop a gas storage tank under construc-

tion in Staten Island, N. Y., **June 5** . . . Three balloonists were killed **June 6**, when their balloon struck an 820-ft. tower in Danube Park, Vienna, Austria . . . Five perished **June 12** in a Hong Kong landslide caused by torrential monsoon rains that buried huts in its wake . . . Tornado killed 7 in Tacy, Minn., **June 13** . . . Twenty perished when landslide **June 17** buried row of slum dwellings under tons of gravel and mud in Salvador, Brazil . . . Seven were killed when their twin-engine plane crashed in a field near Reading, Pa., during a thunderstorm **June 19** . . . A twin-jet Air Force training plane crashed in a dense forest area 24 miles northeast of Alexandria, La., **June 19**, killing the instructor and student . . . Earthquake that rocked a large area of northeast Peru **June 19** left 16 dead and 100 injured . . . A bus carrying students from a girls' school collided with a truck and plunged into a river near Cucuta, Colombia, **June 21**, killing 23 and injuring 25 . . . A stampede of 90,000 fans at a Buenos Aires soccer stadium exit **June 23** killed 71 spectators and injured 130, 40 of them seriously . . . A man fell through the door of a chartered DC-3 airliner carrying 23 passengers when it flew open 8,000 feet over southwest Missouri **June 28**; other passengers and crew of 4 were not injured . . . Four persons were killed and at least 20 injured in the flaming collision of a Greyhound bus and a passenger car 13 miles south of Eugene, Ore., on Interstate 5 **June 28**.

July—1968

Intense Fighting After Lull—U. S. B-52s resumed bombing missions north of the DMZ **July 1** but a lull in ground action **July 1-16**, with most fighting south of the DMZ and around Saigon, was attributed to the Communists' readying of a major new drive on Saigon. Military activity stepped up **July 22-23** when U. S. bases around Danang came under rocket and mortar attack and government administrative centers in Quangnai Province were shelled. In the most widespread concerted bombardments since June, the Communists shelled several cities in the province **July 24**. The Viet Cong carried out a series of attacks on civilians **July 21-26**. U. S. ground and air units anticipating a possible assault on Saigon, **July 25-27** attacked possible infiltration routes to the city. National police **July 16** reported abduction of civilians was up and the Reds were reported to have killed 2,567 civilians, wounded 5,348 and kidnapped 4,241 since Jan. 1. Meanwhile, a sharp reduction in Communist shelling of Marine bases in northern Quangtri Province due to recent U. S. air attacks on enemy artillery in the DMZ was reported **July 18**, when B-52s for the first time dropped bombs on North Vietnamese surface-to-air missile sites a few miles north of the DMZ to bolster previous fighter-bomber raids.

U. S., Soviet A-Talks Due—Talks on limiting and reducing their arsenals of offensive and defensive nuclear missile systems were planned by the U. S. and Soviets "in the nearest future," President Johnson announced **July 1** during White House ceremonies for signing the nuclear non-proliferation treaty.

USSR Frees U. S. Jet—The Soviet Union **July 2** freed a Vietnam-bound U. S. airliner carrying 214 servicemen and a 17-man crew 3 days after two Soviet fighter planes forced it to land on Iturp, one of the Soviet's Kurile Islands north of Japan. The release came after the U. S. acknowl-

edged that the Seaboard World Airlines DC-8 Super 63, chartered by the Military Airlift Command, had inadvertently intruded on Soviet airspace due to a navigational mistake while en route to a Japanese refueling stop before flying on to Camranh Bay, Capt. Joseph Tosoline, the pilot, **July 3** insisted he had not "strayed off course" as conceded by the State Dept. **June 30**. He said he had signed a statement admitting the violation only to release the plane and those on it. According to reports **July 2**, Japanese radar indicated the plane had been over international waters.

Paris Peace Talks—U. S. and North Vietnam peace talks in Paris **July 3, 10 and 17** failed to make any progress as Xuan Thuy, the Hanoi representative, charged that U. S. involvement in Vietnam was contrary to the spirit of the Declaration of Independence and read quotes from U. S. critics of the war, ranging from Black Power advocate Stokely Carmichael to Sen. J. W. Fulbright (D., Ark.), W. Averell Harriman, chief U. S. negotiator, countered that Thuy was distorting American history and should not construe American dissent over the war as a sign of weakness. After talking to both sides in Paris **July 6**, UN Secy. Gen. U. Thant said on his return to the U. S. **July 13** he thought the talks would be "a long process," but reiterated his belief that Hanoi would make a "definite move" towards peace if the U. S. were to stop bombing North Vietnam.

U. S. Viet Deaths Soar—The U. S. command in Saigon reported **July 4** that U. S. combat deaths for 1968 had reached 9,557 on **June 29**, or 138 more than the 9,419 killed in all of 1967. As of **July 6**, the total American deaths since Jan. 1, 1961, were reported at 25,752. U. S. officials announced **July 13** that 47,411 South Vietnamese civilians had been treated in hospitals during the first 5 months of 1968, as compared to 49,037 for all of 1967. Earlier, the South Vietnamese government reported **July 3** that 7,424 civilians had been killed and another 15,434 had been wounded during the Communist Tet offensive in February. During the week ending **June 29**, 129 Americans died in combat, the lowest weekly toll since Jan. 1.

LBJ in Central America—President Johnson assured the people of Central America **July 6** that "we in the U. S. want to help" in promoting economic development and social justice. During a visit to San Salvador, El Salvador, he conferred with the presidents of the 5 countries gathered for the final session of a meeting of the Central American Common Market, the Organization of the States of Central America (ODECA). At the same time he announced he had just approved an additional U. S. contribution of \$30,000,000 to the Central American Bank for Economic Integration for development of regional transport and communication systems, as well as loans totaling \$35,000,000 for distribution among the 5 nations in the market. After touring San Salvador **July 7**, Johnson dropped off the presidents of Nicaragua, Costa Rica, Honduras and Guatemala before returning to Washington **July 8** in his plane.

Clifford in Vietnam—In his first visit to South Vietnam as Secretary of Defense, Clark Clifford **July 14-18** conferred with U. S. and South Vietnamese officials and told reporters in Danang **July 17** he ex-

pected the enemy to launch a major new assault within two months. He termed the easing of ground fighting at the time "a lull before the storm" and tied the enemy's combat plans to "the desire to make an impression" on the Paris conferees, hoping to affect the negotiations with "some spectacular accomplishment."

Senate Unit Quizzes Fortas—The first nominee for Chief Justice of the U. S. ever called upon to do so, Supreme Court Justice Abe Fortas testified before the Senate Judiciary Committee **July 16-19** on his legal philosophy and fitness for confirmation. The longtime friend and adviser of President Johnson admitted he had continued to counsel the President while serving on the court, but cited such precedents as Presidents Washington, Jackson, Lincoln, Hoover and Roosevelt having had advisers on the court. Questioned at length and often harshly by such committee critics of his nomination as Sens. Sam J. Ervin, Jr. (D., N. C.) and Strom Thurmond (R., S. C.), Justice Fortas refused to discuss decisions in which he participated, asserting that to do so would violate the doctrine of separation of judicial and legislative power. The 9-day Fortas hearings were put off **July 23** until after Labor Day and also delayed the President's nomination of Judge Homer Thornberry of the U. S. Court of Appeals as Justice Fortas' successor.

3 U. S. Pilots Freed—Three captured U. S. airmen were freed by Hanoi **July 18** for "humanitarian" reasons. The 3, shot down in raids over North Vietnam, were Maj. James F. Low, 43, of Sausalito, Calif.; Major Fred N. Thompson, 32, of Taylor, S. C., and Capt. Joe V. Carpenter, 37, of Victorville, Calif. Kept in Hanoi until **Aug. 2**, the 3 were flown to Vientiane, Laos, in an International Control Commission plane. From there they arrived in New York **Aug. 4** via commercial airliner.

LBJ, Thieu in Hawaii—Following a 10-hour conference in Honolulu **July 19** with South Vietnamese Pres. Nguyen Van Thieu, President Johnson said he had affirmed that his Administration was "determined" to defend South Vietnam while exploring every avenue to peace. Thieu

said he had no doubts about the commitment of both countries to work closely together in defense of his country and to keep "aggression" from succeeding.

LBJ Addresses Governors—Asserting "we are doing everything we can to get the enemy to meet us halfway," President Johnson at the annual Governors Conference in Cincinnati **July 23** defended the Administration's Vietnam policies. He also stressed the need for Federal and state cooperation in tackling such major domestic problems as crime, unemployment of the disadvantaged, urban blight and inadequate health problems.

INTERNATIONAL

Soviets Pressure Czechs—The Kremlin conducted a 3-prong campaign—military, propaganda and diplomatic—in **July** to pressure the Czechs into backing down on the liberalization program of Alexander Dubcek's regime, starting with a reluctance to remove Soviet troops which should have been out of the country by **July 1** after a month of Warsaw Pact troop army games. The Russian and East bloc press kept up a steady attack on the "counter-revolutionary" forces which were trying to make the "people's democracy" more democratic. After a diplomatic cat-and-mouse game, in which Dubcek, backed solidly by his countrymen, declined a Kremlin summons to a Warsaw meeting **July 14** and **15** and an invitation to come to Moscow, the Russians **July 22** made an unprecedented concession: the 11-member Politburo, which had never left the USSR in a body, would meet with Czech leaders in their country. **July 23** the Kremlin announced it would hold war maneuvers on its western borders up through **Aug. 10**. With troops and a great show of military strength along its 1,000-mi. frontier from the Baltic to North Seas, the meeting was held in Cierna, just inside Slovakia at the Soviet border **July 29-Aug. 1** in strictest secrecy.

Kennedy Round Cuts Start—Tariff cuts stipulated under the year-old Kennedy round agreement to reduce the western world's tariffs by 35% over a 5-year period were started **July 1** by the 18 member nations of GATT (General Agreement on

Hunger Joins War on Secessionist Biafra

After 14 months of cruel and bitter civil war, secessionist Biafra, home of the Ibo tribe, was outmanned and outgunned by Nigeria and driven from rich crop-lands into a landlocked circle of rain forest entirely surrounded by federal troops and almost completely cut off from food supplies.

Malnutrition was killing at least 6,000 a day, or 42,000 a week, of the 8,000,000 Ibos crowded into an area one-fourth the size of Biafra's original territory, according to a July estimate by Dr. Herman Middlekoop, representative of the World Council of Churches in Biafra. Pictures of starving Ibo children touched the conscience of the world but the intransigence of both sides kept food and medicine from reaching noncombatants. A Nigerian official said **July 2** that Biafra was using starvation to win world sympathy.

Tons of food were flown in at great expense and risk by relief agencies since Nigeria **July 5** had warned that unauthorized planes would be shot down and offered to set up land mercy routes, insisting on searches for arms in the shipments. Biafrans, fearing the food was poisoned, refused to touch it.

UN Secy. Gen. U Thant **July 10** urged

Biafran leaders to settle for land routes and "to cooperate more fully, with the international community in its genuine endeavors to ameliorate the miserable plight of the peoples of that region."

Caritas, the international Catholic relief organization, reported **July 15** it had flown 30 plane-loads of food and medicine, about 315 tons, to Biafra since March. The World Council of Churches, which had raised \$3,800,000 since March, **July 15** voted for an additional \$3,000,000 for relief for both Nigeria and Biafra.

Despite reports of food buildups in nearby Spanish and Portuguese islands and in Lagos, Dr. Middlekoop said **July 21** the supply reaching Biafra had actually been declining. He said that since **July 1** some 123 tons of food had been brought in by Caritas, the World Council of Churches and the Red Cross, and this amounted to "less than we got in 3 weeks in April and May."

The U. S. announced **July 12** it was donating \$1,300,000 worth of food, bringing the total of U. S. contributions and supplies to \$2,500,000 and the total from all private and public U. S. sources to \$4,300,000.

Tariffs and Trade). The cut for most of the members constituted 40% of the total planned in the accord. Those participating included the 6 Common Market nations, Britain, Japan, Norway, Sweden, Denmark, Finland, Spain, Brazil, India, Pakistan, Ceylon and Nigeria. At the same time, the Common Market countries dropped all remaining tariffs among themselves and aligned their common external tariff with Kennedy round cuts. France went along with the cuts, but because of her revolt-weakened economy imposed temporary import quotas and export subsidies.

Canadian Medicare—The Canadian Medical Care Insurance Program got under way July 1, in British Columbia and Saskatchewan, with the Federal government sharing equally costs for the free medical service. The 1st year's cost of the program was put at \$82,000,000 by Health Min. Allen J. MacEachen, who predicted all provinces would be participating in the plan by 1970.

Nasser in Moscow—Following conferences with Krenlin leaders during a visit to Moscow July 4-10, UAR President Gamal Abdel Nasser, accompanied by Lt. Gen. Abdel Moneim Riad, UAR chief of staff, joined his hosts in a communique condemning "Israel and the imperial forces supporting it." In the communique

the Soviets pledged continued economic and political support of the UAR and in "strengthening its defense potential."

French Pacific A-Tests—With the explosion of a conventional atomic device one-third of a mile above Mururoa Atoll in the Pacific, France resumed its nuclear testing program July 7. The test, the 13th French atmospheric detonation, was the first since July 2, 1967. Fearing radioactive pollution of the atmosphere, Japan, Peru, New Zealand and the Polynesian Territorial Assembly lodged protests against it. A 14th test over the atoll, second in the series believed to be a prelude to a French hydrogen bomb explosion, followed July 15.

De Gaulle Drops Pompidou—President Charles De Gaulle July 10 named Maurice Jacques Couve de Murville, 61, to succeed Georges Pompidou, 57, as premier of France. The move spurred wide speculation, coming as it did after the Gaulists' popular sweep in the June elections, much of which was credited to Pompidou. The new premier, who had been finance minister, formed a cabinet two days later, composed largely of members of Pompidou's cabinet, including such key members as Michel Debré, kept on as foreign minister; Andre Malraux, as cultural affairs minister; Pierre Messmer, as armed forces minister, and Raymond

Pope Paul VI Issues Birth Control Ban

An encyclical condemning all methods of birth control except rhythm as against the will of God was promulgated by Pope Paul VI July 25. The pronouncement, "Humanae Vitae" (Of Human Life), made public July 29, upheld the doctrine of Pope Pius XI in 1930 proclaiming that "each and every marriage act (of sexual intercourse) must remain open to the transmission of life."

The declaration, coming after a 5-year period in which the Church had indicated it was mulling changes in its traditional stand on contraception, stirred gales of protest from Catholic and non-Catholic clergy and laymen. It rejected the recommendations of the 75-member Commission for the Study of Problems of Population, Family and Birth Control appointed by Pope John XXIII in March 1963 and the Vatican II Ecumenical Council, which had approved the spacing of children by contraception provided a man and wife recognized their obligation to God, to each other and the creation of a family.

Many Catholics declared they would refuse to heed the ban and theologians of other religions joined Catholics in insisting the encyclical was not binding on married Catholics who have reason to practice birth control. Such factors as mutual love and social circumstances should also be considered in guiding the conscience on the morality of contraception, the Dutch hierarchy advised Catholics in refusing to support the encyclical.

Many of the hierarchy were openly disappointed—like Franciscus Cardinal Koenig of Vienna, who tried to keep the Pope from publishing the declaration. Other clerics expressed outrage. "It is incredible that the Pope could even be thinking about issuing such a statement," said the Rev. Charles Curran, vice president of the Catholic Theological Society of America and professor at Catholic U. on July 27. Father Curran and 172 U. S. theologians and other Catholics, including all 6 American lay members of the

pontifical birth control commission, July 30 rejected it as outdated and inadequate and urged couples to decide for themselves, "according to their consciences."

"Rome has spoken," Richard Cardinal Cushing of Boston said July 29 and, according to an old Church proverb, that would have indicated that the case was closed but the protests grew to tidal wave proportions.

At the Lambeth Conference of Anglican bishops July 30, the Rt. Rev. J. R. Moorman, a Church of England observer at Vatican II, called it "ecumenically, a disaster for Christianity."

The encyclical also urged world leaders to prevent the use of birth control methods that "allow the morality of your peoples to be degraded" and warned that "directly willed and procured abortion, even if for therapeutic reasons . . . (was) absolutely excluded as licit means of regulating births," adding that sterilization, whether perpetual or temporary, whether of the man or woman was also prohibited. The impact of the edict on population control programs in such areas as Latin America was of special concern to many. A West Berlin paper, Die Zeit, asked: "How is this Papal decree reconcilable with the command to love thy neighbor, when we already know that between now and 1980 approximately 40,000,000 people will starve to death?" Archbishop Thomas Roberts, a Jesuit pacifist and former Bishop of Bombay, said in London July 29 that the encyclical "flies in the face of reality."

In a message July 31, the National Conference of Catholic Bishops came to the defense of the Pope. Asserting that "we are aware of the difficulty that this teaching lays upon so many of our conscientious married people," the bishops' statement said "we must face the reality that struggling to live out the will of God will often entail sacrifice." Bishop Fulton J. Sheen of Rochester Aug. 4 praised the Pope's "courage to oppose mass demand for the frustration of life."

Marcellin, as interior minister.

Seaway Strike Ends—A pact calling for a 19% wage increase over 3 years **July 14** ended a strike of some 1,250 bridge and lock operators, maintenance men and other workers on the St. Lawrence Seaway. The strike, called by the Canadian Brotherhood of Railway, Transport and General Workers **June 21** tied up 71 ocean-going vessels and about 200 Canadian Lake vessels. It cost shippers, workers and the St. Lawrence Seaway Authority about \$15,000,000.

Geneva Talks Resume—The UN Disarmament Committee, which had been in recess since **Mar. 4**, reconvened in Geneva **July 16**. William C. Foster, chief U. S. delegate and co-chairman of the 18-nation conference, read a message from President Johnson urging the parley to come up with a "workable" plan to bar "weapons of mass destruction" from the sea bed.

Coup in Iraq—A group of Iraq army officers sympathetic with the right wing of the Baath Socialist party toppled the government of Pres. Abdel Rahman Arif **July 17**. The Revolutionary Command Council, with Maj. Gen. Ahmed Hassan al-Bakr, 56, a former premier and defense minister, at its head, called the leftist Arif regime "opportunists, thieves, ignorant, illiterate Zionist spies" and urged liberation of Palestine "now, not tomorrow."

Canada Postal Strike—All postal service in Canada came to a halt for 22 days when some 24,000 letter carriers and postal workers went on strike **July 18** after rejecting the government's **July 17** pre-strike pay offer as inadequate. Negotiators reached an accord **Aug. 6** after more than 30 hours of non-stop bargaining. The strikers **Aug. 8** approved a contract retroactive to **Aug. 1**, 1967, with a pay increase amounting to 15.1% over 26 months on the average hourly wage of \$2.57. They returned to work **Aug. 9**.

Israeli vs. Arab Guerrillas—Clashes along the west bank of the Jordan River **July 17-22** took a heavy toll of Arab guerrillas, bringing to 59 the number killed since early June, according to Israeli army figures. Seven more, identified as members of Al Fatah, were killed **July 26** in a two-hour clash with Israeli army troops near Jericho. Two Israelis were killed and 10 wounded in the earlier clashes, while two Israeli officers were killed in the Jericho engagement.

Arabs Hijack Israeli Plane—Three armed Arab guerrillas **July 23** hijacked an Israeli commercial airliner en route from Rome to Tel Aviv over Italian airspace and forced it to land in Algiers. The 19 non-Israeli passengers were flown to Paris in an Algerian plane later in the day, while 10 Israelis, including 4 women, 3 children and 3 of the plane's hostesses, were released **July 27** and flown to Geneva. However, the Algerian government continued to hold 7 crew members and 5 Israeli passengers, as well as the El Al Boeing 707 jet. Israel **July 23** denounced the act as "airborne hijacking" and **July 28** called on the UN to help negotiate for the release of the plane. Algeria denied being "involved" in the hijacking. The hijackers were members of the Popular Front for the Liberation of Palestine, which claimed **July 23** its members had taken over the plane without any advance knowledge of the Algerian government. **July 24** it said it had asked the International Red Cross to supervise the ex-

change of the Israeli crew and passengers in Algiers for captured Palestinian guerrillas imprisoned in Israel. On **Aug. 31** Algeria freed the 7 crew members and the last 5 passengers, two weeks after the International Federation of Airline Pilots' Association dropped a threatened boycott of Algerian airports on condition that they be released.

GENERAL

Seamen Win Wage Hike—A contract providing a 5% wage hike and 15 more vacation days **July 1** ended the 3-day seamen's strike called by the AFL-CIO Maritime Union against 73 firms bargaining through the Maritime Service Committee and Tanker Service Committee. The strike idled more than 100 freighters and involved some 45,000 seamen.

N. Y.-Moscow Air Link—After 7 years of diplomatic and technical delays, direct airline service between New York and Moscow was launched **July 15**. Commercial jets of the two countries were scheduled to make one round trip a week each between the two cities.

Cleveland Ghetto Riot—A small band of black nationalists the night of **July 23-24** fired rifles pointblank at two policemen in a squad car on the edge of the city's Glenville ghetto district. With snipers shooting from all sides, the outgunned police called for reinforcements and in the 4-hour pitched battle which followed 7 persons were killed—3 black nationalists, 3 white policemen and a Negro who had tried to help the wounded policeman. The eruption ignited a full scale riot and looters and arsonists rampaged through Glenville and nearby Hough, and 3 more Negroes were killed. Damage on insured property was estimated at \$1,500,000. Altogether, 23 persons were wounded—15 in the 1st gunfight. Some 2,700 National Guardsmen brought tenuous order by dawn. Mayor Carl Stokes pointed out that while previous riots had been "a spontaneous reaction to an unresponsive environment," the Glenville conflict had been planned by a few "determined men." Their alleged leader was 37-year-old Fred (Ahmed) Evans, an astrologer in African robe, who had received a summer grant from Stokes' "Cleveland: Now" action group. Evans calmly surrendered to the police, after his gun had jammed. Stokes the 2d night withdrew all white police and National Guard and replaced them with some 100 Negro policemen and about 500 Negro civilian volunteers, most of them militants, who with the aid of heavy rain "cooled it." Some looting continued but the rioting stopped. On the night of **July 25** he brought back the integrated police and some Guards and imposed a 9 p.m.-6 a.m. curfew, having ordered all bars and liquor shops to close. Evans **July 26** was charged with 1st degree murder of the 3 policemen. The 400 Guardsmen were returned to their armories **July 27**.

Ted Kennedy Says No—In a statement **July 26**, Sen. Edward M. (Ted) Kennedy (D., Mass.) said he would not accept the Democratic Vice Presidential nomination if it were offered him. His "final decision," given for "personal reasons," ended speculation that he might be Vice President Humphrey's running mate in the hope that his candidacy would have a unifying effect on the party.

Steel Pact Spurs Price Tiff—The AFL-CIO United Steelworkers of America (USW) and 11 big steel producers reached accord **July 30** on a 3-year contract providing a package hike of about 6%. The

package, covering about 400,000 workers, was valued at about 90 cents an hour per worker over 3 years by the steel giants and well over \$1 billion by USW Pres. I. W. Abel. Bethlehem Steel July 31 announced a 5% across-the-board steel price rise. The same day the steel firm reported a jump in profits for the 2d quarter and 1st half of 1968, attributing it to consumer steel stockpiling as a hedge against a possible strike. President Johnson July 31 resisted the price hike as an "inflationary threat." Bethlehem was adamant and later, July 31 Republic Steel announced 4½% increases and other firms followed suit. The price dispute between the Administration and the industry continued until Aug. 7, when U. S. Steel Corp., the largest producer, posted hikes averaging 2½% and others, including many who had slated higher increases, adjusted to that figure.

DISASTERS

Gas fumes from a sewer line at a Canton, N. C., paper mill killed two July 3, hospitalized 4 . . . Seven persons and 8 horses perished July 3 when a British cargo plane carrying racehorses from France crashed into two parked jet airliners at London airport . . . Five members of a family died in crash of twin-engine plane July 3 in a field near Gasport, N. Y. . . . Torrential rains in Seoul, South Korea, July 4 killed 12 persons . . . Two horses perished but 125 were led to safety July 4 when a fire swept through barns at Charlottetown Driving Park, Prince Edward Island . . . A Clyde Beatty-Cole Bros. Circus tent collapsed during a thunder storm in Auburn, N. Y., July 9, trapping 300 and injuring at least 110 . . . Thousands were left homeless and 66 perished in Pakistan floods July 14 . . . Mexicali, Mexico, heat wave July 12 killed 40 persons, mostly children . . . Torrential rains and floods in 3 states in India swept away hundreds of homes, isolated dozens of villages and left 45 dead July 14 . . . Nine persons were killed and 6 seriously injured when a truck carrying 20 crashed over a bridge parapet near Beni Mellal, Morocco, July 15 . . . Fresh areas of the South Indian state of Kerala were swamped by flood waters July 20, killing 6 and driving thousands from their homes . . . An emerald mine tunnel cave-in near Bogota, Colombia, July 20 killed 8 miners, trapped 7 . . . Fire swept through wing of Sahara Hotel, Las Vegas, Nev., July 20, routing 400 guests and injuring 29 . . . Seven were badly burned July 21 when their 19-foot motorboat exploded and burst into flames in Norwalk, Conn. . . . A train collided with a bus carrying 39 migrant farm workers in Newtonville, N. J., July 23, killing 9 of the laborers and injuring 16 . . . A typhoon cut across southern Japan July 28, leaving 22 victims, most drowned in flood waters . . . About 4,000 refugees fled when Costa Rica's Mt. Arenal volcano erupted for 4 days, July 29-Aug. 1, killing 78, injuring more than 100 and leaving many missing.

August—1968

NATIONAL

U. S. Viet Forces Up—American troops in South Vietnam rose to 541,000, according to a U. S. command announcement Aug. 1.

Vietnam War Intensifies—Allied forces swept the Ashau Valley Aug. 4-6 as Vietnam fighting intensified from the Mekong Delta to the demilitarized zone. Heavy civilian and army casualties resulted from accidental ground and air attacks Aug. 8, 9 and 10. U. S. and enemy casualties

rose as fighting grew more savage Aug. 18-31, especially in the Mekong Delta, the Saigon area and the northern provinces. In the highest weekly combat loss since June 1, 408 Americans died Aug. 25-31. Enemy deaths for the week were put at 4,755, most of them in the attack on a U. S. camp at Duclap in the mountains near Cambodia. At month's end, total U. S. casualties reported since 1961 came to 27,508 killed and 171,809 wounded. As of Aug. 29, 3,000 civilians had been reported killed in terrorist attacks since Jan. 1 and the Viet Cong had kidnapped 4,850.

Paris Peace Talks—There was no progress in Paris peace talks Aug. 7, 14, 21, and 28 as Hanoi representatives continued to press for an unconditional end to U. S. bombing in North Vietnam.

FRB Discount Rates Cut—The Federal Reserve Board (FRB) cut its basic discount lending rate from 5½% to 5¼% Aug. 16. President Johnson hailed the move as a needed stimulus to homebuilding.

'Up to Hanoi Now!' LBJ—The "next move" was up to Hanoi, President Johnson told the Veterans of Foreign Wars at their convention in Detroit Aug. 19. He declared the U. S. would take no further steps to de-escalate in Vietnam until Hanoi indicated it would make a serious move toward peace. "We have made a reasonable offer and we have taken first a major step," he said, referring to the Mar. 31 bombing curtailment and offer to halt bombing in return for "prompt de-escalation" by Hanoi.

Envoy to Guatemala Slain—Terrorists shot and killed John Gordon Mein, 54, U. S. Ambassador to Guatemala, Aug. 28 after stopping his car while he was enroute back to the Embassy after a luncheon. Mein, the first U. S. ambassador murdered at his post, had been in Guatemala since September, 1965. A pro-Communist guerrilla group, the Rebel Armed Forces (FAR) announced Aug. 29 it had planned to kidnap the envoy in retaliation for the government's capture Aug. 24 of a FAR leader.

Eisenhower Rallies—After suffering two heart attacks, his 6th and 7th, Aug. 6 and 16, former President Dwight D. Eisenhower was removed from the critical list Aug. 29. His 6th attack came 10 hours after he had addressed the GOP convention by closed circuit TV from his suite at Walter Reed Army Medical Center in the capital. He suffered continual heart spasms known as ventricular fibrillations and cardiac irritability after his 7th attack. An electronic pacer placed in his heart Aug. 18 was removed later that day as unsuccessful. He suffered new attacks of irritability and spasms Aug. 21 and 24 but improved steadily, and by Sept. 3 the hospital stopped issuing daily bulletins.

INTERNATIONAL

Congo-Brazzaville Coup—Coup leaders reversed themselves and called back Pres. Alphonse Massamba-Debat of the Republic of Congo-Brazzaville Aug. 4, a day after they had ousted him. Capt. Marien Ngouabi, a paratroop commander who reportedly had led the left-wing Army officers' coup, was named army commander by the returned president on Aug. 5.

UN Raps Israeli Raids—The UN Security Council met Aug. 5 to study a new Middle-east flareup after a 3-hour Israeli air raid on Arab guerrilla bases 10 mi. inside Jordan Aug. 4, during which both countries exchanged tank and artillery fire across the Jordan River. Israeli helicopter-borne troops Aug. 6 pursued a band of Arab

guerrillas into Jordan, blew up their jeep and a cave believed to have been their base. On Aug. 16 the Security Council unanimously condemned Israel's Aug. 4 air attack as a "flagrant violation" of the UN Charter and the Council's Mideast resolution.

Tito Visits Prague—Yugoslavia Pres. Tito Aug. 9-11 visited Prague to indicate his support of Communist chief Dubcek. He was followed Aug. 15-17 by Romanian Pres. Nicolae Ceausecu, also a sympathizer with the reformist regime.

Biafra Relief Stalled—Nigeria Aug. 15 rejected a plan of the International Committee of the Red Cross in Geneva to fly food to starving Biafra via a neutral airstrip. The Red Cross deplored the rejection Aug. 17, asserting in a joint statement with other relief organizations that the civil war was its biggest emergency since World War II. Its relief flights, as well as those of other agencies, had been suspended since Nigerians fired on a Red Cross-chartered plane Aug. 8-9. A private U. S. organization, the American Committee to Keep Biafra Alive, focusing on the starving children, demonstrated in front of UN headquarters in New York Aug. 8 and 18 and called for quick international relief. Other U. S. groups, including several church agencies, also raised funds. Meanwhile, new peace talks, which opened in Addis Ababa, Ethiopia Aug. 5, brought neither side closer to agreement on ending the conflict. An Aug. 14 session on getting relief to victims of the civil war came to naught.

French Fusion Bomb—France became the world's 5th thermonuclear nation Aug. 24 with the explosion of a fusion bomb suspended from a balloon one-third of a mile above its Mururoa Atoll test site. The explosion, after 8 years and 15 atmospheric tests of fission devices, released energy equal to that produced by the blast of 2,000,000 tons of TNT, according to a Paris report Aug. 27.

GENERAL

Wolfson Convicted—Louis B. Wolfson, 55, Florida financier, and 3 of his associates

were convicted in New York Aug. 8 of violating the Securities and Exchange Act. They were found guilty by a Federal jury in connection with selling and buying of stock of Merritt-Chapman & Scott Corp., a shipbuilding, construction, chemicals and money-lending firm, currently being liquidated.

Poor People Demonstrate—Describing the demonstrators as "representatives of the 51st State—that of poverty," the Poor People's campaign moved to Miami Beach Aug. 5 to confront the GOP delegates. The Rev. Ralph D. Abernathy, leader of the drive, lauded N. Y. Gov. Nelson A. Rockefeller Aug. 6 as "one of the last chances for the Republican Party to really win back the black vote." Making the rounds of the major candidates' headquarters Aug. 7, the demonstrators were cheered at the Rockefeller hotel, met with a counter-demonstration at Nixon HQ and were barred from a Reagan press conference.

Detroit News Blackout Ends—The 267-day news blackout in Detroit ended Aug. 9 when the city's two daily papers, shut by labor disputes, resumed publication after an agreement on new pacts calling for a \$33-a-week pay raise over 34½ months. A strike by the Teamsters Union against the Detroit News had started the shutdown Nov. 15, 1967. Two days later, the Detroit Free Press closed.

McGovern in Presidential Race—Sen. George S. McGovern (S. D.), 46, announced his entry in the Democratic Presidential race Aug. 10, asserting he was committed to the "twin goals for which Robert Kennedy gave his life—an end to the war in Vietnam and a passionate commitment to heal the divisions in our lives here at home."

Pope Visits Colombia—In the first Papal visit to South America, Pope Paul VI went to Bogota, Colombia, Aug. 22-24 for the 39th International Eucharistic Congress of the Roman Catholic Church. Warning against the use of "violence and revolution" as being "contrary to the Christian spirit," he called for social and economic reform on the continent. Welcomed by cheering crowds everywhere,

Soviet Union Invades Czechoslovakia

More than 200,000 Soviet troops, augmented by token forces from loyal Warsaw Pact puppets, invaded Czechoslovakia Aug. 20-21.

The outraged populace staged a stunning nonviolent campaign since physical resistance was useless as Soviet tanks and paratroops took over Prague and other key areas. Their force rose to 650,000 in a week. Throngs of unarmed Czechs gathered, proclaiming their loyalty to Communist Party First Secretary Alexander Dubcek, who with 6 other liberal Czech Communists, had been taken to an unknown destination.

As the invaders solidified their position, 1,200 delegates to the Czech Communist party Aug. 21-22 held a clandestine meeting and elected a new and liberal presidium which told the Russians to get out or face a general strike. The strike lasted one hour as 20,000 peaceful demonstrators marched in Prague's Wenceslas Square in front of Soviet tanks and soldiers, shouting, "Russian murderers go home."

The world outcry against the invasion included protests from some major Red parties. The U. S. and 6 other nations took the issue to the UN Security Council, demanding condemnation of the invasion. The action met with the Soviet Union's 105th veto after it was approved 10-2 Aug.

23; only Hungary voted with the Kremlin.

Concern centered on the fate of Dubcek and there were unconfirmed rumors he had been killed. Vowing he would not bow to a Moscow-imposed puppet regime, Czech Pres. Ludvik Svoboda left for the Kremlin Aug. 23 to attempt to resolve the crisis.

Dubcek and Svoboda returned to Prague Aug. 27 and urged their people to remain calm in the face of Soviet demands for reversal of the regime's liberalization of Communism. The people cried betrayal at first, when the price they would have to pay was announced Aug. 29: They would have to settle for loss of some of their most precious recent reforms—liberalization of the press and the right to form non-Communist political organizations.

Moscow agreed in turn to send some troops home and to withdraw eventually, but there were no guarantees for that "other than our own wisdom," Natl. Assembly Pres. Josef Smrkovsky said Aug. 29. A new 21-member ruling presidium superseding the one chosen at the secret Aug. 23 meeting was elected Sept. 1. The new presidium, again headed by Dubcek, was chosen after a two-day Prague meeting in which plans to reshuffle the government to suit the Soviets were made.

he denounced "the unjust economic inequalities between rich and poor, and abuses of authority and administration against you and the community" in addressing 35,000 peasants Aug. 23.

DISASTERS

At least 307 perished in Manila earthquake Aug. 2 . . . Seven died in British freighter fire 800 mi. off New Zealand coast Aug. 5 . . . Mine shaft explosion near Greenville, Ky., Aug. 7 killed 9 . . . Interstate bus plunged over precipice near Rio De Janiero, Brazil, Aug. 9, killing 6, injuring 14 . . . British airliner crash north of Munich Aug. 9 left 48 dead . . . Thirty-five of 37 aboard died in Piedmont Airlines plane crash Aug. 10 just short of Charleston, W. Va., airport . . . At least 200 died and 500 disappeared in series of earthquakes and tidal waves starting in Celebes islands, Indonesia, Aug. 10 and ending with sinking of Tuguan island Aug. 15 . . . Italian oil tanker explosion off Sicily coast Aug. 11 killed 7, injured 7 . . . Los Angeles Airways helicopter crash in Compton, Calif., Aug. 14, on way to Disneyland, killed all 21 aboard . . . Overflowing dam flooded 3 villages in northeastern Nicaragua Aug. 14, leaving 2,000 homeless, 19 missing . . . Floods in GurGujarat and Rajasthan, India, claimed more than 1,000 lives in 7 days, according to Bombay reports Aug. 14 . . . At least 21 were killed when a factory making explosives for toy pistols blew up Aug. 16 in Ibi, Spain . . . All 40 aboard perished in Egyptian airliner plunge into Mediterranean north of Port Said Aug. 18 . . . At least 102 women and children were killed when two sight-seeing buses were swept into typhoon-rain swollen river during Honshu, Japan, landslide Aug. 18 . . . Earthquake in Donggala city, Celebes, Indonesia, killed 200 Aug. 20 . . . All 10 aboard a bus died in collision with a truck near Tarragona, Spain, Aug. 20 . . . Eight were killed, 3 injured while fighting brush fire in Glendora, Calif., Aug. 24.

September—1968

NATIONAL

Paris Talks Stalemate—U. S.-North Vietnam talks in Paris Sept. 11, 17 and 25 continued at a stalemate, with both sides airing conflicting battlefield claims.

Savage Vietnam Battle—A savage battle Sept. 11-16 in and around Tay Ninh, a major invasion route to Saigon, cost the Communists at least 500 men killed. The Allied toll was more than 200 killed or wounded. In one of the longest sustained U. S. thrusts inside the southern half of the DMZ, 2,000 Marines were airlifted to the southern half Sept. 17 to prevent an expected drive south by two Hanoi Divs. and to neutralize enemy pressure on Allied outposts along the 40-mi. stretch. They were bolstered by 4,000 more Sept. 27. The New Jersey, the world's only active battleship, which had arrived from the U. S. after its release from the mothball fleet, shelled enemy targets in the DMZ Sept. 30.

Ball Leaves UN Post—George W. Ball, chief U. S. representative to the UN, resigned Sept. 26 to join Vice President Humphrey's Presidential campaign staff as top foreign policy adviser. His resignation after 5 months at the UN was announced by President Johnson, who designated James Russell Wiggins, 64, editor and executive vice president of the Washington Post, as Ball's successor.

INTERNATIONAL

Massamba-Debat Ousted—Congo-Brazzaville Pres. Alphonse Massamba-Debat was

ousted again Sept. 4 for failing to "assure peace and national unity" by the military government following fierce fighting between regular army units and a Cuban-trained militia of some 300 men. The rebels reportedly had resisted incorporation of the militia into the army, which took over their camp late Aug. 31. The junta, headed by Capt. Marien Nguabi, named Alfred Raoul interim president.

'Final' Nigerian Assault—Nigeria claimed the capture of the Biafran cities of Aba Sept. 4 and Owerri Sept. 16 in what the army described as its "final offensive" against the secessionist state. Federal troops were reported marching on Umuahia, the last remaining city held by the Biafrans and headquarters of their military leader. Lt. Col. Chukwuemeka Odu-megwu Ojukwu.

UN Truce Bid—The UN Security Council, meeting since Sept. 4 to study Israeli charges that Egyptians had kidnapped an Israeli soldier after killing two others in an ambush along the Suez Canal, Sept. 18 called on Israel and the Arab states to respect the Council's cease-fire orders and urged them to cooperate with UN envoy Gunnar V. Jarring's Mideast mission.

Czechoslovak Crisis Continues—Soviet 1st Deputy Foreign Min. Vasily V. Kuznetsov arrived in Prague Sept. 6 to confer with Czechoslovak leaders for 5 days on the Moscow agreement. In line with that accord, two quasi political clubs formed in the wake of the liberalized Dubcek program were outlawed Sept. 6. This followed the banning Sept. 2 of 3 journals termed "counterrevolutionary" by the Soviets. Premier Oldrich Cernik in an economic mission to Moscow Sept. 10 signed two trade protocols. One provided for the USSR to build a natural gas pipeline from Kiev. The other was not disclosed. Soviet tank units moved from conspicuous positions in Prague to the surrounding countryside Sept. 11, but continued to occupy strategic areas such as the international airport. The National Assembly Sept. 13 reimposed "preventive censorship." Dubcek appealed for public order Sept. 14, urging his people not to provoke clashes with the occupying troops. After intensive Soviet pressure for his dismissal, Foreign Min. Jiri Hajek was ousted Sept. 19. Hajek, who had been in Yugoslavia at the time of the invasion, had put his country's case against the occupation before the UN. A Dubcek mission to Moscow authorized by the presidium due to rising disagreement over the interpretation of the Moscow agreement was cancelled Sept. 24.

UAR-Israeli Clashes Continue—Both Israeli and Egyptian forces suffered heavy casualties in a 4-hour artillery duel across the cease-fire line of the Suez Canal Sept. 8. The Israeli reported 10 soldiers killed, 17 wounded; Egypt, 5 soldiers and 6 civilians killed, 12 soldiers and 30 civilians wounded. Three Egyptian towns were reported heavily damaged. Arab saboteurs had carried out damaging explosive attacks in Jerusalem Aug. 18 and in Tel Aviv Sept. 4 as part of a stepped-up guerrilla terror drive against Israeli civilians. Sporadic guerrilla and Israeli patrol clashes continued along the cease-fire line and Sept. 25 Israeli Defense Min. Moshe Dayan said he feared another war was imminent. Israeli Foreign Min. Abba Eban Sept. 26 rejected a 4-point USSR plan to end the Mideast impasse as identical to a plan presented by the Soviets Nov. 22, 1967, which he said, called for Israeli withdrawal "without the possibility of sure and recognized frontiers."

2d French H-Bomb—France exploded its second hydrogen bomb Sept. 8 over its

Mururoa Atoll testing ground and announced the end of the two-month test series, which had included 3 atomic and two thermonuclear explosions, on Sept. 9.

France Vetoes UK Again—France for the 3d time vetoed Britain's entry into the European Common Market Sept. 27, when it turned down a West German interim plan to give the United Kingdom membership.

Canadian Parliament Opens—with a Liberal party majority in the House of Commons, Canada's Parliament opened Sept. 12. The traditional opening speech, read by Gov. Gen. Roland Michener to Commons and the Senate, was prepared by Prime Min. Pierre Elliott Trudeau and reiterated his pledge for a "just society."

West Bars Soviet Force—The U. S., Britain and France warned Russia Sept. 17 that carrying out its threats to use military force against West Germany would bring "immediate Allied response" under the North Atlantic Treaty.

Philippines Claims Sabah—A law claiming Malaysia's Borneo state of Sabah belonged to the Philippines Republic was signed by Philippine Pres. Ferdinand E. Marcos Sept. 18, and precipitated a rupture with Malaysia, which suspended diplomatic relations with the Philippines Sept. 19. There were international repercussions as well since the U. S. proclaimed its neutrality, for which it was assailed by Manila legislators Sept. 20. Thousands marched in protest against the Philippines in Malaysia Sept. 20. In retaliation for British support of Malaysia in the dispute, the Philippines Sept. 23 said UK and Australian ships could not go through Philippine waters without prior permission. Some 250 students attacked the British Embassy in Manila Sept. 27. Another demonstration in the U. S. Embassy grounds Sept. 27 protested the "insincere neutrality."

Mexican Army Seizes University—In a move to end 7 weeks of student agitation in Mexico City an army force of 1,300 seized the National University Sept. 18. This precipitated new clashes between students and police, causing at least 17 deaths through Sept. 24 and the arrest of more than 1,000 students. At least 15 were killed in fierce fighting Sept. 23-24 when students fired on police from university buildings and surrounding houses. Striking students returned after the army withdrew from the campus Sept. 30.

UN Assembly Opens—The UN General Assembly gathered at UN headquarters Sept. 24 for its 23d regular session, after a brief meeting Sept. 22, when the issue of Mideast peace was held over for the 23d term. With Guatemalan Foreign Min. Emilio Arenales Catalan presiding, the Assembly Sept. 24 unanimously elected the new African state of Swaziland as the UN's 125th member.

New Portugal Premier—Dr. Marcelo Caetano, 62, was named premier of Portugal Sept. 27 to succeed Antonio de Oliveira Salazar, 79, who had been in a coma from a brain hemorrhage since Sept. 16. Dr. Caetano, a long-time associate of Salazar, who had governed the country since 1932, was a law professor and businessman. He had been assistant premier from 1955 to 1958.

Greek Junta Charter Okd—Greek voters Sept. 29 approved the new constitution submitted by the ruling military junta to replace the 1952 charter. Final figures showed 4,638,543, or 91.7% of the 5,048,981 votes cast under military law were in favor of the constitution.

GENERAL

Humphrey Starts Drive—Vice Pres. Hubert H. Humphrey, Democratic Presidential candidate, launched his drive in a Labor Day parade in New York Sept. 2, marching beside AFL-CIO Pres. George Meany. In a sharp attack on Nixon's policy, Humphrey Sept. 8 said the Republican party had joined "forces with the most reactionary elements" to "exploit the fears and tensions that grip significant portions of our people." He pointed out he had fought reactionaries and extremists on the right for human rights, adding that now he was defending rights against extremism of both left and right. In the early stages of the campaign, crowds were small and mostly sprinkled with anti-war demonstrators. By the 3d week he stepped up his attacks on Nixon, but drew his biggest response in Sioux Falls, S. D., Sept. 19 and in Louisville, Ky., Sept. 20 when he pledged the end of the Vietnam war would be his chief goal if elected. While stumping in Ohio, Minnesota, California and Oregon Sept. 22-28, he stressed the need to reassess Vietnam issues, proposed a 50% increase in Social Security benefits over 4 years and a river conservation program.

Nixon Launches Campaign—Republican Presidential candidate Richard M. Nixon drew a crowd of some 450,000 persons when started his campaign with a Chicago motorcade Sept. 4. He was accompanied by Sen. Edward W. Brooke (R., Mass.), who told the crowd Nixon would unite the country, "black and white," and "do everything he can" to end the Vietnam war. Nixon drew large crowds everywhere. In Houston, Tex., Sept. 6 he said there was "not a dime's worth of difference" between his opponent's policies and "what we've had for the past 4 years." Discussing "law and order" at B'nai B'rith's convention in Washington Sept. 8, he declared some "people think it is a code for racism." Actually, he said, "order without progress is tyranny. You cannot have order without progress in a free society." He declared the balance of power in the Mideast "must be tipped in Israel's favor." Polls indicated Nixon was leading as he campaigned in California, Salt Lake City and Philadelphia Sept. 16-21. Campaigning in 9 states Sept. 23-28, he cited the Administration's high taxes and inflationary prices and said the country "cannot afford Hubert Humphrey as president." In Louisville Sept. 27 he wrote off Humphrey's attempt to get him to debate as "kid stuff." He described 3d party Presidential candidate George C. Wallace as Humphrey's "secret weapon" to "beat Nixon in the new South."

Muskie Campaign—Sen. Edmund S. Muskie (Me.) appealed to voters "to get our emotions under control" and to "start using our heads" in launching his Democratic campaign for Vice President in San Antonio, Tex., Sept. 8. Throughout his campaign he accented the issues of Vietnam and crime and scored 3d party Presidential candidate George C. Wallace. He deplored "playing upon the discontent and uneasiness of the voters" by "playing off one group of Americans against another."

Agnew Apologizes—Maryland Gov. Spiro T. Agnew put strong stress on "law and order" in his drive as GOP Vice Presidential candidate. In Washington Sept. 10 he charged Democratic Presidential candidate Hubert H. Humphrey had been soft on Communism. After criticism in his party as well as the opposition he retracted the statement Sept. 12. He came under fire again for using the terms "Jap"

and "Polack" in referring to Americans of Japanese or Polish ancestry and apologized for his faux pas **Sept. 23**, asserting it was "ridiculous" to accuse him, "son of a Greek immigrant," of being "insensitive to the national pride and heritage of other people."

DISASTERS

Death toll after weekend of earthquakes in eastern Iran was put at 10,000 **Sept. 2** . . . Single-engine plane exploded and crashed in thunderstorm near Wilkes-Barre, Pa., **Sept. 2**, killing all 3 aboard . . . Landslides from heavy rains in San Salvador **Sept. 2** killed 14 . . . Three soccer fans were killed in riot when stand collapsed during game in Bhanguara, East Pakistan, **Sept. 4** . . . Bulgarian airliner carrying East German tourists to Black Sea coast crashed near Burgas, Bulgaria, **Sept. 4**, killing 50 of 89 aboard . . . All 95 aboard perished **Sept. 12** when an Air France jet en route from Corsica to Nice crashed into stormy waters off the French Riviera . . . Dozens were injured and trapped in their homes when 3 earthquakes rocked Jahrum, Iran, **Sept. 15** . . . One died, 48 were injured in HemisFair monorail train crash **Sept. 15** in San Antonio, Tex. . . . Twenty-eight soldiers perished **Sept. 16** when their truck plunged over a cliff into the Kali River in northern Uttar Pradesh, India . . . Eleven persons were killed and 19 injured **Sept. 17** when their truck plunged into ravine near Bursa, Turkey . . . Diesel fuel-fed explosion and fire on freighter Cerberus, being broken up for scrap in Hong Kong, left 5 dead, 20 injured **Sept. 18** . . . Six children perished in landslide that destroyed their homes in San Jose, Costa Rica, **Sept. 20** . . . Chilean Air Force plane crashed into home in Santiago **Sept. 20**, killing 6 . . . Six died in French experimental plane crash **Sept. 20** in Farnborough, England . . . Head-on collision of two trains near Depok, Indonesia **Sept. 20** killed 30, injured 150 . . . Twenty-three persons were injured **Sept. 21** in 35-vehicle chain collision on fog-shrouded New Jersey Turnpike near Woodbury, N. J. . . . Twin-engined Navy plane crashed on landing at Lakehurst Naval Air Station, N. J., **Sept. 21**, killing 3 . . . One was killed, 11 were hurt in 30-car crash in heavy fog over U. S. 10 Freeway, Midland, Mich., **Sept. 23** . . . Eleven were killed, 23 injured and 22 escaped unhurt when Air Force jet tanker crash landed at Wake Island **Sept. 24** with one engine out . . . Nineteen perished **Sept. 28** in Madras, India, fireworks factory explosion.

October—1968

NATIONAL

LBJ Withdraws Fortas' Name—President Johnson **Oct. 2** withdrew his nomination of Supreme Court Justice Abe Fortas as Chief Justice of the U. S. after an effort to end a Senate filibuster to block the nomination failed. The withdrawal also voided the nomination of Judge Homer Thornberry to succeed Fortas as Associate Supreme Court Justice.

U. S. Jets for Israel—President Johnson **Oct. 9** gave State Secy. Dean Rusk the go-ahead signal to negotiate with Israel on its request to buy U. S. jet fighter-bombers. His directive was in line with a Foreign Aid Authorization Act amendment urging the U. S. to sell planes to Israel to prevent "future Arab aggression by offsetting sophisticated weapons received by the Arab states (from the USSR) and to replace losses suffered by Israel in the 1967 conflict."

Justice Warren to Stay—In the aftermath of the filibuster that "prevented" the Senate from voting on the nomination" of Justice Abe Fortas, President Johnson **Oct. 10** disclosed that Earl Warren, Chief Justice of the U. S., would stay on "until his successor qualifies."

LBJ Calls Bombing Halt—President Johnson **Oct. 31** announced that he was calling a complete halt to all American air, naval and artillery bombardment of North Vietnam as of 8 a.m. (EST) on **Nov. 1**. See *The War in Vietnam*, Page 40.

INTERNATIONAL

Mexico Students, Troops Clash—Women and children were killed when the bloodiest clash between students and troops in the 9-week student strike erupted **Oct. 2** in a Mexico City housing project plaza, where 6,000 had gathered for a march on the National Polytechnic Institute to protest army occupation of the campus. Conflicting reports put the toll at 28 to 200 dead, 200 to 500 wounded. Some 1,500 were jailed.

Rusk Hits Soviet Invasion—U. S. State Secy. Dean Rusk **Oct. 2** scored the Soviet invasion of Czechoslovakia in a major address at the U. S. 23d General Assembly. He charged the Russians were violating the UN Charter by flouting the occupied country's sovereignty and heating up the cold war. Soviet Foreign Min. Andrei A. Gromyko **Oct. 3** countered that the invasion was "self-defense taken by the Socialist countries against imperialistic intrigue."

Peru's Belaunde Ousted—Peruvian military leaders early **Oct. 3** ousted Pres. Fernando Belaunde Terry, 55, in a bloodless coup and put him on a plane to Buenos Aires, Argentina. Gen. Juan Velasco Alvarado, 58, Army chief of staff and president of the joint chiefs of staff, took over as president of the new "Revolutionary Government."

Prague Yields to Kremlin—After two postponements and one cancellation, Czechoslovakia's leaders finally went to Moscow **Oct. 3-4** and gave in to Kremlin pressure to abandon the remnants of their 8-month liberalization program and to let Soviet troops stay on. Although press censorship had been reimposed, Czech newspapers **Oct. 5** scored the "lies" in Soviet news media, which leveled a steady propaganda barrage at the Czech "slowness" in "normalization." Soviet Premier Aleksei N. Kosygin and other Russian officials signed in Prague **Oct. 16** a treaty giving the USSR the right to station troops in the country "temporarily."

Israel Submits Peace Plan—Israeli Foreign Min. Abba Eban **Oct. 8** detailed a 9-point Mideast peace plan at the UN General Assembly. The program, providing for withdrawal of Israeli troops from Arab territories in exchange for a permanent peace treaty, called for secure boundaries, a mutual nonaggression pact, open frontiers, freedom of navigation, solution of the Arab refugee problem, new arrangements for Jerusalem's religious shrines, mutual recognition of sovereignty and regional cooperation.

UK-Rhodesia Talks Fail—British Prime Min. Harold Wilson and Ian D. Smith, his Rhodesian counterpart, met aboard the British warship Fearless in Gibraltar harbor **Oct. 9-13**, but failed to agree on the problem of eventual black majority rule in Rhodesia.

Junta Ousts Arias—Arnulfo Arias, 67, inaugurated President of Panama **Oct. 1**, was ousted in a coup by the National

Guard Oct. 11. A junta headed by Col. Jose M. Pinilla and Col. Bolivar Urrutia, named President and Vice President, respectively, took over **Oct. 12.** Arias, who took refuge in the U. S.-controlled Canal Zone **Oct. 12,** flew to Washington **Oct. 22** and "symbolically" occupied the Panama Embassy for a day, asserting he was still his country's constitutional president. Pro-junta men moved in again **Oct. 23.**

New Quebec Separatist Party—Two Quebec separatist groups merged at a convention in the city of Quebec **Oct. 11-14** to form the Parti Québécois (PQ), dedicated to independence by peaceful, democratic means for a republican Quebec linked in an economic union with Canada. René Lévesque, head of the Mouvement Souveraineté-Association, one of the groups, was elected president and Gilles Grogier, head of Ralliement National, the other, vice president.

GENERAL

Humphrey Campaign Trail—Vice President Hubert H. Humphrey **Oct. 1** said in a radio address in Nashville, Tenn., he would run thereafter as the Democratic "candidate and leader of my party" and not as Vice President. The previous day, in Salt Lake City, Utah, he pledged he would stop the bombing of North Vietnam "as an acceptable risk for peace" if he should be elected President. He challenged Nixon to TV debates **Oct. 7** and **Oct. 20,** but the GOP candidate would not be drawn into them.

Wallace Tags LeMay as VP—At a joint TV press conference in Pittsburgh, Pa., **Oct. 3,** George C. Wallace, 3d party Presidential candidate, introduced Gen. Curtis E. LeMay, 61, former Air Force Chief of Staff, as his Vice Presidential running mate. LeMay's remarks on the use of nuclear weapons stirred controversy and brought expressions of concern from both major party candidates **Oct. 4.** LeMay said he would use nuclear arms "if it was necessary," but he added, "I don't think it's necessary in this case or this war to use" them.

Nixon Campaign—GOP Presidential candidate Richard M. Nixon, engaging in a 5-day-a-week campaign schedule across the country and resting weekends in Key Biscayne, Fla., told UPI editors and publishers **Oct. 7** he could accept a Vietnam peace settlement. President Johnson could not accept. Anti-war hecklers attempted to disrupt some of his rallies. At one, in Santa Monica, Calif., **Oct. 9,** he shouted: "Those who have had a chance for 4 years and could not produce peace should not be given another chance."

11-Day Apollo 7 Flight—Three U. S. astronauts **Oct. 11-22** successfully circled the earth 163 times in an 11-day test flight of the Apollo 7, the space ship designed to carry the first Americans to the moon. Navy Capt. Walter Marty (Wally) Schirra, Jr., 45, the first man to go into orbit for a 3d time, commanded the 260-hour, 4,500,000-mile space journey. It was a 1st flight for the other crew members, Air Force Maj. Donn Fulton Eisele, 38, the navigator, and Ronnie Walter Cunningham, 36, a civilian, who monitored the controls and handled communications. All 3 astronauts had colds during the flight but suffered no ill effects. They started transmitting the 1st of 7 live TV broadcasts from the spaceship **Oct. 14.** In the splashdown 7:11 a.m. EDT **Oct. 22,** some 325 mi. south of Bermuda, the capsule landed upside down, but was quickly

righted by inflated balloons. It landed only one-third of a mile from the aiming point. Air Force Lt. Gen. Samuel C. Phillips, Apollo program director, **Oct. 22** declared the flight was "the first space operation that has accomplished more than 100% of its preplanned objectives." See *Space 1968*, Page 43.

Mrs. Kennedy, Onassis Wed—Mrs. Jacqueline Kennedy, 39-year-old widow of President John F. Kennedy, was married to Greek shipping magnate Aristotle Socrates Onassis, 62, in a Greek Orthodox ceremony **Oct. 20** on his private island of Skorpios off the Greek coast. The wedding was attended only by relatives, including her two children, Caroline, 10, and John, Jr., 7, and a few close friends.

Daughter to Lynda Bird—Mrs. Charles S. Robb, President Johnson's older daughter, gave birth to a 7-pound, 8-ounce girl early **Oct. 25.** The former Lynda Bird Johnson's husband, Marine Capt. Charles S. Robb, was stationed in Danang, South Vietnam.

4-Day Soviet Space Flight—A Soviet spacecraft, Soyuz 3, manned by Col. Georgi T. Beregovoi, 47, was launched **Oct. 26** and carried out in its 1st orbit of the earth an approach maneuver with Soyuz 2, an unmanned craft sent up the day before. After flying two days in tandem, Soyuz 2 landed in the Soviet Union **Oct. 28.** Four days after he was lofted into orbit, Beregovoi brought his craft to a soft landing in the steppes of Kazakhstan **Oct. 30.**

N. Y. School Strike Continues—Some 1,000,000 New York City children were still out of school all through **October** as the strike called by the United Federation of Teachers, headed by Alfred Shanker, continued and threatened to extend throughout the entire term. The strike, against the leaders of a model decentralization program in the predominantly Negro community of Ocean Hill-Brownsville in Brooklyn, brought charges of racial discrimination from both sides.

DISASTERS

Six crewmen were reported missing but 31 were rescued from a disabled Panamanian vessel **Oct. 2** after it was hit by typhoon Elaine in Taiwan Strait. Eleven persons were killed, 7 injured and 32 missing **Oct. 3** when a truck plunged into a river south of Bangkok, Thailand. . . . Eight coal miners were killed, 7 missing and two injured **Oct. 4** when a gas explosion wrecked a mine in Lünen, the Ruhr, Germany. . . . More than 2,000 perished in 4 days of floods **Oct. 4-7,** caused by torrential rains in the eastern Himalayas. . . . Two buses plunged over cliffs in provincial areas of South Korea **Oct. 8,** killing 18. . . . Crash of light plane into a television tower guy wire near Hetlands, S. D., **Oct. 8** left 4 dead. . . . Ten perished and 20 were injured when fire swept Hotel Metzgerbrau in Zurich, Switzerland, **Oct. 9.** . . . Eleven perished in the crash of a Czechoslovak Airlines plane **Oct. 11,** shortly after takeoff. . . . At least 300 died **Oct. 10** when an overloaded ferry sank in shark-infested waters off Mindanao island, Philippines. . . . A bus plunged into a northern Kashmir ravine **Oct. 14,** killing 21 and injuring 20. . . . Seven died **Oct. 18** when a disabled private plane crashed and exploded in a residential area in Cleveland's West Side. . . . Forty persons were missing after a boat capsized while crossing the Koel River near Rourkela, India **Oct. 19.**

Statue of Liberty National Monument

Since 1886 the Statue of Liberty Enlightening the World has stood on Liberty Island in New York harbor, as a symbol of freedom. It also commemorates Franco-American friendship for it was given by the people of France and designed by Frederic Auguste Bartholdi (1834-1904). A \$2,500,000 building housing the American Museum of Immigration is being constructed at the base of the statue. Exhibit halls, a library and study rooms as well as a Hall of Records will be grouped within the star-shaped Fort Wood which encompasses the statue. The statue is a National Monument, administered by the National Park Service.

Edouard de Laboulaye, French historian and admirer of American political institutions, suggested that the French present a monument to the United States, the latter to provide pedestal and site. In June, 1871, Bartholdi, who had defended his native Colmar in Alsace when it was overrun during the Franco-Prussian War, came to the United States to investigate the project. He visualized the idea of a colossal statue at the entrance of New York harbor, welcoming the peoples of the world with the torch of liberty. Bartholdi was then 37 years old.

The French approved the idea and formed the Franco-American Union to raise funds, which eventually reached \$250,000. Bartholdi began work about 1874 in Paris. He made several models and one, 36 ft. tall, enabled him to compute the statue in sections. Wooden battens were made and sheets of copper 3-32 of an inch thick were hammered into shape on them by hand. A framework of four steel supports was designed by Gustave Eiffel, creator of the Eiffel tower. When completed the statue was 151 ft., 1 in. tall.

The hand of the statue holding aloft the torch was exhibited at the Centennial exposition in Philadelphia in 1876 and later in Madison Square.

On Washington's birthday, Feb. 22, 1877, Congress approved the use of a site on Bedloe's island suggested by Bartholdi. This island of 12 acres had been owned in the 17th century by a Walloon named Isaac Bedloe, who came to New Amsterdam in 1639. He died in 1673 and his wife sold the island for \$80. In later years it was owned by the City of New York and the U. S. Government. It was called Bedloe's until Aug. 3, 1956, when President Eisenhower approved a resolution of Congress changing the name to Liberty Island.

The head was shown at the Paris exposition of 1878. When framework and base were put in place in Paris the American minister, Levi P. Morton, drove the first rivet on Oct. 24, 1881, in honor of the centennial of the battle of Yorktown, in which French and Americans were allies.

The statue was finished May 21, 1884, and formally presented to U. S. Minister Morton July 4, 1884, by Ferdinand de Lesseps then head of the Franco-American Union and promoter of the Panama Canal.

On Aug. 5, 1884, the Americans laid the cornerstone for the pedestal. This was to be built on the foundations of Fort Wood, which had been erected by the Government in 1811. The fort originally mounted 24 heavy guns and had a garrison of from 50 to as many as 600 troops.

The American committee had raised \$125,000, but when the pedestal was 15 ft. high, this was found to be inadequate.

Joseph Pulitzer, owner of *The World* of New York City, on Mar. 16, 1885, called for general subscriptions. By Aug. 11, 1885 he had raised \$100,000. The total cost of statue and pedestal was estimated at \$500,000.

The statue arrived dismantled, in 214 packing cases, in the steamship *Iser*, which reached New York from Rouen, France, in June, 1885. The pedestal was made of concrete with granite facing and steel girders were built into it to connect with the framework of the statue. The first rivet of the statue was driven July 12, 1886, and the last on Oct. 28, 1886, when President Grover Cleveland dedicated the statue in the presence of the sculptor.

The torch was originally maintained by the Lighthouse Service. Funds for permanently lighting the statue were raised by subscription by *The World* of New York in 1916 and President Wilson turned on the lights Dec. 2, 1916. The Island was used by the United States Army until 1937, when the post was given up.

The statue weighs 450,000 lbs. or 225 tons. The copper sheeting weighs 200,000 lbs. There are 167 steps from the land level to the top of the pedestal, 168 steps inside the statue to the head, and 54 rungs on the ladder leading to the arm that holds the torch. Visitors may enter the head, which holds from 30 to 40 persons, but not the torch. The statue is open daily.

DIMENSIONS OF THE STATUE	Ft.	In.
Height from base to torch	151	1
Foundation of pedestal to torch	305	1
Heel to top of head	111	1
Length of hand	16	5
Index finger	8	0
Circumference at second joint	3	6
Size of finger nail	13x10	in.
Head from chin to cranium	17	3
Head, thickness from ear to ear	10	0
Distance across the eye	2	6
Length of nose	4	0
Right arm, length	42	6
Right arm, greatest thickness	12	0
Thickness of waist	35	0
Width of mouth	3	0
Tablet, length	23	7
Tablet, width	13	7
Tablet, thickness	2	0

EMMA LAZARUS' FAMOUS POEM

A poem by Emma Lazarus, which is graven on a tablet within the pedestal on which the Goddess stands, follows:

THE NEW COLOSSUS

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon-hand
Glowed world-wide welcome; her mild eyes command
The air-brided harbor that twin cities frame.
"Keep ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door!"

Nearby Ellis Island, abandoned as an immigration center in 1954 after having served as the gateway to America for 16,000,000 was proclaimed by President Johnson in 1965 part of the Statue of Liberty National Monument. Congress authorized \$6,000,000 to develop Ellis Island as a park and museum.

Superlative United States Statistics

Source: National Geographic Society, Washington, D. C.

Area for Fifty States.....	Total	3,615,211 sq. mi.
Largest state.....	Land 3,548,974 sq. mi.	Water 66,237 sq. mi.
Smallest state.....	Alaska.....	586,400 sq. mi.
Largest county.....	Rhode Island.....	1,214 sq. mi.
Largest city in area.....	San Bernardino County, California.....	20,119 sq. mi.
	Los Angeles, California (see note below).....	454.8 sq. mi.
	Oklahoma City, Okla. (see note below).....	647.5 sq. mi.
	Jacksonville, Fla. (see note below).....	827 sq. mi.
Northernmost town.....	Barrow, Alaska.....	71° 52' N.
Northernmost point.....	Point Barrow, Alaska.....	71° 25' N.
Southernmost city.....	Hilo, Island of Hawaii.....	19° 42' N.
Southernmost town.....	Naahehu, Island of Hawaii.....	19° 4' N. (155° 35' W.)
Southernmost point.....	Ka Lae (South Cape), Island of Hawaii.....	18° 56' N. (155° 41' W.)
Easternmost town.....	Lubec, Maine.....	66° 59' W.
Easternmost point.....	West Quoddy Head, Maine.....	66° 57' W.
Westernmost point.....	Cape Wrangell, Attu Island, Aleutians, Alaska.....	172° 27' E.
Highest point on Atlantic coast.....	Cadillac Mountain, Mount Desert Isl., Me.....	1,530 ft.
Largest and oldest national park.....	Yellowstone National Park (1872), Wyoming, Montana, Idaho.....	3,472 sq. mi.
Largest national monument.....	Katmai National Monument, Alaska.....	4,215 sq. mi.
Highest waterfall.....	Yosemite Falls—Total in three sections.....	2,425 ft.
	Upper Yosemite Fall.....	1,430 ft.
	Cascades in middle section.....	675 ft.
	Lower Yosemite Fall.....	620 ft.
Longest river.....	Mississippi-Missouri.....	3,710 miles
Highest mountain.....	Mount McKinley, Alaska.....	20,320 ft.
Lowest point.....	Death Valley, California.....	—282 ft.
Deepest lake.....	Crater Lake, Oregon.....	1,932 ft. deep
Highest lake.....	Lake Waiau, Hawaii.....	13,020 ft.

THE FORTY-NINE STATES, INCLUDING ALASKA

Area for Forty-nine States.....	Total	3,608,787 sq. mi.
	Land 3,542,559 sq. mi.	Water 66,228 sq. mi.

THE FORTY-EIGHT STATES

Area for Forty-eight States.....	Total	3,022,387 sq. mi.
	Land 2,971,494 sq. mi.	Water 50,893 sq. mi.
Largest state.....	Texas.....	267,339 sq. mi.
Northernmost town.....	Pennock, Minnesota.....	49° 23' N.
Northernmost point.....	Lake of the Woods, Minnesota.....	49° 23' N.
Southernmost city.....	Key West, Florida.....	24° 23' N.
Southernmost mainland town.....	Florida City, Florida.....	25° 27' N.
Westernmost point.....	Cape Alava, Washington.....	124° 44' W.
Highest mountain.....	Mt. Whitney, California.....	14,494 ft.

The 1960 census officially listed Los Angeles as the United States city with the largest area—454.8 square miles. However, Oklahoma City claimed an area of 647.5 square miles in 1968 after a series of annexation ordinances. And Jacksonville, Fla., topped both of them by a wide margin when most of Duval County was consolidated into the city's borders Oct. 1, 1968, giving the city 827 sq. mi.

Geographic Centers, United States and States

Source: U. S. Geological Survey, Department of the Interior

State	County	Locality	State	County	Locality
United States, including Alaska and Hawaii —South Dakota; Butte County, 17 miles west of Castle Rock, 14 miles east of junction of borders of South Dakota, Montana and Wyoming. Approx. Lat. 44°58' N, Long. 103°46' W.			Maine—Piscataquis, 18 miles north of Dover.		
Continental U. S. (48 States) —Near Castle Rock. Butte Co., South Dakota. Lat. 44°59' N, Long. 103°38' W.			Maryland—Prince Georges, 4½ miles N.W. of Davidsonville.		
Conterminous U. S. (48 States) —Near Lebanon, Smith Co., Kansas. Lat. 39°50' N, Long. 98°35' W.			Massachusetts—Worcester, north part of City.		
North American Continent —The geographic center is in Pierce County, North Dakota, 6 miles west of Balta, latitude 46°10', longitude 100°10' W.			Michigan—Wexford, 5 miles N.N.W. of Cadillac.		
			Minnesota—Crow Wing, 10 miles S.W. of Brainerd.		
			Mississippi—Tulsa, 9 miles W.N.W. of Carthage.		
			Missouri—Miller, 20 miles S.W. of Jefferson City.		
			Montana—Fergus, 12 miles west of Lewistown.		
			Nebraska—Custer, 10 miles N.W. of Broken Bow.		
			Nevada—Lander, 26 miles S.E. of Austin.		
			New Hampshire—Belknap, 3 miles east of Ashland.		
			New Jersey—Mercer, 5 miles S.E. of Trenton.		
			New Mexico—Torrance, 12 miles S.S.W. of Willard.		
			New York—Madison, 12 miles south of Oneida and 26 miles S.W. of Utica.		
			North Carolina—Chatham, 10 miles N.W. of Sanford.		
			North Dakota—Sheridan, 5 miles S.W. of McClusky.		
			Ohio—Delaware, 25 miles N.E. of Columbus.		
			Oklahoma—Oklahoma, 8 miles N. of Oklahoma City.		
			Oregon—Crook, 25 miles S.E. of Prineville.		
			Pennsylvania—Centre, 2½ miles S.W. of Bellefonte.		
			Rhode Island—Kent, 1 mile S.S.W. of Crompton.		
			South Carolina—Richland, 13 miles S.E. of Columbia.		
			South Dakota—Hughes, 8 miles N.E. of Pierre.		
			Tennessee—Rutherford, 5 mi. N.E. of Murfreesboro.		
			Texas—Mculloch, 15 miles N.E. of Brady.		
			Utah—Sanpete, 3 miles north of Mant.		
			Vermont—Washington, 3 miles east of Roxbury.		
			Virginia—Buckingham, 5 miles S.W. of Buckham.		
			Washington—Chelan, 10 mi. W.S.W. of Wenatche.		
			West Virginia—Braxton, 4 miles east of Sutton.		
			Wisconsin—Wood, 9 miles S.E. of Marshfield.		
			Wyoming—Fremont, 58 miles E.N.E. of Lander.		

There is no generally accepted definition of geographic center, and no satisfactory method for determining it. The geographic center of an area may be defined as the center of gravity of the surface, or that point on which the surface of the area would balance if it were a plane of uniform thickness.

No marked or monumented point has been established by any government agency as the geographic center of either the 50 states, the conterminous United States, or the North American continent. However, a monument was erected in Lebanon, Kan., by a group of citizens.

National Trails System and Wild & Scenic Rivers System Established

A National Trails System, established by 1968 Federal legislation, includes initially the Appalachian Trail, extending 2,000 miles generally along the Appalachian Mountains from Maine to Georgia, and the Pacific Crest Trail, running 2,350 miles along western mountain ranges from the Mexico-California border to the Canada-Washington

border near Lake Ross. Also established by 1968 legislation was a National Wild & Scenic Rivers System. Named for immediate inclusion were stretches of the Clearwater (middle fork), in Idaho; Eleven Point, in Mo.; Feather, Calif.; Rio Grande, N. M.; Rogue, Ore.; Saint Croix, Minn. and Wis.; Salmon (middle fork), Idaho; and Wolf, Wis.

TRADE AND TRANSPORTATION

Notable Steamships and Motorships

Source: Lloyd's Register of Shipping as of June 30, 1968

Gross tonnage is a measurement of enclosed space (1 gross ton=100 cu. ft.)

Name—registry	Gross ton.	Lgth. Ft.-In.	Bdth. Ft.-In.	Name—registry	Gross ton.	Lgth. Ft.-In.	Bdth. Ft.-In.
WORLD'S LARGEST PASSENGER SHIPS							
30,000 gross tons and over							
Queen Elizabeth, Br.	82,998	1031-0	118-7	Flandre, Fr.	20,477	599-8	80-4
France, Fr.	66,348	1035-2	110-11	Franconia, Br.	22,637	608-3	80-4
United States, U. S.	38,216	990-7	101-7	Galileo Galilei, It.	27,907	700-11	94-2
Raffaello, It.	45,933	904-7	101-10	Giulio Cesare, It.	27,078	680-7	87-6
Michelangelo, It.	45,911	904-11	101-10	Gripsholm, Sw.	23,216	631-3	81-10
Canberra, Br.	45,733	818-6	102-6	Guglielmo Marconi, It.	27,905	700-11	94-2
Orlana, Br.	41,915	804-0	97-2	Hanseatic, Ger. (12)	25,320	627-9	81-6
Rotterdam, Neth.	38,621	748-7	94-2	Henrietta Latsi, Gr. (13)	23,580	665-1	82-3
Windoor Castle, Br.	33,994	783-1	92-6	Himalaya, Br.	27,989	708-8	90-10
Nieuw Amsterdam, Neth.	36,982	758-6	88-4	Iberia, Br.	29,614	718-8	90-10
Colombia, Pan.	34,274	715-0	91-5	Independence, U. S.	20,269	632-5	89-2
Leonardo Da Vinci, It.	33,340	767-4	92-2	Infante Dom Henrique, Port.	23,306	641-8	84-5
S. A. Vaal, Br. (1)	30,212	760-2	90-2	Joyama Maru, Jap.	29,139	649-8	95-4
Bremen, Ger. (2)	32,360	696-10	90-4	Jules Verne, Fr.	22,292	659-6	81-7
Eugenio C., It.	30,567	713-5	96-5	Kazutama Maru, Jap.	34,529	n.r.	103-2

OTHER PASSENGER AND CARGO SHIPS

Achille Lauro, It. (3)	23,629	631-2	82-0	Nevada, Br.	20,746	609-3	78-3
Adm. Wm. M. Callaghan, U. S.	24,471	694-3	92-2	Nisshin Maru No. 2, Jap.	27,035	634-8	80-2
Andes, Br.	26,435	669-4	83-6	Nisshin Maru No. 3, Jap.	23,406	638-6	78-2
Angelina Lauro, It. (4)	24,377	656-3	83-6	Northern Star, Br.	24,756	650-0	83-8
Arcadia, Br.	29,871	721-4	90-8	Oceanic, Pan.	27,644	782-3	96-7
Augustus, It.	27,090	680-5	87-6	Orcades, Br.	28,399	708-8	93-6
Australis, Gr. (5)	26,315	723-0	93-6	Oronsay, Br.	27,632	708-8	93-6
Bridgestone Maru No. 1, Jap.	20,516	602-9	82-6	Orsova, Br.	28,790	722-10	90-7
Bridgestone Maru No. 2, Jap.	22,785	615-2	90-4	Pendennis Castle, Br.	28,453	763-3	83-10
Bridgestone Maru No. 3, Jap.	26,099	635-8	95-4	Queen Anna Maria, Gr. (15)	21,716	640-0	84-2
Caribia, It. (6)	24,496	629-8	79-6	Rangitane, Br.	21,867	609-2	81-0
Carla C., It. (11)	20,477	599-8	80-4	Rangitoto, Br.	21,809	609-2	81-0
Carmanlia, Br.	22,592	608-4	80-4	Reina Del Mar, Br.	20,750	600-9	78-4
Chusan, Br.	24,318	672-6	85-2	S. A. Oranje, Br. (16)	27,513	747-5	84-0
Constitution, U. S.	20,269	682-6	89-2	Sagafjord, Nor.	24,002	619-8	80-3
Cristoforo Colombo, It.	29,429	700-9	89-11	Santa Maria, Port.	20,906	608-11	75-9
Cruz Del Sur, Lib. (7)	24,570	654-0	80-6	Savannah, U. S.	15,585	595-6	78-2
Edinburgh Castle, Br.	27,497	747-5	84-7	<i>(world's 1st nuclear-powered merchant vessel)</i>			
Empress of Canada, Br.	27,284	660-0	86-9	Sovetskoye Sojuz, USSR (17)	23,006	673-3	72-2
Empress of England, Br.	25,585	640-0	85-4	Sovetskaya Rossiya, USSR	33,454	714-6	94-3
Europa, Ger. (8)	21,514	600-0	77-1	Sovetskaya Ukraina, USSR	32,024	714-6	94-3
Fairland, Lib. (10)	21,947	608-3	80-4	Statendam, Neth.	24,294	642-6	81-0
Fairstar, Lib. (9)	21,619	609-5	78-3	Tatsuno Maru, Jap.	31,137	663-1	98-7
Fairwind, Lib. (18)	22,017	608-3	80-4	Vera Cruz, Port.	21,765	609-8	75-9
Federico C., It.	20,416	605-8	78-11	Willem Barendsz, S. Af.	23,155	677-6	90-6
				Yamahide Maru, Jap.	24,488	615-1	90-3
				Yuri Dolgoruky, USSR (19)	25,377	680-0	79-0

OIL TANKERS

110,000 tons deadweight and over (June, 1968)

Deadweight tonnage is the weight (long tons) of cargo, fuel, etc., which a vessel is designed to carry safely.

Universe Ireland, Lib.	312,000	1135-2	175-2	Nissho Maru, Jap.	130,250	954-8	141-4
Universe Kuwait, Lib.	312,000	1135-2	175-2	Japan Hyacinth, Jap.	129,549	889-1	130-8
Bulford, Br.	212,000	1067-1	158-4	Jingu Maru, Jap.	129,000	964-8	142-11
Macoma, Neths.	210,000	1066-6	154-11	Gekko Maru, Jap.	128,000	n.r.	149-9
Magdala, Fr.	210,000	1065-4	154-11	Toyama Maru, Jap.	125,214	886-3	139-9
Mariulva, Br.	210,000	1077-1	143-8	Montsoreau, Fr.	125,000	900-0	n.r.
Marisa, Br.	210,000	1066-4	154-11	Kinokawa Maru, Jap.	124,700	n.r.	138-0
Megara, Br.	210,000	1066-4	154-11	Hokaku Maru, Jap.	122,600	883-10	139-7
Metula, Neths.	210,000	1066-5	154-11	Tokushima Maru, Jap.	122,030	886-3	139-7
Murex, Br.	210,000	1067-4	154-11	Toba Maru, Jap.	121,718	886-3	139-7
Idemitsu Maru, Jap.	206,006	1122-0	163-6	Sea Spirit, Sw.	121,185	871-3	134-2
Bergehus, Nor.	202,557	1065-4	158-11	Sea Spray, Sw.	121,185	871-3	134-2
Berge Commander, Nor.	202,250	1064-2	158-11	Japan Jasmijn, Jap.	121,129	885-10	139-7
Hlen Maru, Jap.	192,900	1026-0	166-10	Daiyu Maru, Jap.	121,000	912-0	145-1
Myrina, W. Ger.	192,250	1050-0	155-2	Choya Maru, Jap.	120,871	886-1	139-8
Esso Malaysia, Pan.	190,000	1062-6	155-0	Kaho Maru, Jap.	119,383	912-0	145-2
Nicholas J. Goulandris, Lib.	188,000	n.r.	n.r.	Niso, Neths.	119,378	870-0	138-0
Kho Maru, Jap.	182,889	1040-0	165-6	Yamaju Maru, Jap.	119,250	912-4	145-2
Esso Mercia, Br.	175,000	1010-2	146-3	Oriental Dragon, Lib.	118,927	949-2	126-9
Kaimon Maru, Jap.	175,000	1010-2	146-3	Nata, Br.	118,580	870-0	138-0
Good Hope, Lib.	167,314	1010-2	146-2	Izumigawa Maru, Jap.	118,400	869-7	138-0
Jaasankoo, Nor.	157,000	984-5	158-5	Lake Palouder, Lib.	117,966	974-5	125-5
Tenko Maru, Jap.	157,000	984-4	158-4	Dauphine, Lib.	117,272	902-3	135-6
Bergebragd, Nor.	156,680	956-1	135-0	Isuzugawa Maru, Jap.	116,626	898-2	138-2
Melsen Maru, Jap.	152,480	1036-0	144-6	Chichiro Maru, Jap.	115,505	886-1	130-7
Tokyo Maru, Jap.	151,258	1005-7	156-0	Universe Daphne, Lib.	115,360	949-9	135-5
Shoyo Maru, Jap.	150,728	964-7	151-10	Nacella, W. Ger.	115,000	870-0	138-0
Bergeborg, Nor.	149,634	915-5	145-2	Universe Apollo, Lib.	114,566	949-9	135-5
Bergehaven, Nor.	149,556	915-5	145-2	Beteleuse, Fr.	113,960	924-0	127-11
Bergebig, Nor.	149,513	915-5	145-2	British Argosy, Br.	112,786	920-9	128-5
Molda, Nor.	143,620	932-0	143-8	Fury Nikko, Lib.	111,790	849-0	128-2
Fohkosen Maru, Jap.	139,528	961-4	144-5	British Admiral, Br.	111,274	917-6	128-6
Wilstar, Nor.	132,700	903-8	138-2	Imperial Ottawa, Ber.	110,187	907-2	136-3

BULK AND ORE/OIL CARRIERS

45,000 tons gross and over

Aegir, W. Ger.	45,796	836-8	n.r.	Daiko Maru, Jap.	55,692	820-3	126-6
Athenic, Lib.	48,747	834-2	124-3	Fernstar, Nor.	55,986	835-7	128-10
Atlantic Maru, Jap.	51,973	817-7	126-6	Fukuyama Maru, Jap.	57,000	n.r.	n.r.
Cedros, Lib. (20)	53,907	995-9	142-4	Fuyu Maru, Jap.	56,500	849-9	130-2
Cetra Colomba, Fr.	53,448	866-11	118-4	Gloric, Lib.	54,447	844-2	124-3
Chitosegawa Maru, Jap.	45,796	779-2	118-4	Hogch Rider, Nor.	57,848	820-6	127-1

(continued on page 96)

Name—registry	Gross ton.	Lgth. Ft.	Bdth. In.	Name—registry	Gross ton.	Lgth. Ft.	Bdth. In.
Hoegh Rover, Nor.	57,848	820-6	127-11	Rivalta, It.	52,000	851-5	127-11
Horyu Maru, Jap.	55,213	n.r.	124-9	Runa, Nor.	45,003	848-7	105-11
Inayama, Nor.	48,460	822-2	120-11	San Juan Pathfinder, Lib.	45,513	835-0	106-5
Jacob Matheson, Sw.	60,555	870-1	n.r.	San Juan Prospector, Lib.	45,579	835-0	106-5
Jacques Cartier, Fr.	51,644	823-0	120-2	Santa Valeria, It.	51,579	832-6	128-0
Japan Wisteria, Jap.	56,312	830-1	127-4	Sidney Spiro, Lib.	52,000	820-2	134-1
Kaiko Maru, Jap.	54,513	820-3	126-6	Sigfuji, Lib.	46,011	820-3	128-3
Kofukusan Maru, Jap.	55,482	825-11	124-10	Sigsilver, Br.	57,318	802-5	131-0
Kokko Maru, Jap.	54,600	820-2	126-5	Sigstone, Lib.	46,488	820-3	128-3
Marshall Clark, Lib.	47,552	820-2	120-11	Tasman Maru, Jap.	56,600	830-0	127-11
Mirafiori, It.	51,679	832-6	128-2	Tehran, Nor.	46,000	n.r.	n.r.
Nephos, Lib.	54,502	818-0	127-11	Tsugara Maru, Jap.	55,334	820-3	126-6
Nippon Maru, Jap.	53,751	n.r.	127-10	Tsuku-hi Maru, Jap.	45,848	779-2	118-3
Port Latta Maru, Jap.	50,817	816-11	126-6	Tsurusaki Maru, Jap.	55,320	820-2	126-6
Rinda, Nor.	45,003	848-7	106-10	Vestan, Nor.	55,752	827-1	128-1

Former names: (1) Transval Castle, (2) Pasteur, (3) Willem Ruys, (4) Oranje, (5) America, (6) Vulcania, (7) Juan Peron, (8) Kungsholm, (9) Oxfordshire, (10) Carinthia, (11) Frandee, (12) Shalom, (13) Marianna Latsi, ex Strathmore, (14) Henrietta Latsi, ex Stratheden, (15) Empress of Britain, (16) Pretoria Castle, (17) Hansa, ex Albert Balin, (18) Sylvania, (19) Hamburg, (20), Salt/oil carrier, the tonnage shown is the gross tonnage when ship operates as a salt carrier. NR—Not recorded.

Maritime Traffic in 11 Major U. S. Seaports

Source: Maritime Assn. of the Port of New York, Wm. F. Giesen, Gen. Mgr.

The total of ocean-going vessels moving through the 11 major U. S. ports (arrivals and sailings) during the first 6 months of 1968 was 52,031, a decrease of 2,124 vessels from the figure of the corresponding period in 1967. The total for the calendar year, 1967, was 106,757, a decrease of 1,548 vessels from the 1966 total.

In the first half of 1968, New York continued to hold top place by a wide margin, although New York's share of the total volume dropped to 20.2%, compared with 22% recorded in the first 6 months of the previous year. Philadelphia continued in second place despite a slight percentage decrease under the corresponding period in 1967. The Los Angeles-Long Beach share of the total was 11%, an increase of 1.6% over the 1967 figure.

Total activity (arrivals and sailings) in the 11 major ports during the first half of 1968 and the first half of 1967 was reported as follows:

	First 6 Months of:	
	1968	1967
New York	10,528	11,888
Philadelphia	5,994	6,493
Los Angeles-Long Beach	5,724	5,118
San Francisco	5,137	5,126
Hampton Roads	4,760	5,243
New Orleans	4,646	4,643
Baltimore	4,520	4,853
Houston	4,454	4,221
Seattle	2,428	2,483
Portland, Oregon	2,105	2,082
Boston	1,735	2,005
Totals	52,031	54,155

Value of U. S. Merchandise Exports and Imports

Source: International Trade Analysis Division, Dept. of Commerce

Value in millions of dollars (Revised) p—Preliminary

Year	Total including re-exports	Exports Merchandise		Military aid	General ¹	Imports For consumption	Excess over imports ²
		U. S.	Foreign				
1950.....	10,275	10,142	133	3282	8,874	8,765	1,119
1955.....	15,547	15,419	128	1,256	11,495	11,448	2,796
1960.....	20,586	20,386	200	949	15,019	15,016	4,619
1964.....	26,489	26,136	352	818	18,684	18,600	6,987
1965.....	27,478	27,135	343	779	21,366	21,283	5,334
1966 ¹	30,320	29,884	436	940	25,542	25,360	3,337
1967.....	31,534	31,147	387	592	26,816	26,732	4,126

¹General Imports—Include merchandise entered immediately upon arrival into merchandising or consumption channels, plus commodities entered into bonded customs warehouse for storage.

²Exports, excluding military grant-aid, less general imports.

³Includes data from April 1950 when shipments under the program began.

U. S. MERCHANDISE EXPORTS AND IMPORTS, BY CONTINENT

Value in millions of dollars

Year	Exports				General Imports			
	Western Hemisp.	Europe	Asia & Oceania	Africa	Western Hemisp.	Europe	Asia & Oceania	Africa
1961.....	7,373	6,459	4,678	669	6,995	4,113	2,938	636
1962.....	7,418	6,642	4,841	747	7,591	4,623	3,426	728
1963.....	7,704	7,116	5,553	782	7,850	4,812	3,714	758
1964.....	8,967	8,327	6,252	954	8,389	5,307	4,076	900
1965.....	9,917	9,364	7,126	1,071	9,202	6,292	4,997	861
1966.....	11,429	10,003	7,727	1,159	10,829	7,857	5,888	961
1967.....	11,894	10,294	8,229	1,116	11,737	8,232	5,948	890

United States Foreign Trade, by Economic Classes

Source: International Trade Analysis Div., Dept. of Commerce. (Value in millions)

Year (cal.)	Value of domestic exports					Value of imports				
	Crude Mater'ls	Crude Foodst's	Manu'd Foodst's	Semi-Manuf's	Finish. Manuf's	Crude Mater'ls	Crude Foodst's	Manu'd Foodst's	Semi-Manuf's	Finish. Manuf's
1962.....	2,234	2,010	1,366	3,067	12,754	3,087	1,776	1,792	3,641	5,957
1963.....	2,577	2,273	1,496	3,343	13,373	3,141	1,725	1,998	3,756	6,382
1964.....	2,896	2,510	1,687	4,086	14,947	3,174	2,034	1,819	3,991	7,366
1965.....	2,886	2,587	1,560	4,063	16,008	3,653	2,008	1,877	4,957	8,871
1966.....	3,143	3,198	1,582	4,258	17,703	3,851	2,117	2,369	5,387	11,078
1967.....	3,294	2,600	1,594	4,115	19,244	3,676	1,981	2,518	5,544	13,096

¹Preliminary. Revised to reflect transfer of uranium oxide from Crude Materials to Semi-mfrs.

Total agricultural exports were valued as follows (in millions of dollars): 1961—5,084; 1962—5,101; 1963—5,631; 1964—6,439; 1965—6,306; 1966—6,962; 1967—6,451.

Agricultural imports for consumption were valued as follows (in millions of dollars): 1961—3,689; 1962—3,809; 1963—4,020; 1964—4,143; 1965—4,082; 1966—4,530; 1967—4,412.

Important Waterways and Canals

The **St. Lawrence Waterway**, the largest inland navigation system on the continent, extends from the Atlantic Ocean to Duluth at the western end of Lake Superior, a distance of 2,342 miles. With the deepening of channels and locks to 27 ft., ocean carriers are able to penetrate to ports in the Canadian interior and the American midwest.

The major canals in Canada are those of the St. Lawrence-Great Lakes waterway—the 3 new canals of the St. Lawrence Seaway, with their 7 locks, providing navigation for vessels of 25-foot draught from Montreal to Lake Ontario; the Welland Ship Canal by-passing the Niagara River between Lake Ontario and Lake Erie with its 8 locks, and the Sault Ste. Marie Canal and lock between Lake Huron and Lake Superior. These 16 locks overcome a drop of 580 ft. from the head of the lakes to Montreal. From Montreal to Lake Ontario the former bottleneck of narrow, shallow canals and of slow passage through 22 locks has been overcome, giving faster and safer movement for larger vessels. The new locks and linking channels now accommodate all but the largest ocean-going vessels and the upper St. Lawrence and Great Lakes are open to 80% of the world's saltwater fleet.

Subsidiary Canadian canals or branches include the St. Peters Canal between Bras d'Or Lakes and the Atlantic Ocean in Nova Scotia; the St. Ours and Chambly Canals on the Richelieu River, Quebec; the Ste. Anne, Carillon and Grenville Canals on the Ottawa River; the Rideau Canal between the Ottawa River and Lake Ontario, and the Trent and Murray Canals between Lake Ontario and Georgian Bay in Ontario. The commercial value of these canals is not great but they are maintained to control water levels and permit the passage of small vessels and pleasure craft. The Canso Canal, completed 1957, permits shipping to pass through the causeway connecting Cape Breton Island with the Nova Scotia mainland. During 1966, 111,188,312 tons of freight passed through all Canadian canals in 22,592 vessels.

The **Saint Lawrence Seaway**, opened 1959 set new records for cargo traffic in 1967 with a grand total of 44,028,638 cargo tons. The total for 1968 is estimated at 52,000,000 tons. The general cargo tonnage for 1967 was 5,962,747.

Ship transits amounted to 6,921 in 1967 with an average cargo ton load per transit of 6,361.

Cargo traffic via the Montreal-Lake Ontario section during the 1967 navigation season was 46,178,486 tons.

St. Lawrence Seaway provides a navigational channel with a minimum water depth of 27 ft. to link the Great Lakes to the Atlantic Ocean. A vessel entering the Great Lakes from the Atlantic ascends 20 ft. above sea level in the 1,000-mile long reach up the Gulf of St. Lawrence and St. Lawrence River to Montreal, Quebec. At Montreal, the vessel enters the first of 7 new locks, 5 of which are in Canadian waters and 2 within United States waters, which raise or lower shipping a total of

226 ft. in the 182-mile stretch of the St. Lawrence River between Montreal and Lake Ontario. Crossing Lake Ontario, the vessel enters Canada's 28-mile-long Welland Canal, with 8 locks to compensate for the difference in elevation of 326 ft. between Lake Ontario and Lake Erie.

The Seaway, built and operated jointly by the United States and Canada, is unique in that the statutes of both nations provide that the full costs of construction, operation and maintenance, with interest, be repaid to the federal treasuries within 50 years from revenues by the assessment of tolls levied against Seaway users.

Saint Lawrence Seaway Development Corporation (U.S.), Seaway Circle, Massena, New York. Joseph H. McCann, Administrator.

St. Lawrence Seaway Authority (Canada), Ottawa, Ontario. Dr. Pierre Camu, president.

The **Welland Canal** overcomes the 326-ft. drop of Niagara Falls and the rapids of the Niagara River. It has 8 locks, each 859 ft. long, 80 ft. wide and 30 ft. deep. Regulations permit ships of 730-ft. length and 75-ft. beam to transit with special handling, while largest size for regular handling is 715-ft. length and 72-ft. beam.

In 1967 the Welland Canal carried 52,-809,414 cargo tons; in 1966 59,271,666 cargo tons were carried, a loss of 10.9%. A tie-up of lake shipping due to strike action decreased the traffic in 1967.

Sault Ste. Marie Canal reported 89,366,-249 short tons passing through the American locks and 1,037,728 short tons passing through the Canadian canal for a total of 90,403,977 for the season of 1967.

In 1966 the comparable American figure was 102,309,719 and the Canadian figure 1,281,211 for a total of 103,670,930 short tons.

PANAMA CANAL

Cargo tonnage on the Panama Canal in fiscal 1968 amounted to 105,527,869 compared with 92,983,791 tons in 1967. Transit of oceangoing ships in fiscal 1968 totaled 14,807 compared with 13,385 in fiscal 1967. Toll collections in fiscal 1968 were \$93,-154,680 compared with \$82,296,638 in 1967.

Improvements have included the widening of the eight-mile long channel through Gaillard Cut from 300 to 500 feet, costing \$50,000,000; illumination of Gaillard Cut and installation of new towing locomotives at the locks costing \$8,000,000.

Thatcher Ferry Bridge, opened 1962, spans Panama Canal 201 ft. above the water level near Balboa. It is a steel-arch bridge, about 1 mi. long, with 3 spans and 4 lanes. It cost \$20,000,000 authorized by the U. S. Congress in 1956.

OTHER FOREIGN CANALS

One of the busiest canals in Europe is the Gota, in Sweden, 115 mi. long. Others: Kiel Canal, Germany, connecting the Baltic with the North Sea, 61 mi.; Elbe, Germany, 41 mi.; Amsterdam, Netherlands, 16 mi. Also the Manchester Ship Canal, England, 35.5 mi.

The Suez Canal is now operated by the government of United Arab Rep. For its history see page 557.

United States Foreign Trade with Leading Countries

Source: Bureau of International Commerce, Dept. of Commerce
(Value in millions of dollars)

Exports from the U. S. to the following areas and countries and imports into the U. S. from those areas and countries:	Exports, including re-exports		General Imports	
	1966	1967	1966	1967
Total (including special category) see asterisk . . .	30,320	31,534	25,542	26,816
Western Hemisphere	11,429	11,894	10,829	11,737
Canada	6,661	7,173	6,125	7,099
19 American Republics	4,231	4,126	3,970	3,853
Central American Common Market	361	357	303	300
Latin American Free Trade Association ¹	3,623	3,511	3,452	3,323
Dominican Republic	88	97	128	134
Panama	138	139	68	76
Bahamas	134	153	24	26
Bermuda	49	57	2	2
Jamaica	115	126	133	144
Netherland Antilles	72	78	304	311
Surinam	32	37	50	56
Trinidad and Tobago	59	61	163	184
Europe	10,003	10,294	7,857	8,232
OECD countries, total ²	9,556	9,932	7,503	7,871
Western Europe	9,805	10,099	7,678	8,053
European Economic Community	5,504	5,846	4,125	4,457
Belgium and Luxembourg	690	704	568	584
France	1,007	1,025	638	690
Germany, Western	1,674	1,706	1,796	1,955
Italy	909	973	743	856
Netherlands	1,224	1,238	320	372
European Free Trade Association	2,984	3,270	2,954	2,882
Austria*	55	47	80	72
Denmark	184	205	202	183
Norway*	144	138	129	134
Portugal*	64	75	75	69
Sweden	359	385	295	330
Switzerland	414	430	386	383
United Kingdom	1,737	1,960	1,786	1,710
Finland*	64	59	97	83
Greece	180	143	51	68
Ireland	86	77	84	130
Spain	518	521	163	217
Turkey	265	252	96	103
Yugoslavia*	173	96	74	87
Eastern Europe ³	198	195	179	177
Asia and Oceania				
Asia ⁴	6,922	7,213	5,294	5,367
Near East	1,112	961	403	308
Iran	230	246	115	83
Israel	210	196	77	87
Kuwait	89	108	29	22
Lebanon	84	55	9	7
Saudi Arabia	152	169	96	59
United Arab Republic (Egypt)	189	66	18	15
Japan	2,364	2,696	2,963	2,999
East and South Asia	3,447	3,557	1,925	2,058
China, Rep. of (Taiwan)	237	333	117	166
Hong Kong	229	255	416	498
India*	929	955	327	298
Indonesia	68	68	179	182
Korea, Rep. of	342	418	85	117
Malaysia ⁴	46	49	177	196
Singapore	51	66	15	16
Pakistan*	239	347	68	55
Philippines	348	428	398	380
Thailand*	128	164	76	96
South Viet-Nam ⁵	311	297	2	2
Oceania	895	1,016	594	581
Australia	653	891	395	406
New Zealand and Western Samoa	127	90	180	156
Africa ⁶	1,159	1,116	961	890
North Africa, excluding Egypt	273	266	126	124
Algeria	67	33	3	3
Ethiopia	24	23	45	51
Libya	59	86	57	36
Morocco	63	51	10	12
Tunisia	44	52	3	5
Western and equatorial Africa	318	281	379	348
Angola	17	35	53	63
Ghana	53	43	46	57
Ivory Coast	23	13	65	48
Liberia	38	49	60	52
Nigeria	103	64	51	44
Central and southern Africa	567	570	457	418
Congo (Kinshasa)	59	49	45	40
Kenya	28	20	21	14
Tanzania	8	9	17	14
Uganda	2	4	58	44
South Africa, Rep. of ⁷	401	426	249	227

*Where the asterisk appears the "special category shipments" are excluded.

¹Includes Paraguay. ²Excludes Finland and Yugoslavia. ³Includes United Arab Republic (Egypt). ⁴Includes Sarawak and Sabah. ⁵Prior to Jan. 1, 1966 includes North Vietnam. ⁶Excludes UAR. ⁷Includes SW Africa and British High Commission Territories of Bechuanaland, Basutoland and Swaziland.

A Super Barge Load of Sugar

The world's largest barge, the Caribbean, carried its largest load Aug. 9-16, 1968. Towed by tug Elizabeth Moran, it brought 17,391 long tons of raw sugar, worth \$3,000,000 and enough to fill household needs of 10,000,000 people for a year, from Puerto Rico to N.Y.C.

Commerce at Principal U. S. Ports

EXCLUDING GREAT LAKES SHIPPING

Source: Corps of Engineers, Department of the Army

Calendar Year of 1966. In tons of 2,000 pounds.

Port	Tons	Port	Tons
TONNAGE SHIPPED AT MAJOR PORTS			
Port of New York, N. Y. and N. J.	157,071,892	Natchez, Miss.	598,318
New Orleans, La.	199,387,697	Pascagoula Harbor, Miss.	9,873,782
Houston, Texas	59,793,312	Vicksburg, Miss.	1,626,141
Philadelphia Harbor, Pa.	49,505,860	Brownsville, Texas	4,355,988
Baltimore Harbor and Channels, Md.	43,876,778	Freeport Harbor, Texas	4,361,657
Norfolk Harbor, Va.	39,497,670	Galveston, Texas	4,798,764
Baton Rouge, La.	34,104,315	Harbor Island, Texas	6,683,066
Beaumont, Texas	32,660,280	Orange, Texas	1,408,683
Port Arthur, Texas	26,298,267	Palacios, Texas	149,999
Tampa Harbor, Fla.	23,915,622	Port Isabel, Texas	369,699
Los Angeles Harbor, Calif.	23,502,611	Matagorda Ship Channel (Port Lavaca-Point Comfort, Tex.)	4,337,074
Corpus Christi, Texas	22,464,936	Port Mansfield, Texas	73,359
Portland Harbor, Me.	22,315,086	Sabine Pass Harbor, Texas	103,731
Mobile Harbor, Ala.	22,307,918	Victoria, Texas	927,629
Paulsboro, N. J. and vicinity	20,832,333	Helena, Ark.	1,958,106
Boston, Mass.	20,287,217	Chattanooga, Tenn.	1,417,689
Marcus Hook, Pa. and vicinity	19,643,963	Knoxville, Tenn.	513,522
Texas City, Tex.	17,691,501	Memphis, Tenn.	7,614,953
Huntington, W. Va.	17,035,691	Nashville, Tenn.	2,717,990
Lake Charles, La.	16,530,105	Kansas City, Mo.	1,695,192
Portland, Ore.	15,590,726	Cincinnati, Ohio	9,133,544
Richmond Harbor, Calif.	15,149,011	Louisville, Ky.	8,591,169
Port of Newport News, Va.	14,108,909	Mount Vernon, Ind.	3,365,006
New Castle, Del. and vicinity	13,035,957	Minneapolis, Minn.	1,512,800
St. Louis, Mo.	9,426,324	St. Paul, Minn.	4,941,247
		Carphenter, Calif.	440,203
		Crescent City Harbor, Calif.	440,203
OTHER PORTS MAINE TO WASHINGTON			
Rockland Harbor, Maine	96,647	El Segundo, Calif.	4,457,740
Searsport Harbor, Maine	1,333,579	Ellwood, Calif.	111,450
Portsmouth Harbor, N. H.	1,740,119	Encino, Calif.	74,787
Burlington Harbor, Vt.	539,008	Gaviota, Santa Barbara County, Calif.	332,276
Beverly Harbor, Mass.	213,812	Humboldt Harbor and Bay, Calif.	890,106
Fall River Harbor, Mass.	4,040,441	Huntington Beach, Calif.	407,668
Grochester Harbor, Mass.	198,340	Long Beach, Calif.	13,547,800
New Bedford, Fairhaven Harbor, Mass.	427,511	Monterey Harbor, Calif.	9,185
Salem Harbor, Mass.	1,375,249	Moss Landing Harbor, Calif.	42,575
Newport Harbor, R. I.	123,423	Oakland Harbor, Calif.	5,187,066
Providence River and Harbor, R. I.	9,206,698	Port Hueneme, Calif.	72,945
Bridgeport Harbor, Conn.	2,489,475	Redwood City Harbor, Calif.	3,168,467
New Haven Harbor, Conn.	9,530,184	San Diego Harbor, Calif.	1,905,511
New London Harbor, Conn.	1,045,970	San Francisco Harbor, Calif.	4,961,483
Norwalk Harbor, Conn.	1,346,050	San Luis Obispo Harbor, Calif.	1,242,604
Stamford Harbor, Conn.	1,039,506	Stockton, Calif.	2,635,259
Cold Spring Harbor, N. Y.	1,552,646	Ventura Harbor, Calif.	557,284
Hempstead Harbor, N. Y.	4,293,470	Astoria, Ore.	1,243,081
Huntington Harbor, N. Y.	5,953,967	Coos Bay, Ore.	5,265,795
Peekskill Harbor, N. Y.	128,352	Oregon Slough (No. Portland Hbr.), Ore.	286,969
Plattsburg, N. Y.	477,212	Port of Bandon, Ore.	310,896
Port Chester Harbor, N. Y.	405,714	Port of St. Helens, Ore.	286,327
Port Jefferson Harbor, N. Y.	2,002,472	Yaquina Bay and Harbor, Ore.	5,615,207
Port of Albany, N. Y.	8,502,566	Anacortes Harbor, Wash.	2,067,573
Rondout Harbor, N. Y.	446,797	Bellingham Bay and Harbor, Wash.	4,241,102
Tarrytown Harbor, N. Y.	638,860	Everett Harbor, Wash.	2,737,555
Candlen-Choucouster, N. J.	5,466,473	Grays Harbor and Chehalis River, Wash.	893,042
Trenton Harbor, N. J.	2,446,842	Hammersley Inlet, Wash. (Shelton Hbr.)	3,683,423
Alliquippa-Rochester, Pa.	6,835,517	Neah Bay, Wash.	258,535
Chester, Pa.	805,859	Olympia Harbor, Wash.	640,060
Clairton-Ellizabeth, Pa.	13,317,500	Port Angeles Harbor, Wash.	2,552,220
Penn Manor, Pa. and vicinity	10,252,550	Port Gamble Harbor, Wash.	213,484
Pittsburgh, Pa.	8,369,023	Port Townsend Harbor, Wash.	852,636
Wilmington Harbor, Del.	2,361,698	Seattle Harbor, Wash.	14,846,806
Cambridge Harbor, Md.	114,149	Tacoma Harbor, Wash.	5,827,876
Washington Harbor, D. C.	2,102,197	Vancouver, Wash.	1,825,588
Alexandria, Va.	261,922	Willapa Riv. & Hbr., Naselle Riv., Wash.	578,460
Port of Hopewell, Va.	510,624		
Port of Richmond, Va.	1,618,414	ALASKA, HAWAII, PUERTO RICO	
Morehead City Harbor, N. C.	655,808		
Port of Wilmington, N. C. (see also Wilmington Harbor, N. C. for waterway data)	4,394,457	Anchorage, Alaska	1,008,999
Charleston Harbor, S. C.	5,419,919	Iluliuk Harbor, Alaska	170,865
Georgetown Harbor, S. C.	1,092,629	Juneau Harbor, Alaska	133,524
Brunswick Harbor, Ga.	870,557	Ketchikan Harbor, Alaska	1,542,093
Savannah Harbor, Ga.	4,756,663	Seward Harbor, Alaska	49,326
Canaveral Harbor, Fla.	1,466,458	Sitka Harbor, Alaska	1,072,382
Charlotte Harbor, Fla.	1,359,455	Skagway Harbor, Alaska	296,888
Fernandina Harbor, Fla.	209,528	Whittier Harbor, Alaska	114,170
Fort Pierce Harbor, Fla.	85,623	Wrangell Harbor, Alaska	501,642
Jacksonville Harbor, Fla.	10,295,556	Wards Point, Oahu, Hawaii	2,469,739
Key West Harbor, Fla.	214,901	Hilo Harbor, Hawaii	835,029
Miami Harbor, Fla.	1,377,514	Honolulu Harbor, Oahu, Hawaii	6,180,798
Palm Beach Harbor, Fla.	886,556	Kahului Harbor, Maui, Hawaii	555,405
Panama City Harbor, Fla.	1,244,067	Kaunakapau Harbor, Lanai, Hawaii	293,386
Pensacola Harbor, Fla.	330,324	Kaunakapau Harbor, Lanai, Hawaii	377,827
Port Everglades Harbor, Fla.	7,135,343	Kawahae Harbor, Hawaii, Hawaii	266,894
Port St. Joe Harbor, Fla.	301,045	Nawiliwili Harbor, Kauai, Hawaii	522,286
St. Petersburg Harbor, Fla.	282,703	Pearl Harbor, Oahu, Hawaii	1,043,431
Weedon Island, Fla.	722,484	Port Allen Harbor, Kauai, Hawaii	127,935
Guntersville, Ala.	1,390,291	Wake Island Harbor	453,730
Biloxi Harbor, Miss.	152,572	Guam Harbor, P. R.	318,534
Greenville, Miss.	1,262,347	Mayaguez Harbor, P. R.	312,489
Gulfport Harbor, Miss.	534,197	San Juan Harbor, P. R.	624,910
		San Thomas Harbor, P. R.	7,460,810
		Guam Island, Pacific Ocean	326,890
			192,339

Commerce at Great Lakes Ports

Source: Corps of Engineers, Dept. of the Army
Calendar Year 1966. In tons of 2,000 pounds

Port	Tons	Port	Tons
Duluth-Superior Hbr., Minn. & Wis.	46,297,520	Port Dolomite, Mich.	3,367,645
Silver Bay, Minn.	12,099,673	Port Gypsum, Mich.	266,271
Taconite Harbor, Minn.	9,810,784	Port Huron, Mich.	990,049
Ashland Harbor, Wis.	411,363	Port Inland, Mich.	3,878,272
Green Bay Harbor, Wis.	2,664,342	Port of Detroit, Mich.	33,301,647
Kewauunee Harbor, Wis.	1,279,661	Presque Isle Harbor, Mich.	6,564,442
Manitowoc Harbor, Wis.	2,383,629	St. Clair, Mich.	3,834,612
Milwaukee Harbor, Wis.	6,387,733	St. Ignace, Mich.	150,240
Oak Creek, Wis.	2,998,403	St. Joseph Harbor, Mich.	457,293
Port Washington Harbor, Wis.	871,437	Sault Ste. Marie, Mich.	321,635
Racine Harbor, Wis.	127,093	Stonestop, Mich.	6,232,360
Sheboygan Harbor, Wis.	443,539	Traverse City Harbor, Mich.	180,111
Two Rivers Harbor, Wis.	131,646	Wells, Mich.	91,602
Alabaster, Mich.	618,735	Port of Chicago, Ill.	44,658,834
Alpena Harbor, Mich.	3,199,105	Waukegan Harbor, Ill.	457,773
Calcite, Mich.	14,266,112	Bumington Harbor, Ind.	2,352,612
Cheboygan Harbor, Mich.	115,259	Gary Harbor, Ind.	11,007,075
Detour, Mich.	349,036	Indiana Harbor, Ind.	20,706,497
Drummond Island, Mich.	2,772,005	Michigan City Harbor, Ind.	22,533
Escanaba, Mich.	7,908,331	Ashtabula Harbor, Ohio	9,314,794
Frankfort Harbor, Mich.	1,766,757	Cleveland Harbor, Ohio	24,020,820
Gladstone Harbor, Mich.	282,903	Conneaut Harbor, Ohio	12,822,154
Gd. Haven Harbor & Gd. River, Mich.	3,595,210	Fairport Harbor, Ohio	2,074,456
Holland Harbor, Mich.	241,426	Huron Harbor, Ohio	1,305,995
Limé Island, Mich.	203,102	Lorain Harbor, Ohio	6,620,983
Ludington Harbor, Mich.	3,969,311	Marblehead, Ohio	1,285,216
Mackinaw City, Mich.	36,625	Sandusky Harbor, Ohio	3,809,129
Manistee Harbor, Mich.	628,795	Toledo Harbor, Ohio	43,932,128
Manistique Harbor, Mich.	257,255	Erle Harbor, Pa.	975,187
Marquette Harbor, Mich.	2,096,642	Great Sodus Bay Harbor, N. Y.	407,240
Marysville, Mich.	577,318	Ogdensburg Harbor, N. Y.	541,197
Menominee Harbor, Mich. & Wis.	453,238	Oswego Harbor, N. Y.	449,154
Muskegon Harbor, Mich.	3,563,538	Port of Buffalo, N. Y.	18,611,862
Petoskey Penn-Dixie Harbor, Mich.	1	Rochester (Charlotte) Harbor, N. Y.	839,502

U. S. Exports and Imports of Leading Commodities

Source: Bureau of International Commerce, Dept. of Commerce, May 1968
(Value in millions of dollars)

Commodity	Exports		Imports	
	1966	1967	1966	1967
Total	\$29,884	\$31,147	\$25,542	\$26,816
Food and live animals¹	4,562	4,064	3,948	4,003
Meat	130	122	600	645
Poultry	46	39	..	..
Dairy products and eggs	125	117	..	..
Cheese	..	..	61	65
Fish	63	67	553	522
Grains and preparation	3,190	2,681	43	46
Wheat and wheat flour ²	1,536	1,207	..	..
Rice	230	319	..	..
Coarse grains	1,335	1,055	..	..
Corn	876	704	..	..
Grain sorghums	357	299	..	..
Fruits and nuts	340	338	369	360
Vegetables	169	154	170	195
Sugar	..	..	501	588
Coffee, green or roasted	..	..	1,069	964
Beverages and Tobaccos	624	649	642	698
Alcoholic beverages	..	..	497	528
Tobacco, unmanufactured	482	498	137	162
Cigarettes	111	116	..	..
Crude materials, inedible except fuels	3,070	3,280	3,266	2,965
Hides and skins, except fur skins	155	128	89	61
Soybeans, peanuts other oilseeds	815	827	..	..
Synthetic rubber	175	170	177	170
Ores and metal scrap	422	520	11,020	974
Coal	468	432	..	..
Petroleum and products	434	539	2,127	2,088
Animal and vegetable oils and fats	357	338	146	122
Soybean oil	125	143	..	..
Chemicals	2,675	2,803	955	963
Medicinal and pharmaceutical	269	288	75	72
Machinery and transport equipment	11,155	12,573	4,823	5,791
Automotive engines	200	225	232	268
Agricultural machinery	233	237	190	216
Tractors and parts	215	214	106	101
Metalworking machinery	339	339	135	203
Textile and leather machinery	227	205	221	238
Other nonelectrical machinery	1,119	1,168	..	..
Electrical apparatus	1,900	2,097	1,010	1,140
Transport equipment³	3,478	4,296	2,135	2,688
Railway vehicles	116	145	..	..
New motor vehicles	1,276	1,302	1,236	1,695
Aircraft and parts	1,097	1,518	273	248
Other manufactured goods	5,278	5,376	8,635	8,963
Rubber manufactures	168	156	64	69
Paper and manufactures	443	466	985	962
Diamonds, excluding industrial	..	..	375	389
Metals and manufactures	1,776	1,734	3,267	3,398
Iron and steel-mill products	537	539	1,183	1,289
Nonferrous base metals	582	517	1,468	1,477
Textiles other than clothing	554	531	908	812
Furniture	47	52	81	91
Clothing	125	129	608	649
Other transactions	1,187	960	866	1,060

¹Includes relief shipments. ²Wheat equivalent. ³Excludes parts for tractors.

Merchant Fleets of the World

OCEANGOING STEAM AND MOTORSHIPS OF 1,000 GROSS TONS AND OVER

Source: Maritime Administration, U. S. Dept. of Commerce

Excludes ships operating exclusively on the Great Lakes and Inland Waterways and special types such as channel ships, icebreakers, cable ships, etc. and merchant ships owned by any military force.

Gross Tons: Volume, not weight; each gross ton represents 100 cubic ft. of enclosed space. Deadweight Tons: Number of long tons (2,240 lbs. ea.) of cargo, fuel, etc. a ship can carry at maximum draft.

	January 1, 1968 Country of Registry	Total no.	Gross tons	Dwt. tons	Tankers	
					Number	Dwt. tons
British Common.	United States†	2,162	19,179,000	26,079,000	316	7,293,000
	United Kingdom...	1,903	20,005,000	27,536,000	410	12,123,000
	Australia...	102	637,000	883,000	12	212,000
	British Colonies...	135	1,268,000	1,922,000	17	768,000
	Canada...	65	266,000	314,000	16	109,000
	Cyprus...	64	420,000	606,000	7	113,000
	Ghana...	14	105,000	134,000		
	India...	219	1,894,000	2,774,000	10	307,000
	Jamaica...	3	15,000	14,000	1	5,000
	Malaysia...	5	7,000	6,000	1	2,000
	Malta...	8	44,000	67,000	1	16,000
	New Zealand...	50	151,000	181,000	1	3,000
	Nigeria...	9	53,000	89,000		
	Pakistan...	61	467,000	631,000	1	16,000
	Tonga...	1	2,000	3,000		
	*Albania...	3	33,000	45,000		
	Algeria...	1	15,000	20,000		
	Argentina...	148	1,051,000	1,421,000	54	711,000
	Belgium...	69	847,000	1,231,000	15	464,000
	Brazil...	224	1,178,000	1,656,000	50	650,000
Other Countries	*Bulgaria...	77	494,000	717,000	13	204,000
	Burma...	8	45,000	60,000		
	Burundi...	2	15,000	21,000		
	Chile...	46	262,000	355,000	5	102,000
	China (Taiwan)...	126	760,000	1,081,000	9	124,000
	*China (Communist)...	193	863,000	1,150,000	20	137,000
	Colombia...	25	145,000	189,000	1	16,000
	Congolese Republic...	3	29,000	34,000		
	Costa Rica...	1	5,000	8,000		
	*Cuba...	40	223,000	305,000	2	6,000
	*Czechoslovakia...	7	75,000	109,000		
	Denmark...	342	2,342,000	4,237,000	56	1,898,000
	Dominican Republic...	5	14,000	20,000		
	Ecuador...	5	26,000	33,000	1	2,000
	Ethiopia...	6	37,000	56,000	1	33,000
	Finland...	221	1,012,000	1,488,000	37	560,000
	France...	532	5,284,000	7,220,000	154	4,112,000
	Germany (West)...	886	5,870,000	8,423,000	48	1,792,000
	*Germany (East)...	114	730,000	940,000	10	13,000
	Greece...	975	7,275,000	10,580,000	143	3,134,000
	Guatemala...	2	4,000	6,000		
	Guinea...	1	11,000	15,000		
	Haiti...	1	7,000	9,000		
	Honduras...	13	51,000	52,000	1	2,000
	*Hungary...	17	21,000	23,000		
	Iceland...	23	51,000	67,000	2	7,000
	Indonesia...	154	498,000	599,000	22	130,000
	Iran...	5	58,000	87,000	2	43,000
	Iraq...	15	12,000	17,000		
	Ireland...	15	119,000	170,000		
	Israel...	92	709,000	949,000	1	2,000
	Italy...	613	5,943,000	8,002,000	152	3,278,000
	Ivory Coast...	4	20,000	26,000		
	Japan...	1,582	16,101,000	24,738,000	275	10,238,000
	Korea (South)...	60	360,000	564,000	7	220,000
	*Korea (North)...	2	4,000	6,000		
	Kuwait...	13	144,000	216,000	3	161,000
	Lebanon...	105	490,000	746,000		
	Liberia...	1,496	23,881,000	39,599,000	607	22,943,000
	Malagasy...	8	21,000	25,000		
	Mexico...	47	326,000	490,000	27	391,000
	Monaco...	3	24,000	35,000	3	35,000
	Morocco...	16	53,000	76,000		
	Netherlands...	456	4,531,000	6,245,000	88	2,630,000
	Nicaragua...	5	14,000	21,000		
	Norway...	1,368	18,666,000	29,233,000	459	16,742,000
	Panama...	585	4,691,000	7,232,000	137	4,112,000
	Peru...	30	165,000	244,000	6	74,000
	Philippines...	133	707,000	987,000	10	49,000
	*Poland...	197	1,178,000	1,665,000	6	1,08,000
	Portugal...	92	605,000	717,000	15	29,000
	*Romania...	34	278,000	409,000	3	74,000
	Saudi Arabia...	13	42,000	49,000		
	Senegal...	2	6,000	6,000		
	Singapore...	13	55,000	62,000		
	Somalia...	3	20,000	31,000		
	South Africa...	54	350,000	476,000	1	18,000
	Spain...	361	2,023,000	2,811,000	86	1,419,000
	Sudan...	4	20,000	25,000		
	Sweden...	422	4,404,000	6,352,000	68	2,387,000
	Switzerland...	28	217,000	305,000		
	Thailand...	13	43,000	62,000	5	13,000
	Tunisia...	9	19,000	25,000		
	Turkey...	101	575,000	767,000	12	250,000
	United Arab Republic...	44	194,000	240,000	10	101,000
	Uruguay...	18	123,000	186,000	4	64,000
	*USSR...	1,449	8,562,000	10,958,000	293	4,148,000
	Venezuela...	34	293,000	419,000	14	325,000
	Vietnam (South)...	2	5,000	6,000		
	Yugoslavia...	181	1,174,000	1,655,000	17	202,000
Total all Countries		18,800	171,522,000	250,403,000	3,740	105,542,000

*Source material limited and unreliable. †Comprised of ships under general agreement, bareboat charter, and in the custody of the Department of Defense, State and Interior.

*Includes the following U. S. Government-owned ships transferred to USSR under lend-lease agreements and still remaining under that registry: 76 | 431,000 | 645,000 | 1 | 11,000

Notable Ocean Passages by Ships

Time	From	To	Distance naut. mi.	Date	Ship
ONE HUNDRED YEARS OF SAILING VESSELS					
16d.....	Liverpool	New York	3,150	Nov. 1846	Yorkshire
76d 6h.....	San Francisco	Boston	1853	1853	Northern Light
12d 6h.....	San Francisco	Boston	1854	1854	James Baines
89d.....	New York	San Francisco	15,091	1854	Flying Cloud
89d 20h.....	New York	San Francisco	13,700	1860	Andrew Jackson
63d 18h 15m.....	Liverpool	Melbourne	1868-69	1868-69	Thermopylae
13d 1h 25m.....	New York	Liverpool	3,150	.....	Red Jacket
36d.....	50 S. lat.	Golden Gate	.....	.....	Starr King
12d 12h.....	Equator	San Francisco	.....	.....	Golden Fleece
12d 4h 1m.....	Sandy Hook	England	3,013	1905	Atlantic
23d.....	England	Sandy Hook	3,013	1928	Atlantic
22d 6h 7m.....	Bishop's Rock	Boston Light	.....	1936	Yankee

ATLANTIC CROSSINGS BY POWER VESSELS

29d 4h.....	Savannah	Liverpool	.....	May 22, 1819	Savannah (Amer.) (a)
15d.....	Bristol	New York	.....	Apr., 1838	Great Western (Br.)
14d 8h.....	Liverpool	New York	3,150	July, 1840	Britannia (Br.) (b)
9d 19h 25m.....	Atlantic	.....	.....	May, 1851	Pacific
9d 13h.....	Liverpool	New York	3,054	Aug., 1852	Baltic (Amer.)
8d 1h 45m.....	Queenstown	New York	2,780	1856	Persia
8d 2h 48m.....	Queenstown	New York	2,780	1866	Scotia
7d 4h 1m.....	Queenstown	New York	2,780	1867	City of Paris (Br.)
7d 22h 3m.....	Queenstown	New York	2,780	1869	City of Brussels (Br.)
7d 20h 9m.....	Queenstown	New York	2,780	1873	Baltic (Br.)
7d 15h 48m.....	Queenstown	New York	2,780	1875	City of Berlin (Br.)
7d 11h 37m.....	Queenstown	New York	2,780	1876	Germanic (Br.)
7d 10h 53m.....	Queenstown	New York	2,780	1877	Britannic (Br.)
7d 8h 0m.....	New York	Queenstown	2,780	1879	Arizona (Br.)
7d 7h 23m.....	Queenstown	New York	2,780	1880	Arizona (Ger.)
6d 18h 37m.....	New York	Queenstown	2,780	1882	Alaska (Br.)
6d 21h 40m.....	Queenstown	New York	2,780	1883	Alaska (Br.)
6d 10h 40m.....	New York	Queenstown	2,780	1884	Oregon (Br.)
6d 9h 42m.....	Queenstown	New York	2,780	1884	Oregon (Br.)
6d 4h 34m.....	Queenstown	New York	2,780	1887	Umbria (Br.)
5d 1h 55m.....	Queenstown	New York	2,780	1888	Etruria (Br.)
5d 22h 50m.....	New York	Queenstown	2,780	1889	City of Paris (Br.)
5d 16h 31m.....	Queenstown	New York	2,780	1891	Teutonic (Br.)
5d 14h 24m.....	Queenstown	New York	2,780	1892	City of Paris (Br.)
5d 9h 6m.....	Queenstown	New York	2,780	1893	Campania (Br.)
5d 7h 23m.....	Queenstown	New York	2,780	1894	Lucania (Br.)
5d 15h 25m.....	New York	Southampton	3,189	1897	Kaiser Wilhelm Der Grosse (Ger.)
5d 15h 20m.....	Southampton	New York	3,189	1898	Kaiser Wilhelm Der Grosse (Ger.)
5d 7h 38m.....	Sandy Hook	Plymouth	3,082	Sept., 1900	Deutschland (Ger.)
4d 15h.....	Queenstown	New York	2,780	1908	Lusitania (Br.)
4d 11h 42m.....	Queenstown	New York	2,780	1909	Lusitania (Br.)
4d 10h 41m.....	Queenstown	New York	2,780	1910	Mauretania (Br.)
5d 6h 21m.....	New York	Cherbourg	3,227	Oct., 1924	Leviathan (Amer.)
5d 5h 30m.....	Cherbourg	Cape Henry	3,320	June, 1927	U.S.S. Memphis (c)
4d 17h 42m.....	Cherbourg	Ambrose Lt.	3,164	July, 1929	Bremen (Ger.)*
4d 14h 30m.....	New York	Plymouth	3,082	July, 1929	Bremen (Ger.)
4d 17h 06m.....	Cherbourg	Ambrose Lt.	3,157	March, 1930	Europa (Ger.)*
4d 19h 57m.....	Ambrose Lt.	Cherbourg	3,196	June, 1933	Europa (Ger.)
4d 16h 48m.....	Cherbourg	New York	3,149	July, 1933	Europa (Ger.)
4d 13h 58m.....	Gibraltar	Ambrose Lt.	3,181	Aug., 1933	Rex (Ital.)
4d 14h 27m.....	Cherbourg	Ambrose Lt.	3,092	Nov., 1934	Bremen (Ger.)
4d 3h 13m.....	Cherbourg	New York	2,971	May-June, '35	Normandie (Fr.)*
4d 3h 25m.....	New York	Cherbourg	3,015	June, 1935	Normandie (Fr.)
4d 12h 24m.....	Cherbourg	Ambrose Lt.	3,158	May-June, '36	Queen Mary (Br.)*
3d 23h 02m.....	Bishop's Rock	Ambrose Lt.	2,906	July-Aug., '37	Normandie (Fr.)
3d 22h 07m.....	New York	Southampton	2,936	Aug., 1937	Normandie (Fr.)
3d 20h 42m.....	Ambrose Lt.	Bishop's Rock	3,120	Aug., 10-14, 1938	Queen Mary (Br.)
3d 21h 48m.....	Bishop's Rock	Ambrose Lt.	3,120	Aug., 1948	Queen Mary (Br.)
3d 10h 40m.....	Ambrose Lt.	Bishop's Rock	2,942	July, 3-7, 1952	United States (U.S.)* (e)
3d 12h 12m.....	Bishop's Rock	Ambrose Lt.	2,902	July, 11-14, 1952	United States (U.S.)* (e)
4d 23h 25m.....	Le Haye	.....	2,630	Aug., 1956	Homeric (Pan.)
4d 20h 50m.....	Ambrose Lt.	Bishop's Rock	2,853	Sept., 1962	American Challenger (Amer.) (f)

OTHER OCEAN PASSAGES

3d 00h 36m.....	San Pedro	Honolulu	2,226	June, 1928	U.S.S. Lexington
3d 2h 30m.....	San Francisco	Oahu, T. H.	2,091	July, 16-19, '45	U.S.S. Indianapolis (d)
4d 8h 51m.....	Gibraltar	Newp't News	3,360	Nov., 26, 1945	U.S.S. Lake Champlain
7d 18h 36m.....	Japan	San Francisco	5,000	July-Aug. 4, '50	U.S.S. Boxer
7d 13h.....	Yokosuka	Alameda	5,000	June 1-9, 1951	U.S.S. Philippine Sea
8d 11h.....	Nantucket	Portland, Eng	3,161	Feb. 25-Mar. 4, '58	U.S.S. Skate (f)
7d 5h.....	Lizard Head	Nantucket	.....	Mar. 23-20, '58	U.S.S. Skate (f)
15d.....	Pearl Harbor	Iceland (via North Pole)	.....	July 23-Aug. 7, 1958	U.S.S. Nautilus (g)
84d.....	New London, Conn.	Rehoboth, Del.	41,500	Feb. 10, 1960-May 10, 1960	U.S.S. Triton (h)
2d 6h 53m.....	Yokohama	San Francisco	.....	Aug., 1960	Brooklyn Maru (Jap.)*
6d.....	Baffin Bay	Pacific Ocean	850	Aug. 15-20, 1960	U.S.S. Seadragon (i)
12d 16h 22m.....	New York	N.W. Passage Cape Town	6,786	Oct. 30-Nov. 11, 1962-.....	African Comet*

*Maiden voyage. (a) The Savannah, a fully rigged sailing vessel with steam auxiliary (over 300 tons, 98.5 ft. long, beam 25.8 ft., depth 12.9 ft.), was launched in the East River in 1818. It was the first ship to use steam in crossing any ocean. It was supplied with engines and detachable iron paddle wheels. On its famous voyage it used steam 105 hours during parts of 12 days. The world's first nuclear-powered merchant ship, the N.S. Savannah, was named for the old steamship. (b) First Cunard liner. (c) Carried Charles A. Lindberg back to the United States after his flight from New York to Paris. (d) Carried Hiroshima atomic bomb in World War II. (e) Set world speed record; average speed east-bound on maiden voyage 35.59 knots (about 41 m.p.h.); westbound, 34.51 knots. (f) First atomic submarine to cross Atlantic both ways submerged. (g) World's first atomic submarine, also first to make undersea voyage under polar ice cap, 1,830 mi. from Point Barrow, Alaska, to Atlantic Ocean, Aug. 1-4, 1958, reaching North Pole Aug. 3. Second undersea transit of the North Pole made by submarine USS Skate Aug. 11, 1958, during trip from New London, Conn., and return. (h) World's largest submarine. Nuclear-powered Triton was submerged during nearly all its voyage around the globe. It duplicated the route of Ferdinand Magellan's circuit (1519-1522), 30,708 mi., starting from St. Paul Rock, off the NE coast of Brazil, Feb. 24-Apr. 25, 1960, then sailed to Cadiz, Spain, before returning home. (i) First underwater transit of Northwest Passage. (j) Fastest freighter crossing of Atlantic.

Navigable Distances Between Ports

Source: Distances between ports, U. S. Naval Oceanographic Office

Distances between U. S. ports, Coast and Geodetic Survey ESSA

One nautical mile: International Nautical Mile (INM) is equivalent to 1,852 meters, or approximately 6,076.11549 feet.

One statute mile = 5,280 ft. Distances shown are in nautical miles. For statute miles, multiply by 1.151.

Navigable Distances from New York City

The distances from New York to European ports and Straits of Gibraltar are based on Track "C" (North Atlantic Track Agreement 1950), which is used from July 1 through April 10.

Port	Naut. Miles	Port	Naut. Miles
Acajutla, El Salvador—via Panama.....	2,851	Manila, P. I.—via Panama.....	11,365
Acapulco, Mexico—via Panama.....	3,444	Maracaibo, Venezuela.....	1,890
Accra, Ghana.....	4,660	Mare Island, Calif.—via Panama.....	5,285
Aden, Arabia.....	6,523	Marseille, France.....	3,891
Ajaccio, Corsica.....	3,962	Mazatlan, Mexico—via Panama.....	4,024
Algiers, Algeria.....	3,617	Mobile, Alabama.....	1,655
Amapala, Honduras—via Panama.....	2,763	Mollendo, Peru—via Panama.....	3,814
Amsterdam, Netherlands.....	3,438	Monrovia, Liberia.....	3,965
Angra, Azores.....	2,179	Murmansk, U. S. S. R.—via south of Iceland	3,948
Antarctica (McMurdo Sound).....	8,302	—via north of Iceland.....	3,844
Antofagasta, Chile—via Panama.....	4,158	Naples, Italy.....	4,181
Antwerp, Belgium.....	3,406	Nassau, Bahamas.....	962
Argentina, Newfoundland.....	1,009	New London, Connecticut.....	104
Baltimore, Maryland.....	417	New Orleans, Louisiana.....	1,708
Barcelona, Spain.....	3,714	Newport News, Virginia.....	291
Basse Terre, Guadeloupe.....	1,624	Odessa, U. S. S. R.....	5,349
Bastille, St. Christopher Island.....	1,831	Oslo, Norway.....	3,644
Belize, British Honduras.....	1,703	Pago Pago, Samoa—via Panama.....	7,674
Bluefields, Nicaragua.....	2,001	Palermo, Sicily.....	4,120
Bombay, India.....	8,172	Panama.....	2,018
Bordeaux, France.....	3,258	Paramaribo, Surinam.....	2,334
Boston, Mass.—via Cape Cod Canal.....	234	Philadelphia, Pennsylvania.....	240
—via Pollock Rip Channel.....	284	Piraeus, Greece.....	4,688
—via Nantucket Shoals Lightship.....	386	Plymouth, England.....	3,042
Bremen, Germany.....	3,648	Ponce, Puerto Rico.....	1,462
Brest, France.....	3,049	Port Arthur, Texas.....	1,846
Bridgetown, Barbados.....	1,829	Port-au-Prince, Haiti.....	1,372
Brisbane, Australia.....	9,705	Port of Spain, Trinidad.....	1,939
Brunswick, Georgia.....	755	Port Said, United Arab Rep.....	5,123
Buenaventura, Colombia—via Panama.....	2,370	Port Townsend, Washington—via Panama.....	6,092
Buenos Aires, Argentina.....	5,871	Portland, Oregon—via Panama.....	5,887
Cadiz, Spain.....	3,146	Portsmouth, New Hampshire.....	403
Calcutta, India—via Suez.....	9,835	Progreso, Mexico.....	1,609
Cape of Good Hope, South Africa.....	6,801	Puerto Barrios, Guatemala.....	1,804
Cape Town, South Africa.....	6,786	Puerto Colombia, Colombia.....	1,800
Cartagena, Colombia.....	1,853	Puerto Cortes, Honduras.....	1,764
Carupano, Venezuela.....	1,893	Puerto Plata, Dominican Republic.....	1,270
Castellon, St. Lucia.....	1,747	Puntarenas, Costa Rica—via Panama.....	2,489
Cayenne, French Guiana.....	2,447	Pusan, Korea.....	10,222
Charleston, South Carolina.....	630	Quebec, Canada.....	1,381
Charlotte Amalie, Virgin Islands.....	1,434	Recife, Brazil.....	3,696
Charlottetown, Prince Edward Island.....	832	Reykjavik, Iceland.....	2,495
Cherbourg, France.....	3,154	Rijeka, Yugoslavia.....	4,828
Coatzacoalcas, Mexico.....	1,991	Rio de Janeiro, Brazil.....	4,770
Cobb, Ireland.....	2,901	Rotterdam, Netherlands.....	3,411
Colombo, Ceylon—via Suez.....	8,617	Saigon, South Vietnam.....	12,035
Copenhagen, Denmark.....	3,908	—via Suez Canal.....	10,790
Corinto, Nicaragua—via Panama.....	2,701	St. Georges, Grenada.....	1,842
Dakar, Senegal.....	3,335	St. John's, Antigua.....	1,572
Dover, England.....	3,280	St. John's, Newfoundland.....	1,093
Durban, South Africa.....	7,565	St. Nazaire, France.....	3,128
Ensenada Honda, Culebra Island.....	1,422	St. Pierre, Martinique.....	1,705
Famagusta, Cyprus.....	5,175	Salaverry, Peru—via Panama.....	3,127
Fernandina, Florida.....	761	Salvador, Brazil.....	4,089
Fort de France, Martinique.....	1,717	San Francisco, Calif.—via Panama.....	5,263
Freetown, Sierra Leone.....	3,757	San Jose, Guatemala—via Panama.....	2,904
Galveston, Texas.....	1,882	San Juan, Puerto Rico.....	1,399
Galway, Ireland.....	2,872	San Juan, del Norte, Nicaragua.....	2,032
Gdynia, Poland (via Kiel Canal).....	4,023	Sanchez, Dominican Republic.....	1,350
Genoa, Italy.....	4,048	Santa Cruz, Tenerife Is., Canary Islands.....	2,936
Georgetown, British Guiana.....	2,317	Santa Marta, Colombia.....	1,783
Georgetown, South Carolina.....	593	Santiago, Cuba.....	1,362
Gibraltar.....	3,204	Santo Domingo, Dominican Rep.....	1,489
Glasgow, Scotland.....	3,072	Santos, Brazil.....	4,957
Goteborg, Sweden.....	3,612	Savannah, Georgia.....	704
Guam, Mariana Islands.....	10,006	Shanghai, China—via Panama.....	10,584
Guantanamo, Cuba.....	1,312	Singapore, Malaysia—via Suez.....	10,584
Halphong, North Vietnam.....	12,324	Sitka, Alaska—via Panama.....	6,542
—via Suez Canal.....	11,496	Southampton, England.....	3,189
Havana, Cuba.....	1,186	Stanley, Falkland Islands.....	6,547
Hallifax, Nova Scotia.....	690	Strait of Gibraltar.....	3,180
Hamburg, Germany.....	3,674	Straits of Florida—outside.....	1,184
Hanover, Bermuda.....	970	—inside.....	1,237
Hong Kong—via Panama.....	11,213	Sydney, Australia—via Panama.....	9,692
Honolulu, Hawaii—via Panama.....	6,703	Sydney, Nova Scotia.....	808
Istanbul, Turkey.....	5,001	Tacoma, Washington—via Panama.....	6,059
Jacksonville, Florida.....	788	Tahiti, Society Islands—via Panama(Papeete).....	6,511
Julianehab, Greenland.....	1,911	Thule, Greenland.....	2,913
Key West, Florida.....	1,109	Truk, Caroline Island—via Panama.....	9,703
Kingston, Jamaica.....	1,474	Tsingtao, China—via Panama.....	10,593
Kodiak, Alaska.....	6,925	Vallerta, Malta.....	4,185
La Guaira, Venezuela.....	1,848	Veracruz, Mexico.....	1,973
Las Palmas, Canary Islands.....	2,965	Vladivostok, U. S. S. R.—via Panama.....	9,757
Le Havre, France.....	3,220	Wake Island, Pacific.....	8,691
Limon, Costa Rica.....	2,047	Washington, D. C.....	430
Lisbon, Portugal.....	2,972	Willemstad, Curacao.....	1,771
Liverpool, England.....	3,132	Wilmington North Carolina.....	564
London, England.....	3,370	Yucatan Channel, Central America.....	1,366
Los Angeles, Calif.—via Panama.....	4,931		

Navigable Distances from Panama Canal (Pacific) to:

Port	Miles	Port	Miles
Apia, Samoa Is.	5,710	Le Havre, France.	4,651
Arica, Chile.	1,921	Liverpool, Nova Scotia.	2,288
Auckland, N. Z.	6,516	Los Angeles, Calif.	2,913
Baltimore, Md.	1,944	Manila, P. I.	13,447
Belem, Brazil.	2,447	Melbourne, Australia.	7,928
Bombay, India.	9,343	Mobile, Ala.	1,413
Bordeaux, France.	4,641	Montevideo, Uruguay.	5,379
Boston, Mass.	2,200	New Orleans, La.	1,433
Buenos Aires, Argentina.	5,523	New York.	2,018
Calcutta, India.	10,989	Norfolk, Va.	1,822
Callao, Peru.	1,350	Pensacola, Fla.	1,412
Charleston, S. C.	1,607	Philadelphia, Pa.	1,989
Colombo, Ceylon.	9,775	Plymouth, England.	4,473
Colon, Pan. (Atlantic entrance of Canal).	4	Punta Arenas, via west of South America.	3,932
Galveston, Tex.	1,536	via east of South America.	6,587
Glasgow, Scotland.	4,538	Recife, Brazil.	3,339
Guam, Mariana Islands.	7,988	Rio de Janeiro, Brazil.	4,411
Guayaquil, Ecuador.	824	San Francisco, Calif.	3,245
Havana, Cuba.	1,042	Seattle, Wash.	4,020
Halifax, Nova Scotia.	2,338	Shanghai, China.	8,566
Hamburg, Germany.	5,105	Singapore, Malaysia.	10,505
Hong Kong.	9,195	Straits of Gibraltar.	4,351
Honolulu, Hawaii.	4,685	Valparaiso, Chile.	2,616
Jacksonville, Fla.	1,559	Vancouver, British Columbia.	4,032
Key West, Fla.	1,108	Wellington, New Zealand.	6,505
Kingston, Jamaica.	594	Yokohama, Japan.	7,682

Navigable Distances from San Francisco to:

Port	Miles	Port	Miles
Acapulco, Mexico.	1,833	Melbourne, Australia.	6,970
Aleksandrovsk-Sakhalinsky (on Sakhalin)		Midway Island.	2,792
USSR.	4,372	Nome, Alaska.	2,636
Amoy, China (Hsia-men).	5,788	Nonouti, Gilbert Islands.	4,185
Anchorage, Alaska.	1,872	Pago Pago, Samoa Islands.	4,150
Antofagasta, Chile.	4,762	Punta Arenas, Chile.	6,188
Arica, Chile.	4,551	Pusan, Korea.	4,914
Auckland, N. Z.	5,680	Rabaul, New Britain.	5,396
Brisbane, Australia.	6,193	Salon, Vietnam.	6,878
Buenaventura, Colombia.	3,383	San Jose, Guatemala.	2,395
Callao, Peru.	3,989	Shanghai, China.	8,595
Colon, Panama.	3,289	Singapore, Malaysia.	13,353
Darwin, Australia.	6,984	Sitka, Alaska.	1,302
Djakarta, Indonesia.	7,642	Suva, Fiji Islands.	4,749
Dutch Harbor, Alaska.	2,051	Sydney, Australia.	6,448
Guam.	5,053	Talara, Peru.	3,494
Guayaquil, Ecuador.	3,548	Tan-shui, Taiwan (Formosa).	5,611
Hong Kong.	6,044	Valparaiso, Chile.	5,140
Honolulu, Hawaii.	2,091	Vancouver, B. C.	812
Jaluit, Marshall Islands.	4,150	Vladivostok, U.S.S.R.	4,563
Kiska Harbor, Kiska Island, Alaska.	2,629	Wake Island.	3,821
Kobe, Japan.	4,819	Wellington, N. Z.	5,900
Kodiak, Alaska.	1,693	Yokohama, Japan.	4,536
Manila, P. I.	6,221		

DISTANCES BETWEEN WEST INDIES, CARIBBEAN AND GULF PORTS

From:	To:	Cap-Haitien	Carta-gena	Charlotte Amalie	Colon	Galveston	Havana	Key West	La Guaira	New Orleans	Pensacola	Port of Spain	Port Royal	Veracruz	Willemstad
Cap-Haitien.			697	442	817	1302	631	619	750	1128	1035	888	321	1396	674
Cartagena.		697		811	281	1583	1142	130	612	1468	1422	932	874	510	471
Charlotte Amalie.		442	811		1029	1785	1048	1036	479	1611	518	700	184	437	
Colon.		817	281	1029		1508	998	1065	841	1389	1369	1159	546	1420	698
Galveston.		1302	1583	1785	1508		769	775	1938	395	446	2213	1241	623	1790
Havana.		631	1142	1048	998	769		92	1292	602	515	1494	732	814	1144
Key West.		619	1130	1036	1065	775	92		1280	613	504	1484	747	869	1134
La Guaira.		750	612	479	841	1938	1292	1280		1819	1773	329	727	1888	150
New Orleans.		1128	1468	1611	1389	395	602	613	1819		255	2057	1122	789	1671
Pensacola.		1035	1422	1518	1369	446	515	504	1773	255		1964	1076	841	1625
Port of Spain.		888	932	518	1159	2213	1494	1484	329	2057	1964		998	2182	456
Port Royal.		321	474	700	546	1241	732	747	727	1122	1076	998		1265	381
Veracruz.		1396	1510	1854	1420	623	814	869	1888	789	831	2182	1205		1756
Willemstad.		674	471	457	698	1790	1144	1134	150	1671	1625	456	581	1756	

DISTANCES BETWEEN SOUTH AMERICAN PACIFIC PORTS

From:	To:	Antofagasta	Arica	Caldera	Callao	Coquimbo	Esmeraldas	Guayaquil	Iquique	Lota	Mollendo	Pacasmayo	Paipa	Pisco	Punta Arenas	Valparaiso
Antofagasta.			325	215	813	396	1703	1470	224	828	417	1119	1299	713	1496	576
Arica.		325		522	593	702	1484	1251	110	1134	137	899	1080	492	2301	882
Caldera.		215	522		980	196	1865	1632	420	628	606	1285	1461	880	1795	376
Callao.		813	593	980		1136	909	712	659	1530	468	323	505	128	3671	1306
Coquimbo.		396	702	196	1136		2014	1781	602	455	782	1437	1609	1036	1623	203
Esmeraldas.		1703	1484	1865	909	2014		356	1550	2388	1359	603	420	1021	486	2179
Guayaquil.		1470	1251	1632	712	1781	356		1317	2155	1125	1570	187	788	3407	1980
Iquique.		224	110	420	659	602	1550	1317		1033	220	965	1146	560	2201	782
Lota.		828	1134	628	1530	455	2388	2155	1033		1209	1821	1983	1432	1191	368
Mollendo.		417	137	606	468	782	1359	1126	220	1209		774	955	367	2374	982
Pacasmayo.		1119	899	1285	323	1437	603	703	963	1821	774		201	435	2549	1605
Paipa.		1299	1080	1461	505	1609	420	187	1146	1983	955	201		617	3101	1774
Pisco.		713	492	880	128	1036	1021	788	560	1432	367	435	617		2678	1207
Punta Arenas.		1996	2301	1795	2671	1623	3486	3307	2201	1191	2374	2949	3101	2578.		1432
Valparaiso.		576	882	376	1306	203	2175	1980	782	268	962	1605	1774	1207	1432	

Distances Between Great Lakes Ports

Source: Coast and Geodetic Survey, ESSA

In Statute Miles	St. Lawrence				Erie				St. Clair and Huron					
	Quebec	Montreal	Ogdensburg	Kingston	Buffalo	Port Colborne	Erie	Cleveland	Toledo	Detroit	Port Huron	Bay City	Alpena	Collingwood
Quebec, Canada.....		157	283	346	553	531	596	691	768	775	837	999	994	1095
Montreal, Canada.....	157		126	189	396	374	439	534	611	618	680	842	837	938
Ogdensburg, New York.....	283	126		63	270	248	313	408	485	492	554	716	711	812
Kingston, Canada.....	346	189	63		208	186	251	346	423	430	492	654	649	750
Buffalo, New York.....	553	396	270	208		22	78	176	251	261	322	484	479	580
Port Colborne, Canada.....	531	374	248	186	22		65	160	234	241	306	468	463	564
Erie, Pennsylvania.....	596	439	313	251	78	65		102	185	191	253	415	410	511
Cleveland, Ohio.....	691	534	408	346	176	160	102		96	108	170	331	326	427
Toledo, Ohio.....	768	611	485	423	254	237	185	96		54	116	278	273	374
Detroit, Michigan.....	775	618	492	430	261	244	191	108	54		62	224	219	320
Port Huron, Michigan.....	837	680	554	492	322	306	253	170	116	62		162	157	258
Bay City, Michigan.....	999	842	716	654	484	468	415	331	278	224	162		116	257
Alpena, Michigan.....	994	837	711	649	479	463	410	326	273	219	157	116		185
Collingwood, Canada.....	1095	938	812	750	580	561	511	427	374	320	258	257	185	
Oswego, New York.....	391	234	108	55	190	168	233	328	405	412	474	636	631	732
Rochester, New York.....	432	275	149	89	139	117	182	277	354	361	423	585	580	681
Toronto, Canada.....	506	349	223	161	77	55	120	215	292	299	361	523	518	619
Sault Ste. Marie.....	1106	949	823	761	592	575	522	418	385	331	269	232	137	259
Marquette, Michigan.....	1266	109	983	921	751	735	682	598	545	491	289	391	297	413
Houghton, Michigan.....	1327	110	1044	982	813	796	743	699	606	552	490	553	358	480
Ashland, Wisconsin.....	1455	1298	1172	1110	941	924	871	788	734	680	618	581	482	608
Duluth, Minnesota.....	1501	1344	1218	1156	986	970	917	833	781	726	661	627	532	653
Port Arthur, Canada.....	1379	1222	1096	1034	864	848	795	711	658	604	542	505	410	531
Escanaba, Michigan.....	1213	1056	930	868	699	682	629	545	492	438	376	339	244	376
Green Bay, Wisconsin.....	1282	1125	999	937	767	751	698	614	561	507	445	407	313	441
Muskegon, Michigan.....	1308	1151	1025	963	794	777	724	640	587	533	471	434	339	474
Milwaukee, Wisconsin.....	1343	1186	1060	998	828	812	759	675	622	568	506	468	374	505
Chicago, Illinois.....	1408	1251	1125	1063	893	877	824	740	688	633	571	534	439	570

In Statute Miles	Ontario			Superior					Michigan						
	Oswego	Rochester	Toronto	Sault Ste. Marie	Marquette	Houghton	Ashland	Duluth	Port Arthur	Escanaba	Green Bay	Muskegon	Milwaukee	Chicago	
Quebec, Canada.....	391	432	506	1106	1266	1327	1455	1501	1379	1213	1282	1308	1343	1408	
Montreal, Canada.....	234	275	349	949	1109	1170	1298	1344	1222	1056	1125	1151	1186	1251	
Ogdensburg, New York.....	108	149	223	823	983	1044	1172	1218	1096	930	999	1025	1060	1125	
Kingston, Canada.....	55	89	161	761	921	982	1110	1156	1034	868	937	963	998	1063	
Buffalo, New York.....	190	139	77	592	751	813	941	986	864	699	767	794	828	893	
Port Colborne, Canada.....	168	117	55	575	735	796	924	970	848	682	751	777	812	877	
Erie, Pennsylvania.....	233	182	120	522	682	743	871	917	795	629	698	724	759	824	
Cleveland, Ohio.....	328	277	215	438	598	659	788	833	711	545	614	640	675	740	
Toledo, Ohio.....	405	354	292	385	545	606	734	781	658	492	561	587	622	688	
Detroit, Michigan.....	412	361	299	331	491	552	680	726	604	438	507	533	568	633	
Port Huron, Michigan.....	474	423	361	269	429	490	618	664	542	376	445	471	506	571	
Bay City, Michigan.....	636	585	523	232	391	453	581	627	505	339	407	434	468	534	
Alpena, Michigan.....	631	580	518	137	297	358	486	532	410	244	313	339	374	439	
Collingwood, Canada.....	732	681	619	259	418	480	608	653	531	376	444	471	505	570	
Oswego, New York.....		59	145	743	903	964	1092	1178	1016	850	919	945	980	1045	
Rochester, New York.....			95	692	852	913	1041	1037	965	799	868	894	929	994	
Toronto, Canada.....		145		630	790	851	979	1025	903	737	806	832	867	932	
Sault Ste. Marie.....		743	692	630		159	221	349	394	273	219	288	314	349	414
Marquette, Michigan.....		903	852	790	159		84	213	261	171	378	447	474	508	573
Houghton, Michigan.....		964	913	851	221	84		131	179	116	440	509	535	570	635
Ashland, Wisconsin.....	1092	1041	979	349	213	131		93	164	568	637	663	698	763	808
Duluth, Minnesota.....	1138	1087	1025	394	261	179	93		195	614	682	709	743	808	863
Port Arthur, Canada.....	1016	965	903	273	171	116	164	195		492	560	587	621	686	741
Escanaba, Michigan.....	850	799	737	219	378	447	508	532	410		101	181	201	274	329
Green Bay, Wisconsin.....	919	868	806	288	447	509	637	682	560	101		171	180	255	310
Muskegon, Michigan.....	945	894	832	314	474	535	663	709	587	181	171		80	114	149
Milwaukee, Wisconsin.....	980	929	867	349	508	570	698	743	621	201	180	80			85
Chicago, Illinois.....	1045	994	932	414	573	635	763	808	686	274	255	114	85		

Net Total Water-Borne Commerce of the United States

Source: Corps of Engineers, Department of the Army, Calendar Years. In tons of 2,000 pounds

Type of traffic	1965	1966	Type of traffic	1965	1966
Net total water-borne commerce of the U. S.	1,272,896,243	1,334,116,078	Imports	269,834,819	283,847,300
Domestic			Coastal ports.....	244,375,087	267,173,478
Coastwise.....	201,508,107	208,374,966	Gt. Lakes, Canada.....	21,059,701	22,535,821
Lakewise.....	153,695,242	164,036,995	Gt. Lakes, overseas.....	3,901,031	4,088,551
Internal.....	369,615,161	389,851,631	Exports	173,591,990	187,543,783
Local.....	102,875,022	99,214,579	Coastal ports.....	112,121,011	155,759,371
Intraterritory.....	1,485,602	1,246,824	Gt. Lakes to Canada.....	25,692,770	24,905,662
			Gt. Lakes to overseas.....	6,078,209	6,878,750

Total domestic..... 829,169,434 862,724,995 Total foreign..... 443,726,809 471,391,083

TON-MILEAGE OF FREIGHT CARRIED ON INLAND WATERWAYS

System	1965	1966
Atlantic coast waterways.....	27,781,436,000	28,109,299,000
Gulf coast waterways.....	21,807,792,000	23,618,876,000
Pacific coast waterways.....	6,629,670,000	6,424,661,000
Mississippi River system, including Ohio River and tributaries...	96,593,337,000	106,375,962,000
Great Lakes system. Includes Alaskan waterways.....	109,608,579,000	115,998,018,000
Total.....	262,420,814,000	280,526,816,000

Fastest Scheduled Train Runs in United States and Canada

Source: Donald M. Steffee and Association of American Railroads; figures are based on 1968 timetables

Railroad	Train	From	To	Dis. miles	Time min.	Speed m.p.h.
DIESEL TRACTION—PASSENGER—(76 m.p.h. and over)						
Burlington	Morning Zephyr	Aurora	Rochelle	45.25	32	84.8
Santa Fe	Grand Canyon	Holbrook	Gallup	94.9	70	81.3
Illinois Central	City of N. O. Mid American	Champaign	Mattoon	44.6	33	81.8
Santa Fe	Grand Canyon	Gallup	Holbrook	94.9	71	80.2
Illinois Central	Panama Ltd.-Magnolia Star	McComb	Hammond	52.1	39	80.2
Canadian National	Rapido (2)	Dorval	Brockville	115.3	87	79.5
Canadian National	Rapido (2)	Guildwood	Belleville	100.5	76	79.4
Milwaukee	Morning Hiawatha	Tomah	Portage	62.9	47	79.0
Santa Fe	Super Chief-El Capitan	Garden City	Lamar	99.9	76	78.8
Burlington	Morning Zephyr; North Coast Limited	Prairie du Chien	La Crosse	57.7	44	78.7
Illinois Central	City of Miami; Panama Limited-Magnolia Star	Champaign	Mattoon	44.6	34	78.7
Santa Fe	San Francisco Chief	Wasco	Corcoran	37.9	29	78.4
Santa Fe	San Francisco Chief	Corcoran	Wasco	37.9	29	78.4
Milwaukee	Afternoon Hiawatha	Portage	New Lisbon	43.1	33	78.4
Canadian National	Railiner	Trenton	Cobourg	31.2	24	78.0
Milwaukee	Number 16	Webster	Milbrook	46.1	31½	77.8
Illinois Central	Campus; City of N. O.	Centralia	Effingham	53.2	41	77.7
Burlington	Denver Zephyr	Hastings	Crete	76.4	59	77.7
Milwaukee	Number 15	Montevideo	Ortonville	45.8	35½	77.4
Seaboard Coast	Sunland	Thalmann	Yulee	47.6	37	77.2
Penn.-Central	Empire Service (4)	Syracuse	Utica	47.5	37	77.0
Burlington	Afternoon Zephyr	La Crosse	Prairie du Chien	57.7	45	76.9
Burlington	California Zephyr	Wray	Benkelman	38.4	30	76.8
Santa Fe	Super Chief-El Capitan	Lamar	Garden City	99.9	78	76.8
Santa Fe	Super Chief-El Capitan	Dodge City	Hutchinson	120.2	94	76.7
Illinois Central	Four trains	Mattoon	Effingham	26.8	21	76.6
Burlington	Afternoon Zephyr	St. Paul	Winona June	100.8	79	76.6
Canadian National	Railiner	Prescott	Cornwall	45.8	36	76.3
Canadian National	Rapido (2)	Belleville	Guildwood	100.5	79	76.3
Illinois Central	City of N. O. Mid American	Homewood	Kankakee	32.4	25½	76.2
Burlington	Morning Zephyr; North Coast Limited	East Dubuque	Prairie du Chien	54.6	43	76.2
Illinois Central	Campus	Centralia	Effingham	53.2	42	76.0
Illinois Central	City of New Orleans	Effingham	Centralia	53.2	42	76.0
DIESEL TRACTION—FREIGHT—(63 m.p.h. and over)						
Santa Fe	Super-C	Gallup	Winslow	127.2	110	69.4
Santa Fe	Super-C	Winslow	Gallup	127.2	110	69.4
Santa Fe	Super-C	Wellington	Waynoka	106.6	95	67.2
Santa Fe	Super-C	Amarillo	Waynoka	205.2	185	66.6
Santa Fe	Super-C	Amarillo	Clovis	103.7	95	65.5
Santa Fe	Super-C	Waynoka	Amarillo	205.2	190	64.9
Southern Pacific	Blue Streak Merchandise	East Yard	Del Rio	171.2	159	64.6
Santa Fe	Super-C	Gallup	Belen	144.0	135	64.0
Santa Fe	Super-C	Waynoka	Wellington	106.6	100	64.0
Rock Island	Number 23	Liberal	Dalhart	111.2	105	63.5

ELECTRIC TRACTION—PASSENGER—(70 m.p.h. and over)

Penn.-Central	Afternoon Congressional	Baltimore	Wilmington	68.4	48	85.5*
Penn.-Central	Afternoon Congressional	Wilmington	Baltimore	68.4	51	80.5*
Penn.-Central	Afternoon Congressional	Newark	North Phila	76.0	57	80.0*
Penn.-Central	Afternoon Congressional	Newark	North Phila	76.0	64	71.3†
Penn.-Central	Number 191	Wilmington	Baltimore	68.4	58	70.8
Penn.-Central	Junlata	Lancaster	Paoli	48.3	41	70.7
CSS & SB	Number 12	Hudson Lake	Michigan City	17.6	15	70.4
Penn.-Central	Afternoon Congressional	North Phila	Newark	76.0	65	70.1†

*Under experimental schedule operated until Apr. 27, 1968.

†Under schedule effective Apr. 28, 1968.

Some Fast Railway Runs in the United States

Date	Railroad	Run	Miles	Time H. M. S.	M. P. Hour
May, 1905	Atlantic City Boardwalk Flyer	Camden—Atlantic City	55.5	42 33	78.3
Apr. 1911	N. Y. Central-Lake Shore	Toledo—Elkhart, Ind.—20th Cent.	133	1 46	75.28
June, 1927	Pennsylvania	Washington D. C.—N. Y. City	222.5	2 7	72.1
May, 1934	Chicago, Burlington & Quincy	Denver—Chicago	1015.31	13 5 44	77.6
July, 1934	Chicago, Milwaukee & St. Paul	Chicago—Milwaukee	85.0	1 7 35	75.46
Oct., 1934	Union Pacific	Cheyenne—Omaha	506.7	6 00	84.45
Oct., 1934	Chicago & N. W. N. Y. Central	Los Angeles—New York	3257.6	56 55	57.2
Jan., 1935	Pennsylvania	Philadelphia—Washington	134.2	1 50	73.2
Apr., 1935	New Haven	Providence—Boston	43.8	32 35	86.65
Oct., 1936	Chicago, Burlington & Quincy	Chicago—Denver	1017.23	12 12 27	83.3
May, 1937	Santa Fe	Los Angeles, Calif.—Chicago	2228.6	36 49	60.5
May, 1937	Santa Fe	La Junta, Colo.—Dodge City, Kan.	202.4	2 19	87.3
May, 1955	Baltimore & Ohio	Washington, D. C.—Chicago (Train consisted of 3 Budd Rail Diesel cars)	768.0	12 29 30	61.5
July, 1966	New York Central	Bryan, Ohio (MP 350-345)	5.0	1 39½	181.00*
May, 1967	Pennsylvania	County—Milham Tower	2.12	11†	115.66†
Jan., 1968	ATSF Super-C (Fast Freight)	Corwith—Hobart Yard	2202.1	34 35 40	63.6

*The official speed measured by ground instruments was 183.85 in passing mile post 347 + 13 over an accurately measured 300 feet of track. This is the highest speed on rails ever recorded in the United States. The run was made by a single Budd Rail Diesel car fitted with two turbo-jet J-47 aircraft engines mounted on the forward end. Time and speed calculated from standing start at County to passing Milham Tower (end of test track) at 80 mph, after which train was gradually braked down on regular track to a stop in Trenton passenger station. Between mileposts 46 and 51 speed was 150 mph or over, a momentary peak of 156 mph was reached in the vicinity of milepost 47.

†All runs listed above are in the "start-to-stop" category, several including intermediate stops as well. The several "pass-to-pass" runs (where train passed both starting and finishing points at speed) such as the 1 mile in 32 seconds—112.5 claimed for the "Empire State Express" in 1893 which did appear in this listing are now eliminated. Some of these runs were actually segments of some of the longer runs listed above while others border on the fantastic, having little supporting testimony as to their authenticity.

Japanese Trains Average Over 100 Miles per Hour

Service between Tokyo and Osaka via the standard-gauged New Tokaido Line is headed by 25 "Hikari" superexpress trains daily in each direction which make the 320.1-mile run, inclusive of stops at Nagoya and Kyoto, in 3 hrs. 10 mins.—at an average overall speed of 101.1 mph. Twenty-one "Kodama" or limited express trains in each direction make the run in 4 hours, inclusive of 10 intermediate stops, averaging just 80 mph. overall

First High-Speed Trains Under U. S. Federal Program in Service

First results of the Federal Government's 3-year \$90,000,000 program for mass transportation research and development may be seen in the current timetable of the Pennsylvania Railroad under which service between New York and Washington has been greatly expanded and schedules speeded up. New self-propelled electric trains make the 224.6-mile run in 2 hr. 59 min.—averaging 75.3 mph overall.

Rapid Transit Service in Cities Over 500,000

Source: American Transit Association
Miles of Main Track

Year	N. Y. C.	Chicago	Phila.	Boston	Cleveland	N.Y.-N.J. ¹	Total
1940.....	247.3	82.15	26.43	23.32	.....	8.47	387.40
1945.....	236.89	86.98	26.43	21.04	.....	8.47	379.81
1950.....	239.07	82.10	26.43	21.04	.....	8.47	377.11
1955.....	228.71	72.89	*28.12	25.06	13.16	8.47	376.41
1960.....	236.70	68.23	*32.13	25.06	14.92	8.47	385.51
1962.....	236.70	68.23	*32.08	25.04	14.92	8.47	385.45
1963.....	236.70	68.24	*32.08	25.04	14.92	8.47	385.42
1964.....	236.70	68.21	*32.08	25.04	14.92	8.47	390.42
1965.....	236.70	73.21	*32.08	25.04	14.92	8.47	390.79
1966.....	236.70	73.58	*32.08	25.04	14.92	8.47	390.79

*Estimate. ¹Port Authority Trans-Hudson Corp., operates between points in N. J. and N. Y. C.

Passenger Traffic

N. Y. C.	1967		Cleveland Transit System	
	Transit Authority	Rapid Transit	Rapid Transit	Surface
Transit Authority	.....	.....	.....	16,286,942
Rapid Transit	1,302,527,478	.....	.....	N.A.
Surface	431,911,431	.....	.....	.....
Manhattan-Bronx	.....	.....	Washington, D. C. Transit	133,646,024
Surface	398,244,239	.....	San Francisco Mun. Railway	148,412,488
Chicago Transit Authority	.....	.....	Milwaukee Transport Co.	76,359,871
Rapid Transit	120,808,456	.....	Boston Transportation Auth.	285,465,650
Surface	390,089,027	.....	Dallas Transit Co.	32,518,235
Los Angeles Rapid Transit	135,912,209	.....	New Orleans Public Ser.	85,458,444
Philadelphia Transit Co.	.....	.....	Pittsburgh Authority	91,176,211
Rapid Transit	68,473,013	.....	San Antonio Transit System	24,098,504
Surface	209,048,000	.....	San Diego Transit System	15,393,202
Detroit Street Railways	128,811,331	.....	Seattle Transit System	35,704,277
Baltimore Transit Co.	97,195,650	.....	Buffalo, Niagara Transit	51,940,023
			Cincinnati Transit Co.	28,607,523

American Railway Statistics

Source: Interstate Commerce Commission

Year	Mile- age Owned	Miles Built	Loco- mo'es in use	Freight Cars in use	Pass. Cars in use	Passengers Carried	Freight Carried	Em- ployees	Employees Wages
	Miles	Miles	No.	No.	No.	No.	Tons	No.	Dollars
1950.....	223,779	33	42,951	1,745,778	37,359	488,019,000	2,710,919,000	1,237,000	4,644,890,000
1955.....	220,670	105	33,533	1,723,747	32,118	433,307,627	2,745,378,713	1,071,393	5,044,278,278
1960.....	217,552	21	31,178	1,690,396	25,746	327,171,745	2,409,039,608	793,071	4,956,902,360
1965.....	211,384	59	30,061	1,515,169	20,022	305,825,407	2,741,706,664	654,670	4,886,739,954
1966.....	210,573	89	30,124	1,523,741	18,974	307,529,553	2,850,756,332	645,336	4,974,510,066

PASSENGER AND FREIGHT DATA

Year	Passenger Revenue	Freight Revenue	Miles Traveled by Passenger	Rev. per Pas. Mile	Ave. Trip per Pas.	Fre. Rev. per Ton Mile	Miles Traveled by Pass. Trains	Miles Traveled by Freight Trains	Casualties	
	Dollars	Dollars	Thousands	Cts.	Miles	Cts.	Miles	Miles	Kill'd	Inj.
1950.....	814,741,000	7,933,764,000	31,790,470	2.56	65.14	1.34	359,055,000	522,816,000	3,398	33,255
1955.....	743,688,009	8,665,374,045	28,547,877	2.61	65.88	1.39	299,234,930	453,393,077	2,667	27,832
1960.....	641,495,655	8,151,706,391	21,284,084	3.01	65.05	1.42	209,676,995	411,173,556	2,248	19,577
1965.....	555,955,653	9,036,540,448	17,453,919	3.19	57.07	1.28	173,579,220	430,716,900	2,399	25,759
1966.....	547,138,828	9,487,412,599	17,161,775	3.19	55.72	1.27	165,439,185	447,187,648	2,684	25,562

REVENUES, EXPENSES AND DIVIDENDS

Year	Total Operating Revenues	Operating Expenses	Tax Accruals	Net Railway Operating Income	Net Income	Dividends Declared	Ratio Opp. Exp. to Oper. Rev.
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Pct.
1950.....	9,587,000,000	7,135,055,000	1,212,084,000	1,055,309,000	854,951,000	348,811,000	74.42
1955.....	10,229,600,486	7,724,496,197	1,100,919,579	1,144,347,404	958,849,372	476,206,666	75.51
1960.....	9,641,592,812	7,657,328,712	1,020,471,011	594,618,250	473,174,842	411,649,958	79.42
1963.....	9,684,635,915	7,542,306,287	906,455,966	815,952,374	681,325,268	412,814,754	77.88
1965.....	10,425,052,359	8,002,684,949	949,215,638	980,065,623	865,898,537	532,649,374	76.76
1966.....	10,880,466,665	8,277,293,918	1,001,510,016	1,065,232,256	957,359,346	547,566,882	76.07

VALUES, STOCKS, BONDS AND CAPITAL

Yr.	Investment In Road and Equipment	Common Stock Outstand. ¹	Preferred Stock Outstand. ¹	Funded Debt Outstand. ¹	Tot. Railway Capital Outstand. ¹	Amount of Stock Pay Dividends
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1950.....	30,174,312,000	7,207,461,852	1,976,670,404	9,089,499,251	18,273,631,507	6,768,658,000
1955.....	33,034,952,366	7,341,246,103	1,309,481,678	8,771,315,107	17,422,042,888	7,300,385,953
1960.....	35,513,350,796	6,185,117,735	1,218,060,497	8,730,551,088	16,133,729,320	5,617,253,155
1963.....	34,519,308,492	5,591,821,051	1,189,239,111	8,230,049,512	15,011,109,714	4,462,474,424
1965.....	35,489,328,198	5,579,833,608	1,115,727,381	8,161,792,077	14,857,353,066	4,845,089,946
1966.....	36,618,069,410	5,639,238,709	1,090,631,611	8,070,298,765	14,800,169,085	1,709,176,813

¹Data for years prior to 1964 have been revised to represent amounts actually outstanding in order that they may be comparable to those shown for the year 1964.

State Automobile Speed Limits

(Except as otherwise posted)

Source: American Automobile Assn., Digest of Motor Laws 1967

Alabama: Interstate highways, 70 mph. daytime, 60 mph. nighttime; open highways, 60 mph. daytime, 50 mph. nighttime; residential districts, 25 mph.; business districts, school zones, etc., 15 mph.

Alaska: Open highways, 50 mph.; urban area, 35 mph.; residential and business districts, 30 mph.

Arizona: State highways, 65 mph. daytime, 60 mph. nighttime; other state highways, 50 mph. daytime, 45 mph. nighttime; residential areas, business districts, 25 mph.; school zones, 15 mph.

Arkansas: Interstate highways, 70 mph.; controlled access highways, 60 mph.; urban districts, 30 mph.; other locations, 60 mph.

California: Statewide limit, 65 mph. (except freeways posted for 70 mph.); residential and business districts, school zones, 25 mph.

Colorado: Open highways, 60 mph.; residential districts, 30 mph.; business districts, 25 mph.; open mountain highway, 40 mph.; winding mountain highway, 20 mph.

Connecticut: Super highways, 70 mph.; other highways, 60 mph.; residential and business, reasonable rate.

Delaware: Open highways, 4-lane, 60 mph., 2-lane, 50 mph.; residential and business districts, 25 mph.

District of Columbia: Expressways, 45 mph.; school and playground areas, 15 mph.; other roads, 25 mph.

Florida: Interstate highways, 70 mph. day, 65 mph. night; open highway, 65 mph. day, 55 mph. night; residential & business districts, 30 mph.

Georgia: Interstate highways, 70 mph. daytime, 65 mph. nighttime; open highway, 60 mph. daytime, 50 mph. nighttime; residential, business and school areas, 25 mph.

Hawaii: Open highways, 45 mph.; residential and business districts, local ordinances govern.

Idaho: Interstate highways, 70 mph.; open highway, 60 mph. daytime, 55 mph. nighttime; urban and business districts, 35 mph.

Illinois: Expressways, 70 mph.; open highways, 65 mph.; urban areas, 30 mph.; school zones, 20 mph.

Indiana: Open highways, 65 mph.; residential district, 30 mph.; business district, 20 mph.; Interstate highways, 70 mph.

Iowa: Interstate limited access roads, 75 mph. daytime, 65 mph. nighttime; open highways, 70 mph. daytime, 60 mph. nighttime; suburban, 45 mph.; residential and school districts, 25 mph.; business districts, 20 mph.; secondary roads, 60 mph. daytime, 50 mph. nighttime.

Kansas: Interstate highways, 75 mph. daytime, 70 nighttime; open highways, 70 mph. daytime, 60 mph. nighttime; residential districts, 30 mph.; business districts, 20 mph.; Kansas Turnpike, 80 mph.

Kentucky: Interstate highways, 70 mph.; open highways, 60 mph. daytime, 50 mph. nighttime; residential and business districts, 35 mph.

Louisiana: Open highways 4-lane, 70 mph.; other open highways, 60 mph.

Maine: Turnpikes, 70 mph. daytime, 65 mph. nighttime; open highways, 45 mph.; residential and business districts, 25 mph.; school zones at recess and when children going to and from school, 15 mph.

Maryland: Open country, expressways, 60 mph.; dual lane highways, 55 mph.; other highways, 50 mph.; residential and business districts, 30 mph.; thinly settled areas, 35 mph., other highways 30 mph.

Massachusetts: Turnpike, 65 mph.; divided highway, 50 mph.; other highways, 40 mph.; residential and business districts, 30 mph.; school zones, 20 mph.

Michigan: Freeways, 70 mph.; open highways, 65 mph. daytime, 55 mph. nighttime; residential and business districts, 25 mph.

Minnesota: Open highways, 65 mph. daytime, 55 mph. nighttime; all speeds in urban districts, 30 mph.

Mississippi: Open highways, 65 mph.; residential districts, 25 mph.; business districts, 20 mph.; school zones, 15 mph.

Missouri: Dual lane U. S. routes, 70 mph.; undivided U. S. routes, 70 mph. daytime, 65 mph.

nighttime; other open highways, 65 mph. daytime, 60 mph. nighttime; municipalities, 45 mph.

Montana: Open highways, day, reasonable and prudent unless posted, 55 mph. night, except Interstate highways 65 mph. nights; residential and business districts, 25 mph.

Nebraska: Interstate highways, 75 mph.; open highways, 65 mph. daytime, 60 mph. nighttime; residential districts, 25 mph.; business districts, 20 mph.; on non-hard surfaced roads, 50 mph.

Nevada: Careful and prudent; residential and business, posted.

New Hampshire: Turnpike, 70 mph.; open highways, 60 mph.; rural residential districts, 35 mph.; urban and business districts, 30 mph.; school zones, 20 mph.

New Jersey: Turnpike, 60 mph.; open highways, 50 mph.; residential and business districts, 25 mph.

New Mexico: Open highways, 70 mph. daytime, 60 mph. nighttime; other highways, 60 mph. daytime, 50 mph. nighttime; residential and business districts, 25 mph.; school zones, 15 mph.

New York: New York State Thruway, 65 mph.; open highways, 50 mph.; school zones when children going to and from school, 15 mph.

North Carolina: Open highways, 55 mph.; residential districts, 35 mph.; business districts, 20 mph.

North Dakota: Interstate highways, 75 mph. day, 65 mph. night; all other highways, 60 mph.; residential and business districts, 25 mph.; school zones, 20 mph.

Ohio: Ohio Turnpike and expressways, 70 mph.; open highways, 60 mph. daytime, 50 mph. nighttime; within municipal corporations, 25 mph.; school zones, 20 mph.

Oklahoma: Turnpikes and Interstate highways, 70 mph.; open highways, 65 mph. daytime, 55 mph. nighttime; school zones, 25 mph.

Oregon: Open highways, 55 mph.; freeways up to 70 mph; residential districts, 25 mph.; business and school zones, 20 mph.

Pennsylvania: Turnpike, 65 mph.; open highways 55 mph.; residential and business districts, 25 to 35 mph.; school zones, 15 mph.

Rhode Island: Residential and business districts, 25 mph.; elsewhere, 50 mph. daytime, 45 mph. nighttime.

South Carolina: Interstate System 70 mph. daytime, 65 mph. night; State highways 60 mph. daytime, 55 mph. night; urban districts 30 mph.

South Dakota: Interstate highways, 75 mph. daytime, 70 mph. nighttime; open highways, 70 mph. daytime, 60 mph. nighttime; residential and business districts, 30 mph.; school zones, 15 mph.

Tennessee: Open highways, 65 mph. day, 55 mph. night; school zones, 15 mph; Interstate highways 75 mph.

Texas: Federal or State roads, 70 mph. daytime, 65 mph. nighttime; other rural roads, 60 mph. daytime, 55 mph. nighttime; in urban districts, 30 mph.

Utah: Open highways, as posted; residential and business districts, 25 mph.; school zones, 20 mph.

Vermont: Interstate highways, 65 mph.; open highways, 50 mph.

Virginia: Open highways, 55 mph.; residential, business and school areas, 25 mph.

Washington: County roads, 50 mph.; cities and towns, 25 mph.; school zones, 20 mph.; Interstate highways 70 mph.; in other locations, 60 mph.

West Virginia: Interstate highways, 70 mph.; Turnpike, 60 mph.; open highways, 55 mph.; residential districts, 25 mph.; school zones, 15 mph.

Wisconsin: Interstate highways, 70 mph. daytime, 60 mph. nighttime; open highways, 65 mph. daytime, 55 mph. nighttime; residential and business districts, 25 mph.; school zone, 15 mph.

Wyoming: Open highways 4-lane divided, 70 mph.; open highways, 65 mph.; residential districts, 30 mph.; business and school districts, 20 mph.

Canal Zone: Outside town limits, 40 mph.; within town limits, 25 mph.

Guam: Roads, 45 mph.; school zones when children at recess or going to and from school, 10 mph.

Puerto Rico: Open highways, 45 mph.; urban districts and school zones, 25 mph.

Another New Record in Automobile Traffic Volume in U. S.

Some 105,000,000 Americans took to the highways within their own country for at least one vacation or pleasure trip by automobile during 1968, establishing a new record. They spent \$29 billion and traveled an estimated 195 billion miles. The total mileage traveled by the over 84,000,000

passenger cars registered in this country in 1968 amounted to 780 billion miles. In addition, more than 200 billion miles were driven by the nearly 17,000,000 trucks and buses. It is estimated that private passenger automobiles are used for 90% of all vacation and recreation trips in the U. S.

Major Turnpikes; Passenger Car Tolls and Speed Limits

Source: American Automobile Association, Washington, D. C. 20006

Airport Expressway: Miami International Airport to North-South Expressway interchange, 4.4 miles. Speed limit 60 mph. Toll 5¢ per axle.

Atlantic City Expressway: N. J. Freeway at Turnersville to Atlantic City, N. J. 44 miles. Speed limit 70 mph. Maximum toll \$1.15.

Bluegrass Parkway: Fort Springs to Elizabethtown, Ky. 72 miles. Maximum toll \$1.30.

Connecticut Turnpike: N. Y. State line near Greenwich, Conn., to R. I. State line at Killingly, Conn., 129 miles. Speed limit 60 mph. Maximum toll \$2.

Eastern Townships Autoroute: Montreal to Magog, Quebec, 72 miles. Speed limit 70 mph. (50 minimum). Maximum toll \$1.50.

Ensenada-Tijuana Tollway: Ensenada to Tijuana, Mexico, 63 miles. Speed limit 68 mph. Maximum toll \$2.40.

Everett Turnpike: Mass.-N. H. state line to Concord, N. H. 40 miles. Speed limit 60 mph. Toll maximum 50¢.

Garden State Parkway: Montvale, N. J., to Cape May, N. J., 173 miles. Speed limit 60-65 mph. Maximum toll \$2.75.

H. E. Bailey Turnpike: Oklahoma City to Randlett, Okla., 86.4 miles. Speed limit 70 mph. Toll maximum \$1.70.

Hutchinson River Parkway: N.Y.C. to Conn. state line, 15 miles. Speed limit 50 mph. Toll 25¢.

Illinois Tollway: Includes Tri-State Tollway from Indiana state line to Deerfield; Northwest Tollway from the Tri-State to Wisconsin state line at So. Beloit, Ill., and East-West Tollway between Chicago and Aurora. 187 miles. Maximum tolls, Tri-State \$2.10, Northwest \$1.55 and East-West 50¢.

Indian Nation Turnpike: Henryetta to McAlester, Okla. 41 miles. Speed limit 70 mph (40 minimum). Maximum toll 75¢.

Indiana Toll Road: Eastpoint (Ohio line) to Westpoint (Illinois line), 157 miles. Speed limit 70 mph. (40 mph. minimum). Maximum toll \$2.80.

John F. Kennedy Memorial Highway: Baltimore, Md., to Wilmington, Del., 60 miles. Speed limit 60 mph. Maximum toll \$1.30.

Kansas Turnpike: Kansas City to South Haven, Kan. 236 miles. Speed limit 80 mph. 40 mph minimum. Maximum toll \$4.95.

Kentucky Turnpike: Louisville to Elizabethtown, Ky. 40 miles. Speed limit 70 mph, 40 minimum. Maximum toll 60¢.

Maine Turnpike: Kittery, Me., to Augusta, Me., 106 miles. Speed limit 70 mph. (65 at night). Maximum toll \$2.15.

Massachusetts Turnpike: Downtown Boston to State Line, Mass., (N. Y. border), 135 miles. Speed limit 65 mph. (40 mph. minimum). Maximum toll \$3.

Motor-Vehicle Registrations

Motor-vehicle registrations in the United States will reach 99,958,000 by Jan. 1, 1969, according to estimates by the Federal Highway Administration of the U. S. Dept. of Transportation. This represents an expected increase of more than 3,000,000 over the total registered a year earlier. Passenger car registration will reach 82,821,000, a 3% increase over year-earlier figures, while trucks and buses will total 17,137,000, a 3.7% increase.

California's estimated 11,200,000 registrations

Merritt Parkway: New York-Conn. State line to Housatonic River, Stratford, Conn., 37½ miles. Speed limit 60 mph. Toll 20¢.

Montreal-Laurentian Autoroute: Montreal to Ste. Adele, 45 miles. Speed limit 70 mph. Maximum toll \$1.

Mountain Parkway: Winchester to Salyersville, Ky. 76 miles. Speed limit 70 mph. Maximum toll \$1.60.

New Hampshire Turnpike: Mass.-N. H. State line to Portsmouth, N. H., 14.7 miles. Speed limit 60 mph. Toll 15¢ to 25¢.

New Jersey Turnpike: Deepwater, N. J., to Ridgefield Park, N. J., 131 miles including extensions. Speed limit 60 mph. (50 mph. on Hudson County extension). Maximum toll \$1.75.

New York Thruway: (Thomas E. Dewey Thruway): Pennsylvania border near Erie to New York City, 559 miles including extensions. Speed limit 65 mph. Maximum toll \$8.20.

Ohio Turnpike: Ohio-Pennsylvania line to Ohio-Indiana line, 241 miles. Speed limit 70 mph. Maximum toll \$3.50.

Pennsylvania Turnpike: Gateway (state line near Youngstown, Ohio) to New Jersey line near Norristown, Pa., then to Scranton, 470 miles. Speed limit 65 mph. Maximum toll \$4.80.

Richmond-Petersburg Turnpike: North of Richmond, Va., to south of Petersburg, Va., 34.7 miles, speed 65 mph. (minimum 40 mph.) Maximum toll 95¢.

Saw Mill River Parkway: New York City to Katonah, N. Y. 30.4 miles. Speed limit 50 mph. Maximum toll 25¢. Trailers not permitted.

Seventeen-Mile Drive: Pacific Grove through Pebble Beach, Monterey, Calif. Maximum toll \$2.

Spaulding Turnpike: Portsmouth, N. H., to Rochester, N. H., 22.8 miles. Speed limit 60 mph. Maximum toll 10¢ to 25¢.

Sunshine State Parkway: Miami, Fla., to Wildwood, Fla., 265 miles. Speed limit 70 mph. (40 mph. minimum). Maximum toll \$4.80.

Turner Turnpike: Oklahoma City to Tulsa, Okla., 86 miles. Speed limit 70 mph. Maximum toll \$1.40.

Western Kentucky Parkway: Elizabethtown to Princeton, Ky., 127 miles. Speed limit 70 mph. Maximum toll \$2.

West Virginia Turnpike: Princeton, W. Va., to Charleston, W. Va., 88 miles. Speed limit 60 mph. Maximum toll \$2.25.

Wilbur Cross Parkway: Milford to Meriden, Conn. 29.5 miles. Speed limit 60 mph. Maximum toll 35¢.

Will Rogers Turnpike: Tulsa, Okla., to Joplin, Mo., 88 miles. Speed limit 70 mph. Maximum toll \$1.50.

in U. S. Near 100,000,000

are followed by 6,200,000 in New York and nearly 5,000,000 in Texas. Ohio and Pennsylvania will have 3,500,000 motor vehicles each by the beginning of 1969. Illinois and Michigan will have more than 4,000,000 each, Florida and New Jersey more than 3,000,000 each, and Minnesota, Indiana, North Carolina, Massachusetts, Missouri, Wisconsin, Virginia and Georgia in the 2,000,000 registration class. There will be 15 additional states with registrations of more than 1,000,000 each.

CAR, TRUCK AND BUS DRIVERS IN THE U.S.A.

Source: Bureau of Public Roads, estimated total licenses in force during 1967

State	No. of drivers	State	No. of drivers	State	No. of drivers	State	No. of drivers
Alabama.....	1,598,288	Iowa.....	1,584,015	N. Hampshire	371,412	Texas.....	5,600,749
Alaska.....	114,563	Kansas.....	1,409,730	New Jersey...	3,596,637	Utah.....	557,933
Arizona.....	964,336	Kentucky.....	1,441,985	New Mexico...	548,684	Vermont.....	219,299
Arkansas.....	1,012,907	Louisiana.....	1,621,822	New York.....	7,903,004	Virginia.....	2,229,546
California.....	10,685,074	Maine.....	484,748	N. Carolina...	2,511,867	Washington...	1,705,157
Colorado.....	1,281,385	Maryland.....	1,887,433	N. Dakota...	323,437	West Virginia	855,055
Connecticut...	1,897,876	Massachusetts	2,790,546	Ohio.....	5,728,270	Wisconsin...	2,280,544
Delaware.....	295,086	Michigan.....	4,513,847	Oklahoma.....	1,465,389	Wyoming.....	220,926
Florida.....	3,335,861	Minnesota...	2,073,939	Oregon.....	1,100,002	Dist. of Col...	343,549
Georgia.....	2,152,911	Mississippi...	971,762	Rhode Island...	5,913,029		
Hawaii.....	392,800	Missouri.....	2,493,627	Rhode Island...	468,984		
Idaho.....	429,233	Montana.....	391,198	S. Carolina...	1,243,991		
Illinois.....	5,801,527	Nebraska.....	917,197	S. Dakota.....	404,099		
Indiana.....	2,661,091	Nevada.....	337,856	Tennessee...	2,060,000		

U. S. MOTOR VEHICLE REGISTRATIONS BY YEARS

1900.....	8,000	1920.....	9,239,161	1940.....	32,453,233	1959*	71,354,420	1965.....	90,357,667
1905.....	78,800	1925.....	20,068,543	1945.....	31,035,420	1960.....	73,868,682	1966.....	93,962,030
1910.....	468,500	1930.....	26,749,853	1950.....	49,161,691	1963.....	82,713,717	1967.....	96,944,896
1915.....	2,490,932	1935.....	26,546,126	1955.....	62,688,792	1964.....	86,301,207	1968.....	99,958,000†

*Beginning with 1959 Alaska and Hawaii are included. †Estimated.

Highway Mileage Between Selected Cities

Source: American Automobile Association and Others

Mileage is approximate and based on limited access highways and favorable commonly traveled routes.

CITIES IN THE EAST*

	Albany, N. Y.	Atlanta, Ga.	Baltimore, Md.	Bangor, Me.	Birmingham, Ala.	Boston, Mass.	Buffalo, N. Y.	Charleston, W. Va.	Chicago, Ill.	Cincinnati, Ohio	Cleveland, Ohio	Detroit, Mich.	Hartford, Conn.	Indianapolis, Ind.	Jackson, Miss.
Albany.....		1013	341	403	1239	169	299	749	830	742	486	641	105	795	1460
Atlanta.....	1013		676	1313	155	1079	912	499	708	461	725	738	977	519	402
Baltimore.....	341	676		641	787	407	350	403	741	494	409	586	305	674	1065
Bangor.....	403	1313	641		1656	234	702	1044	1192	1132	889	913	336	1208	1903
Birmingham.....	1239	155	787	1656		1185	940	621	656	497	753	767	1039	496	247
Boston.....	169	1079	407	234	1185		468	809	990	898	646	711	102	955	1668
Buffalo.....	299	912	350	702	940	468		450	621	443	187	342	404	537	1161
Charleston.....	749	499	403	1044	612	809	450		514	210	263	480	708	321	833
Chicago.....	830	708	741	1192	656	990	621	514		304	344	279	907	193	799
Cincinnati.....	742	461	494	1132	497	898	443	210	304		256	270	796	111	744
Cleveland.....	486	725	409	889	753	646	187	263	344	256		177	626	309	974
Detroit.....	641	738	586	913	767	711	342	480	279	270	177		754	295	988
Hartford.....	105	977	305	336	1090	102	404	708	470	796	626	754		835	741
Indianapolis.....	795	549	574	1208	496	955	537	321	193	111	309	295	835		650
Jackson.....	1460	402	1065	1903	247	1668	1161	833	799	744	974	958	741	650	
Jacksonville.....	1333	320	827	1468	464	1187	1132	782	1053	777	1045	996	1129	869	589
Memphis.....	1246	366	1022	1663	244	1428	947	619	585	504	760	774	1327	436	214
Miami.....	1688	675	1146	1824	789	1543	1588	1138	1383	1226	1400	1408	1485	1224	919
Nashville.....	1036	256	812	453	203	1218	737	409	486	294	550	564	1177	293	424
New Orleans.....	1637	500	1145	2013	357	1549	1338	999	876	854	1096	1058	1440	297	177
New York.....	153	860	188	543	974	219	445	591	840	679	509	637	117	729	1222
Norfolk.....	575	559	229	875	714	640	967	402	916	612	560	882	536	723	1006
Philadelphia.....	243	774	98	633	884	309	473	501	779	602	435	612	207	648	1163
Pittsburgh.....	531	714	283	921	798	597	217	215	478	301	134	311	495	354	934
Portland, Me.....	275	525	513	1327	106	574	915	1105	1004	752	817	208	1061	1774	
Richmond.....	485	977	147	788	684	553	468	315	829	535	486	695	449	636	914
St. Louis.....	1038	565	879	1451	337	1280	880	531	292	377	554	537	1178	243	507
Tampa.....	1524	467	981	1663	542	1382	1248	977	1171	1061	1236	1249	1324	1060	672
Trenton.....	223	806	130	613	1045	289	358	533	811	634	467	603	187	680	1195
Washington.....	380	633	39	680	776	445	359	364	702	500	370	535	341	564	1027

	Jacksonville, Fla.	Memphis, Tenn.	Miami, Fla.	Nashville, Tenn.	New Orleans, La.	New York, N. Y.	Norfolk, Va.	Philadelphia, Pa.	Pittsburgh, Pa.	Portland, Me.	Richmond, Va.	St. Louis, Mo.	Tampa, Fla.	Trenton, N. J.	Washington, D. C.
Albany.....	1333	1246	1688	1036	1637	153	575	243	531	275	488	1038	1524	223	380
Atlanta.....	320	366	675	256	500	860	559	774	714	1185	529	565	467	806	633
Baltimore.....	827	1022	1146	812	1145	188	229	997	943	513	147	879	981	130	39
Bangor.....	1468	1663	1824	1453	2013	543	875	633	921	128	788	1451	1663	613	680
Birmingham.....	464	244	789	203	357	974	714	884	798	1527	684	537	542	1045	776
Boston.....	1187	1428	1543	1218	1549	219	640	309	597	106	553	1208	1382	289	445
Buffalo.....	1132	947	1588	737	1338	445	967	473	217	574	468	880	1248	458	359
Charleston.....	782	619	1138	409	999	591	402	501	215	915	315	531	977	533	364
Chicago.....	1053	585	1383	486	976	840	916	779	478	1105	829	292	1171	811	702
Cincinnati.....	777	504	1226	294	854	679	612	602	301	1004	525	371	1061	634	500
Cleveland.....	1045	760	1460	550	1096	509	560	435	134	752	486	554	1236	467	370
Detroit.....	996	774	1408	564	1058	637	882	612	311	817	695	537	1249	603	535
Hartford.....	1129	1327	1485	1117	1470	117	536	207	495	208	449	1178	1324	187	741
Indianapolis.....	869	436	1224	293	927	729	723	648	354	1061	636	243	1060	680	564
Jackson.....	589	214	919	424	177	1223	1006	1163	944	1774	919	507	672	1195	1027
Jacksonville.....		708	356	576	574	1012	678	925	867	1293	680	885	195	467	788
Memphis.....	708		1033	210	391	1138	1021	1120	834	1534	904	293	786	1152	983
Miami.....	356	1033		932	877	1331	1034	1244	1289	1649	1036	1235	247	1276	1107
Nashville.....	576	210	932		560	1000	811	910	624	1324	624	309	767	912	686
New Orleans.....	574	391	877	560		1330	1059	1213	1114	1655	1029	684	652	1275	1106
New York.....	1012	1138	1331	1000	1330		419	90	378	25	332	985	1167	70	224
Norfolk.....	678	1021	1034	811	1059	419		327	434	739	87	933	733	359	195
Philadelphia.....	925	1120	1245	1010	1243	90	327		301	301	415	245	885	1120	32
Pittsburgh.....	897	834	1245	624	1114	378	434	301		703	352	678	1102	233	244
Portland, Me.....	1293	1531	1649	1321	1653	325	739	415	709		657	181	1488	395	549
Richmond.....	680	904	1036	624	1029	332	87	245	352	657		846	875	27	108
St. Louis.....	885	293	1235	309	684	985	833	885	678	1381	846		1076	1064	840
Tampa.....	195	786	247	797	652	1167	873	1120	1102	1488	875	1076		1152	983
Trenton.....	957	1152	1276	942	1275	70	359	32	233	395	277	1064	1152		169
Washington.....	788	983	1107	686	1166	224	195	137	244	549	108	840	983	169	

*Directions for Use of Mileage Charts

To measure mileage between the east and west charts there are 5 key cities: Chicago, Jackson (Miss.), Memphis, New Orleans and St. Louis.

Plot your course between the city listed nearest your home town and whichever of the 5 key cities you desire to pass through to the city of your destination. Add the

mileage shown and this will give you the approximate total mileage.

For example: The mileage between Cheyenne and Philadelphia through St. Louis. Philadelphia to St. Louis = 885 miles, St. Louis to Cheyenne = 898; the total is 1,783 miles.

Highway Mileage Between Selected Cities

Source: American Automobile Association and Others

Mileage is approximate and based on limited access highways and favorable commonly traveled routes.

CITIES IN THE WEST†

	Albuquerque, N. M.	Bismarck, N.D.	Boise, Idaho	Cheyenne, Wyo.	Chicago, Ill.	Dallas, Texas	Denver, Colo.	Des Moines, Iowa	Helena, Mont.	Houston, Texas	Jackson, Miss.	Kansas City, Mo.	Little Rock, Ark.	Los Angeles, Calif.	Louisville, Ky.
Albuquerque.....	1105	994	522	1350	651	421	994	1111	829	1046	790	900	830	1306	
Bismarck.....	994	1182	552	850	1175	685	672	617	1417	1479	930	1188	1649	1146	
Boise.....	522	652	762	969	875	102	632	700	1117	1282	648	1040	969	1162	
Cheyenne.....	1350	850	1731	969	925	1008	338	1478	1085	764	499	644	2166	301	
Chicago.....	651	1175	1607	875	925	780	704	1571	242	407	566	625	105	833	
Denver.....	421	685	842	102	1008	875	679	792	1026	1191	604	957	1132	1120	
Dallas.....	994	672	1394	632	338	704	679	1162	946	828	213	573	1041	569	
Des Moines.....	1111	617	494	700	1478	1571	792	1162	1813	1928	1261	1666	1234	1777	
Helena.....	829	1417	1797	1117	1085	242	1026	946	1813	429	741	441	1553	930	
Houston.....	1046	1479	2014	1282	764	407	1191	828	1922	429	661	256	1810	552	
Jackson.....	790	930	1410	648	499	566	604	213	1261	741	661	405	1596	516	
Kansas City.....	900	1188	1798	1040	644	325	957	573	1666	441	256	405	1701	508	
Little Rock.....	830	1649	962	1169	2166	1405	1132	1801	1234	1553	1810	1596	1701	2107	
Los Angeles.....	1306	1146	1929	1162	301	833	1120	569	1777	930	552	516	508	2107	
Louisville.....	1030	1266	1869	1107	544	464	1035	608	1720	561	220	459	139	1831	369
Memphis.....	1370	764	1600	988	91	1015	1040	361	1392	1174	844	580	723	2176	390
Milwaukee.....	1276	428	1422	794	407	966	855	252	1056	1198	1060	457	825	1940	711
Minneapolis.....	1155	1604	2105	1373	975	504	1282	989	2070	359	181	821	416	1901	710
New Orleans.....	550	1377	1502	692	800	215	615	560	1392	457	578	349	1357	770	
Oklahoma City.....	895	581	1255	493	476	656	540	139	1056	898	866	205	610	1662	689
Phoenix.....	454	1501	978	918	1722	1005	818	1430	1147	1153	1412	1226	1330	398	1757
Portland, Ore.....	1413	1262	436	1198	2112	2043	1278	1819	657	2233	2450	1846	2234	970	2142
Reno.....	1136	1607	425	985	1956	1677	1041	1623	905	1867	2084	1784	1938	477	2154
St. Louis.....	1058	980	1660	898	292	633	865	336	1498	794	514	252	333	1888	264
Salt Lake City.....	625	960	366	462	1439	1260	507	1094	500	1431	1648	1116	1456	730	1632
San Francisco.....	1138	1633	658	1220	2198	1789	1266	1852	1134	1955	2212	1874	2027	141	2390
Seattle.....	1487	1213	505	1267	2076	2150	1370	1773	611	2302	2519	1872	2227	143	2362
Sioux Falls.....	1166	531	1614	654	659	856	720	329	960	1099	1166	405	1019	2021	927
Wichita.....	596	791	1348	590	697	384	507	403	1241	612	733	198	473	1402	714

	Memphis, Tenn.	Milwaukee, Wisc.	Minneapolis, Minn.	New Orleans, La.	Oklahoma City, Okla.	Omaha, Nebr.	Phoenix, Ariz.	Portland, Ore.	Reno, Nev.	St. Louis, Mo.	Salt Lake City, Utah	San Francisco, Calif.	Seattle, Wash.	Sioux Falls, S. D.	Wichita, Kansas
Albuquerque.....	1030	1370	1276	1155	550	895	454	1413	1136	1058	625	1138	1487	1166	596
Bismarck.....	1266	764	428	1604	1377	581	1501	1262	1607	980	960	1633	1213	531	791
Boise.....	1869	1700	1422	2105	1502	1255	978	436	425	1660	366	658	505	1614	1348
Cheyenne.....	1107	988	794	1373	692	493	918	1198	985	898	462	1220	1267	654	590
Chicago.....	544	91	407	976	800	476	1722	2112	1956	292	1439	2198	2076	659	697
Dallas.....	464	1015	966	504	215	656	1005	2043	1677	633	1260	1789	2150	856	384
Denver.....	1035	1040	855	1282	615	510	818	1278	1041	865	507	1266	1370	720	507
Des Moines.....	608	361	292	989	569	139	1430	1819	1623	336	1094	1852	1773	329	403
Helena.....	1720	1322	1056	2070	1392	1056	1147	657	905	1498	500	1134	511	960	1241
Houston.....	561	1174	1198	359	457	898	1153	2233	1867	794	1431	1955	2302	1099	612
Jackson.....	220	844	1060	181	578	866	1412	2450	2084	514	1648	2212	2519	1166	733
Kansas City.....	459	580	457	821	347	205	1226	1846	1784	252	1116	1874	1872	405	198
Little Rock.....	139	723	825	416	349	610	1330	2234	1938	353	1456	2027	2277	1019	473
Los Angeles.....	1831	2176	1940	1901	1357	1662	398	970	477	1888	730	412	1143	2021	1402
Louisville.....	369	390	711	710	770	689	1757	2412	2154	264	1632	2390	2362	927	714
Memphis.....	624	840	401	479	664	1466	2305	2041	294	1534	2157	2331	952	529	596
Milwaukee.....	624	326	1013	876	500	1806	2026	1979	370	1455	2213	1977	578	778	784
Minneapolis.....	401	326	1251	813	358	1630	1990	1773	567	1245	2004	1869	252	655	655
New Orleans.....	479	878	813	678	678	1026	1503	2415	2175	684	1764	2283	2626	1343	833
Oklahoma City.....	664	500	358	1026	454	464	987	1893	1660	506	1108	1678	1662	645	157
Omaha.....	1468	1806	1630	1503	987	1335	1366	1691	1484	454	955	1713	1667	190	303
Phoenix.....	2305	2026	1690	2541	1893	1691	1366	1691	1484	567	2098	802	652	1751	1642
Portland, Ore.....	2041	1979	1773	2175	1660	1484	736	567	1890	530	221	742	1559	1512	1512
Reno.....	294	370	567	684	506	454	1478	2096	1890	1370	2134	2226	659	450	
St. Louis.....	1534	1455	1245	1744	1108	955	630	802	530	1370	759	864	1032	1005	
Salt Lake City.....	2157	2213	2004	2283	1678	1713	800	652	221	2134	759	821	1731	1021	
San Francisco.....	2331	1977	1669	2626	1962	1667	154	175	742	2228	864	821	1567	1552	
Seattle.....	952	578	252	1343	645	190	1365	1647	1559	659	1032	1791	1567	493	
Sioux Falls.....	529	778	655	833	157	303	1032	1784	1512	450	1005	1721	1852	493	
Wichita.....															

†See preceding page for explanation.

National Interstate Highway System Nearly 70% Completed

The National System of Interstate and Defense Highways was more than 68% completed at the end of 1968, with approximately 28,000 miles open to traffic. The total cost of this 41,000-mile network of high-speed, super roads is currently estimated at \$56.5 billion, of which the Federal Government will pay 90% and the states 10%.

The Interstate System will span the nation and link more than 90% of all cities of over 50,000

population and thousands of smaller cities and towns. It is predicted that by 1975 the system will be carrying nearly 25% of the total 1.3 trillion vehicle miles of travel projected for that year. The system is expected to cut driving time drastically, to save at least 8,000 lives annually because of its safety design, and to enable motorists to cross the United States on non-stop highways with no traffic lights.

Average Retail Prices of Used Automobiles

Listed below are average prices that a buyer may expect to pay for various American-made automobiles, of model years 1965 through 1968. They are NOT the prices one might expect to receive from a dealer. The prices listed are average retail values based upon reports of actual transactions by dealers. They are derived chiefly from the N.A.D.A. Official Used Car Guide, Eastern Edition for October, 1968, published by Automobile Dealers Used Car Guide Co., 2000 K St., N.W., Washington, D. C. 20006. The table is intended only as a guide for used-car buyers; actual prices may vary throughout the country. The listed values are for cars in average condition with average mileage (15,000 miles per year); values will vary according to condition and mileage.

All cars 4-door sedans with automatic transmission, power steering, radio and heater except where otherwise designated.

Car (Cylinders)	1968	1967	1966	1965	Car (Cylinders)	1968	1967	1966	1965
Buick Spl. Deluxe (6)	\$2185	\$1780	\$1445	\$1100	1Imperial Crown (8)	3930	3060	2250	
Buick Le Sabre (8)	2675	2185	1690	1335	(hardtop)				
1Buick Electra (8)	3630	2990	2270	1730	1Imperial Le Baron (8) ..	4190	3295	2400	
1Cadillac Calais (8)	5185	4230	3265	2415	(hardtop)				
1Cadillac De Ville (8)	5430	4480	3510	2615	1Lincoln Continental	4055	3205	2350	
1Chevrolet Chevy II (6)	1935	1395	1110	810	2Mercury Comet (6)	1980	1385	1065	825
Chevrolet Biscayne (8)	2155	1620	1250	1000	Mercury Monterey (8)	2405	1860	1460	1035
Chevrolet Impala (8)	2330	1930	1525	1190	Mercury Park Lane (8)	2705	2105	1710	1305
Chrysler Newport (8)	2710	2180	1695	1285	Oldsmobile F-85 (6)	2080	1625	1270	1000
Chrysler 300 (8)	3185	2530	1990	1520	Oldsmobile Delta 88 (8)	2800	2250	1755	1410
(hardtop)					2Plymouth Valiant (6)	1815	1455	1155	865
1Chrysler New Yorker (8) ..	3740	2900	2195	1675	2Plymouth Belvedere (8) ..	2040	1620	1235	990
1Dodge Dart 270 (6)	1950	1615	1220	960	2Plymouth Fury III (8)	2355	1940	1545	1185
Dodge Coronet 500 (8)	2380	1850	1440		Pontiac Tempest (6)	2090	1640	1300	1060
Dodge Polara (8)	2425	1920	1525	1110	Pontiac Catalina (8)	2555	2065	1645	1295
2Ford Falcon Std. (6)	1745	1365	1070	765	Pontiac Bonneville (8)	3060	2455	1960	1535
2Ford Fairlane (8)	2045	1580	1205	950	(hardtop)				
Ford Galaxie 500 (8)	2350	1875	1425	1135	2Rambler American (6)	1710	1345	1075	830
					3Rambler Ambassador (8) ..	2410	1765	1375	1145

1Air conditioning included. 2Power steering not included. 3Air conditioning included 1968 model only.

Additional Auto Safety Requirements Go Into Effect

New safety standards and requirements which must be met by all autos manufactured after Jan. 1, 1969, for sale or use in the United States were issued in 1968 by the Department of Transportation's Federal Highway Administration.

These were in addition to a longer list of such safety rules which took effect Jan. 1, 1968.

The new rules included:

Head restraints (head-rests) to reduce the severity of whiplash injuries, on two front seats.

Two latches, or a double latch, on front-opening hoods to reduce the danger of them opening while

car is in motion.

Vehicle identification numbers to be installed inside all cars, near the driver but visible from outside the car, as an aid to reducing auto thefts.

Fail-safe devices for cars with concealed headlights, designed so the shielding covers cannot close while the lights are on, and, if they should fall, they would fall in open position.

An amendment to earlier rules which will extend to passenger cars (as of Jan. 1, 1969) requirements for 4-way flashing signal lights, back-up lights and 4 side reflectors or side lights.

Total Road and Street Mileage in United States

Source: Bureau of Public Roads, Dept. of Transportation 1966

State	Rural	Municipal	Surfaced	Total	State	Rural	Municipal	Surfaced	Total
Alabama....	66,186	10,579	68,483	76,765	Nebraska...	97,097	6,098	68,783	103,195
Alaska.....	6,020	542	2,663	6,562	Nevada.....	45,050	1,728	11,697	46,778
Arizona.....	34,336	5,434	18,896	39,772	N. Hamp....	12,904	1,624	11,818	14,528
Arkansas....	72,665	8,427	54,382	81,092	New Jersey..	17,051	16,110	30,462	33,161
California...	130,284	40,723	118,859	171,007	New Mexico..	62,906	3,913	19,341	66,819
Colorado....	74,185	6,175	46,506	80,360	New York...	85,276	16,856	91,964	102,132
Connecticut..	5,256	12,604	17,699	17,800	N. Carolina..	71,649	12,736	74,600	84,105
Delaware....	3,444	1,369	4,792	4,813	N. Dakota...	103,874	3,010	65,638	166,884
Florida.....	61,924	18,223	54,740	80,147	Ohio.....	85,020	22,733	105,941	107,753
Georgia.....	83,392	13,581	63,480	96,973	Oklahoma....	94,094	12,675	75,066	166,769
Hawaii.....	2,469	904	3,193	3,373	Oregon.....	79,881	5,709	53,140	85,590
Idaho.....	50,808	2,783	28,895	53,591	Penn.....	90,043	22,815	94,475	112,568
Illinois.....	102,506	25,883	119,051	128,889	R. I.....	823	3,831	4,383	4,654
Indiana.....	78,123	12,626	85,747	90,749	S. Carolina..	52,666	6,074	36,540	58,740
Iowa.....	99,692	12,616	103,837	112,308	S. Dakota...	80,994	2,870	67,244	83,864
Kansas.....	123,491	9,805	92,841	133,294	Tennessee...	67,884	9,966	75,016	76,860
Kentucky....	65,263	4,822	55,391	70,085	Texas.....	197,166	40,744	168,901	237,910
Louisiana...	41,093	9,686	45,271	50,779	Utah.....	34,123	4,229	21,274	38,352
Maine.....	18,888	2,304	19,235	21,192	Vermont.....	13,062	918	12,006	13,980
Maryland....	21,427	3,898	25,245	25,325	Virginia....	51,628	7,691	58,101	59,319
Mass.....	7,444	19,957	25,803	27,401	Washington..	63,323	9,632	59,679	72,955
Michigan....	95,204	18,566	94,542	113,590	W. Virginia..	32,109	3,550	25,991	35,659
Minnesota...	110,554	15,831	113,499	126,385	Wisconsin...	87,511	13,269	94,805	100,780
Mississippi..	99,252	6,164	62,283	65,416	Wyoming....	75,754	1,202	60,996	76,950
Missouri....	99,636	14,518	101,938	114,154	D. C.....		1,083	1,071	1,083
Montana....	72,455	2,129	38,274	74,584	Total.....	3,187,715	510,235	2,800,481	3,697,950

Intercity Bus Operations

Source: National Association of Motor Bus Owners

	1965	1966	1967
Number of operating companies.....	1,100	1,100	1,100
Number of buses.....	20,522	21,200	21,400
Miles of highway served.....	262,000	263,000	263,000
Number of employees.....	44,000	46,200	46,600
Total bus miles.....	1,165,000,000	1,200,000,000	1,210,000,000
Revenue passengers.....	369,800,000	383,900,000	384,000,000
Revenue passenger miles.....	23,300,000,000	24,600,000,000	24,600,000,000
Operating revenue, (all services).....	\$702,600,000	\$739,800,000	\$772,800,000
Operating expenses.....	\$602,400,000	\$637,200,000	\$684,900,000
Net operating revenue (Before income taxes)...	\$100,200,000	\$102,600,000	\$87,900,000
Taxes assignable to operations.....	\$58,500,000	\$64,500,000	\$67,000,000

1Includes duplication between carriers. 2Operating companies only. 3Excludes income taxes.

Women Defeat Men in 1968 Mobil Economy Run

Ice, snow, heavy winds and torrential rains in the Rockies, plus higher average speeds, all combined to lower the average gasoline economy of the late-model American stock cars competing in the 1968 Mobil Economy Run. Over-all fuel mileage was 19.1671 mi. per gallon compared to 19.9884 in 1967. Average speed was 55.03 m.p.h. compared to 51.36 in 1967. Women drivers again scored better with an average of 19.9203 compared to 19.0073 for the men. The run was ended in Indianapolis on Apr. 5 after the 40 competing cars had covered 2,272.25 mi. The event which started in Los Angeles Apr. 2 was scheduled to have ended in New York Apr. 7. The early ending was made because Apr. 7 had been declared a day of mourning in memory of Dr. Martin Luther King. The run is conducted under the supervision of the U. S. Auto Club.

Make and model (all automatic transmissions)	Miles per gallon	Driver
CLASS A—COMPACT 6-CYLINDER		
Rambler Rogue.....	24.0917	Les Vland
Barracuda.....	23.3179	Jerry Gross
Corvaire 500.....	22.8535	Gordon Madison
Valliant.....	22.7058	Bob Cahill
Mustang 2 + 2.....	22.6487	Kay Klimes
Dodge Dart 170.....	21.9158	Mary Ann Foss
Falcon 170.....	21.1303	Bill Levy

CLASS B—COMPACT 8-CYLINDER		
Barracuda 318.....	20.0078	Jack Kirkpatrick
Chevy II Nova.....	19.6260	Mary Hauser
Mustang 2 + 2.....	19.5429	Fran Foster
Valliant.....	19.5408	Bob Checkley
Javelin.....	16.3720	Tommy Thomas

CLASS C—INTERMEDIATE 6-CYLINDER		
Fairlane.....	22.7680	Glinny Sims
Mercury Montego.....	22.6601	Al Johnson
Plymouth Belvedere.....	21.9822	Carl Diehl
Chevelle 300.....	19.2543	Ed Miller

CLASS D—INTERMEDIATE 8-CYLINDER CARS		
Dodge Coronet.....	20.5744	Shirley Shahan
Plymouth Belvedere.....	20.4154	Scott Harvey
Mercury Montego.....	19.4283	Ronnie Duman
Ford Torino GT.....	19.0656	Darrell Droke

Make and model (all automatic transmissions)	Miles per gallon	Driver
CLASS D (Contd.)		
Buick Special.....	18.5357	John Rich
Chevelle Malibu.....	17.8811	Dr. Tom Evans
Olds F-85.....	17.0889	Mel Alsbury, Jr.
Pontiac Tempest.....	16.8924	Don Francisco

CLASS E—STANDARD SIZE, LOW-PRICE 8-CYLINDER		
Chevy Impala SS.....	18.8162	Don Royer
Plymouth Fury III.....	18.3332	Bill Keller
Ford Custom.....	17.9562	John Allen
Chevy Caprice.....	17.3699	G. K. Enoch

CLASS F—STANDARD SIZE, MEDIUM PRICE 8-CYLINDER		
Buick LeSabre.....	18.4883	Marta Retzlaff
Dodge Polara 318.....	18.4639	Jim Wright
Pontiac Catalina.....	17.9815	Ted Block
Chrysler Newport.....	17.3538	Jim Latham
Mercury Monterey.....	16.9084	Byron Froelich
Olds Delta 88.....	16.3248	Stan Raymond

CLASS G—LUXURY CARS		
Chrysler New Yorker.....	17.1340	Hart Fullerton
Olds 98.....	16.7003	Mandy Williams
Thunderbird.....	16.5735	Nelson Stacy
Buick Electra 225.....	16.5270	Paula Murphy
Olds Toronado.....	15.9898	Tom Gillum, Jr.
Cadillac.....	15.4621	Pete Novotny

Passenger Car Production, U. S. Plants

Source: Automobile Manufacturers Association

	1966	1967	1968 6 Mos.		1966	1967	1968 6 Mos.
American Motors Corp.	279,225	229,057	149,307	General Motors Corp.			
Chrysler Corp.				Chevrolet.....	1,431,022	1,150,264	644,898
Plymouth.....	640,450	610,098	368,486	Corvette.....	24,939	23,775	16,056
Dodge.....	532,026	497,380	316,081	Chevelle.....	423,317	375,831	231,121
Chrysler.....	255,487	240,712	130,484	Camaro.....	94,426	216,210	118,394
Imperial.....	17,653	15,506	5,281	Chevy II.....	155,726	135,884	113,116
Total Chrysler Corp.	1,445,616	1,363,696	820,332	Corvaire.....	73,362	18,701	7,440
Ford Motor Co.				Total Chevrolet.....	2,202,792	1,920,665	1,131,025
Ford.....	948,462	699,356	556,933	Pontiac.....	481,591	445,956	238,323
Fairlane.....	304,659	190,383	284,981	Tempest.....	384,794	288,924	201,933
Falcon.....	131,793	33,527	34,858	Firebird.....		122,291	58,197
Mustang.....	580,767	394,482	197,677	Total Pontiac.....	866,385	857,171	498,453
Thunderbird.....	72,734	59,640	44,131	Oldsmobile.....	318,667	277,910	164,230
Total Ford.....	2,038,415	1,377,388	1,118,580	Toronado.....	37,420	18,444	16,177
Mercury.....	153,680	96,309	77,930	F-85.....	237,982	256,643	163,216
Montego-Comet.....	133,165	56,451	93,822	Total Oldsmobile.....	594,069	552,997	343,623
Cougar.....	48,013	131,743	75,232	Buick.....	315,639	336,366	212,484
Total Mercury.....	334,858	284,503	246,984	Riviera.....	48,073	43,145	29,358
Lincoln.....	52,169	34,333	31,415	Special.....	216,709	194,355	192,544
Total Ford Motor Co.	2,425,442	1,696,224	1,396,979	Total Buick.....	580,421	573,866	374,386
				Cadillac.....	205,001	213,161	126,820
				Total General Motors Corp.	4,448,668	4,117,860	2,474,307
				Checker Motors Corp.	5,761	5,822	2,485
				Total passenger cars.....	8,604,712	7,412,659	4,843,410

Motor Bus Passenger Operations, Intercity Class I Carriers

Source: Interstate Commerce Commission

Year ended December 31	1964	1965	1966	1967
Number of carriers reporting.....	158	147	156	161
Miles of line, regular route.....	211,621	211,131	216,580	219,260
Regular route intercity service revenue..... (dollars)	442,098,685	452,302,408	475,280,834	478,411,327
Local and suburban revenue..... (dollars)	79,654,963	13,664,810	13,149,293	15,905,174
Charter or special service bus..... (dollars)	63,823,994	61,172,462	69,743,934	80,007,631
Total operating revenue..... (dollars)	666,485,751	604,677,139	640,990,577	663,851,245
Total expenses..... (dollars)	570,882,528	511,470,607	545,753,076	586,002,062
Net operating revenue..... (dollars)	85,603,223	93,206,532	95,237,501	77,829,183
Bus-miles in intercity line service.....	834,041,327	815,579,656	844,445,549	837,403,930
Bus-miles in local and suburban service.....	117,954,966	24,397,719	22,407,474	25,008,586
Bus-miles in charter or special service.....	103,643,274	98,821,490	112,258,094	124,891,316
Intercity revenue passengers carried (line service).....	180,516,733	162,992,836	169,323,447	166,285,070
Local and suburban revenue passengers carried.....	296,511,245	29,475,279	26,956,727	30,815,509
Charter or special revenue passengers carried.....	29,861,540	20,714,320	26,969,666	26,483,225

Mobile Homes and Travel Trailers—Manufacturers' Shipments

Source: Dept. of Commerce, Business and Defense Services Administration; *Construction Review*

A mobile home, or housing-type trailer, is a vehicular portable structure built on a chassis and designed to be used without a permanent foundation as a year-round dwelling when connected to utilities. Mobile homes are defined as units 29 feet or longer and weighing over 4,500 pounds; travel trailers, as units less than 29 feet long, regardless of weight, or weighing less than 4,500 pounds, regardless of length. Excludes units designed for commercial uses, pickup cabs, folding campers, and amphibious units.

Year and month	Total	Mobile homes	Travel trailers	Mobile homes as percent of total shipments
1960.....	144,000	103,700	40,300	72.0
1963.....	223,010	150,840	72,170	67.6
1964.....	281,690	191,320	90,370	67.9
1965.....	324,050	216,470	107,580	66.8
1966.....	340,090	217,300	122,700	63.9
1967.....	370,780	240,360	130,420	64.8
1968 Jan.....	25,320	18,970	6,350	75.5
Feb.....	29,710	21,100	8,610	71.0
Mar.....	39,090	23,880	15,210	61.1
Apr.....	45,490	26,990	18,500	59.3
May.....	47,570	27,470	20,100	57.7
June.....	46,000	26,370	19,630	57.3

Automobile Factory Sales

Source: Automobile Manufacturers Association, Detroit, Mich.—Values, Wholesale

Year	Passenger Cars		Motor Trucks, Buses		Total	
	Number	Value	Number	Value	Number	Value
1900.....	4,192	\$4,899,443	.....	.....	4,192	\$4,899,443
1905.....	24,250	38,670,000	750	\$1,340,000	25,000	40,000,000
1910.....	181,000	215,340,000	6,000	9,660,000	187,000	225,000,000
1915.....	895,930	575,978,000	74,000	125,800,000	969,930	701,778,000
1920.....	1,905,560	1,809,170,963	321,789	423,249,410	2,227,349	2,232,420,373
1925.....	3,735,171	2,458,370,026	530,659	458,400,277	4,265,830	2,916,770,303
1930.....	2,787,456	1,644,083,152	575,364	390,752,061	3,362,820	2,034,835,213
1935.....	3,273,874	1,707,836,325	697,367	380,997,330	3,971,241	2,088,833,655
1940.....	3,717,385	2,370,654,083	754,901	567,820,414	4,472,286	2,938,474,497
1945.....	69,532	57,254,655	655,683	1,181,955,532	725,215	1,239,210,187
1950.....	6,665,863	8,468,137,000	1,337,193	1,707,748,000	8,003,056	10,175,885,000
1955.....	7,920,186	12,452,871,000	1,249,106	2,020,973,000	9,169,292	14,473,844,000
1960.....	9,671,796	12,164,234,000	1,194,475	2,359,690,000	7,869,271	14,514,914,000
1965.....	9,305,561	18,380,036,000	1,751,805	3,733,664,000	11,057,366	22,113,700,000
1966.....	8,598,326	17,554,326,000	1,731,084	3,953,472,900	10,329,410	21,507,798,900
1967.....	*7,436,764	15,600,000,000	1,539,462	3,600,000,000	8,976,226	19,200,000,000

After July 1, 1964 all tactical vehicles are excluded. Federal excise taxes are excluded in all years.

*Preliminary.

Automotive Exports from United States

Source: Bureau of Census, Dept. of Commerce
(in thousands)

	Vehicles			Vehicles			Vehicles	
	Total	Value*		Total	Value*		Total	Value*
1940.....	\$155,091	\$ 299,785	1960.....	\$616,881	\$1,411,418	1964.....	\$ 694,289	\$1,900,096
1945.....	233,179	387,667	1961.....	520,514	1,300,200	1965.....	721,294	2,197,515
1950.....	396,571	793,802	1962.....	499,069	1,400,990	1966.....	924,717	2,474,423
1955.....	719,754	1,367,151	1963.....	548,530	1,566,866	1967.....	1,219,318	2,887,362

*Includes used passenger cars and trucks, trailers, parts for assembly, and garage equipment.

Domestic and International Express Service

Source: REA Express

Domestic surface and air express service extends throughout the U. S., Puerto Rico and points in Canada. The company operates an international shipping service by surface transportation between the U. S. and 112 countries. Agents in the countries operate in a manner similar to REA Express in the U. S. The company also operates a worldwide air shipping service via connections with International (IATA) airlines.

Express service was inaugurated March 4, 1939. Air express service was inaugurated September 1, 1927.

Year	Surface shipments	Revenue	Air shipments	Revenue
1955.....	78,251,300	\$381,444,436	5,223,454	\$40,316,233
1960.....	59,853,687	315,863,193	6,533,023	49,861,000
1962.....	59,312,291	325,011,239	7,480,094	57,807,445
1963.....	58,350,917	322,588,085	7,674,877	59,955,803
1964.....	59,417,824	344,674,007	8,336,627	66,762,408
1965.....	57,707,696	352,479,354	9,211,339	78,080,340
1966.....	53,263,136	343,643,830	9,517,773	86,294,168
1967.....	46,736,424	334,918,673	9,274,034	86,954,235

Credit Unions Are World Wide

There are about 52,000 credit unions in the world with more than 30,800,000 members. At the end of 1967 in the United States and its territories, there were 23,210 credit unions with 19,100,000 members who had savings of \$11.3 billion and assets of \$12.7 billion.

Credit unions are financial self-help groups whose members save their money together and make loans to each other at low interest. They are nonprofit corporations. All credit unions are chartered by Federal or state governments and regulated by law. They are entirely owned by their members, and their operations are restricted to

their membership.

Credit unions are found throughout the free world. In the United States and Canada, where the majority are located, they are usually formed by groups who share the same employment, such as factory workers, government employees and school teachers. Other groups that have formed credit unions include members of the same church congregation, fraternal organizations and residents of the same community.

(For Bureau of Federal Credit Unions see Social Security.)

Auto Registrations, Taxes, Gasoline, Drivers' Ages

Source: Bureau of Public Roads

State	Minimum age*	Registered automobiles, buses & trucks ¹	State Gasoline Tax per gallon (1968)	Motor Fuel Gross Tax collections	Motor fuel consumption (1967) ²		
		(1967) Number	(1968) Cents		Highway	Non-highway	Totals ³
	(1968)	(1967)	(1968)	1,000 Dollars	1,000 Gallons	1,000 Gallons	1,000 Gallons
Alabama	16	1,735,179	7	99,972	1,390,040	39,741	1,429,781
Alaska	18 (14)	110,382	8	8,022	72,927	56,730	129,657
Arizona	18	889,636	7	53,221	723,646	42,484	766,130
Arkansas	18	992,936	7.5	65,839	844,044	46,273	890,317
California	18 (14)	10,849,514	7	574,706	8,008,678	245,019	8,253,697
Colorado	18	1,241,870	6	54,923	877,428	72,876	950,304
Connecticut	21	1,544,761	4 ⁷	72,468	1,076,857	20,356	1,097,213
Delaware	18	267,660	7	16,618	230,227	8,732	238,959
Florida	18	3,392,661	7	183,461	2,561,698	135,851	2,697,549
Georgia	16	2,164,367	6.5	130,246	1,953,292	57,659	2,010,951
Hawaii	20	336,498	5 ⁵	10,497	189,736	26,708	216,444
Idaho	18 (14)	454,572	6	21,915	332,865	40,211	373,076
Illinois	21 (15)	4,818,259	4 ⁶	222,294	3,998,771	260,730	4,259,501
Indiana	21	2,631,947	6	138,460	2,233,650	112,838	2,346,488
Iowa	18 (14)	1,651,549	7	104,642	1,235,515	289,424	1,524,939
Kansas	16 (14)	1,440,595	5	60,607	1,041,470	153,253	1,194,723
Kentucky	18	1,632,380	6 ⁷	92,520	1,248,482	44,817	1,293,299
Louisiana	21	1,633,802	7	94,549	1,306,286	54,729	1,361,015
Maine	18 (15)	452,083	7	29,833	413,878	13,082	426,960
Maryland	21	1,611,986	7	95,761	1,328,139	33,291	1,361,430
Massachusetts	18 (16) ²	2,223,472	6.5	118,161	1,844,203	31,102	1,875,305
Michigan	18 (14)	4,133,428	6	209,505	3,527,133	245,921	3,773,054
Minnesota	18 (15)	1,996,926	4 ⁷	107,146	1,521,373	179,933	1,701,306
Mississippi	17	1,012,166	7	68,834	918,780	37,266	956,046
Missouri	16	2,211,184	5	105,788	2,019,013	153,975	2,172,988
Montana	18 (14)	887,807	4 ⁶	24,566	340,860	44,078	385,938
Nebraska	16 (13)	1,440,595	7.5	56,483	777,564	88,069	765,633
Nevada	18 (14)	286,637	6	18,044	261,478	16,030	277,508
New Hampshire	18 (16)	348,717	7	19,850	276,225	5,639	281,864
New Jersey	17 (16)	3,200,454	6	157,031	2,550,052	68,736	2,618,788
New Mexico	18	571,239	4 ⁷	34,173	525,761	15,530	541,291
New York	18 (16)	6,060,491	6	290,520	4,841,102	216,528	5,057,630
North Carolina	18	2,423,241	7	147,946	2,072,717	81,303	2,154,020
North Dakota	18 (13)	404,886	6	22,078	257,952	113,979	371,931
Ohio	21 (14)	5,305,391	7	285,519	4,054,699	153,650	4,208,349
Oklahoma	16	1,541,000	6.5	80,280	1,215,084	55,177	1,270,261
Oregon	18 (14)	1,390,006	4 ⁷	55,873	933,421	51,977	985,398
Pennsylvania	18 (16)	5,335,237	7	285,338	4,010,141	190,652	4,200,793
Rhode Island	18	434,362	7	21,718	300,778	5,866	306,644
South Carolina	21 (15)	1,180,392	7	74,840	1,026,233	39,692	1,065,925
South Dakota	18 (14)	406,961	6	25,118	305,490	106,090	411,580
Tennessee	21	1,869,918	7	116,074	1,606,355	50,725	1,657,080
Texas	18	5,893,582	5	272,529	5,168,740	194,269	5,363,009
Utah	18	561,585	6	28,167	430,668	27,293	457,959
Vermont	21 (16)	194,120	6.5	11,745	180,399	6,807	187,206
Virginia	18	1,932,478	6 ⁷	128,777	1,748,407	65,258	1,813,665
Washington	21	1,851,761	4 ⁹	116,023	1,331,999	46,735	1,378,734
West Virginia	18	765,347	7	44,187	621,863	13,604	635,467
Wisconsin	18 (14)	1,954,112	7	119,874	1,596,723	129,557	1,726,280
Wyoming	21	226,403	4 ⁶	13,777	217,659	26,142	243,801
Dist. of Col.	18	246,712	7	16,095	242,146	3,471	245,617
Totals		96,944,876	76.47	5,206,734	77,692,650	84,229,858	81,922,508

*Figures in parentheses are age limits for junior permits, school permits or in other special situations.
¹Registrations include: Automobiles, private and commercial (including taxicabs) 80,013,724; publicly owned 400,456. Buses, private and commercial 164,670, publicly owned 339,798. Total private and commercial motor vehicles 95,551,372, publicly owned 1,413,504. Total commercial 1,934,413, publicly owned 18,609.
²Total motor fuel consumed in gallons for private and commercial use, 80,059,523,000 for public use, 1,862,985,000. Losses allowed for evaporation, handling, etc., not included in total are 677,834,000. Tax rate changes in 1967 were as follows: Conn., Minn., and N. M., 6 to 7¢, July 1; Ill., 5 to 6¢, Aug. 1; Mont., 6 to 6.5¢, July 1; Ore., 6 to 7¢, Oct. 1; Wash., 7.5 to 9¢, May 1; Wyo., 5 to 6¢, May 20.
³The state tax rate is 8¢ per gal. in Hawaii County and 5¢ in the other counties. Trucks or combinations of more than two axles pay motor-fuel tax at rate of 9¢ per gallon in Kentucky and Virginia.
⁴Weighted average tax rate. (For motor-fuel was 6.45¢ per gallon.)
⁵Does not include an estimated 5.7 billion gallons of aviation jet fuel.

Minimum Legal Age for Purchase of Alcoholic Beverages

Source: Distilled Spirits Institute, Inc., Washington, D. C. 20004

State	Years	State	Years	State	Years
Alabama	21	Kentucky	21	North Dakota	21
Alaska	21	Louisiana	21	Ohio (c)	21
Arizona	21	Maine	21	Oklahoma (d)	21
Arkansas	21	Maryland	21	Oregon	21
California	21	Massachusetts	21	Pennsylvania	21
Colorado (e)	21	Michigan	21	Rhode Island	21
Connecticut	21	Minnesota	21	South Carolina (e)	21
Delaware	21	Mississippi (h)	21	South Dakota (g)	21
Dist. of Col. (b)	21	Missouri	21	Tennessee	21
Florida	21	Montana	21	Texas	21
Georgia	21	Nebraska	21	Utah	21
Hawaii	20	Nevada	21	Vermont	21
Idaho (a)	21	New Hampshire	21	Virginia (c)	21
Illinois	21	New Jersey	21	Washington	21
Indiana	21	New Mexico	21	West Virginia (c)	21
Iowa	21	New York	18	Wisconsin (f)	21
Kansas (c)	21	North Carolina (b)	21	Wyoming	21

(a) Beer 20. (b) Light wine, beer 18. (c) 3.2 beer 18. (d) 3.2 beer: male 21; female 18 off-sale, 21.
 (e) Beer and wine 18. (f) Beer 18. (g) 3.2 beer 19. (h) Beer not over 4% by wt. 18.

Discoveries and Innovations in Chemistry, Physics, Biology and Medicine

Product	Date	Discoverer	Nation	Product	Date	Discoverer	Nation
Acetylene gas.....	1892	Wilson.....	U. S.	Isoniazid.....	1952	Hoffman-La-Roche.....	U. S.
ACTH.....	1949	Armour & Co. U. S.		Domag.....		German	
Adrenalin.....	1901	Takamine.....	Japan	Laser (light amplification by stimulated emission of radiation).....	1958	Townes, Schawlow.....	U. S.
Aluminum, electrolytic process.....	1886	Hall.....	U. S.	Lithography.....	1796	Senefelder.....	Bohemia
Aniline dye.....	1856	Perkin.....	English	Lobotomy.....	1935	Egas Moniz.....	Portugal
Anesthesia, ether.....	1842	Long.....	U. S.	LSD-25.....	1943	Hoffman.....	Swiss
Anesthesia, local.....	1885	Koller.....	Austria	Methanol.....	1925	Patard.....	French
Anesthesia, spinal.....	1898	Bier.....	German	Milk condensation.....	1853	Borden.....	U. S.
Anti-rabies.....	1885	Pasteur.....	French	Motion, laws of.....	1687	Newton.....	English
Antioxen, diphtheria.....	1891	Von Behring.....	German	Neomycin.....	1949	Waksman & Lechevallier.....	U. S.
Antiseptic surgery.....	1867	Lister.....	English	Neutron.....	1932	Chadwick.....	English
Argyrol.....		Barnes.....	U. S.	Nitric acid.....	1648	Glauber.....	German
Arspenamine.....	1910	Ehrlich.....	German	Nitric oxide.....	1772	Priestley.....	English
Aspirin.....	1889	Dreiser.....	German	Nitroglycerin.....	1846	Soberero.....	Italian
Atomic theory.....	1803	Dalton.....	English	Oil cracking process.....	1891	Dewar.....	U. S.
Atomic-smashing theory.....	1919	Rutherford.....	English	Oxygen.....	1774	Priestley.....	English
Atabrine.....	1919	Mietzsch, et al.....	German	Paper, from wood pulp, sulfate process.....	1884	Dahl.....	German
Auroverdin.....	1948	Dugard.....	U. S.	Paper, sulfate process.....	1867	Tilghman.....	U. S.
Azo dyes.....		Mietzsch, Klarer.....	German	Penicillin.....	1929	Alex. Fleming.....	English
Bacitracin.....	1945	Johnson et al. U. S.		Practical use.....	1941	Flory-Chain.....	English
Barbital.....	1903	Fischer.....	German	Plutonium fission.....	1940	Kennedy, J. W. Wahl, A. C., Seaborg, G. U. S.	
BCG.....	1920	Calmette, Guerin.....	French	Polymixin.....	1947	Segre, Emilio.....	U. S.
Beatron.....	1940	Kerst, D. W. U. S.		Protarol.....	1882	Neisser.....	German
Blotin.....	1936	Kogl, Tonnes.....	German	Proton.....	1919	Rutherford.....	English
Bleaching powder.....	1798	Tennant.....	English	Quantum theory.....	1900	Planck.....	German
Bordeaux mixture.....	1885	Millard.....	French	Quinine-synthetic.....	1918	Rune.....	German
Bromine from sea.....	1924	Edgar-Kramer.....	U. S.	Radioactivity.....	1896	Bequerel.....	French
Calcium carbide.....	1888	Wilson.....	U. S.	Radioactivity counter.....	1908	Rutherford.....	English
Carbon oxides.....	1925	Fisher.....	German	Radium.....	1898	Curie, Pierre.....	French
Carbomycin.....	1952	Tanner.....	U. S.	Radium.....	1898	Curie, Marie.....	Polish
Camphor synthetic.....	1896	Haller.....	French	Relative theory.....	1905	Finlay.....	German
Chlorine.....	1810	Davy.....	English	Reserpin.....	1949	Jai Vakil.....	India
Chloroform.....	1831	Guthrie, S. U. S.		Salvarsan (606).....	1910	Ehrlich.....	German
Chloromycetin.....	1947	Burkholder.....	U. S.	Streptomycin.....	1945	Waksman.....	U. S.
Cocaine.....	1860	Niemann.....	German	Sulfanilamide theory.....	1908	Gelmo.....	U. S.
Codeine.....	1950	Beldisch, Mietzsch, Domag.....	German	Sulf. diamide.....	1934	Domag.....	German
Cortisone.....	1936	Kendall.....	U. S.	Sulfadiazine.....	1940	Roblin.....	U. S.
Cortisone, synthesis.....	1946	Sarett.....	U. S.	Sulf. pyridine.....	1938	Ewins Phelps.....	English
Cyanide.....	1905	Caro, Frank.....	German	Sulfathiazole.....		Fosbinder, Walter.....	U. S.
Cyclotron.....	1930	Lawrence.....	U. S.	Sulfuric acid.....	1831	Phillips.....	English
DDT.....	1874	Zeldner.....	German	Sulfuric acid, lead.....	1746	Roebuck.....	English
(Not applied as insecticide until 1939)				Terramycin.....	1950	Finlay, et al. U. S.	
Deuterium (heavy hydrogen).....	1932	Urey, Brickwade, Murphy.....	U. S.	Tuberculin.....	1890	Koch.....	German
DNA (structure).....	1951	Crick, Watson, Wilkins.....	English	Uranium fission (theory).....	1939	Hahn, Strassmann.....	German
Electric waves.....	1888	Hertz.....	German	Uranium fission, atomic reactor.....	1942	Enrico Fermi, Leo Szilard.....	Italian
Electrolysis.....	1852	Faraday.....	English	Vaccine, measles.....	1954	Enders, John U. S.	
Electron.....	1897	Thomson, J. English		Vaccine, polio.....	1955	Sabin, Alb. E. U. S.	
Electron diffraction.....	1936	Thomson, G. English		Vaccine, polio.....	1953	Salk, Jonas E. U. S.	
Electron spectrometer.....	1944	Deusch, Elliott, Evans U. S.		Vaccine, smallpox.....	1796	Jenner, Edw. English	
Electroshock treatment.....	1938	Cerletti, Bini, Italy		Vaccine, typhus.....	1909	Nicoll, J. French	
Electrostatic generator.....	1929	Van Graaf, de U. S.		Vitamin A.....	1913	McCollum, Davis.....	U. S.
Erythromycin.....	1952	McGulre.....	U. S.	Vitamin B.....	1916	McCollum.....	U. S.
Evolution, natural selection.....	1858	Darwin.....	English	Vitamin C.....	1912	Holst.....	U. S.
Gold (cyanide process for extraction).....	1887	Forest, MacArthur.....	British	Vitamin D.....	1922	McCollum.....	U. S.
Gravitation, law.....	1687	Newton.....	English	Xerography.....	1938	Carlson.....	U. S.
Human heart transplant.....	1967	Barnard.....	S. Africa				
Indigo, synthesis of.....	1880	Bayer.....	German				
Insulin.....	1922	Banting, Best, MacLeod.....	Canada				

Great Inventions and Scientific Discoveries

Invention	Date	Inventor	Nation	Invention	Date	Inventor	Nation
Adding machine.....	1642	Pascal.....	French	Airship, rigid dirigible.....	1900	Zeppelin.....	German
Adding machine.....	1885	Burroughs.....	U. S.	Are tube.....	1923	Alexander.....	U. S.
Addressograph.....	1892	Duncan.....	U. S.	Are tube, immersion.....		Sieplan.....	U. S.
Air brake.....	1868	Westinghouse.....	U. S.	Automobile.....	1932	Ludwig.....	U. S.
Air conditioning.....	1911	Carrier.....	U. S.	Automobile, jet engine.....	1920	de la Cerva.....	Spanish
Airplane.....	1930	White.....	British	Automobile, motor.....	1904	Westinghouse.....	U. S.
Airplane with motor.....	1903	Orville and Wilbur Wright.....	U. S.	Automobile, differential gear.....	1885	Benz.....	German
Airplane, hydro.....	1910	Fabre, Henri.....	French	Automobile, electric.....	1892	Morrison.....	U. S.
Airplane, hydro.....	1911	Curtiss.....	U. S.	Automobile, exper.....	1875	Marcus.....	Austrian
Airplane engine, super-charger.....	1917	Moss.....	U. S.	Automobile, gasoline.....	1887	Daimler.....	German
Airship.....	1852	Giffard.....	French	Automobile, gasoline.....	1892	Duryea, C. E. (See note).....	U. S.
Airship, non-rigid dirigible.....	1898	Dumont.....	Brazil	Automobile, gasoline.....	1894	Krebs.....	U. S.
				Automobile, gasoline.....	1895	Selden.....	U. S.
				Automobile, magneto.....	1899	Daimler.....	German

Invention	Date	Inventor	Nation	Invention	Date	Inventor	Nation
Automobile, muffler		Maxlm, H. P.	U. S.	Kaleidoscope	1817	Brewster	English
Automobile, self-star.	1911	Kettering	U. S.	Kinetscope	1887	Edison	U. S.
Automobile, steam.	1889	Roper	U. S.	Kodak	1888	Eastman-	
Babbitt metal	1839	Babbitt	U. S.			Walker	U. S.
Bakelite	1907	Baekeland	Belg. U. S.	Lacquer, nitrocellu.	1921	Flaberty	U. S.
Balloon	1783	Montgolfier	French	Lamp, arc	1879	Brush	U. S.
Barometer	1643	Torricelli	Italian	Lamp, incandescent	1879	Edison	U. S.
Bicycle, modern	1884	Starley	English	Lamp, incand., frosted	1924	Phyllis	U. S.
Bicycle, safety	1886	Pope	U. S.	Lamp, incand.,	1916	Langmuir	U. S.
Bifocal lens	1780	Franklin	U. S.	Lamp, Klieg	1911	Klieg, A. & J.	U. S.
Block signals, railway	1867	Hall	U. S.	Lamp, mercury vapor	1912	Hewitt	U. S.
Bomb, depth.	1903	Unge	Swedish	Lamp, miner's safety	1816	Davy	English
Bomb, depth.	1916	Tait	U. S.	Lamp, Neon	1915	Claude	French
Bottle machine	1903	Owens	U. S.	Lathe, turret	1845	Fitch	U. S.
Braille printing	1829	Braille	French	Launderette	1934	Cantrell	U. S.
Burner, gas	1855	Bunsen	German	Lens, achromatic	1758	Dolland	English
Camera, Polaroid				Lens, fused bi focal	1924	Dresser	U. S.
Car coupler	1873	Janney	U. S.	Lens, fused bifocal	1908	Borsch	U. S.
Carburetor, gasoline	1876	Daimler	German	Leydenjar (condenser)	1745	von Kleist	German
Card time recorder	1894	Cooper	U. S.	Lightning rod	1752	Franklin	U. S.
Carding machine	1797	Whittemore	U. S.	Linoleum	1860	Walton	English
Carpet sweeper	1876	Bissell	U. S.	Linotype	1885	Mergenthaler	U. S.
Cash register	1879	Ritty	U. S.	Locomotive, electric	1851	Vall	U. S.
Cellophane	1900	Brandenberger	Swiss	Locomotive, exper.	1801	Trevithick	English
Celluloid	1870	Hyatt	U. S.	Locomotive, exper.	1812	Fenton et al.	English
Circuit, Portland	1891	Lucas	English	Locomotive, exper.	1813	Hedley	English
Circuit breaker	1925	Hilliard	U. S.	Locomotive, exper.	1814	Stephenson	English
Clock, pendulum	1657	Huygens	Dutch	Locomotive, pract.	1829	Stephenson	English
Coaxial cable system	1929	Affel & Es-	U. S.	Locomotive, 1st U. S.	1830	Cooper, P.	U. S.
		pensched		Loom, power	1785	Cartwright	English
Coke oven	1893	Hoffman	Austrian	Loudspeaker, dynamic	1924	Rice-Kellogg	U. S.
Collar, paper	1854	Hunt	U. S.	Machine gun	1861	Gatling	U. S.
Comptometer	1887	Felt	U. S.	Machine gun, imprvd	1872	Hottelkiss	U. S.
Computer, automatic				Machine gun (Maxim)	1883	Maxim, H. S.	English
Condenser micro	1939	Aiken et al.	U. S.	Magnet, electro	1828	Henry	Austrian
phone (telephone)				Mangle, gas	1858	Welsbach	U. S.
Cotton gin	1793	Whitney	U. S.	Mason jar	1858	Tason, J.	English
Cream separator	1880	DeLaval	Swedish	Match, friction	1827	John Walker	French
Cultivator, disc	1878	Mallon	U. S.	Match, phosphorus	1831	Sauria	U. S.
Cystoscope	1877	Nitze	German	Match, phosphorus	1836	Phillips	U. S.
Dental plate, rubber	1855	Goodyear	U. S.	Mercerized textiles	1843	Mercer, J.	English
Dial recorder	1889	Ray	U. S.	Meter, induction	1888	Shallenberger	U. S.
Diesel engine	1892	Diesel	German	Meter, parking	1935	Magee	English
Dynamite	1866	Nobel	Swedish	Microcomputer	1636	Gascolgne	U. S.
Dynamo, continuous				Microscope	1590	Baseliner	Dutch
Dynamo, cont. cur.	1860	Picnotti	Italian	Microscope, electron	1931	Janssen	German
Dynamo, hydrogen	1870	Gramme	Belgian	Monitor, warslip	1861	Ericsson	U. S.
cooled				Monotype	1887	Lanston	U. S.
Dynamo, electric ma-	1915	Schuler	U. S.	Motor, AC	1892	Tesla	U. S.
chine, modulator		Alexanderson		Motor, induction	1888	Tesla	U. S.
Dynamo, high freq.	1939	Thomson	U. S.	Motor, AC, railway	1933	Jungk	U. S.
Electric battery	1800	Volta	Italian	Motor, rotary	1907	Ocenasek	Czech
Electric ship power	1913	Emmet	U. S.	Motor, induction	1885	Tesla	German
Electrocardiograph	1903	Einthoven	Dutch	Motorcycle	1893	Daimler	U. S.
Electroencephalo-				Movie machine	1895	Edison	U. S.
graph	1929	Berger	German	Movie machine	1895	Lumiere	French
Electromagnet	1824	Sturgeon	English	Movie machine	1894	Jenkin	U. S.
Electron tube multi-				Movie panoramic	1952	Waller	U. S.
grid	1913	Langmuir	U. S.	Movie, talking	1927	Warner Bros.	U. S.
Electroplating	1805	Brugnatelli	Italian	Mower, law	1868	Hills	U. S.
Elevator, brake	1852	Otto	U. S.	Mowing machine	1831	Manning	U. S.
Elevator, push button	1922	Larson	U. S.	Neoprene	1930	Carothers	U. S.
Engine, automobile	1879	Benz	German	Nylon synthetic	1930	Carothers	U. S.
Engine, coal-gas	1867	Otto	German	Nylon	1937	Carothers	U. S.
Engine, gasoline	1872	Brayton, Geo	U. S.	Oil carrying device	1891	De Poot lab.	U. S.
Engine, gasoline	1891	Levassor	French	Oil filled power cable	1921	Ermanelli	Italian
Engine, gas compound	1926	Eickemeyer	U. S.	Oleomargarine	1868	Meg-Mouries	French
Engine, coal-gas				Ophthalmoscope	1851	Heimholtz	German
4 cycle	1877	Otto	German	Parachute	1809	Diekenson	U. S.
Engine, compression				Parachute	1785	Blanchard	French
ignition	1883	Daimler	German	Pen, ballpoint	1888	Loud	U. S.
Engine, electric igni.	1880	Benz	German	Pen, fountain	1884	Waterman	U. S.
Engine, gasoline	1886	Daimler	German	Pen, steel	1885	Wirt	U. S.
Engine, gas vacuum	1823	Brown	English	Pen, steel	1780	Harrison	English
Engine, steam, piston	1765	Newcomen	English	Pendulum	1581	Galle	Italian
Engine, steam, piston	1769	Watt	Scottish	Photograph	1877	Edison	U. S.
Engine, steam, comp d	1781	Hornblower	English	Photo, color	1892	Ives	U. S.
Engine, high pressure	1799	Evans	U. S.	Photo, color, con-		Mannes-	U. S.
Engraving, half-tone	1893	Ives	U. S.	trolled penetration	1928	Godowsky	U. S.
Filament, tungsten	1915	Langmuir	U. S.	Photo, 3-color screen	1904	Lumiere, L.	French
Furnace, for steel	1861	Siemens	German	Photo film, celluloid	1887	Goodwin	U. S.
Galvanometer	1820	Schwelger	German	Photo film, trans-		Eastman-	U. S.
Gas discharge tube	1922	Hull	U. S.	parent	1888	Goodwin	U. S.
Gas lighting	1792	Murdoch	Scottish	Photographie paper	1898	Baekeland	U. S.
Gas mantle	1885	Welsbach	Austrian	Photography	1826	Niepece, Jr.	French
Gasoline, (leaf ethyl)	1922	Midgely	U. S.	Photography	1835	Nicephor	English
Gasoline cracked	1913	Burton, W. M.	U. S.	Photography	1837	Daguerre	French
Gasoline, high octane	1930	Ipatieff	Russian	Photography	1839	Niepece, Jr.	French
Gelger counter	1913	Gelger	German	Photophone	1880	Bell	U. S.
Glass, laminated	1909	Benedictus	French	Phototelegraphy	1925	Bell lab.	U. S.
Gun, breechloader	1811	Thornton	U. S.	Piano	1709	Cristofori	Italian
Gun, Browning	1916	Browning	U. S.	Piano player	1863	Fourneaux	French
Gun, magazine	1875	Hottelkiss	U. S.	Pin, safety	1849	Hunt	U. S.
Gun sight, telescopic	1891	Fiske	U. S.	Pistol (revolver)	1835	Colt	U. S.
Gun, slencer	1909	McAuliffe	U. S.	Plow, cast iron	1797	Newbold	U. S.
Guncotton	1846	Schoenbein	German	Plow, disc	1896	Hardy	U. S.
Gyrocompass	1852	Foucault	French	Plow, standard	1819	Wood	U. S.
Harvester	1911	Sperry	U. S.	Pneumatic hammer	1890	King	U. S.
Harvester-Thresher	1888	Matteson	U. S.	Powder, smokeless	1863	Schultze	German
Helicopter	1916	Brennan	English	Powder, smokeless	1894	Vielle	French
Helicopter	1939	Sikorsky	U. S.	Printing, color	1457	J. Fust, P.	German
Ice-making machine	1851	Gorrie	U. S.	Printing press, rotary	1846	Hoe	U. S.
				Printing press, web	1865	Bullock	U. S.

Invention	Date	Inventor	Nation	Invention	Date	Inventor	Nation
Propeller, screw.....	1804	Stevens.....	U. S.	Steel, manganese.....	1884	Hadfield.....	English
Propeller, screw.....	1837	Erlisson.....	Swedish	Steel, stainless.....	1916	Beauregard.....	English
Punch card accounting.....	1884	Hollerith.....	U. S.	Stereoscope.....	1838	Wheatstone.....	English
Radar.....	1922	Taylor and Young.....	U. S.	Stethoscope.....	1819	Laennec.....	French
Radio amplifier.....	1907	De Forest.....	U. S.	Stethoscope, binaural.....	1840	Cammann.....	U. S.
Radio beacon.....	1928	Donovan.....	U. S.	Submarine, even keel.....	1891	Holland.....	U. S.
Radio broadcaster.....	1902	Stubblefield.....	U. S.	Submarine, torpedo.....	1894	Lake.....	U. S.
Radio crystal oscillator.....	1918	Nicolson.....	U. S.	Tank, military.....	1776	Bushnell.....	U. S.
Radiometer.....	.....	Crookes.....	English	Telegraph, duplex.....	1853	Galt.....	Austrian
Radio receiver cascade tuning.....	1913	Alexander.....	U. S.	Telegraph, electromag.....	1836	Wheatstone.....	English
Radio receiver, heterodyne.....	1913	Fessenden.....	U. S.	Telegraph, magnetic.....	1837	Morse.....	U. S.
Radio transmitter triode modulation.....	1914	Alexander.....	U. S.	Telegraph, quadruplex.....	1874	Edison.....	U. S.
Radio tube-diode.....	1905	Fleming.....	English	Telegraph, wireless, high frequency.....	1896	Marconi.....	Italian
Radio tube oscillator.....	1915	De Forest.....	U. S.	Telegraph, wireless, low frequency.....	1895	Preece.....	English
Radio tube triode.....	1907	De Forest.....	U. S.	Telephone.....	1876	Bell.....	U. S.
Radio, signals.....	1895	Marconi.....	Italian	Telephone amplifier.....	1912	De Forest.....	U. S.
Radio, magnetoelectric.....	1902	Marconi.....	Italian	Telephone, automatic.....	1891	Strowger.....	U. S.
Radio, horizontal direction aerial.....	1905	Marconi.....	Italian	Telephone, filter.....	1911	Campbell.....	U. S.
Radio FM 2-path.....	1929	Armstrong.....	U. S.	Telephone, radio.....	1902	Poulsen.....	U. S.
Radio FM phase shift.....	1930	Armstrong.....	U. S.	Telephone, radio, l. d.....	1906	De Forest.....	U. S.
Radio FM wide band.....	1932	Armstrong.....	U. S.	Telephone, recording.....	1915	Am. T. & T. U. S.	
Radio FM multiplex.....	1934	Armstrong.....	U. S.	Telephone, wireless.....	1898	Poulsen.....	Danish
Radio HF transmitter.....	1903	Poulsen.....	Danish	Telescope.....	1899	Collins.....	U. S.
Rayon.....	1883	Swan.....	English	Telescope, Astron.....	1608	Lippershey.....	Neth.
Rayon acetate.....	1895	Cross-Beyan.....	English	Telescope.....	1609	Gallileo.....	Italian
Rayon cuprammonia.....	1890	Duplessis.....	French	Teletype.....	1611	Kepler.....	German
Rayon (interoculose).....	1884	Chardonnet.....	French	Television.....	1926	Baird.....	U. S.
Rayon (viscosol).....	1892	Cross-Beyan.....	English	Television.....	1924	V. Zworykin.....	U. S.
Razor, electric.....	1931	Chick.....	U. S.	Television, iconoscope.....	1934	P. Farnsworth.....	U. S.
Razor, safety.....	1895	Gillette.....	U. S.	Television.....	1944	Baird.....	Scottish
Reaper.....	1834	McCormick.....	U. S.	Thermometer.....	1593	Gallileo.....	Italian
Record, cylinder.....	1887	Bell-Tainter.....	U. S.	Thermometer, mercur.....	1710	Reaumur.....	French
Record, disc.....	1887	Berliner.....	U. S.	Thermometer, mero.....	1714	Fahrenheit.....	German
Record, long playing.....	1948	Goddard.....	U. S.	Time recorder.....	1890	Bundy.....	U. S.
Record, wax cylinder.....	1888	Edison.....	U. S.	Time, self-regulator.....	1918	Bryce.....	U. S.
Refrigerants, low-boiling fluorine comp.....	1930	co-workers.....	U. S.	Tire, bicycle.....	1889	Dunlop.....	Irish
Refrigerator car.....	1868	Davis.....	U. S.	Tire, double-tube.....	1845	Thompson.....	English
Resin, synthetic.....	1931	Hill.....	English	Tire, pneumatic.....	1888	Dunlop.....	Irish
Rocket engine.....	1929	R. H. Goddard.....	U. S.	Tool, pneumatic.....	1865	Lay.....	English
Rubber, vulcanized.....	1839	Goodyear.....	U. S.	Torpedo.....	1866	Whitehead.....	English
Saw, band.....	1808	Newberry.....	English	Torpedo, dirigible.....	1876	Brennan.....	English
Saw, circular.....	1777	Miller.....	English	Torpedo, marine.....	1804	Fulton.....	U. S.
Searchlight, arc.....	1915	Sperry.....	U. S.	Torpedo, radio.....	1897	Fiske.....	U. S.
Sewing machine.....	1846	Howe.....	U. S.	Torpedo, remote cont.....	.....	Hammond.....	U. S.
Shoe-sewing machine.....	1860	McKay.....	U. S.	Torpedo, self-propell.....	1868	Whitehead.....	English
Shuttle, flying.....	1733	Kay.....	English	Tractor, caterpillar.....	1900	Holt.....	U. S.
Sleeping-car.....	1858	Pullman.....	U. S.	Transformer, A.C.....	1885	Stanley.....	U. S.
Folding upper berth.....	1875	vestibule, 1887.....	.....	Transistor.....	1947	Shockley.....	U. S.
Soap, hardwater.....	1875	vestibule, 1887.....	.....	Trolley car, electric.....	1884	Van Depol.....	U. S.
Spectroscope.....	1859	Kirchoff.....	German	.....	-87	& Sprague.....	U. S.
Spectroscope (mass).....	1918	Dempster.....	U. S.	Tungsten (drawn) filament lamp.....	1913	Coolidge.....	U. S.
Spinning jenny.....	1767	Hargreaves.....	English	Tungsten, ductile.....	1912	Coolidge.....	U. S.
Steamboat, exp. mtl.....	1783	Jouffroy.....	French	Turbine, gas.....	1899	C. G. Curtis.....	U. S.
Steamboat, exp. mtl.....	1785	Fitch.....	U. S.	Turbine, hydraulic.....	1849	Francis.....	U. S.
Steamboat, exp. mtl.....	1787	Rumsey.....	U. S.	Turbine, steam.....	1896	C. G. Curtis.....	U. S.
Steamboat, exp. mtl.....	1788	Miller.....	Scott	Type, movable.....	1450	Gutenberg.....	German
Steamboat, exp. mtl.....	1803	Fulton.....	U. S.	Typewriter.....	1868	Sholes.....	U. S.
Steamboat, exp. mtl.....	1804	Stevens.....	U. S.	.....	.....	Gidden.....	U. S.
Steamboat, practical.....	1802	Symington.....	Scott	Welding, atomic hydrogen.....	1924	Palmer.....	U. S.
Steamboat, practical.....	1807	Fulton.....	U. S.	Welding, electric.....	1877	Thomson.....	U. S.
Steam car.....	1770	Cugnot.....	French	Wind tunnel.....	1923	Munk.....	U. S.
Steam turbine.....	1884	Parsons.....	English	Wire, barbed.....	1874	Gidden.....	U. S.
Steel.....	1856	Bessemer.....	English	Wire, barbed.....	1875	Hais.....	U. S.
Steel alloy.....	1891	Harvey.....	U. S.	X-ray.....	1895	Röntgen.....	German
Steel alloy, high-speed.....	1901	Taylor-White.....	U. S.	X-ray tube.....	1916	Coolidge.....	U. S.
Steel, electric.....	1900	Heroult.....	French	Zipper.....	1891	Judson.....	U. S.

Details of Famous Inventions

Automobile. Charles E. Duryea declared he operated the first successful American automobile in Springfield, Mass., Apr. 19, 1892. His brother, J. Frank Duryea, said he made essential contributions to the car and that it did not run until Sept., 1893. Practical patent was granted to C. E. Duryea June 11, 1895. Supplementary patents were granted to Charles and also to J. Frank Duryea.

Broadcasting. A plaque at the Univ. of Wisconsin, Madison, Wis., says the oldest broadcasting station is WHA, which as 5XM began scheduled broadcasts in 1919. Originator was Earle M. Terry (1879-1929).

Radar. Principle recognized in 1922 by Dr. A. Hoyt Taylor and Leo C. Young, U. S. Naval Research Aircraft Laboratory, Washington, D. C. The Navy ordered radar for ships, 1936. First vessel to use it was U. S. S. New York, 1938. Radar recorded coming of Japanese planes at Pearl Harbor, but no hostile mission was suspected. During the 1930s the British, alerted by the Taylor-Young experiments, independently developed radar, which they called radio-location.

Rockets. Dr. Robert H. Goddard (1882-1945) proved practicality of rockets Mar. 16, 1926, at Auburn, Mass. He obtained 20 patents on rockets and missiles and the U. S. Government Aug. 5, 1950 paid his heirs, Mrs. Goddard, and the D. & F. Guggenheim Foundation, \$1,000,000 for patent infringements. He was first to launch a liquid-fuel rocket. Two of his engine inventions are in use. Rocket invention also is credited to Hermann Oberth, German, and Konstantin Tsiolkovski, Russian.

Television. Developed in the 1930s in laboratories, principal patents going to Vladimir Zworykin and Philo Farnsworth, who developed it independently. Authorized by Federal Communications Commission, July 1, 1941. There were five months of telecasting to about 10,000 sets before Pearl Harbor. First commercial TV from Empire State Bldg., New York, 1941. First stations were WNBT (NBC, New York), WCEB (CBS, New York) and Dumont. The image orthicon pick-up tube was developed by RCA in 1946.

J. L. Baird, British inventor, completed his telechrome for color television in 1944. In the United States Peter C. Goldmark made contributions to color TV. CBS demonstrated a color system in 1945. RCA in 1947. The first color broadcast of any duration was a one-hour program by CBS June 25, 1951, over a network. Alfred C. Schroeder, of RCA laboratory at Penns Neck, N. J., received a patent for a tri-color tube in March, 1952, and assigned it to RCA.

MANUFACTURES AND MINERALS

General Statistics for Major Industry Groups

Source: Bureau of the Census

The estimates for 1966 in the following table are based upon reports from a representative sample of about 60,000 manufacturing establishments.

Industry	All employees		Production workers			Value added by mfr adjusted \$1,000
	Num-ber	Payroll \$1,000	Num-ber	Man-hours 1,000	Wages \$1,000	
Food and kindred products.....	1,642,145	9,542,146	1,097,657	2,239,475	5,675,932	24,895,940
Tobacco manufactures.....	72,363	356,171	64,092	122,284	289,448	1,871,980
Textile mill products.....	927,339	4,243,454	827,992	1,728,234	3,445,904	8,028,374
Apparel and related products.....	1,359,833	5,177,084	1,202,187	2,213,143	4,037,772	9,220,536
Lumber and wood products.....	569,837	2,688,677	504,183	1,012,959	2,210,641	4,788,595
Furniture and fixtures.....	428,125	2,185,959	360,298	734,026	1,619,659	3,978,170
Paper and allied products.....	633,939	4,235,900	503,173	1,075,645	3,070,801	9,417,167
Printing and publishing.....	1,017,581	6,751,066	619,129	1,208,749	3,831,543	13,264,493
Chemicals and allied products.....	822,491	6,130,407	528,551	1,077,548	3,400,854	22,812,263
Petroleum and coal products.....	140,765	1,128,036	99,900	198,001	741,676	4,736,880
Rubber and plastics products. ³	491,823	3,072,031	390,587	802,939	2,174,282	6,277,082
Leather and leather products.....	341,078	1,426,049	303,116	574,402	1,125,309	2,480,757
Stone, clay and glass products.....	618,550	3,837,514	491,924	998,856	2,811,708	8,494,586
Primary metal industries.....	1,296,541	9,913,533	1,065,737	2,191,793	7,650,316	20,907,888
Fabricated metal products.....	1,252,294	8,244,878	984,127	2,077,026	5,762,428	15,791,932
Machinery, except electrical.....	1,504,255	13,473,873	1,310,228	2,796,547	8,846,358	27,040,990
Electrical machinery.....	1,814,302	11,988,113	1,298,291	2,648,286	7,249,270	23,543,922
Transportation equipment.....	1,890,397	15,454,072	1,406,012	3,032,838	10,314,801	29,250,179
Instruments and related products.....	362,504	2,521,401	249,278	491,863	1,437,594	5,844,992
Miscellaneous manufacturing.....	418,563	2,152,714	342,769	665,693	1,463,329	4,394,390
Ordinance and accessories ¹	300,528	2,395,173	161,162	329,979	1,123,761	3,972,787
Administrative and auxiliary ²	860,744	8,540,533	—	—	—	—
All industries total.....	19,065,997	125,458,784	13,810,393	28,220,286	78,283,386	251,013,903

¹Includes data for privately owned or operated establishments. Government-owned and operated establishments are excluded.

²In addition to the employment and payroll for operating manufacturing establishments, manufacturing concerns reported separately for central administrative offices or auxiliary units (e.g., research laboratories, storage warehouses, power plants, garages, repair shops, etc.) which serve the manufacturing establishments of a company rather than the general public.

³Not elsewhere classified.

Manufacturing Production Worker Statistics

Source: Bureau of Labor Statistics, U. S. Dept. of Labor

Year and month	All Employees number	Production and related workers			
		Number	Payroll Index 1957-59=100	Average weekly earnings	Average hourly earnings
1950.....	15,241,000	12,523,000	69.9	\$58.32	45.5
1955.....	16,882,000	13,288,000	94.8	75.70	40.7
1960.....	16,796,000	12,586,000	106.7	89.72	39.7
1961.....	16,326,000	12,083,000	105.4	92.34	39.8
1962.....	16,853,000	12,488,000	113.8	96.56	40.4
1963.....	16,995,000	12,555,000	117.9	99.63	40.5
1964.....	17,274,000	12,781,000	124.3	102.97	40.7
1965.....	18,062,000	13,434,000	136.6	107.53	41.2
1966.....	19,214,000	14,297,000	151.7	112.34	41.3
1967.....	19,434,000	14,300,000	155.0	114.90	40.6
1968 ¹ Jan.....	19,398,000	14,213,000	158.1	117.60	40.0
Feb.....	19,425,000	14,231,000	160.5	119.36	40.6
Mar.....	19,447,000	14,248,000	161.8	120.18	40.6
Apr.....	19,507,000	14,303,000	159.5	118.21	39.8
May.....	19,569,000	14,352,000	165.9	122.29	40.9
June.....	19,897,000	14,622,000	170.0	123.30	41.1

¹Preliminary.

Hourly Earnings in Manufacturing Industries

Source: Bureau of Labor Statistics, U. S. Dept. of Labor

Year and month (annual average)	Manufacturing		Durable goods		Nondurable goods	
	Gross	Excluding overtime	Gross	Excluding overtime	Gross	Excluding overtime
1950.....	\$1.440	\$1.39	\$1.519	\$1.46	\$1.347	\$1.31
1955.....	1.86	1.79	1.99	1.91	1.67	1.62
1959.....	2.19	2.12	2.36	2.28	1.98	1.92
1960.....	2.26	2.20	2.43	2.36	2.05	1.99
1961.....	2.32	2.25	2.49	2.42	2.11	2.05
1962.....	2.39	2.31	2.56	2.48	2.17	2.09
1963.....	2.46	2.37	2.63	2.54	2.22	2.15
1964.....	2.53	2.44	2.71	2.60	2.29	2.21
1965.....	2.61	2.51	2.87	2.67	2.36	2.27
1966.....	2.72	2.59	2.90	2.76	2.45	2.35
1967.....	2.83	2.72	3.00	2.88	2.57	2.47
1968 Jan.....	2.94	2.83	3.13	3.00	2.67	2.57
Feb.....	2.94	2.83	3.12	3.00	2.68	2.58
Mar.....	2.96	2.85	3.14	3.02	2.69	2.59
Apr.....	2.97	2.86	3.15	3.03	2.70	2.61
May.....	2.99	2.87	3.18	3.04	2.72	2.62
June.....	3.00	2.87	3.18	3.04	2.73	2.62

Employees on Non-farm Payrolls Continue Upward

The Bureau of Labor Statistics reported Sept. 11, 1968, that non-farm payroll employment reached a record high of 68,724,000 in June, 1968. The figure dipped to 68,358,000 in July but edged up to 68,596,000 in August.

General Manufacturing Statistics for States

Source: Bureau of the Census, 1966. Census of Manufactures.

Divisions, Regions and States	All employees		Production workers			Value by manu- facture	Capital ex- pend- itures
	Number	Payroll	Number	Man-hrs.	Wages		
	(1,000)	(millions)	(1,000)	(millions)	(millions)	(millions)	(millions)
New England	1,550	\$ 9,707	1,134	2,306	\$ 6,008	\$ 18,397	\$ 1,197
Maine	107	533	90	184	406	980	131
New Hampshire	96	483	78	156	345	889	72
Vermont	42	247	32	67	160	576	34
Massachusetts	707	4,417	505	1,005	2,619	8,367	483
Rhode Island	128	686	101	200	467	1,341	75
Connecticut	470	3,340	328	694	2,011	6,173	401
Middle Atlantic	4,387	29,394	3,069	6,072	16,972	55,741	3,432
New York	1,956	13,303	1,310	2,555	7,025	24,714	1,178
New Jersey	878	6,027	606	1,233	3,497	12,287	845
Pennsylvania	1,555	10,064	1,153	2,294	6,448	18,741	1,410
East North Central	5,181	37,794	3,783	7,952	24,824	74,677	6,050
Ohio	1,410	10,455	1,016	2,221	6,888	20,307	1,585
Indiana	708	4,922	543	1,115	3,422	10,102	1,075
Illinois	1,401	9,704	1,009	2,048	6,138	19,819	1,429
Michigan	1,146	9,221	835	1,779	6,066	17,609	1,489
Wisconsin	516	3,492	381	790	2,310	6,839	471
West North Central	1,172	7,626	834	1,698	4,770	15,862	954
Minnesota	286	1,908	196	394	1,112	3,799	212
Iowa	206	1,377	150	309	912	3,014	221
Missouri	451	2,923	317	640	1,774	5,821	317
North Dakota	7	37	4	9	23	101	7
South Dakota	14	81	10	21	55	166	8
Nebraska	71	419	53	110	284	993	76
Kansas	136	881	103	214	610	1,968	113
South Atlantic	2,421	12,995	1,887	3,872	8,561	27,556	2,781
Delaware	69	577	36	72	212	966	91
Maryland	288	1,876	207	417	1,157	3,588	271
District of Columbia	26	196	12	23	79	303	11
Virginia	336	1,807	264	540	1,224	3,945	374
West Virginia	126	825	99	196	574	2,134	249
North Carolina	612	2,813	511	1,048	2,025	6,135	714
South Carolina	298	1,410	249	530	1,054	2,987	400
Georgia	414	2,040	336	693	1,422	4,572	367
Florida	252	1,451	172	353	813	2,934	304
East South Central	1,212	5,612	872	1,756	3,935	12,273	1,454
Kentucky	218	1,266	172	353	813	2,934	304
Tennessee	411	2,100	326	653	1,421	4,654	511
Alabama	295	1,580	241	477	1,122	3,688	424
Mississippi	158	685	134	271	513	1,488	180
West South Central	1,009	5,983	733	1,526	3,766	14,892	1,856
Arkansas	136	591	115	238	451	1,410	122
Louisiana	152	934	113	232	617	2,533	476
Oklahoma	110	678	74	152	381	1,248	71
Texas	610	3,781	431	905	2,317	9,702	1,188
Mountain	314	2,045	221	444	1,275	4,291	382
Montana	22	133	17	33	99	315	28
Idaho	36	205	28	55	144	496	58
Wyoming	22	133	17	33	99	315	28
Colorado	105	710	74	148	444	1,453	130
New Mexico	17	94	12	23	54	169	14
Arizona	73	504	48	100	292	939	75
Utah	47	311	32	65	185	705	53
Nevada	7	50	5	10	32	121	6
Pacific	1,958	14,477	1,313	2,616	8,273	27,039	2,201
Washington	253	1,936	172	333	1,113	3,311	418
Oregon	162	1,033	119	253	770	1,999	277
California	1,509	11,313	987	1,984	6,269	21,288	1,469
Alaska	7	51	6	12	41	129	12
Hawaii	28	143	19	35	79	312	24
Total	19,066	\$125,459	13,808	28,224	\$78,253	\$251,014	\$20,239

Profits of Manufacturing Corporations by Industry Groups

Source: Federal Trade Commission and the Securities and Exchange Commission

Industry Group (Amounts estimated in millions of dollars)	Before Income Taxes		Profits after taxes	
	1967	Pct. of sales	1967	Pct. of sales
	1966	1967	1966	1967
Durable goods	23,724	10.0	14,579	5.6
Transportation equipment	5,641	9.4	3,165	5.2
Motor vehicles and equipment	4,180	11.2	2,356	6.2
Electrical machinery, equipment and supplies	4,216	9.0	2,297	4.6
Other machinery	5,339	11.7	2,893	6.4
Other fabricated metal products	2,332	8.5	1,316	4.9
Primary iron and steel	1,816	9.8	1,185	5.8
Primary nonferrous metals	1,714	13.7	1,061	8.2
Stone, clay and glass products	1,129	9.6	672	5.6
Furniture and fixtures	443	6.8	245	3.9
Other lumber and wood products	60	6.0	333	3.8
Instruments and related products	1,944	17.4	1,064	9.5
Miscellaneous manufacturing and ordnance	642	8.0	370	4.5
Nondurable goods	22,050	8.6	14,429	5.5
Food and kindred products	3,853	4.8	2,130	2.7
Tobacco manufacturers	794	11.1	420	5.9
Textile mill products	982	6.5	540	3.6
Apparel and other finished products	728	4.1	420	2.4
Paper and allied products	1,316	9.1	796	5.4
Printing and publishing, except newspapers	1,098	9.1	613	5.1
Chemicals and allied products	5,657	13.6	3,261	7.8
Petroleum refining and related products	6,363	12.9	5,528	11.0
Petroleum refining	6,311	13.0	5,497	11.2
Rubber products	926	7.7	583	4.4
Leather and leather products	331	5.4	183	3.0
All Manufacturing Corps., except newspapers	47,772	9.3	29,008	5.6

*Included in major industry above.

Annual Rates of Profit on Stockholders' Equity

Source: Federal Trade Commission
(Each rate is the arithmetic mean of four quarterly rates, each on an annual basis.)

By industry after taxes: by percent	1950	1955	1960	1963	1964	1965	1966	1967
All manufacturing corporations, except newspapers.	15.4	12.6	9.2	10.2	11.6	13.0	13.4	11.7
Durable goods industries.	16.8	13.8	8.6	10.1	11.8	13.8	14.2	11.7
Metals and metal fabricating industries.	16.9	14.1	8.6	10.4	12.0	14.2	14.3	11.7
Transportation equipment.	21.5	20.2	11.7	15.2	15.8	18.5	15.6	11.9
Motor vehicles and equipment.	25.2	21.7	13.5	16.7	16.9	19.5	15.9	11.7
Aircraft and parts.	N. A.	N. A.	7.4	11.3	12.2	15.1	14.4	12.8
Electrical machinery, equipment and supplies.	20.8	12.3	9.5	10.0	11.2	13.5	14.8	12.8
Machinery, except electrical.	14.0	10.3	7.6	9.6	12.4	14.1	15.0	12.9
Metalworking machinery and equipment.	N. A.	N. A.	5.3	8.6	12.4	14.4	17.1	14.0
Other fabricated metal products.	15.9	10.0	5.6	8.3	10.1	13.2	14.7	12.7
Primary metal industries.	14.5	14.1	7.2	7.2	9.2	10.6	12.0	9.0
Blast furnaces, steel works and foundries.	14.3	13.5	7.2	7.0	8.8	9.8	10.2	7.7
Nonferrous metals.	15.0	15.4	7.1	7.6	9.8	11.9	14.8	11.0
Other durable goods industries.	16.3	12.3	8.6	9.2	10.6	12.2	13.6	11.7
Lumber and wood products, except furniture.	17.4	11.1	3.6	8.2	10.0	10.0	10.0	8.6
Furniture and fixtures.	15.1	9.2	6.5	8.2	10.1	13.3	14.2	12.1
Stone, clay and glass products.	17.6	15.6	9.9	8.6	9.6	10.2	9.9	8.2
Instruments and related products.	16.7	12.5	11.6	12.0	14.4	17.5	20.8	17.9
Miscellaneous manufacturing and ordinance.	12.2	8.6	9.2	8.8	9.5	10.7	15.2	13.1
Non-durable goods industries.	14.0	11.4	9.8	10.4	11.5	12.2	12.7	11.8
Chemicals, petroleum, rubber and plastics.	15.4	13.3	10.8	11.6	12.4	13.0	13.3	12.0
Chemicals and allied products.	17.8	14.7	12.2	12.9	14.4	15.2	15.1	13.0
Basic chemicals and related products.	N. A.	N. A.	11.1	12.3	14.0	14.3	14.0	10.9
Drugs.	N. A.	N. A.	16.8	16.8	18.2	20.3	20.3	18.7
Petroleum refining and related industries.	13.8	13.2	10.1	11.2	11.4	11.8	12.4	12.5
Petroleum refining.	N. A.	13.3	10.1	11.3	11.4	11.8	12.4	12.5
Rubber and miscellaneous plastics products.	16.7	13.2	9.1	9.2	10.6	11.7	12.2	10.3
Other non-durable goods industries.	12.8	8.8	8.5	8.5	10.2	11.1	11.7	10.6
Food and kindred products.	12.3	8.9	8.7	9.0	10.0	10.7	11.2	10.8
Bakery products.	N. A.	N. A.	N. A.	8.5	9.6	11.0	11.0	10.2
Dairy products.	N. A.	N. A.	N. A.	9.2	9.0	9.3	11.1	12.0
Alcoholic beverages.	N. A.	N. A.	7.1	7.9	8.8	9.3	10.4	10.2
Tobacco manufactures.	11.5	11.4	13.4	13.4	13.4	13.5	14.0	14.4
Textile mill products.	12.6	5.7	5.8	6.0	8.4	10.8	10.0	7.6
Apparel and other fabricated textile products.	10.1	6.2	7.7	7.7	11.7	12.6	13.2	11.9
Paper and allied products.	16.1	11.5	8.5	8.1	9.1	9.4	10.6	9.1
Printing and publishing, except newspapers.	11.5	10.2	10.6	9.1	12.6	14.1	15.6	13.0
Leather and leather products.	10.9	8.5	6.3	6.9	10.5	11.6	12.9	11.8

N.A.—Not available.

Occupational Earnings in Selected Cities

Source: Bureau of Labor Statistics, Dept. of Labor

(Average earnings¹ for selected occupations studied in 6 broad industry divisions, manufacturing, transportation, communication and other public utilities; wholesale trade; retail trade; finance, insurance and real estate; and services. March—June 1968)

Occupation	N. Y.	Wor- ces- ter, Mass.	Atlanta, Ga.	Hous- ton, Texas	Chicago	Phoe- nix, Ariz.	Spo- kane, Wash.
(Per week ¹)							
Office Workers—Men							
Accounting clerks ²	\$129.50	\$135.50	\$125.50	\$134.50	\$132.50	\$110.50	\$144.00
Draftsmen ²	181.50	159.50	175.00	182.00	166.00	163.50	.....
Office boys.....	77.00	69.00	76.50	75.00	82.00	70.50	.....
Tabulating operators ²	133.50	.....	136.00	136.50	135.50	.....	.....
Office Workers—Women							
Accounting clerks ²	112.50	111.00	112.00	109.00	112.50	108.50	106.50
Billers (machine).....	98.50	82.50	88.00	82.50	97.50	70.50	82.00
Bookkeeping (machine) ²	109.00	102.50	93.00	105.00	108.00	110.50	.....
Key punch operators ²	101.00	94.50	105.00	97.50	102.00	94.50	111.00
Nurses.....	134.00	119.50	128.00	132.00	130.50	128.00	.....
office girls.....	74.00	70.00	75.00	72.50	78.00	.....	77.50
Payroll clerks.....	107.50	92.00	97.00	101.50	106.00	96.50	111.50
Secretaries.....	123.00	110.00	113.00	117.00	118.00	107.00	105.50
Stenographers (general).....	96.00	88.00	95.50	94.00	101.00	88.50	91.00
Switchboard operators ²	105.00	91.00	102.00	98.50	103.00	96.00	.....
Typists ²	94.50	82.00	88.50	90.00	96.00	98.50	87.50
Maintenance, Custodial, and Material Handling Workers—Men							
(Per hour ¹)							
Carpenters.....	3.71	3.34	3.72	3.75	4.10	3.63	3.72
Electricians.....	3.75	3.62	3.98	3.89	4.03	3.87	4.23
Engineers (stationary).....	4.01	3.40	3.60	3.23	4.16	3.29	3.62
Helpers, trades.....	3.11	2.69	2.53	2.78	2.90	2.64	3.07
Mechanists.....	4.04	3.36	3.60	3.90	3.97	3.89	4.21
Mechanics, automotive.....	3.76	3.38	3.46	3.27	3.97	3.47	3.93
Painters.....	3.43	.....	3.38	3.66	4.29	.....	3.88
Plumbers.....	3.59	.....	.....	.....	4.42	.....	.....
Guards and watchmen.....	2.32	2.30	1.97	2.01	2.31	2.22	2.90
Janitors, porters, cleaners.....	2.38	2.19	1.85	1.82	2.38	1.85	2.37
Laborers, material handling.....	2.90	2.62	2.20	2.19	2.90	2.49	2.96
Shipping packers.....	2.45	2.90	2.18	2.16	2.68	2.51	3.09
Shipping clerks.....	3.04	2.68	2.65	2.75	3.10	2.46	3.24
Truckdrivers (local).....	3.56	3.11	2.94	2.71	3.71	3.07	3.61

¹Weekly earnings relate to regular straight-time salaries that are paid for standard workweeks. Hourly earnings exclude premium pay for overtime, weekends, holidays, or late shifts. ²More than one skill level surveyed. Earnings are for highest level surveyed.

Distilled Spirits and Beer Production

Source: Internal Revenue Service. (Figures show thousands of tax gallons or barrels)

Year fiscal	Distilled Spirits					Beer	Year fiscal	Distilled Spirits					Beer
	Whky.	Rm.	Bdy.	Alcoh.	Total*			Whky.	Rm.	Bdy.	Alcoh.	Total*	
	Gals.	Gals.	Gals.	Gals.	Gals.	Bbbs.		Gals.	Gals.	Gals.	Gals.	Gals.	Bbbs.
1940.	98,993	2,478	8,422	261,022	387,183	54,892	1960.	149,545	1,866	10,114	613,924	803,751	94,541
1945.	41,582	1,888	26,936	1,101,286	1,174,391	86,908	1965.	117,930	2,274	11,522	695,332	865,240	108,015
1950.	118,760	1,711	5,364	391,129	521,770	88,807	1966.	140,186	637	17,858	687,287	889,352	109,736
1955.	103,927	2,005	4,008	465,069	593,982	89,791	1967.	132,192	1,710	18,024	679,258	873,010	116,564

*Includes gin, vodka and Okelehaio.

Centrifugal Raw Sugar Production

Source: Office of Foreign Agricultural Service, Dept. of Agriculture

Centrifugal sugar, as distinguished from non-centrifugal, includes cane and beet sugar produced by the centrifugal process, which is the principal kind moving in international trade. (In short tons)

Continent and country	Ave. 1960-61 Thru 1964-65	1965-66	1966-67 (revised)	1967-68 (prelim.)
North America (cane and beet)	16,223,000	16,194,000	18,102,000	17,221,000
South America (cane and beet)	7,169,000	9,431,000	8,736,000	8,877,000
Europe, West (cane and beet)	9,308,000	9,552,000	9,784,000	10,631,000
Europe, East (beet)	5,166,000	5,072,000	5,713,000	5,949,000
U.S.S.R. (Europe and Asia)	7,623,000	10,700,000	10,100,000	11,500,000
Africa (cane)	3,411,000	3,754,000	4,875,000	5,163,000
Asia (cane and beet)	9,941,000	12,054,000	10,811,000	11,661,000
Oceania (cane)	2,072,000	2,526,000	2,877,000	3,108,000
World total (cane)	34,354,000	39,130,000	40,157,000	40,663,000
World total (beet)	26,559,000	30,153,000	30,841,000	33,447,000

NON-CENTRIFUGAL SUGAR PRODUCTION

North America	300,000	255,000	259,000	251,000
South America	800,000	768,000	768,000	770,000
Asia	6,975,000	7,634,000	7,661,000	7,315,000

CENTRIFUGAL RAW SUGAR PRODUCTION (OVER 100,000 SHORT TONS)

Argentina	950,000	1,422,000	1,125,000	855,000
Australia	1,806,000	2,187,000	2,527,000	2,708,000
Austria	312,000	260,000	393,000	331,000
Barbados	194,000	193,000	225,000	190,000
Belgium-Luxembourg	497,000	464,000	459,000	634,000
Bolivia	66,000	10,000	100,000	120,000
Brazil	3,815,000	5,324,000	4,807,000	5,075,000
Bulgaria	207,000	235,000	375,000	338,000
Canada	155,000	145,000	183,000	149,000
Chile	88,000	114,000	131,000	178,000
China, mainland	1,026,000	1,750,000	1,800,000	2,000,000
China, Taiwan	991,000	1,081,000	850,000	950,000
Colombia	421,000	482,000	635,000	724,000
Costa Rica	91,000	139,000	135,000	150,000
Cuba	5,596,000	4,950,000	6,200,000	5,700,000
Czechoslovakia	1,160,000	963,000	1,021,000	1,136,000
Denmark	341,000	265,000	352,000	365,000
Dominican Republic	852,000	739,000	893,000	805,000
Ecuador	162,000	217,000	186,000	205,000
El Salvador	79,000	122,000	138,000	142,000
Fiji	266,000	339,000	350,000	400,000
France	2,309,000	2,555,000	1,967,000	1,904,000
Germany, East	889,000	864,000	748,000	900,000
Germany, West	1,980,000	1,722,000	2,108,000	2,270,000
Greece	30,000	126,000	133,000	140,000
Guadeloupe	165,000	184,000	151,000	171,000
Guatemala	137,000	174,000	200,000	160,000
Guyana	344,000	324,000	386,000	400,000
Hawaii	1,122,000	1,234,000	1,235,000	1,191,000
Hungary	492,000	495,000	528,000	419,000
India	3,694,000	4,514,000	3,029,000	3,095,000
Indonesia	708,000	671,000	861,000	716,000
Iran	185,000	239,000	389,000	550,000
Ireland	156,000	130,000	123,000	161,000
Italy	1,082,000	1,356,000	1,507,000	1,805,000
Jamaica	524,000	560,000	502,000	530,000
Japan	229,000	418,000	380,000	428,000
Malagasy Republic	110,000	126,000	117,000	120,000
Mauritius	559,000	619,000	704,000	784,000
Mexico	1,899,000	2,320,000	2,679,000	2,530,000
Mozambique	183,000	197,000	231,000	276,000
Netherlands	620,000	657,000	631,000	815,000
Nicaragua	97,000	74,000	113,000	118,000
Pakistan	225,000	490,000	511,000	579,000
Peru	878,000	928,000	823,000	805,000
Philippines	1,704,000	1,590,000	1,718,000	1,783,000
Poland	1,693,000	1,620,000	1,853,000	2,109,000
Puerto Rico	999,000	883,000	818,000	650,000
Reunion	246,000	255,000	212,000	230,000
Rhodesia	95,000	292,000	290,000	150,000
Rumania	408,000	481,000	536,000	500,000
Ryukyu Islands	161,000	161,000	215,000	243,000
Spain	560,000	620,000	679,000	694,000
South Africa, Rep. of	1,233,000	1,002,000	1,794,000	2,009,000
Swaziland	105,000	131,000	165,000	175,000
Sweden	312,000	222,000	252,000	285,000
Thailand	212,000	315,000	272,000	242,000
Trinidad and Tobago	258,000	236,000	222,000	269,000
Turkey (Europe and Asia)	639,000	625,000	773,000	872,000
Uganda	128,000	148,000	161,000	178,000
United Arab Republic	401,000	446,000	399,000	400,000
U.S.S.R. (Europe and Asia)	7,623,000	10,700,000	10,100,000	11,500,000
United Kingdom	988,000	1,032,000	1,030,000	1,075,000
United States, Continental (beet)	2,744,000	2,820,000	2,770,000	2,665,000
United States, Continental (cane)	931,000	1,104,000	1,215,000	1,457,000
Venezuela	325,000	397,000	410,000	415,000
Yugoslavia	323,000	400,000	634,000	539,000

Total Exports and Exports Financed by Foreign Aid

Source: Bureau of International Commerce, Dept. of Commerce

(In millions of dollars)	1960	1961	1965	1966	1967
Total exports	20,584	26,508	27,478	30,320	31,534
Exports financed by foreign aid	2,685	3,588	3,406	3,586	3,368
Loans and grants (AID)	432	1,063	1,117	1,129	1,272
Military grant-aid	949	818	779	940	592
Agricultural aid	1,304	1,707	1,510	1,517	1,504
Sales for foreign currencies	1,014	1,239	926	820	716
Donations	173	248	253	211	287
Barter	117	123	188	260	314
Long term dollar credit sales	—	97	143	226	187

World Telephone Statistics

TELEPHONES IN CONTINENTAL AREAS

Source: American Telephone and Telegraph Company

Continent	Total in service			Privately operated ¹		Automatic		Connecting with Bell system	
	Number 1967	Percent of world	Per 100 population	Number 1967	Percent of total	Number 1967	Percent of total	Number 1967	Percent of total
No. Am.	106,329,000	51.0	48.8	104,939,000	98.7	105,837,000	99.5	106,327,000	100.0
M. Am.	1,810,000	0.9	2.2	1,328,000	73.4	1,635,000	90.3	1,805,000	99.7
So. Am.	4,469,000	2.1	2.6	2,237,000	50.1	3,999,000	89.5	4,370,000	97.8
Europe	66,976,000	32.1	10.6	11,825,000	17.7	61,275,000	91.5	64,171,000	95.8
Africa	2,618,000	1.3	0.8	23,000	0.9	2,034,000	77.7	2,448,000	93.5
Asia ²	21,758,000	10.4	1.1	15,229,000	70.0	16,518,000	75.9	17,399,000	80.0
Oceania	4,540,000	2.2	24.4	345,000	7.6	3,878,000	85.4	4,535,000	99.9
World	208,500,000	100.0	6.2	135,926,000	65.2	195,176,000	93.6	201,055,000	96.4

¹This applies to operation rather than ownership. Systems which are government-owned in whole or in part may be privately operated (e.g., Italy and Japan). The word "government" refers to nations, states or municipalities. ²These data include allowances for the Asiatic parts of Turkey and the USSR.

TELEPHONES IN U. S. CITIES WITH OVER 100,000 TELEPHONES (1968)

City	Number	City	Number	City	Number	City	Number
Akron, Ohio	280,382	East Orange	103,628	Madison, Wisc.	132,663	Sacramento	334,071
Albany, N. Y.	141,539	El Paso	159,076	Memphis	338,018	St. Louis, Mo.	547,253
Albuquerque	163,792	Flint, Mich.	162,968	Miami, Fla.	610,652	St. Petersburg	163,629
Alexandria	143,320	Ft. Lauderdale	153,151	Millwaukee	635,330	Salt Lake City	262,871
Allentown, Pa.	102,088	Ft. Wayne	127,509	Minneapolis		San Antonio	303,118
Anaheim, Cal.	140,376	Ft. Worth	245,040	St. Paul	961,226	San Diego	
Atlanta, Ga.	573,409	Fresno, Cal.	161,438	Mobile, Ala.	135,851	(ext. area)	601,259
Austin, Texas	144,398	Grand Rapids	207,126	Nashville	237,720	San Francisco	671,801
Bakersfield	112,255	Greenboro	105,061	New Haven	214,819	San Jose, Cal.	310,748
Baltimore	530,897	Harrisburg	143,919	New Orleans	474,372	Santa Ana	171,522
Baton Rouge	153,087	Hartford	259,982	New York	5,534,008	Seattle, Wash.	499,283
Birmingham	274,514	Haywood, Cal.	100,518	Newark, N. J.	288,391	Shreveport	136,019
Boston Mass.	NA	Honolulu	213,076	Norfolk, Va.	220,254	Skokie, Ill.	121,525
Bridgeport	148,837	Houston	784,134	Oakland, Cal.	471,102	Spokane	140,060
Buffalo, N. Y.	410,981	Huntsville	111,722	Oklahoma City	204,620	Springfield	NA
Canton, Ohio	101,977	Indianapolis	452,888	Omaha, Nebr.	272,035	Syracuse	224,275
Charleston	113,765	Jackson, Miss.	109,774	Orlando, Fla.	132,411	Tacoma, Wash.	163,358
Charlotte	193,843	Jacksonville	244,898	Palo Alto	113,874	Tampa, Fla.	189,758
Chattanooga	147,072	Jersey City	147,745	Passaic, N. J.	111,158	Toledo, Ohio	247,075
Chicago, Ill.	2,260,782	Kansas City		Peoria, Ill.	128,754	Tucson, Ariz.	153,766
Cincinnati	404,054	Kans.	126,422	Philadelphia	1,376,299	Tulsa, Okla.	220,912
Cleveland	872,247	Kansas City		Phoenix, Ariz.	431,190	Warren, Mich.	203,397
Colo. Springs	116,777	Mo.	310,544	Pittsburgh, Pa.	653,610	Wash., D. C.	882,667
Columbia, S. C.	129,381	Knoxville	124,673	Pomona, Cal.	111,400	West Palm Beach	129,827
Columbus, Ga.	105,823	Lansing	148,388	Portland, Ore.	356,286	Wichita	166,023
Columbus, Ohio	381,413	Las Vegas	126,761	Providence	NA	Wilmington, Del.	161,508
Dallas, Texas	535,447	Little Rock	129,720	Reading, Pa.	120,839	Worcester	NA
Dayton, Ohio	313,056	Livonia	112,362	Richmond, Va.	245,576	Youngstown	144,931
Denver, Colo.	674,333	Los Angeles		Rochester	310,260		
Des Moines	183,468	(ext. area)	4,468,457	Rockford, Ill.	129,926		
Detroit	1,323,118	Louisville	353,474	Royal Oak	161,849		

Production of Electric Energy in the U. S.

Source: The Federal Power Commission

These amounts include both the privately-owned and publicly-owned utilities.

Calendar Year	Electric Energy Produced				Fuel Consumed in the Year		
	Total 1,000 Kw. hrs.	Hydro 1,000 Kw. hrs.	Steam 1,000 Kw. hrs.	Internal Comb't'n 1,000 Kw. hrs.	Coal Short tons	Oil 42 Gal. Barrels	Gas 1,000 Cu. ft.
1930	91,111,548	31,189,554	59,293,363	628,631	40,277,989	8,804,530	119,552,711
1935	95,287,390	38,372,154	56,144,412	770,824	32,714,761	11,256,565	124,117,769
1940	141,837,010	47,321,278	93,001,735	1,531,997	51,473,881	16,325,122	180,096,185
1945	222,486,283	79,970,312	140,435,268	2,080,703	74,724,956	20,228,215	326,211,996
1950	329,141,343	95,938,317	229,543,366	3,659,660	91,870,770	75,420,490	628,918,834
1955	547,037,985	112,975,069	430,119,086	3,943,830	143,759,195	75,273,862	1,153,279,586
1960	753,350,271	145,516,253	603,341,840	4,692,178	176,233,789	85,340,108	1,734,762,376
1965	1,055,251,929	193,850,603	856,312,128	5,089,198	244,788,119	115,202,583	2,321,100,937
1966	1,144,350,138	194,765,781	944,430,145	5,164,212	266,476,823	140,948,854	2,609,948,660
1967	1,211,749,276	220,043,018	986,782,770	4,923,488	273,972,576	161,274,680	2,743,251,360

Preliminary figures on installed capacity of electric generating plants as of Dec. 31, 1967 are (kilowatts): hydro 47,349,685; steam 215,910,457; int. comb. 3,814,545. Total 267,074,687.

Preliminary data on combined utility and industrial production of electric energy for 1967 show a total of 1,314,298,521,000 kilowatt-hours; combined capacity was 285,916,300 kw.

Electric operating revenues of the larger privately owned utilities were \$14,363,930,000 as indicated by the preliminary total for 1966, this includes Alaska and Hawaii.

World Electric Power

Source: Federal Power Commission

Electric generating capacity as of Jan. 1, 1967; electric energy production for 1966¹

Kilowatts in thousands; Kilowatt-hours in millions.

Country	Kw	Kwhrs	Country	Kw	Kwhrs
United States ¹	266,816	1,249,444	India ²	12,540	38,400
USSR	123,007	516,480	Sweden	12,300	49,930
United Kingdom	51,814	189,985	Germany (East)	11,067	54,060
Japan ³	44,814	210,098	Spain	10,650	35,530
Germany (West)	42,679	166,287	Norway	10,272	48,348
Canada	30,785	157,371	Poland	9,920	42,963
France	30,217	106,111	Other countries	138,704	510,120
Italy	26,756	87,121			
China (Mainland)	14,000	40,000			
World total	836,341	3,503,254			

¹Preliminary data; year-end except as noted. ²Including Alaska and Hawaii. ³Year ending Mar. 31, 1967.

Hosiery Production by Major Types

Source: National Ass'n of Hosiery Manufacturers, Charlotte, N. C. 28202

Types of Hosiery	Dozens of pairs		Employment (monthly average)				
	1966	1967	Year	Total	Women's	Seamless	
Women's.....	105,047,703	119,159,389	1966.....	100,844	52,675	48,169	
Men's.....	54,949,297	54,412,481	1967.....	98,353	56,435	41,918	
Boys', infants', children's...	58,140,426	56,737,606					
Total.....	218,137,426	230,309,476					
			Women's				
			Hosiery plants		Seamless	Full fash.	Other
			1966....	750	266	79	405
			1967....	746	270	65	411

Production by States		(Percentage for all types of hosiery)							
Year	Total	North	Pa.	Other	South	N. C.	Tenn.	Ga.	Other
1967.....	100%	7.5%	4.0%	3.5%	92.5%	55.4%	13.4%	7.2%	16.5%
1966.....	100%	8.8%	4.7%	4.1%	91.2%	53.0%	14.3%	7.0%	16.9%

Exports and Imports 1967								
Types by fibers	Exports		Imports					
	Dozens	Value	Dozens	Value				
Cotton.....	337,419	\$1,294,245	18,926	\$ 150,346				
Man-made fibers.....	1,001,731	5,587,723	899,357	1,868,211				
Wool.....	23,812	92,292	243,475	1,648,659				
Silk.....			312	6,436				
Textile fibers NEC.....	39,520	193,382						
Total.....	1,402,482	\$7,167,642	1,162,070	\$3,673,652				

Exports					By 5 Largest Countries				Imports
Dozens of pairs					Dozens of pairs				
Mexico.....				131,194	Yugoslavia.....				340,075
Panama.....				118,618	Rep. of Korea.....				290,790
Canada.....				116,946	United Kingdom.....				219,805
France.....				100,929	Hong Kong.....				67,248
Hong Kong.....				77,046	Spain.....				40,785

Employees in Non-Agricultural Establishments

ANNUAL AVERAGE BY INDUSTRY DIVISION

Source: Bureau of Labor Statistics, U. S. Dept. of Labor
(In thousands)

Year	Total	Mining	Contract construction	Manufacturing	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Service, and miscellaneous	Government
1950.....	45,222	901	2,333	15,241	4,034	9,386	1,919	5,382	6,026
1955.....	50,675	792	2,802	16,882	4,141	10,535	2,335	6,274	6,914
1960.....	54,234	712	2,885	16,796	4,004	11,391	2,669	7,423	8,353
1961.....	54,042	672	2,816	16,326	3,903	11,337	2,731	7,664	8,594
1962.....	55,596	650	2,902	16,853	3,606	11,566	2,800	8,028	8,890
1963.....	56,702	635	2,963	16,995	3,903	11,778	2,877	8,325	9,225
1964.....	58,332	634	3,050	17,274	3,951	12,160	2,957	8,709	9,596
1965.....	60,832	632	3,186	18,062	4,036	12,716	3,023	9,087	10,091
1966.....	64,034	627	3,275	19,214	4,151	13,245	3,100	9,551	10,871
1967.....	66,030	616	3,203	19,434	4,271	13,613	3,217	10,060	11,616

Personal Consumption Expenditures for the U. S.

Source: Office of Business Economics, U. S. Department of Commerce.
(In millions of dollars) *Revised

	1940	1945	1950	1955	1960	1965*	1966*	1967
Food and tobacco.....	22,032	43,520	58,120	72,236	87,510	107,183	115,203	118,555
Clothing, accessories and jewelry.....	8,852	19,645	23,709	27,982	33,032	43,318	47,953	50,677
Personal care.....	1,036	1,982	2,438	3,461	5,324	7,578	7,952	8,514
Housing.....	9,446	12,479	21,286	33,738	46,305	63,509	67,265	70,902
Household operation.....	10,479	15,530	29,161	37,322	46,906	61,789	66,418	69,940
Medical care.....	3,018	5,042	8,788	12,755	19,116	28,082	30,851	34,035
Personal business.....	3,326	4,656	6,858	10,049	14,974	21,879	24,158	26,675
Transportation.....	7,143	6,845	24,672	35,574	43,134	58,154	60,505	63,547
Recreation.....	3,761	6,139	11,147	14,078	18,295	26,298	28,591	30,603
Private education and research.....	632	936	1,618	2,339	3,718	5,927	6,711	7,851
Religious and welfare activities.....	1,012	1,735	2,282	3,257	4,718	5,972	6,509	6,898
Foreign travel and remittances—net.....	87	1,192	630	1,590	2,179	3,150	3,368	4,035
Total personal consumption expenditures.....	70,824	119,791	191,009	254,381	325,241	432,839	465,487	492,232

World Production of Natural Rubber

Long Tons—Estimated

Source: Business and Defense Services Administration, U. S. Dept. of Commerce

Year	Far East	Tropical America	Africa	Total	Year	Far East	Tropical America	Africa	Total
1940.....	1,357,000	26,000	16,000	1,399,000	1961.....	1,923,623	29,377	142,000	2,095,000
1945.....	1,705,000	48,000	53,500	1,806,500	1962.....	1,950,961	28,289	150,750	2,130,000
1950.....	1,760,500	27,000	55,000	1,842,500	1963.....	1,888,517	27,233	151,750	2,067,500
1955.....	1,787,000	27,500	98,000	1,912,500	1964.....	2,041,374	34,876	158,750	2,235,000
1958.....	1,807,500	26,250	123,750	1,957,500	1965.....	2,149,673	35,827	157,000	2,342,500
1959.....	1,870,900	28,100	141,000	2,040,000	1966.....	2,195,038	30,962	174,000	2,400,000
1960.....	1,813,267	29,733	147,000	1,990,000	1967.....	2,261,417	27,833	163,250	2,452,500

Cotton, Synthetics, Wool and Silk Textiles

Source: American Textile Manufacturers Inst., Inc., Market Division, N. Y.

COTTON TEXTILES (Including cotton tire cord and fabrics)		
	1966	1967
	(1,000 square yds.)	(1,000 linear yds.)
Production.....	10,870,211	10,179,089
Exports.....	336,632	288,031
Imports.....	682,967	611,900
Available for U. S. consumption.....	11,216,546	10,502,958
Available per capita sq. yds.	56.96	52.75

PRODUCTION OF BROAD
WOVEN FABRICS
(Except tire cord and fabrics)
COTTON BROAD WOVEN GOODS

Fabric	(1,000 linear yards)	
	1966	1967
Duck and allied fabrics.....	284,707	278,149
Sheetings and allied coarse and medium yard fabrics.....	2,654,504	2,549,397
Print cloth yard fabrics.....	3,063,023	2,871,523
Colored yard fabrics.....	425,133	380,632
Fine cotton fabrics.....	1,151,282	944,051
Napped fabrics, blankets, blanketing.....	153,875	154,463
Towels, toweling and dish cloths.....	655,896	624,509
Other woven cotton fabrics specialties.....	451,443	481,115
Total.....	8,839,863	8,283,839

WOOLEN AND WORSTED WOVEN GOODS		
	1966	1967
Woolen and worsted woven goods.....	264,874	238,592
Total production of broad, woven goods (cotton, rayon, acetate, other man-made fiber, woolen and worsted) silk, except tire fab- ric.....	13,338,799	12,757,223

TIRE CORD AND FABRICS

	(1,000 of pounds)	
	1966	1967
Cotton.....	7,722	4,464
Man-made fiber.....	518,517	440,040
Total.....	526,239	444,504

MAN-MADE FIBER AND SILK BROAD WOVEN FABRICS	
	1967 (1,000 linear yds.)
100% filament.....	1,625,645
Chiefly rayon and/or acetate ..	761,100
Chiefly nylon.....	317,438
Other filament.....	547,107
100% spun (except blanketing) ..	1,977,931
100% rayon or acetate.....	291,167
Rayon/acetate blends with other fiber.....	309,781
Polyester blends with cotton ..	1,163,086
All other spun.....	213,897
Filament and spun combin., mixtures.....	411,489
Blanketing, silk, paper specialty fabrics.....	219,727
Total.....	4,234,792

COTTON INDUSTRY

	1967
Spindles in place Jan. 1, 1967 ..	20,046,000
(Includes cotton system spindles on other fibers)	
Average spindles active consuming cotton only.....	14,918,000
Consuming fibers other than cotton or blends.....	4,976,000
Spindle hours on 100% cotton ..	94,613,000,000
On other fibers, blends ..	31,626,000,000
Production in square yards ..	10,179,089,000
Exports in square yards ..	288,031,000
Imports in square yards ..	611,900,000
Loom hours operated 1966 ..	1,996,015,000
Loom hours operated 1967.....	1,707,991,000

COTTON SYSTEM SPINDLES IN PLACE

	Jan. 1, 1968
Cotton Growing States: Ala., 1,690,000; Ga., 2,901,000; N. C., 6,834,000; S. C., 7,061,000; Tenn., 451,000; Tex., 238,000; Va., 552,000; Other states, 105,000; total 19,832,000.	
New England States: Conn., 91,000; Me., 221,100; Mass., 209,000; R. I., 62,000; other states, 119,000; total 702,000.	
Rest of United States: 73,000.	
Total United States: 20,607,000.	

Cotton, Wool, Silk, and Man-Made Fibers Production

Source: Economic Research Service, U. S. Dept. of Agriculture

Cotton and wool from reports of the Dept. of Agriculture; silk, rayon and non-cellulosic man-made fibers from Textile Organon, a publication of the Textile Economics Bureau, Inc.

Year	Cotton ¹		Wool ²		Silk	Man-made fibers ³			
	U. S.		World			Rayon&Acetate		Non-Cellulosic ⁴	
	U. S.	World	U. S.	World	World	U. S.	World	U. S.	World
	⁶	Mil. bales	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1940.....	12.6	31.2	434.0	4,180	130	471.2	2,485.3	4.6	4.6
1945.....	9.0	21.4	378.5	3,790	24	792.1	1,325.3	50.1	50.1
1950.....	10.0	31.1	249.3	4,000	42	1,259.4	3,552.8	145.9	177.4
1955.....	14.7	43.6	282.9	4,685	64	1,260.7	5,023.3	455.1	670.0
1960.....	14.3	46.5	298.9	5,640	68	1,028.5	5,731.6	854.2	1,779.1
1962.....	14.9	47.8	276.5	5,700	73	1,272.1	6,296.4	1,163.2	2,638.8
1963.....	15.3	50.2	261.2	5,820	68	1,348.8	6,725.5	1,347.9	3,213.7
1964.....	15.2	52.5	237.4	5,777	72	1,431.8	7,229.2	1,646.2	4,068.9
1965.....	15.0	53.9	224.8	5,805	73	1,527.0	7,330.8	2,059.2	4,946.6
1966.....	9.6	48.3	219.2	6,001	72	1,519.0	7,359.4	2,401.1	5,986.5
1967 (pre.).....	7.5	47.3	211.2	6,094	71	1,388.1	7,269.2	2,641.7	6,806.2

¹Year beginning Aug. 1. ²Grease basis. ³Includes filament yarn and staple & tow fiber. ⁴Includes textile glass fiber. ⁵500-pound gross weight bales.

Production of Shoes and Slippers, Except Rubber

Source: National Footwear Manufacturers Assn., New York, N. Y.

In thousands of pairs			
Footwear	1967	1966	
Men's.....	125,605	126,903	
Youths' and boys'.....	21,807	24,616	
Women's.....	264,966	284,170	
Misses'.....	32,767	35,912	
Children's.....	29,361	33,581	
Infants' and babies'.....	22,910	32,499	
Athletic shoes.....	6,834	7,268	
Slippers.....	96,931	93,823	
Other footwear.....	2,156	2,924	
Shoes and Slippers, except rubber, grand total.....	603,338	641,696	

Principal producing states, 1967: Pennsylvania, 82,448,000; Massachusetts, 80,264,000; New York, 68,745,000; Maine, 54,676,000; Missouri, 53,119,000; New Hampshire, 44,504,000; Tennessee, 37,564,000; and Illinois, 19,906,000.

Imports of footwear, 1967: 129,137,000 pairs worth \$217,595,000. Largest imports from Japan, 56,768,000 pairs worth \$34,231,000; from Italy, 41,555,000 pairs worth \$102,731,000.

Exp. rts. of footwear, 1967: 2,217,057 pairs worth \$8,227,065. Principal markets: Canada, 391,302; Mexico, 302,863; Netherlands Antilles, 201,870; Bahamas, 268,571; Bermuda, 105,827; Hong Kong, 82,282.

Employees 1967 (average): production workers, 200,600; hours worked weekly 38.0; weekly wages \$78.38.

Retail Store Sales, by Kinds of Business

Source: Office of Business Economics, U. S. Dept. of Commerce. In millions of dollars

Kinds of business	1966	1967	Kinds of business	1966	1967
All retail stores¹	303,672	313,503	Apparel group	17,276	18,105
Durable goods stores¹	97,812	99,669	Men's and boys' wear stores...	3,537	3,822
Automotive group.....	57,414	57,556	Women's apparel, accessory stores.....	6,913	6,994
Motor vehicle, other automotive dealers.....	53,875	53,695	Shoe stores.....	2,811	2,947
Tire, battery, accessory dealers.....	3,539	3,861	Food group ¹	71,125	72,137
Furniture and appliance group.....	14,978	15,700	Grocery stores.....	65,105	66,146
Furniture, home furnishings stores.....	9,089	9,384	General merchandise group.....	39,811	42,174
Household appliance, radio stores.....	4,905	5,245	Department stores, excl. mail order.....	26,094	27,703
Lumber, building, hardware group.....	12,307	12,411	Mail order (catalog sales).....	2,691	2,767
Lumber, building materials dealers.....	9,340	9,350	Variety stores.....	5,727	6,078
Hardware stores.....	2,967	3,061	Eating and drinking places.....	23,431	24,887
Nondurable goods stores¹	205,860	213,834	Gasoline service stations.....	23,012	24,011
			Drug and proprietary stores.....	10,148	10,894
			Liquor stores.....	6,758	7,120

¹Sales by jewelry stores, other durable goods stores, other general merchandise stores, and other nondurable goods stores are not shown separately but are included in the totals.
Total Retail Store Sales (In millions of dollars)—(1955) 183,851; (1957) 200,002; (1958) 200,353; (1959) 215,413; (1960) 219,529; (1961) 218,811; (1962) 235,351; (1963) 246,435; (1964) 261,630; (1965) 283,852; (1966) 303,672; (1967) 303,672.

U. S. Balance of Payments

Source: Office of Business Economics, Dept. of Commerce
(In millions of dollars. Excludes military transfers under grants. Revised)

	1955	1960	1962	1963	1964	1965	1966	1967
Recorded receipts	20,517	28,327	32,649	34,109	38,504	40,339	46,906	49,922
Exports of goods and services.....	19,804	27,325	30,343	32,432	37,098	39,196	43,142	45,756
Merchandise.....	14,280	19,487	20,606	22,071	25,297	26,244	29,176	30,468
Transportation.....	1,406	1,732	1,965	2,115	2,324	2,413	2,608	2,701
Foreign travel in U. S.....	654	919	957	1,015	1,207	1,380	1,590	1,646
Miscellaneous services.....	820	1,454	1,739	1,925	2,135	2,436	2,687	2,843
Military transactions.....	200	335	656	857	747	830	829	1,240
Income on investments.....	2,444	3,349	4,419	4,649	5,386	5,893	6,252	6,859
Repayments on Government loans.....	416	637	1,279	987	717	872	1,232	981
Foreign capital other than liquid funds.....	297	365	1,027	690	689	271	2,532	3,185
Recorded payments	22,274	31,335	33,856	35,356	40,444	41,358	48,052	52,960
Imports of goods and services.....	17,795	23,355	25,358	26,620	28,688	32,295	38,063	40,980
Merchandise.....	11,527	14,744	16,219	17,014	18,648	21,516	25,541	26,991
Transportation.....	1,204	1,915	2,128	2,316	2,462	2,679	2,923	2,982
U. S. travel abroad.....	1,153	1,750	1,939	2,114	2,211	2,438	2,657	3,195
Miscellaneous services.....	521	795	858	892	1,035	989	1,132	1,180
Military expenditures.....	2,601	3,087	3,105	2,961	2,876	2,945	3,735	4,340
Income on investments.....	489	1,063	1,110	1,325	1,456	1,729	2,074	2,293
Private remittances.....	466	483	534	629	617	658	648	835
Private capital outflow.....	1,255	3,878	3,426	4,459	6,578	3,794	4,298	5,504
Government pensions and other transfers.....	141	214	245	262	279	369	367	441
Government grants and capital outflow.....	2,627	3,405	4,293	4,565	4,282	4,242	4,676	5,191
Unrecorded transactions, net¹	515	-892	-997	-244	-860	-315	-210	-532
Balance of payments	-1,242	-3,901	-2,204	-2,670	-2,800	-1,335	-1,357	-3,571
Balanced by—								
Monetary reserve assets (increase [—]) ²		2,145	1,533	377	171	1,222	568	52
Foreign holdings of liquid dollar assets (decrease [—]) ³	1,060	1,756	671	2,293	2,629	113	789	3,519

¹Also called "errors and omissions." Believed to consist largely of unreported short-term capital flows.²Includes gold, convertible currencies, and International Monetary Fund position.³Includes U. S. Government nonmarketable medium-term convertible securities in the amount of \$703 million in 1963, \$376 million in 1964, \$122 million in 1965, \$945 million in 1966 and \$455 million in 1967.

Statistical Information About the United States

In the *Statistical Abstract of the United States* the Bureau of the Census of the U. S. Dept. of Commerce annually publishes a summary of social, political and economic information. A book of more than 1,000 pages, it presents in 33 sections comprehensive data on population, housing, health, education, employment, income, prices, business, banking, science, defense, trade, and other subjects. A special section includes comprehensive data for metropolitan areas. The book is prepared under the direction of Edwin D. Goldfield, chief statistical information division, Bureau of the Census Supplements to the *Statistical Abstract* are *Pocket Data Book, USA, 1967* (1969 edition in preparation); *County and City Data Book, 1967*; *Congressional District Data Book (Districts of the 88th Congress)* and its supplements for states that redistricted for the 89th and 90th Congresses; *Historical Statistics of the United States, Colonial Times to 1957* and its supplement . . . *Continuation to 1962 and Revisions*. Information concerning these and other publications may be obtained from the Supt. of Documents, Government Printing Office, Washington, D. C. 20402.

Motor Fuel Supply¹ and Demand

Source: Bureau of Mines (Figures in 42-gallon barrels)

Year	Supply		Demand		Year	Supply		Demand	
	Production	Daily average	Domestic	Export		Production	Daily average	Domestic	Export
	(1,000)	(1,000)	(1,000)	(1,000)		(1,000)	(1,000)	(1,000)	(1,000)
1940.....	616,314	1,684	589,490	25,377	1960.....	1,522,497	4,160	1,511,670	13,456
1945.....	793,431	2,174	696,333	88,509	1964.....	1,687,445	4,610	1,685,457	8,439
1950.....	1,024,181	2,806	994,290	24,721	1965.....	1,733,258	4,749	1,750,028	6,391
1955.....	1,373,950	3,764	1,329,788	34,521	1966.....	1,822,388	4,993	1,821,642	5,796
1959 ²	1,488,860	4,079	1,485,277	16,743	1967.....	1,872,849	5,131	1,867,878	6,864

¹Beginning with 1959 Alaska and Hawaii are included. ²Includes special naphtha.

Mineral Production in United States¹

INCLUDING ALASKA AND HAWAII

Source: Bureau of Mines (r-Revised)

Mineral	1966		1967	
	Quantity	Value	Quantity	Value
		(thousands)		(thousands)
MINERAL FUELS				
Asphalt and related bitumens (native):				
Bituminous limestone & sandstone and gilsonite..... short tons	2,041,271	\$8,438	1,866,666	\$8,136
Carbon dioxide, natural (est.)..... 1,000 cu. ft.	1,140,907	153	1,142,374	165
Coal:				
Bituminous and lignite ² thousand short tons	533,881	2,421,293	552,626	2,555,377
Pennsylvania anthracite..... thousand short tons	12,941	100,663	12,256	98,160
Helium..... thousand cubic feet	4,606,100	74,097	4,712,300	72,457
Natural gas..... million cubic feet	17,232,134	2,721,875	18,171,325	2,898,741
Natural gas liquids:				
Gasoline and cycle products..... 1,000 gals.	37,591,658	352,167	37,919,831	350,429
LP gases..... 1,000 gals.	12,134,294	527,223	13,717,861	632,994
Peat..... short tons	605,858	6,501	619,687	6,768
Petroleum (crude)..... 1,000 42-gal. bbls.	3,028,084	8,727,387	3,216,715	39,377,516
Total mineral fuels.....		r15,112,000		16,198,000
NONMETALS (except fuels)				
Abrasive stone ⁴ short tons	3,806	\$515	2,701	\$574
Asbestos..... short tons	125,928	11,056	123,189	11,102
Barite..... thousand short tons	947	11,259	962	11,605
Boron minerals..... short tons	866	68,209	955	74,130
Bromine..... thousand pounds	326,498	78,883	349,757	85,391
Calcite (optical grade) pounds.....				
Cement:				
Portland..... thousand 376-lb. bbls.	373,091	1,162,984	608,965	11,983
Masonry..... thousand 280-lb. bbls.	22,367	63,407	365,570	1,148,208
Natural and slag..... thousand 376-lb. bbls.	1,109	r415	21,700	262,168
Clays..... thousand short tons	r56,713	r221,714		386
Emery..... short tons	11,102	210	54,664	223,989
Feldspar..... long tons	r655,452	r7,020		
Fluorspar..... short tons	253,068	10,841	615,397	7,086
Garnet (abrasive)..... short tons	21,952	2,092	295,643	13,164
Gem stones (estimate).....	NA	2,437	20,494	1,849
Gypsum..... thousand short tons	9,647	35,681	NA	2,430
Lime..... thousand short tons	18,057	239,588	9,393	34,383
Magnesium compounds from sea water and brine short tons, MgO equivalent.....	r651,187	r46,690	17,974	241,137
Mica:				
Scrap..... short tons	113,133	3,733	544,428	41,414
Sheet..... pounds	4,500		118,503	2,876
Perlite..... short tons	404,160	3,907	20,500	
Phosphate rock..... thousand short tons	r39,044	(r261,092	413,001	3,973
Potassium salts				
thousand short tons, K ₂ O equivalent	3,320	122,210	39,770	265,947
Pumice..... thousand short tons	3,218	6,765	3,299	105,313
Pyrites..... thousand long tons	873	5,088	3,446	5,131
Salt..... thousand short tons	36,463	229,985	861	7,943
Sand and gravel..... thousand short tons	934,481	984,982	38,946	251,210
Sodium carbonate (natural)..... short tons	1,737,511	40,674	905,162	980,350
Sodium sulfate (natural)..... short tons	640,329	11,271	1,727,977	40,539
Stone ⁵ thousand short tons	813,374	1,260,715	636,843	10,710
Sulfur:				
Frasch process mines..... thousand long tons	7,721	201,292	7,682	1,240,244
Other mines..... long tons	557	5	568	3
Talc, soapstone, and pyrophyllite..... short tons	895,045	6,479	902,512	6,871
Tripoli..... short tons	66,163	328	70,984	377
Vermiculite..... thousand short tons	262	4,955	255	4,974
Value of items that cannot be disclosed ⁶		69,911		55,734
Total nonmetals.....		r\$5,176,000		\$5,205,000
METALS				
Antimony ore and concentrate..... short tons	927		892	
Bauxite..... long tons, dried equivalent	1,796	\$20,095	1,654	\$19,079
Copper (recoverable content)..... short tons	1,429,152	1,033,850	954,064	729,401
Gold (recoverable content of ores)..... troy ozs.	1,803,412	63,119	1,584,187	55,447
Iron ore, usable (excl. byproduct iron sinter).....				
thousand long tons, gross weight	90,040	854,134	82,415	817,511
Lead (recoverable content of ores)..... short tons	327,368	98,964	316,931	88,741
Manganese ore (35 percent or more Mn).....				
short tons, gross weight	14,406		12,585	
Manganiferous ore (5 to 35 percent Mn).....				
short tons, gross weight	324,926		289,160	
Mercury..... 76-pound flasks	22,008	9,722	23,784	11,639
Molybdenum (concentrate) thousand pds.....	91,670	144,327	81,596	133,604
Nickel (ore and concentrate) short tons.....	15,036		15,287	
Silver (content of ores, etc.).....				
thousand troy ounces	43,669	56,463	32,119	49,784
Tin..... long tons	97	265		
Titanium concentrate:				
limonite..... short tons, gross weight	868,436	17,608	882,414	18,519
Rutile..... short tons, gross weight				
Tungsten ore and concentrate				
short tons, 60-percent WO ₃ basis	8,912	17,620	9,088	20,895
Uranium (recoverable in ore & concentrates) 1,000 pds.	19,037	152,281	20,655	165,239
Vanadium (recoverable in ore and concentrate)..... short tons	5,166	22,210	4,963	21,331
Zinc (recoverable content of ores, etc.)..... short tons	572,558	166,044	549,413	151,562
Value of items that cannot be disclosed ⁷		r46,605		50,190
Total metals.....		r\$2,703,000		\$2,333,000
Grand total mineral production.....		r\$22,991,000		\$23,736,000

¹Production as measured by mine shipments, sales, or marketable production. ²Includes small quantity of anthracite mined in states other than Pa. ³Final figure. ⁴Grindstones, pulpstone, millstones, grinding pebbles, sharpening stones, and tube-mill liners. ⁵Figure withheld to avoid disclosing confidential data; value included with "Nonmetal items that cannot be disclosed." ⁶Excludes abrasive stone, bituminous limestone, bituminous sandstone and ground soapstone.

Value of Mineral Production in U. S.

Source: Bureau of Mines (data are for 1967)

State	Value (\$1,000)	Rank	Percent of U. S. total	Principal minerals in order of value
Alabama	\$251,391	21	1.06	Coal, cement, petroleum, stone.
Alaska	134,066	29	.56	Petroleum, sand and gravel, coal, natural gas.
Arizona	463,863	15	1.95	Copper, sand and gravel, molybdenum, cement.
Arkansas	179,453	27	.76	Petroleum, stone, bauxite, cement.
California	1,696,233	3	7.15	Petroleum, natural gas, sand and gravel, cement.
Colorado	346,235	17	1.46	Petroleum, molybdenum, coal, sand and gravel.
Connecticut	20,619	45	.09	Stone, sand and gravel, feldspar, lime.
Delaware	2,383	50	.01	Sand and gravel, stone, clays, gem stones.
Dist. of Col.				
Florida	309,797	18	1.31	Phosphate rock, stone, cement, clays.
Georgia	153,458	28	.65	Clays, stone, cement, sand and gravel.
Hawaii	16,936	46	.07	Cement, stone, sand and gravel, pumice.
Idaho	109,408	31	.46	Silver, phosphate rock, lead, zinc.
Illinois	636,801	8	2.68	Coal, petroleum, stone, sand and gravel.
Indiana	244,921	22	1.03	Coal, cement, stone, petroleum.
Iowa	113,222	30	.48	Cement, stone, sand and gravel, gypsum.
Kansas	574,068	10	2.42	Petroleum, natural gas, natural gas liquids, helium.
Kentucky	535,705	11	2.26	Coal, petroleum stone, natural gas.
Louisiana	3,961,750	2	16.69	Petroleum, natural gas, natural gas liquids, sulfur.
Maine	14,882	47	.06	Cement, sands and gravel, stone, peat.
Maryland	72,819	37	.31	Stone, cement, sand and gravel, coal.
Massachusetts	40,612	43	.17	Sand and gravel, stone, lime, clays.
Michigan	610,204	9	2.57	Iron ore, cement, sand and gravel, bromine.
Minnesota	523,326	13	2.20	Iron ore, sand and gravel, stone, cement.
Mississippi	217,010	24	.91	Petroleum, natural gas, sand and gravel, clays.
Missouri	236,659	23	1.00	Stone, cement, lead, iron ore.
Montana	186,524	26	.79	Petroleum, copper, sand and gravel, phosphate rock.
Nebraska	70,868	39	.30	Petroleum, cement, sand and gravel, stone.
Nevada	90,883	33	.38	Copper, gold, sand and gravel, diatomite.
New Hampshire	8,117	48	.03	Sand and gravel, stone, clays, feldspar.
New Jersey	72,747	38	.31	Sand and gravel, stone, zinc, magnesium compounds.
New Mexico	874,106	7	3.68	Petroleum, natural gas, potassium salts, uranium.
New York	299,318	19	1.26	Cement, stone, sand and gravel, salt.
North Carolina	77,094	36	.32	Stone, sand and gravel, cement, phosphate rock.
North Dakota	97,538	32	.41	Petroleum, sand and gravel, coal, natural gas.
Ohio	498,938	14	2.10	Coal, stone, sand and gravel, cement.
Oklahoma	1,032,126	4	4.35	Petroleum, natural gas, natural gas liquids, cement.
Oregon	66,560	40	.28	Sand and gravel, stone, cement nickel.
Pennsylvania	898,398	6	3.78	Coal, cement, stone, sand and gravel.
Rhode Island	4,035	49	.02	Sand and gravel, stone.
South Carolina	48,274	42	.20	Cement, stone clays, sand and gravel.
South Dakota	52,618	41	.22	Gold, sand and gravel, stone, cement.
Tennessee	189,572	25	.80	Stone, zinc, cement, coal.
Texas	5,406,371	1	22.78	Petroleum, natural gas, natural gas liquids, cement.
Utah	354,477	16	1.49	Copper, petroleum, coal, molybdenum.
Vermont	27,268	44	.11	Stone, asbestos, sand and gravel, talc.
Virginia	283,685	20	1.20	Coal, stone, cement, sand and gravel.
Washington	82,067	34	.35	Sand and gravel, cement, stone, lime.
West Virginia	937,858	5	3.95	Coal, natural gas, natural gas liquids, stone.
Wisconsin	79,612	35	.34	Sand and gravel, stone, cement, zinc.
Wyoming	530,696	12	2.24	Petroleum, uranium, natural gas, sodium salts.
Total	23,736,000		100.00	Petroleum, natural gas, coal, stone.

Value of Mineral Production in the United States*

Source: Bureau of Mines (r-Revised)
(In millions of dollars)

Year ¹	Fuels	Nonmetallic (except fuels)	Metals	Total	Year ¹	Fuels	Nonmetallic Metals (except fuels)	Metals	Total
1925	2,910	1,187	715	4,812	1958	11,589	3,466	1,594	10,649
1930	2,500	973	501	3,980	1959	11,950	3,861	1,570	17,381
1935	2,013	564	365	2,942	1960	12,142	3,868	2,022	18,032
1940	2,662	784	752	4,198	1961	12,357	3,946	1,927	18,230
1945	4,569	888	774	6,231	1962	12,754	4,117	1,937	18,838
1950	8,689	1,882	1,351	11,862	1963	13,317	4,216	2,002	19,635
1954	9,919	2,733	1,518	14,170	1964	13,623	4,623	2,366	20,612
1957	10,780	2,905	1,911	15,600	1965	14,017	4,933	2,544	22,524
1956	11,741	3,391	2,358	17,490	1966	15,112	5,176	2,703	22,991
1957	12,709	3,387	2,134	18,233	1967	16,198	5,205	2,333	23,736

*Excludes Alaska and Hawaii, 1925-53. Data for 1925-46 are not strictly comparable with those for subsequent years, since for the earlier years the value of heavy clay products has not been replaced by the value of raw clays used for such products. *Production as measured by mine shipments sales, or marketable production.

Coal and Coke Production in the United States

Source: Bureau of Mines (NA—not available)

Year	Penn. Anthracite Production	Penn. Anthracite Value	Bituminous Production	Bituminous Value	Year	Penn. Anthracite Production	Penn. Anthracite Value	Bituminous Production	Bituminous Value
	Net tons	\$1,000	1,000 net tons	\$1,000		Net tons	\$1,000	1,000 net tons	\$1,000
1925	61,817,149	327,665	520,055	1,060,402	1959	20,649,000	172,320	412,028	1,965,606
1930	60,384,837	354,574	467,526	795,483	1960	18,817,000	147,116	415,512	1,950,121
1935	52,158,783	210,131	372,373	658,063	1961	17,446,000	140,338	402,977	1,814,567
1940	51,484,610	205,490	460,772	879,327	1962	16,894,000	134,094	422,149	1,891,555
1945	54,933,909	323,914	577,617	1,768,204	1963	18,267,000	153,503	458,928	2,015,390
1950	41,076,703	323,398	516,311	2,500,174	1964	17,184,000	138,618	486,998	2,165,582
1955	26,204,514	206,097	464,633	2,092,383	1965	14,866,000	122,021	512,088	2,276,022
1957	25,338,321	227,754	492,704	2,501,403	1966	12,941,000	100,653	533,881	2,421,293
1958	21,171,142	187,898	410,146	1,996,283	1967	12,256	96,160	552,626	2,555,377

Coal production (net tons)—Value in \$1,000—(1963) 54,278,307, \$951,892,000; (1964) 62,144,078, \$1,102,468; (1965) 66,854,461, \$1,125,756; (1966) 67,402, \$1,166,049; (1967) 64,580, \$1,123,173.
 Coke exports (net tons)—(1963) 451,241; (1964) 523,695; (1965) 833,668; (1966) 1,102,186; (1967) 710,380. Imports—(1963) 152,595; (1964) 103,286; (1965) 89,620; (1966) 95,721; (1967) 92,001.
 Anthracite exports (net tons)—(1964) 1,575,097; (1965) 850,630; (1966) 766,025; (1967) 594,797.

United States Pig Iron and Steel Output

Source: American Iron and Steel Institute; figures show net tons

Year	Total pig iron	Total pig iron and ferro-alloys	Raw Steel	Year	Total pig iron	Total pig iron and ferro-alloys	Raw Steel
1940.....	46,071,666	47,398,529	66,982,686	1962.....	65,640,824	67,595,338	98,327,785
1945.....	53,223,169	54,919,029	79,701,648	1963.....	71,844,054	73,715,227	109,260,949
1950.....	64,586,907	66,400,311	96,836,075	1964.....	85,600,483	87,932,444	127,075,767
1955.....	76,857,417	79,263,865	117,036,085	1965.....	88,184,901	90,918,040	131,461,601
1960.....	66,480,648	68,566,384	99,281,601	1966.....	91,500,000	94,003,000	134,101,000
1961.....	64,630,687	66,565,063	98,014,492	1967.....	86,984,000	89,472,000	127,213,000

Steel figures include only that portion of the capacity and production of steel for castings used by foundries which were operated by companies producing steel ingots.

RAW STEEL PRODUCTION (Net Tons)

State	1967
New York.....	7,298
Pennsylvania.....	29,881
R. I., Conn., N. J., Del., Md.....	8,132
Va., W. Va., Ga., Fla., N. C.....	4,263
Kentucky.....	2,410
Ala., Tenn., Miss.....	4,444
Ohio.....	20,378
Indiana.....	17,610
Illinois.....	10,649
Michigan.....	9,245
Minn., Mo., Okla., Texas.....	4,644
Ariz., Colo., Utah, Wash., Ore, Hawaii.....	4,154
California.....	4,100
Total.....	127,213

1967 Scrap Iron Production and Export

Source: Institute of Scrap Iron & Steel
(net tons 2,000 pounds each)

The United States generated an estimated 42,400,000 tons of ferrous scrap. Of this total, 14,000,000 tons is attributed to "prompt industrial" scrap, the leftovers from the fabrication of new iron and steel products.

Consumption of mill revert and purchased scrap..... 85,361,000 tons
Consumption of purchased scrap only..... 35,127,000 tons (est.)

Value of exports..... \$245,300,000

Sales of scrap amounted to..... \$2,500,000,000

Exports of iron and steel scraps..... 7,504,000 tons

Imports of iron and steel scrap..... 229,000,000 tons

(Export and Import figures are from Dept. of Commerce.)

Copper, Lead and Zinc Production in the U. S.

Source: Bureau of Mines

Year	Copper		Lead ¹		Zinc		Year	Copper		Lead ¹		Zinc	
	Mil. lbs.	\$1,000	Short tons	\$1,000	Short tons	Mil. dol.		Mil. lbs.	\$1,000	Short tons	\$1,000	Short tons	Mil. tons dol.
1925.....	1,675	237,832	654,921	113,956	555,631	84	1959.....	1,599	490,788	225,270	51,812	348,443	80
1930.....	1,394	181,271	573,740	57,374	489,361	47	1960.....	2,286	733,708	228,899	53,562	334,101	87
1935.....	763	63,295	310,505	24,840	412,184	36	1961.....	2,325	697,488	288,078	59,344	413,282	95
1940.....	1,818	205,453	433,065	43,307	569,988	74	1962.....	2,564	794,918	245,645	45,690	448,095	104
1945.....	1,565	184,723	356,535	45,636	574,453	80	1963.....	2,426	747,310	253,369	54,727	529,254	123
1950.....	1,823	379,122	418,809	113,078	591,454	167	1964.....	2,494	812,901	286,010	74,935	574,858	126
1955.....	2,015	751,454	321,132	95,697	582,913	143	1965.....	2,703	957,028	301,147	93,959	611,153	173
1957.....	2,162	650,825	347,675	99,435	539,692	129	1966.....	2,858	1,033,850	327,368	98,964	572,558	166
1958.....	1,986	522,275	269,082	62,965	346,240	71	1967.....	1,908	729,401	316,931	88,741	549,413	151

¹Production from domestic ores.

U. S. Primary Aluminum Production

Source: U. S. Bureau of Mines and Aluminum Company of America

Year	Short tons	Year	Short tons	Year	Short tons	Year	Short tons
1883-1902.....	13,981	1930.....	114,518	1960.....	2,014,498	1964.....	2,552,747
1903-1912.....	103,412	1940.....	206,280	1961.....	1,903,711	1965.....	2,754,478
1913-1923.....	282,722	1950.....	718,622	1962.....	2,117,929	1966.....	2,968,366
1924-1925.....	146,340	1955.....	565,721	1963.....	2,312,528	1967.....	3,267,259

ESTIMATED MARKETS FOR TOTAL U. S. ALUMINUM SHIPMENTS (Data for 1967)

Market	Percent	Market	Percent
Transportation.....	21.4	Other domestic markets.....	9.7
Building and construction.....	20.8	Containers and Packaging.....	9.4
Electrical.....	13.9	Machinery & Equipment.....	7.0
Consumer durable foods.....	10.5	Exports.....	7.3

Crude Oil and Natural Gas Production

Source: Bureau of Mines (r-Revised)

Production (includes Alaska and Hawaii)	1966	1967	Increase
Crude oil.....	r3,023,084	3,216,715	+188,631
Natural gas liquids.....	r469,666	515,183	+45,517
Total liquid hydrocarbons.....	r3,497,750	3,731,898	+234,148
Natural gas, marketed production (in millions of cubic ft.).....	17,232,134	18,171,325	+939,191

Engineering Wonders of the U. S.

Selected by American Society of Civil Engineers

In 1954 the American Society of Civil Engineers, after several years of research, selected the seven modern civil engineering wonders in the United States (shown listed in alphabetical order) and then selected one each year from 1960 on.

1968—San Mateo-Hayward Bridge over San Francisco Bay, Calif.

1967—The Gateway Arch at St. Louis, Mo.

1966—NASA Complex 39, Appollo-Saturn V assembly.

1965—Chesapeake Bay Bridge-Tunnel.

1964—Glen Canyon Dam on Colorado River.

1963—Ohio River Valley Clean Streams Program.

1962—Intercontinental Ballistic Missiles Program.

1961—John F. Kennedy (N.Y.) Internatl. Airport.

1960—St. Lawrence Power and Seaway Project.

1954 Awards

1. Chicago's sewage disposal system.
2. Colorado River Aqueduct.
3. Empire State Building.
4. Grand Coulee Dam and Columbia Basin Project.
5. Hoover Dam.
6. Panama Canal.
7. San Francisco-Oakland Bay Bridge.

World Production of Crude Petroleum¹

Source: Bureau of Mines; in thousands of 42-gallon barrels

Country	1966	1967	Country	1966	1967
North America:			China e (mainland).....	95,000	86,300
Canada.....	r320,543	352,526	India.....	34,228	42,190
Cuba ^a	r460	756	Indonesia.....	^a r108,429	^a 185,000
Mexico.....	121,149	133,042	Iran.....	771,234	e952,413
Trinidad.....	55,603	64,995	Iraq.....	445,428	445,821
United States.....	3,027,763	3,215,742	Israel.....	r1,359	4,936
South America:			Japan.....	r5,463	5,539
Argentina.....	r104,754	114,739	Kuwait.....	830,537	836,719
Bolivia.....	6,085	14,527	Kuwait-Neutral Zone.....	153,419	152,862
Brazil.....	42,446	53,515	Mongolia e.....	r89	e90
Chile.....	12,428	12,369	Muscat and Oman.....	.....	23,030
Colombia.....	r71,430	68,877	Pakistan.....	2,502	3,700
Ecuador.....	2,660	2,198	Qatar.....	105,945	118,085
Peru.....	23,027	25,857	Sarawak and Brunel.....	r35,232	38,289
Venezuela.....	1,230,464	1,292,876	Saudi Arabia.....	873,349	948,110
Europe:			Taiwan (Formosa).....	226	246
Albania.....	r5,840	7,300	Thailand.....	40	45
Austria.....	19,228	18,725	Trucial States.....	131,531	139,467
Bulgaria.....	2,920	3,642	Turkey.....	r18,062	17,459
Czechoslovakia.....	r1,288	1,424	Africa:		
France.....	21,365	20,639	Algeria ¹	r257,122	e282,200
Germany, West.....	56,832	57,257	Angola.....	4,560	3,880
Hungary.....	13,009	12,864	Congo, Rep. of (Brazzaville).....	467	380
Italy.....	11,974	11,595	Gabon, Republic of.....	10,484	25,203
Netherlands.....	16,438	15,438	Libya.....	r552,712	636,504
Poland.....	2,971	3,335	Morocco.....	r1,783	732
Romania.....	95,588	98,379	Nigeria.....	152,438	116,519
Spain.....	197	560	Tunisia.....	r4,741	17,068
USSR ¹	1,948,000	2,116,000	UAR (Egypt) ¹	r43,300	^a e42,000
United Kingdom.....	r568	648	Oceania:		
Yugoslavia.....	16,460	17,655	Australia.....	3,390	7,594
Asia:			New Zealand.....	^a	^a
Bahrain.....	22,521	25,370	West Iran.....	^a	^a
Burma.....	r4,255	4,446	World total.....	r12,015,830	12,889,705

e-Estimate. r-Revised. ¹Compiled mostly from data available May 1968. ²Natural naphtha and gas oil. ³USSR in Asia (including Sakhalin) included with USSR in Europe. ⁴Excludes Israeli production of Egyptian oilfield. ⁵Beginning May 1, 1963, West Iran transferred to Indonesia, production data for West Iran included for the years 1964, 1965, 1966 and 1967 under Indonesia.

CRUDE PETROLEUM PRODUCTION BY CHIEF STATES

(Figures represent thousands of 42-gallon barrels)

Year	Ark.	Calif.	Ill.	Kans.	La.	Miss.	N. M.	N. D.	Okla.	Texas	Wyo.
1940.....	25,775	223,881	147,647	66,139	103,584	4,400	39,129	.....	156,164	493,209	25,711
1945.....	28,613	326,482	75,094	96,415	131,051	19,062	37,351	.....	139,299	754,710	36,219
1950.....	31,108	327,607	62,028	107,586	208,965	38,236	47,367	.....	164,599	829,874	61,631
1955.....	28,369	354,812	81,423	121,669	271,010	37,741	82,958	11,143	202,817	1,053,297	99,483
1960.....	30,117	305,352	77,341	113,453	400,832	51,673	107,380	21,992	192,913	927,479	133,910
1965.....	25,930	316,428	63,708	104,733	594,853	56,183	119,166	26,350	203,441	1,000,749	138,314
1966 ¹	23,821	345,295	61,661	103,738	674,318	55,227	124,154	27,126	224,839	1,057,706	134,470
1967.....	21,075	359,219	59,142	99,200	774,527	57,147	126,144	25,315	230,749	1,119,762	136,312

¹Revised.

U. S. Petroleum and Natural Gas Production

Year	Crude oil		Natural gas liquids		Natural gas	
	Production	Value	Production	Value	Benzol	Total
1940.....	1,000 bbls.	\$1,000	1,000 bbls.	\$1,000	1,000 42 gal. bbls.	Nil. cu. ft.
1945.....	1,353,214	1,385,440	55,700	68,261	3,167	1,412,081
1950.....	1,713,655	2,094,250	12,004	145,570	2,880	1,828,539
1955.....	1,973,574	4,963,380	181,961	321,832	158	2,155,693
1960.....	2,484,428	6,870,380	283,371	423,775	526	2,768,325
1965.....	2,574,933	7,420,181	340,157	416,819	275	2,915,365
1966.....	2,848,514	8,158,298	441,556	494,354	13	3,290,083
1967.....	3,027,763	8,726,423	468,635	520,138	30	3,496,428
1967 ¹	3,215,742	9,375,727	514,456	.....	87	3,730,999

¹Revised. ²Not available.Total Fuel Supply and Demand¹In thousands of 42-gallon barrels. ^aIncludes special naphtha production.

Year	Gasoline ^a		Kerosene		Distillate fuel oil		Residual fuel oil	
	Production	Demand	Production	Demand	Production	Demand	Production	Demand
1940.....	616,314	614,867	73,882	72,150	183,304	33,718	316,221	356,272
1945.....	793,431	784,392	81,024	81,753	249,224	38,333	469,492	535,092
1950.....	1,024,181	1,019,011	118,512	119,922	398,912	75,435	425,217	570,021
1955.....	1,373,950	1,364,309	117,137	120,143	602,547	108,144	420,331	590,856
1960.....	1,522,497	1,525,126	136,842	133,188	667,050	695,165	332,147	601,893
1965.....	1,733,258	1,756,419	201,788	219,932	765,071	779,644	268,567	601,893
1966.....	1,822,388	1,829,438	226,822	244,320	748,717	801,757	263,961	639,425
1967 ¹	1,872,849	1,874,742	262,596	289,675	804,420	821,035	275,956	674,081

¹Demand in some cases exceeds the production; in these cases the difference is made up by dipping into stocks or by imports. ²In the years prior to 1960 figures are on a 48-state basis. ³Preliminary.

ECONOMICS

United States Budget Receipts and Expenditures—1967-1968

Source: Treasury Department; each fiscal year ends June 30 (data preliminary)

This report incorporates for the first time the changes recommended by the President's Commission on Budget Concepts which have been adopted and put in use.

Classification	Fiscal year 1968	Fiscal year 1967
GROSS RECEIPTS		
(in thousands)		
Internal Revenue:		
Individual income taxes:		
Withheld	\$ 57,267,620	\$ 50,520,874
Other	20,950,634	18,849,721
Total individual income taxes	78,218,254	69,370,595
Corporation income taxes	29,889,415	34,917,825
Employment taxes:		
Federal Insurance Contributions Act	24,566,796	23,311,660
Self-Employment Contributions Act	1,543,852	1,775,978
Railroad Retirement Tax Act	858,517	792,858
Federal Unemployment Tax Act	606,811	602,745
Total Employment taxes	27,575,976	26,483,241
Excise taxes	14,312,551	14,113,748
Estate and gift taxes	3,076,336	3,014,406
Total Internal Revenue	153,072,532	147,899,815
Customs duties	2,113,475	1,971,800
Railroad Unemployment Trust Fund	139,595	145,666
Deposits by states	5,175,584	5,173,670
Federal Medical Insurance for aged, trust fund	645,462	614,546
Federal employees retirement contributions	1,340,745	1,209,125
Total Miscellaneous receipts	2,373,235	2,121,881
Total Budget receipts	\$164,860,627	\$159,136,502
EXPENDITURES		
Legislative Branch	\$ 268,513	\$ 251,293
The Judiciary	93,991	87,638
Executive Office of the President	28,083	27,767
Funds appropriated to the President:		
Alaska programs		2,601
Appalachian development programs	108,163	
Disaster relief	31,760	53,472
Emergency fund for the President	25,122	
Expansion of defense production	62,335	33,975
Expenses of management improvement	231	28
International Financial Institutions	201,446	170,000
Office of Economic Opportunity	1,872,176	1,485,575
Peace Corps	110,228	112,189
Philippine education programs	15,364	3,400
Public works acceleration	4,957	21,133
Special foreign currency activities	201	226
Southeast hurricane disaster	590	10,408
Military assistance:		
Office of Secretary of Defense	25,418	59,144
Department of the Army	329,829	388,297
Department of the Navy	85,538	130,033
Department of the Air Force	177,387	331,175
All other agencies	3,050	—5,630
Foreign military sales fund	175,131	161,068
Total Military assistance	1,810,605	2,134,037
Economic assistance	2,091,144	2,483,374
Total Funds appropriated to the President	6,329,324	6,510,673
Agriculture Department	13,411,479	10,619,860
Commerce Department	1,030,999	973,946
Defense Department		
Military personnel	21,931,589	19,786,720
Operation and maintenance	20,485,623	19,000,253
Procurement	23,297,616	19,011,857
Research, development, test and evaluation	7,718,944	7,159,668
Military construction	1,280,739	1,535,579
Family housing	495,171	485,200
Civil Defense	107,637	100,058
Revolving and management funds	2,136,639	512,978
Total Military	77,454,038	67,588,396
Corps of Engineers, Dept. of the Army	1,287,585	1,303,130
Panama Canal Zone	197,820	169,134
Other	41,774	39,075
Navy—Wildlife conservation	12	12
Air Force—Wildlife conservation	45	48
Total Civil	1,521,513	1,501,543
Total Defense Department	78,975,551	69,089,939
Health, Education and Welfare Department	41,162,756	34,890,430
Housing and Urban Development Department	1,847,014	1,641,285
Interior Department	1,813,203	1,725,986
Justice Department	437,756	411,398
Labor Department	3,383,328	3,175,476
Post Office Department	6,793,512	6,467,613
State Department	428,839	423,891
Transportation Department	5,781,572	5,475,583
Treasury Department	15,115,203	13,818,534
Interest on the public debt	14,584,839	13,391,068
Atomic Energy Commission	2,468,578	2,264,488
General Services Administration	591,492	655,293
National Aeronautics and Space Administration	4,724,901	5,425,815
Veterans Administration	7,804,188	7,350,794
Other Independent Agencies:		
American Battle Monuments Commission	2,182	2,134
Arms Control Disarmament Agency	10,740	9,500
Central Intelligence Agency (construction)	41	1,432
Civil Aeronautics Board	64,073	73,858
Civil Service Commission	3,203,459	2,829,306
Commission of Fine Arts	101	117
Commission on Civil Rights	2,530	2,450
District of Columbia federal payment	78,853	61,394
Equal Employment Opportunity Commission	6,179	4,631

Classification	Fiscal year 1968	Fiscal year 1967
	(in thousands)	
Export-Import Bank of the United States	179,282	155,579
Farm Credit Administration	-34,606	-11,583
Federal Coal Mine Safety Board of Review	97	76
Federal Communications Commission	19,261	18,253
Federal Deposit Insurance Corporation	-259,174	-238,859
Federal Field Committee for Development Plan in Alaska	225	181
Federal Home Loan Bank Board	137,892	63,164
Federal Maritime Commission	3,578	3,454
Federal Mediation and Conciliation Service	7,336	7,079
Federal Power Commission	14,576	14,081
Federal Radiation Council	87	107
Federal Trade Commission	15,221	14,108
Foreign Claims Settlement Commission	198,063	20,997
Historical and Memorial Commission	27	124
Indians Claims Commission	446	336
Intergovernment agencies	4,294	1,659
Interstate Commerce Commission	23,690	27,107
National Capital Housing Authority		44
National Capital Planning Commission	872	1,245
National Capital Transportation Agency	1,871	2,977
National Labor Relations Board	31,863	30,197
National Science Foundation	2,014	1,981
President's Advisory Comm. on Labor-Management	448,293	414,886
Railroad Retirement Board	936,288	722,165
Renegotiation Board	2,640	2,519
Securities and Exchange Commission	17,642	16,681
Selective Service System	56,764	58,036
Small Business Administration	238,275	156,721
Tennessee Valley Authority	537,268	468,532
U. S. Information Agency	187,378	187,958
Water Resources Council	2,929	1,972
Total Other independent agencies	6,213,818	5,182,353
Undistributed interfund receipt transactions	-4,596,368	-4,027,920
Total expenditures (excluding net lending)	\$194,108,115	\$172,442,136
Receipt-expenditure account surplus (+) or deficit (-)	-19,470,638	-3,629,071

United States Net Receipts and Expenditures

Source: Treasury Department; annual statements for year ending June 30

Yearly average	Re- ceipts	Expen- ditures	Yearly average	Re- ceipts	Expen- ditures	Yearly average	Re- ceipts	Expen- ditures
	\$1,000	\$1,000		\$1,000	\$1,000		\$1,000	\$1,000
1789-1800 ¹ ...	5,717	5,776	1871-1875....	336,830	287,460	1908.....	601,862	659,196
1801-1810 ² ...	13,056	9,086	1876-1880....	288,124	255,598	1909.....	604,320	693,744
1811-1820 ² ...	21,032	23,943	1881-1885....	366,961	257,691	1910.....	675,512	693,617
1821-1830 ² ...	21,923	16,162	1886-1890....	375,448	279,134	1911.....	701,833	691,202
1831-1840 ² ...	30,461	24,495	1891-1895....	352,891	363,599	1912.....	692,609	689,881
1841-1850 ² ...	28,545	34,097	1896-1900....	434,877	457,451	1913.....	724,111	724,512
1851-1860....	60,237	60,163	1901-1905....	559,481	535,559	1914.....	734,673	735,081
1861-1865....	160,907	683,785	1906.....	594,984	570,202	1915.....	697,910	760,586
1866-1870....	447,301	377,642	1907.....	665,860	579,129	1916.....	782,534	734,056
Yearly Average	Receipts	Expenditures	Yearly Average	Receipts	Expenditures	Yearly Average	Receipts	Expenditures
1917.....	\$1,124,324,795	\$1,977,681,751	1943*.....	\$21,986,700,787	\$79,407,131,152			
1918.....	3,664,582,865	612,696,702,471	1944*.....	43,635,315,356	95,058,707,898			
1919.....	5,152,257,136	18,514,879,955	1945*.....	44,475,303,665	98,416,219,788			
1920.....	6,694,665,389	6,403,343,841	1946*.....	39,771,403,710	80,447,574,319			
1921.....	6,624,932,961	5,115,927,690	1947*.....	39,786,181,036	39,032,393,376			
1922.....	5,109,104,151	3,372,607,900	1948*.....	41,488,178,842	733,068,708,998			
1923.....	4,007,135,481	3,294,627,529	1949*.....	37,695,549,449	39,506,989,497			
1924.....	4,012,044,702	3,048,677,965	1950*.....	36,494,900,837	839,617,003,195			
1925.....	3,780,148,685	3,063,105,332	1951*.....	47,567,813,484	44,057,830,859			
1926.....	3,962,755,690	3,097,611,823	1952*.....	61,390,944,552	65,407,584,930			
1927.....	4,129,394,441	2,974,029,674	1953.....	64,825,044,026	74,274,257,484			
1928.....	4,042,348,156	3,103,264,855	1954.....	64,655,386,989	67,772,353,245			
1929.....	4,033,250,225	3,298,859,486	1955.....	60,389,743,895	64,569,972,817			
1930.....	4,177,941,702	3,440,268,884	1956.....	68,165,329,582	69,539,776,178			
1931.....	5,115,556,923	8,577,434,003	1957.....	71,028,649,978	69,433,078,427			
1932.....	1,923,913,117	4,659,202,825	1958.....	69,116,717,311	71,936,171,353			
1933.....	2,021,212,943	4,622,865,028	1959.....	67,915,348,624	80,342,335,375			
1934.....	3,064,267,912	6,693,899,854	1960.....	77,763,460,220	76,539,412,798			
1935.....	3,729,913,845	6,520,965,945	1961.....	77,659,424,905	81,515,167,453			
1936.....	4,068,936,689	8,493,485,919	1962.....	81,409,092,072	87,786,766,580			
1937.....	3,978,600,695	7,756,021,409	1963.....	86,357,020,251	92,589,764,029			
1938*.....	5,615,221,162	6,791,837,760	1964.....	89,458,664,071	97,684,374,794			
1939*.....	4,996,299,530	18,858,457,570	1965.....	93,071,796,891	96,506,904,210			
1940*.....	5,144,013,044	9,062,032,204	1966.....	106,978,344,155	104,727,263,667			
1941*.....	7,102,931,383	13,262,203,742	1967.....	149,554,815,000	153,183,886,000			
1942*.....	12,555,436,084	44,045,678,816	1968 (prel.)	153,485,067,000	172,955,706,000			

*Revised to exclude from both net budget receipts and budget expenditures the appropriations of receipts to the Railroad Retirement Account.

(1) Average for period March 4, 1789, to Dec. 1, 1800.

(2) Years ended Dec. 31, 1801, to 1842; average for 1841-1850 is for the period Jan. 1, 1841, to June 30, 1850.

(3) Receipts from 1937 on have deducted appropriations to Federal old-age and survivors insurance trust fund.

(4) Expenditure; for years 1932 through 1946 have been revised to include Government Corporations (wholly owned) etc. (net).

(5) Effective January 3, 1949, amounts refunded by the Government, principally for the overpayment of taxes, are being reported as deductions from total receipts rather than as expenditures. Also, effective July 1, 1948, payments to the Treasury, principally by wholly owned Government corporations for retirement of capital stock and for disposition of earnings, are excluded in reporting both budget receipts and expenditures. Neither of these changes affects the size of the budget surplus or deficit. Beginning 1931 figures in each case have been adjusted accordingly for comparative purposes.

(6) Figures for 1918 through 1946 are revised to exclude statutory debt retirement (sinking fund, etc.).

(7) Excludes \$3 billion transferred to Foreign Economics Corporation Trust Fund.

(8) Includes \$3 billion representing expenditures made from the FEC Trust Fund.

Net Public and Private Debt

Sources: Office of Business Economics, U S Dept of Commerce
(In billions of dollars)

End of year	Public					Private							
	Public and private total	Total public	Federal ¹	State and Local ²	Total private	Individual and noncorporate							
						Corporate	Farm		Nonfarm mortgage	Other nonfarm			
							Production	Mortgage	1-4 family residential	Multifamily residential & commercial	Commercial	Financial	Consumer
1950	490.3	239.4	218.7	20.7	250.9	142.1	6.2	6.1	42.9	16.5	8.9	6.9	21.4
1955	672.3	269.8	231.5	38.1	102.5	212.1	9.7	9.1	83.8	24.9	12.4	11.6	38.9
1959	846.2	298.8	243.2	55.6	517.4	283.3	11.7	11.3	124.3	36.5	15.3	13.4	51.5
1960	800.3	301.0	241.0	60.0	589.2	302.8	12.3	12.8	134.2	40.2	16.6	14.2	56.0
1962 ³	1,016.7	331.2	257.5	73.7	685.5	338.2	15.0	15.2	158.3	48.0	19.3	18.3	63.2
1963 ³	1,068.9	348.2	258.7	82.0	720.7	376.1	16.4	16.8	177.1	21.5	21.5	20.8	70.5
1964 ³	1,151.8	363.3	265.0	89.3	788.5	409.9	17.1	18.9	193.1	25.7	23.9	21.5	78.4
1965 ³	1,240.2	373.7	267.9	96.4	866.5	452.3	18.1	21.2	208.7	28.0	27.6	22.7	87.9
1966 ³	1,331.7	388.6	274.0	102.7	943.1	498.3	18.7	23.3	221.0	30.8	32.0	24.2	94.8
1967 ³	1,419.1	410.7	287.7	113.4	1,008.4	534.4	20.6	25.1	232.2	33.5	34.4	29.0	99.2

¹Net Federal Government debt is the outstanding debt held by the public, as defined in the Budget of the U. S. Govt., Fiscal Year 1969.

²Data for State and local governments are for June 30 of each year

³Figures for 1962 thru 1966 have been revised.

Public Debt of the United States

Source: Treasury Department

p Preliminary subject to revision. r Revised

Fiscal Year	Gross Debt	Per Cap.	Fiscal Year	Gross Debt	Per Cap.	Fiscal Year	Gross Debt	Per Cap.
	Dollars			Dollars			Dollars	
1870	2,436,453,269	61.06	1930	16,185,309,831	131.51	1963	305,839,633,996	1,614.74
1880	2,090,908,372	41.60	1940	42,967,531,038	367.47	1964	311,531,973,313	1,621.55
1890	1,132,396,584	17.89	1950	257,357,332,351	1,696.67	1965	317,273,898,984	1,630.46
1900	1,263,416,913	16.60	1960	288,339,760,848	1,584.70	1966	319,907,087,795	1,624.55
1910	1,146,939,969	12.41	1961	288,970,938,610	1,572.58	1967	326,220,937,795	1,638.33
1920	24,299,321,467	228.23	1962	298,200,822,721	1,597.60	1968	347,578,406,426	1,727.82

National Income by Type of Income

(Millions of dollars)

	1959	1960	1962*	1963*	1964	1965 ¹	1966 ¹	1967
Compensation of employees..	279,093	294,226	324,632	341,004	365,720	393,844	435,611	468,163
Wage and salaries..	258,187	270,844	299,091	311,095	333,683	358,885	394,560	423,382
Private..	212,538	222,108	240,132	251,616	269,355	289,621	316,865	337,100
Military..	9,873	9,894	10,756	10,849	11,692	12,143	14,560	16,255
Government civilian..	35,776	38,842	45,203	48,830	52,636	57,121	63,135	70,027
Supplements to wages, sal..	20,906	23,882	27,541	29,909	32,037	34,959	41,051	44,781
Empl. contrib. soc. ins..	9,650	11,386	13,657	15,045	15,411	16,217	20,212	21,522
Other labor income..	11,256	12,002	13,384	14,564	16,626	18,742	20,839	22,559
Empl. contrib. priv. pen..	9,064	9,684	11,356	12,165	13,670	15,623	17,355	19,462
Other..	2,192	2,318	2,528	2,699	2,956	3,119	3,484	3,797
Proprietors' income..	46,550	46,209	50,111	51,013	52,315	57,253	60,665	60,715
Business and professional..	35,129	34,244	37,093	37,910	40,180	42,416	44,775	46,305
Income uninc. enterprises..	35,269	34,263	37,076	37,944	40,259	42,796	45,112	46,646
Inventory valu. adjustment..	-140	-19	17	-34	-79	-380	-337	-341
Farm..	11,421	11,965	13,018	13,103	12,135	14,837	15,890	14,410
Rental income of persons..	15,596	15,822	16,691	17,139	17,963	18,952	19,793	20,322
Corp. prof. inv. adjust..	51,676	49,904	55,660	58,933	66,276	76,070	83,900	80,410
Corp. profits before tax..	22,141	49,712	55,408	58,491	66,789	77,737	85,643	81,508
Corp. profits tax liability..	23,679	23,032	24,179	28,324	28,345	31,326	34,629	33,499
Corp. profits after tax..	28,462	26,680	31,229	33,077	38,444	46,461	51,014	48,099
Dividends..	12,580	13,437	15,183	16,154	17,811	19,808	21,718	22,828
Undistributed profits..	15,882	13,243	16,046	16,623	20,633	26,653	29,266	25,171
Inventory valuation adj..	-465	192	252	-468	-513	-1,717	-1,743	-1,188
Net interest..	7,110	8,361	11,593	13,838	15,794	18,217	20,791	23,257
National income..	400,025	414,522	457,687	481,927	518,068	564,336	620,760	652,867

*The figures for 1962 and 1963 reflect the new depreciation guidelines issued by the Treasury Department July 11, 1962, and the investment tax credit provided in the Revenue act of 1962. ¹Revised.

Gross National Product, National Income, and Personal Income

Source: Department of Commerce, Office of Business Economics
(In millions of dollars) Includes Alaska and Hawaii beginning in 1960

	1950	1955	1960	1964	1965	1966	1967
Gross national product..	284,769	397,960	503,734	632,410	684,884	747,568	789,463
Less: Capital consumption allowances..	18,342	31,474	43,408	56,030	59,765	64,093	69,166
Equals: Net national product..	266,427	366,486	460,326	576,330	625,119	683,475	720,297
Less: Indirect business tax and nontax liability..	23,334	32,067	45,200	58,411	62,457	65,342	69,565
Business transfer payments..	778	1,245	1,878	2,489	2,737	2,981	3,138
Statistical discrepancy..	1,488	2,093	-1,031	-1,310	-3,121	-3,318	-3,522
Plus: Subsidies minus current surplus of government enterprises..	247	-63	243	1,328	1,290	2,290	1,551
Equals: National income..	241,074	331,018	414,522	518,068	564,336	620,760	652,867
Less: Corporate profits and inventory valuation adjustment..	37,669	46,871	49,904	66,276	76,070	83,900	80,410
Contributions for social insurance..	6,870	11,135	20,672	27,945	29,621	37,930	41,885
Wage accruals less disbursement..	24	0	0	0	0	0	0
Plus: Government transfer payments to persons..	14,094	16,065	26,609	34,236	37,185	40,952	48,599
Net interest paid by gov't and consumers..	7,198	10,049	15,083	19,079	20,518	22,286	21,778
Dividends..	8,848	10,475	13,437	17,811	19,808	21,748	22,438
Business transfer payments..	778	1,245	1,878	2,489	2,737	2,981	3,138
Equals: Personal income..	227,619	310,889	400,953	517,462	558,893	616,845	648,815

National Income by Industry

Source: Department of Commerce, Office of Business Economics
(Millions of dollars) Beginning with 1960 data includes Alaska and Hawaii. ¹Revised.

	1959	1960	1962	1963 ¹	1964 ¹	1965 ¹	1966 ¹	1967
Agriculture, forestry, fisheries...	16,035	16,852	18,455	18,587	17,973	21,047	22,510	21,417
Farms	15,075	15,857	17,301	17,404	16,653	19,630	20,997	19,812
Aggrl. services, forestry, fisheries	965	995	1,154	1,183	1,320	1,417	1,513	1,605
Mining	5,523	5,732	5,653	5,954	5,924	6,116	6,511	6,435
Metal mining	587	817	758	785	861	908	1,183	912
Coal mining	1,306	1,253	1,411	1,212	1,307	1,332	1,391	1,443
Crude petroleum, natural gas...	2,772	2,734	2,811	2,917	2,638	2,754	2,744	2,824
Nonmetallic min. & quar.	858	928	943	1,040	1,118	1,122	1,193	1,256
Contract construction	20,476	20,810	22,834	24,198	26,455	29,116	32,023	33,249
Manufacturing	124,040	125,822	136,988	143,839	155,558	172,572	191,798	196,613
Nonendurable goods	51,103	52,208	55,609	57,508	61,918	66,482	73,190	75,831
Food, kindred products	11,943	12,225	12,832	13,409	14,279	14,495	15,580	16,324
Tobacco manufactures	981	1,017	1,130	1,216	1,196	1,111	1,313	1,418
Textile mill products	4,477	4,488	4,664	4,713	5,237	5,837	6,502	6,252
Appsl, other fabric prod.	4,732	4,933	4,439	4,572	6,072	6,556	7,263	7,561
Paper, allied products	4,602	4,707	5,112	5,163	5,517	5,929	6,637	6,804
Ptg., pub., allied indust.	6,277	6,655	7,119	7,312	8,255	8,746	9,669	10,097
Chemicals, allied products	9,172	9,159	9,910	10,402	11,225	12,648	13,752	14,511
Petroleum refining, related ind.	4,597	4,586	4,489	4,597	4,785	5,381	5,839	6,028
Rubber, misc. plastic products	2,766	2,809	3,172	3,286	3,576	3,949	4,553	4,646
Leather, leather products	1,556	1,609	1,686	1,738	1,776	1,830	2,082	2,190
Durable goods	72,397	73,614	81,379	86,331	93,640	106,090	118,608	120,782
Lumber, wood, except furn.	3,454	3,255	3,289	3,549	3,862	4,212	4,375	4,337
Furniture and fixtures	2,067	2,092	2,260	2,363	2,574	2,870	3,226	3,308
Stone, clay, glass products	4,765	4,640	4,748	5,062	5,443	5,713	5,965	5,857
Primary metal industries	10,895	11,163	10,937	11,521	13,100	14,735	16,148	15,949
Fabricated metal products	8,988	8,113	8,798	9,184	10,151	11,518	13,066	13,444
Machinery, except electrical	11,765	11,861	13,307	14,016	16,162	18,357	21,259	22,338
Electrical machinery	10,160	10,469	12,086	12,326	12,760	14,850	17,509	18,811
Trans. equip. exc. autos.	8,430	8,270	9,828	10,411	10,759	11,361	13,781	15,318
Motor vehicles equipment	8,069	8,532	10,314	11,848	12,504	15,432	15,188	13,837
Instruments	2,902	2,954	3,265	3,507	3,650	4,170	4,951	5,197
Misc. manufacturing	2,342	2,325	2,647	2,544	2,675	2,872	3,140	3,241
Transportation	17,903	18,177	19,060	20,025	21,226	23,150	24,969	26,096
Railroad	6,941	6,718	6,438	6,634	6,710	7,047	7,295	7,215
Local suburban highway pass.	1,598	1,639	1,703	1,716	1,770	1,897	1,977	2,086
Motor freight trans., warehouse g.	5,697	5,840	6,588	6,913	7,420	8,317	9,031	9,338
Water transportation	1,522	1,654	1,724	1,715	1,975	1,910	2,334	2,361
Air transportation	1,283	1,400	1,664	1,881	2,257	2,697	3,042	3,681
Pipeline transportation	357	355	340	426	404	401	431	448
Transportation service	505	571	603	640	687	801	859	967
Communication	7,709	8,237	9,284	9,820	10,507	11,241	12,469	13,141
Telephone and telegraph	6,857	7,304	8,253	8,717	9,380	9,991	11,056	11,753
Radio broadcasting, television	852	933	1,031	1,103	1,127	1,250	1,413	1,388
Electric, gas, sanitary services	8,135	8,934	9,739	10,344	10,989	11,447	12,155	12,934
Wholesale and retail trade	63,332	64,396	70,328	73,414	79,319	84,302	91,496	96,845
Wholesale trade	22,710	23,126	25,505	26,768	28,656	30,341	33,543	35,591
Retail trade	40,622	41,270	44,823	46,646	50,663	53,961	57,953	61,254
Finance, ins. and real estate	43,771	45,940	50,730	53,567	57,096	61,857	67,128	70,928
Banking	6,640	7,276	7,320	7,977	8,495	8,939	9,911	10,662
Credit agencies, holding, other								
Investment co.	-402	-435	-333	-361	-741	505	-269	-303
Security, commodity brokers	1,391	1,243	1,613	1,397	1,627	1,903	2,260	2,730
Insurance carriers	4,299	4,641	5,064	4,903	4,994	5,186	5,947	5,944
Insurance agents, brokers, service	1,838	1,948	2,175	2,268	2,490	2,671	2,851	3,018
Real estate	30,005	31,267	34,991	37,383	40,221	43,613	46,418	48,877
Services	41,664	44,371	50,678	54,134	59,080	64,076	70,975	77,015
Hotels, other lodging places	2,048	2,111	2,270	2,423	2,577	2,788	3,217	3,416
Personal services	4,462	4,608	5,036	5,282	5,691	5,993	6,564	6,991
Misc. business services	4,735	5,093	6,122	6,614	7,490	8,413	9,558	10,501
Automobile repair, serv., garages	1,616	1,762	2,017	2,174	2,368	2,450	2,811	2,781
Misc. repair services	1,092	1,105	1,227	1,315	1,378	1,501	1,695	1,839
Motion pictures	908	894	890	910	1,053	1,005	1,360	1,472
Amusement, recreation services	1,492	1,661	1,849	1,970	2,120	2,221	2,478	2,634
Medical, other health services	9,967	10,724	12,609	13,519	14,865	16,256	17,946	19,563
Legal services	2,488	2,636	3,162	3,424	3,724	4,069	4,438	4,679
Educational services	2,163	2,402	3,010	3,374	3,768	4,191	4,722	5,313
Nonprofit membership org.	3,567	3,815	4,298	4,562	4,907	5,306	5,790	6,370
Misc. professional services	3,693	3,761	4,385	4,743	5,231	5,719	6,568	7,164
Private households	3,553	3,799	3,803	3,824	3,908	3,964	4,028	4,292
Govt., gov't. enterprises	49,266	52,891	60,670	64,681	69,992	75,233	84,554	93,614
Federal—general gov't.	21,030	21,868	24,277	29,676	27,148	33,458	38,061	41,719
Federal	24,380	25,524	28,347	25,261	31,850	28,450	32,588	35,841
Gov't. enterprises	3,350	3,656	4,070	4,415	5,008	5,472	6,478	6,578
State & local—gen. gov't.	23,280	25,615	30,391	35,005	35,783	41,775	46,993	51,465
State and local	24,886	27,367	32,323	32,859	38,142	39,345	43,927	49,003
Government enterprises	1,606	1,752	1,932	2,146	2,269	2,430	2,566	2,892
Rest of the world	2,171	2,360	3,268	3,364	3,959	4,179	4,172	4,550
All industries, total	400,025	414,522	457,687	481,927	518,068	564,336	620,760	652,867

Appropriations by the Federal Government

Source: Treasury Department (Fiscal Year)

Year	Appropriations	Year	Appropriations	Year	Appropriations	Year	Appropriations
1885..	\$306,077,469.58	1932..	\$5,181,973,000.95	1944..	\$118,411,173,965.24	1956..	\$63,857,731,203.86
1890..	395,430,284.26	1933..	5,785,252,641.95	1945..	73,067,712,071.39	1957..	70,717,305,080.55
1895..	492,477,959.97	1934..	7,692,447,339.17	1946..	76,597,999,662.67	1958..	77,145,934,082.25
1900..	698,912,782.83	1935..	7,527,559,327.66	1947..	40,823,734,061.18	1959..	82,055,863,758.58
1905..	781,288,215.95	1936..	9,306,520,504.31	1948..	42,098,608,820.42	1960..	80,169,728,962.87
1910..	1,044,433,622.64	1937..	10,380,975,796.61	1949..	47,357,993,957.59	1961..	89,229,575,129.94
1915..	1,122,471,919.12	1938..	10,192,826,025.92	1950..	52,867,672,465.21	1962..	91,447,827,731.00
1920..	6,454,596,649.56	1939..	12,118,036,335.68	1951..	67,968,083,088.46	1963..	102,149,886,560.52
1925..	3,748,651,750.35	1940..	13,349,202,681.73	1952..	127,788,153,262.97	1964..	101,978,886,031.43
1929..	4,635,577,973.85	1941..	19,822,003,450.61	1953..	94,918,821,631.67	1965..	107,555,087,022.62
1930..	4,665,236,678.04	1942..	20,292,689,348.60	1954..	74,744,844,304.88	1966..	125,998,173,095.19
1931..	4,897,877,825.56	1943..	150,766,672,723.94	1955..	54,761,172,461.58	1967..	140,861,235,376.56

U. S. Currency and Coin—June 30, 1968

Source: Treasury Department

Amounts Outstanding and in Circulation

	Currency Being Issued ¹			Coin		
	Total	Federal Reserve Notes ²	U. S. Notes	Total	Silver Dollars	Fractional Coin
Outstanding	\$44,753,668,777	\$44,431,129,761	\$322,539,016	\$6,061,783,000	\$484,719,600	\$5,577,063,400
Held by:						
The Treasury	156,480,991	139,908,679	16,572,312	339,082,103	3,015,476	336,066,627
Fed. Res. Banks	2,575,508,284	2,568,729,374	6,778,910	413,593,967	14,963	413,579,004
In circulation	\$42,021,679,502	\$41,722,491,708	\$299,187,794	\$5,309,106,930	\$481,689,161	\$4,827,417,769

Currencies No Longer Issued

	Total	Federal Reserve Notes ²	Fed. Res. Bank Notes	National Bank Notes	Certificates		Treas. Notes of 1890
					Gold ⁴	Silver	
Outstanding	\$323,363,566	\$1,022,785	\$59,048,002	\$20,700,720	\$4,010,754	\$238,570,771	\$10,534
Held by:							
The Treasury	1,209,611	8,155	149,258	34,661	142,750	964,787	
Fed. Res. Banks	12,387,097		44,580	2,270		12,340,247	
In circulation	\$309,676,858	\$1,014,630	\$58,854,164	\$20,663,789	\$3,868,004	\$225,265,737	\$10,534

Currency by Denomination and Coin, in Circulation

Denomination	Federal Reserve ²	U. S. Notes	No Longer Issued	Total
\$1	\$1,697,462,663	\$145,408	\$162,765,764	\$1,860,373,835
2		136,127,176	14,001	136,141,177
5	2,515,959,605	162,892,675	49,303,462	2,728,155,742
10	8,258,236,920	12,165	29,168,260	8,287,417,345
20	15,401,966,170	4,770	21,970,234	15,423,941,174
50	3,916,969,000	800	15,318,500	3,932,288,300
100	9,399,615,850	2,300	30,307,150	9,429,925,300
500	239,858,500	2,500	268,000	240,127,000
1,000	285,685,000		348,000	286,031,000
5,000	2,970,000		75,000	3,045,000
10,000	3,770,000		140,000	3,910,000
Fractional Parts			487	487
Total Currency	\$41,722,491,708	\$299,187,794	\$309,676,858	\$42,331,356,360
Total Coin				5,309,106,930
Total currency and Coin				\$47,640,463,290

Comparative Totals of Money in Circulation (Selected Dates)

Date	Amounts (millions)	Per capita ⁵	Date	Amounts (millions)	Per capita ⁵
June 30, 1968	\$47,640.4	236.82	June 30, 1940	7,847.5	\$59.40
June 30, 1967	44,712.4	224.56	June 30, 1935	5,567.1	43.75
June 30, 1965	39,719.8	204.14	June 30, 1930	4,522.0	36.74
June 30, 1960	32,064.6	177.47	June 30, 1925	4,815.2	41.56
June 30, 1955	30,229.3	182.90	June 30, 1920	5,467.6	51.36
June 30, 1950	27,156.3	179.03	June 30, 1915	3,319.6	33.01
June 30, 1945	26,746.4	191.14	June 30, 1910	3,148.7	34.07

Total currency and coin outstanding, \$48,126,692,699; less amounts held by the Treasury, \$799,071,286 and the Federal Reserve banks, \$2,615,178,217; amounts in circulation, \$44,712,443,196.

¹Excludes gold certificates. Series of 1934, which are issued only to Federal Reserve banks and do not appear in circulation. ²Issued on and after July 1, 1929. ³Issued before July 1, 1929. ⁴Issued before Series of 1934. ⁵Based on Census Bureau estimates of population. ⁶Highest amount to date.

There is maintained in the Treasury—(i) as a reserve for United States notes—\$156,039,431 in gold bullion; (ii) as security for outstanding silver certificates issued after June 30, 1929 silver in bullion and standard silver dollars of a monetary value equal to the face amount of such silver certificates; and (iii) as security for gold certificates of Series of 1934—gold, bullion of a value at the legal standard equal to the face amount of such gold certificates. Treasury notes of 1890, silver certificates issued before July 1, 1929, and gold certificates prior to Series of 1934 are redeemable from the general fund of the Treasury and upon redemption will be retired. Federal reserve notes are contingent liabilities of the United States. Funds have been deposited in the Treasury for the retirement of Federal Reserve notes of all series prior to the series of 1928. Federal Reserve notes, except those for which such payment has been

made to the Treasury, are a first lien on all assets of the issuing Federal Reserve Bank and secured by the deposit by the Federal Reserve Bank concerned with its Federal Reserve Agent, of a like amount of collateral consisting of such discounted or purchased paper as is eligible under the terms of the Federal Reserve Act, or gold certificates, or securities issued by the United States. Each Federal Reserve Bank must maintain reserves in gold certificates of not less than 25 percent against its Federal Reserve notes in actual circulation. Gold certificates deposited with Federal Reserve Agents as collateral, and those deposited with the Treasurer of the United States as a redemption fund, are counted as part of the required reserve. "Gold certificates" as herein used includes credits with the Treasurer of the United States payable in gold certificates. Federal Reserve bank notes and National bank notes are in process of retirement.

U. S. Money in Circulation, by Denominations

Source: Federal Reserve System

Outside Treasury and Federal Reserve Banks. (In millions of dollars)

End of year	Total in circulation	Coin and small denomination							Large denomination currency							Unassorted
		Total	Coin	\$1	\$2	\$5	\$10	\$20	Total	\$50	\$100	\$500	\$1,000	\$5,000	\$10,000	
1945	28,515	20,683	1,274	1,039	73	2,313	6,782	9,201	7,834	2,327	4,220	454	801	7	24	2
1950	27,741	19,305	1,554	1,113	64	2,049	5,998	8,529	8,438	2,422	5,043	368	588	4	12	2
1955	31,158	22,021	1,927	1,312	75	2,151	6,817	9,940	9,136	2,736	5,641	307	438	3	12	.....
1960	32,869	23,521	2,437	1,593	88	2,246	6,691	10,536	9,348	2,815	5,954	249	316	3	10	.....
1965	42,056	29,842	4,027	1,908	127	2,618	7,794	13,369	12,214	3,540	8,135	245	285	3	4	.....
1966	44,663	31,695	4,480	2,051	137	2,756	8,070	14,201	12,969	3,700	8,735	241	286	3	14	.....
1967	47,226	33,468	4,918	2,035	136	2,850	8,366	15,162	13,758	3,915	9,311	240	285	3	4	.....

Principal Assets and Liabilities of all U. S. Banks

As of Dec. 30, 1967

Source: Federal Deposit Insurance Corporation, Washington, D. C. (In thousands of dollars)

States	Net total	Investments*	Deposits	States	Net total	Investments*	Deposits
Alabama.....	2,031,907	742,516	3,871,399	Ohio.....	10,648,342	3,618,051	18,623,689
Alaska.....	235,282	77,757	423,415	Oklahoma.....	2,354,436	841,170	4,537,617
Arizona.....	1,715,969	314,866	2,504,362	Oregon.....	2,099,900	542,860	3,472,773
Arkansas.....	1,257,902	416,752	2,394,036	Pennsylvania.....	17,569,563	3,893,266	27,120,897
California.....	26,765,636	4,768,816	41,254,076	Rhode Island.....	1,770,656	248,191	2,421,790
Colorado.....	2,097,961	582,087	3,472,695	South Carolina.....	1,002,217	299,923	1,759,047
Connecticut.....	6,293,263	777,877	8,453,443	South Dakota.....	652,176	319,198	1,214,406
Delaware.....	808,428	235,937	1,341,002	Tennessee.....	3,434,718	949,171	5,850,609
Dist. of Col.....	1,482,135	605,229	2,591,401	Texas.....	11,590,301	3,067,510	20,854,898
Florida.....	4,782,399	2,084,515	9,708,565	Utah.....	955,083	208,478	1,541,102
Georgia.....	3,364,553	852,873	5,737,443	Vermont.....	675,191	130,630	890,005
Hawaii.....	776,118	150,354	1,174,662	Virginia.....	3,843,088	1,002,914	6,126,754
Idaho.....	652,107	172,315	1,053,332	Washington.....	3,556,893	746,406	5,573,281
Illinois.....	17,021,811	5,479,537	29,464,047	West Virginia.....	1,118,736	594,346	2,131,388
Indiana.....	4,583,509	1,999,328	8,410,023	Wisconsin.....	4,275,947	1,774,738	7,812,775
Iowa.....	2,890,475	1,103,491	5,246,446	Wyoming.....	346,267	150,181	638,517
Kansas.....	2,053,284	929,140	4,052,623	Other areas			
Kentucky.....	2,212,828	933,435	4,227,745	Pacific Islands.....	45,759	1,154	66,369
Louisiana.....	2,723,628	1,101,370	5,255,540	Panama Canal Zone.....	3,264		34,924
Maine.....	1,76,177	238,305	1,706,397	Puerto Rico.....	1,320,446	203,053	1,717,350
Maryland.....	3,220,074	864,610	5,063,456	Virgin Islands.....	83,729	3,397	141,844
Massachusetts.....	13,224,020	2,699,246	18,422,836	Tot. U. S.....	290,252,700	66,956,584	458,701,119
Michigan.....	10,659,417	2,784,372	17,398,760	50 states and D. C.....	288,799,502	66,748,980	456,740,642
Minnesota.....	4,435,005	1,414,976	7,863,179	Other areas.....	1,453,198	207,604	1,960,477
Mississippi.....	1,350,540	427,921	2,435,295				
Missouri.....	5,275,516	1,949,630	10,024,244				
Montana.....	708,625	291,818	1,292,391				
Nebraska.....	1,565,043	469,914	2,793,323				
Nevada.....	508,801	170,705	838,602				
N. Hampshire.....	1,343,998	223,245	1,684,284				
New Jersey.....	8,999,736	2,120,102	14,253,246				
New Mexico.....	612,357	210,799	1,102,735				
New York.....	82,032,530	10,139,607	113,791,842				
North Carolina.....	3,342,923	730,556	5,607,802				
North Dakota.....	601,985	297,646	1,222,442				

*Investment figures above are for U. S. Government securities direct and guaranteed obligations. Other investment totals follow: Obligations of States and political subdivisions \$50,340,975. Securities of Federal agencies and corporations (not guaranteed by the U. S.), \$10,208,523. Other securities, \$9,468,092.

All Banks in United States—Number, Deposits

Source: Federal Reserve System

Comprises all national banks in the United States and all state commercial banks, trust companies, mutual and stock savings banks and private and industrial banks and special types of institutions that are treated as banks by the Federal bank supervisory agencies.

Date June 30	Number of Banks					Total Deposits (in millions of dollars)						
	Total all banks	Member banks			Nonmember banks		Total all banks	Member banks			Nonmember banks	
		Total	National	State	Mutual savings	Other		Total	National	State	Mutual savings	Other
1920....	29,715	9,399	8,025	1,374	628	19,688	41,282	26,401	17,159	8,242	5,168	10,713
1925....	28,479	9,538	8,066	1,472	621	18,320	51,641	32,457	19,912	12,548	7,089	12,095
1930....	23,855	8,315	7,247	1,068	604	14,936	59,828	38,069	23,235	14,834	9,117	12,642
1935....	16,047	6,410	5,425	985	589	9,068	51,149	34,938	22,477	12,461	9,930	6,381
1940....	14,955	6,398	5,164	1,234	551	8,006	70,770	51,729	33,014	18,715	10,631	8,410
1945....	14,542	6,840	5,015	1,825	539	7,163	151,033	118,378	76,534	41,844	14,413	18,242
1950....	14,674	6,885	4,971	1,914	527	7,262	163,770	122,707	82,430	40,277	19,927	21,137
1955....	14,309	6,811	4,744	1,867	525	7,173	208,850	154,670	98,636	56,034	27,310	26,870
1960....	14,006	6,217	4,542	1,675	513	7,276	249,163	179,519	116,178	63,341	35,316	34,328
1963....	13,993	6,058	4,537	1,521	511	7,424	309,428	222,619	145,513	77,106	43,248	43,560
1964....	14,175	6,180	4,702	1,478	506	7,489	331,843	238,052	155,978	82,074	46,940	46,830
1965....	14,295	6,235	4,803	1,432	504	7,556	362,611	253,743	171,522	88,215	50,980	51,889
1966....	14,307	6,194	4,811	1,383	505	7,608	392,881	264,109	197,702	83,417	53,727	57,946
1967....	14,247	6,108	4,780	1,328	503	7,636	419,062	297,529	211,098	86,431	58,259	67,274
1968*..	14,223	6,071	4,758	1,313	501	7,651	456,784	327,011	231,374	95,637	60,494	69,279

*First 6 months of fiscal year—to Dec. 31, 1966.

Bank Clearings in Chief United States Cities

Source: Except as to Los Angeles, the Commercial and Financial Chronicle, N. Y.

Yr. (Cal.)	New York	Chicago	Phila.	Los Ang.	Boston	San Fran.	Detroit	Dallas
	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
1935...	181,551,008	13,194,988	16,909,000	5,552,244	10,645,822	6,478,835	4,523,167	1,969,290
1940...	160,878,038	16,634,672	21,455,000	7,543,880	11,943,665	6,773,877	6,312,233	2,986,774
1945...	334,432,654	27,279,588	34,710,000	17,144,077	19,589,725	15,743,086	16,472,912	6,663,514
1950...	390,308,633	36,744,983	51,102,000	26,504,731	25,348,336	21,892,689	22,855,274	14,451,232
1955...	530,883,498	52,818,527	59,962,000	42,818,633	32,472,726	31,492,157	36,364,754	21,678,567
1960...	738,604,276	66,651,600	56,716,000	53,635,826	40,759,040	39,787,147	39,781,854	27,811,949
1965...	1,280,102,568	82,507,560	69,116,728	11,587,481	60,318,717	87,095,811	56,068,833	42,414,327
1966...	1,507,369,953	88,299,485	71,082,213	121,384,391	76,638,480	91,469,642	60,812,771	31,155,892
1967...	1,831,058,135	93,786,895	74,860,517	134,453,200	88,058,364	94,497,459	60,793,356	47,492,822

Yr. (Cal.)	Kan. City	Houston	Pittsb'gh	Cleveland	St. Louis	Minneapolis	Baltimore	Cincin.
	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
1935...	4,348,113	1,420,404	5,245,718	3,417,055	3,940,654	3,044,735	2,910,637	2,466,319
1940...	4,997,593	2,568,518	5,974,775	5,734,007	4,822,016	3,787,088	4,201,985	3,245,329
1945...	10,856,497	5,682,318	12,978,666	11,529,428	9,723,815	8,197,279	8,515,468	6,305,146
1950...	16,707,120	11,922,307	16,782,419	17,683,829	14,866,444	14,113,814	12,154,904	9,928,712
1955...	20,057,800	19,199,929	21,142,527	26,426,614	18,481,105	18,496,868	17,071,914	13,589,421
1960...	24,967,583	21,887,839	23,913,706	32,364,009	21,138,861	25,129,318	20,423,684	16,217,720
1965...	33,936,377	33,938,170	29,070,474	44,600,090	28,399,392	34,029,120	25,893,740	21,691,976
1966...	37,682,248	37,600,344	28,124,834	45,152,163	30,808,218	37,685,236	28,932,194	21,232,144
1967...	38,405,791	40,699,741	28,386,870	45,494,403	32,085,929	39,692,324	27,819,851	20,011,092

Savings by Individuals in the United States¹Source: Securities and Exchange Commission
(Billions of Dollars) *Indicates less than \$50 million.

Type of savings	1963	1964	1965	1966	1967	1968 Jan.- Mar.
Currency and demand deposits.....	6.8	7.0	7.3	*	9.3	-6.2
Time and savings deposits.....	11.6	12.3	16.0	12.5	20.2	6.4
Savings shares ²	11.7	11.4	9.4	4.5	11.5	1.6
Securities.....	.5	6.1	3.9	14.5	1.5	3.4
U. S. savings bonds						
Series E & H.....	1.6	1.2	.9	1.0	1.1	.1
Other.....	-.4	-.3	-.2	-.4	-.2	*
Other U. S. government ³	.6	3.2	1.6	8.2	-1.2	3.2
State and local government.....	1.0	1.9	2.0	4.1	1.3	.1
Corporate and other.....	-2.4	.1	-.4	1.7	.5	.1
Bonds and notes.....	.2	.6	1.9	2.7	4.8	.2
Investment company shares ⁴	1.6	2.1	2.2	4.5	4.6	1.6
Other preferred and common stock.....	-4.2	-2.6	-4.5	-5.5	-8.8	-1.8
Private insurance and pension reserves.....	10.7	11.6	13.2	13.0	14.5	3.9
Insurance reserves.....	4.5	4.8	5.5	4.7	5.4	1.3
Insured pension reserves.....	1.7	2.0	2.1	2.1	2.2	.7
Noninsured pension reserves ⁵	4.5	4.9	5.6	6.2	6.9	1.9
Government insurance and pension reserves ⁶	4.0	4.5	4.8	5.0	5.5	1.5
Increase in debt (8 + 9 + 10).....	22.3	23.1	25.0	19.8	14.8	.9
Mortgage debt ⁷	14.5	15.5	15.9	12.7	9.5	3.4
Consumer debts ⁸	6.9	7.5	9.0	6.5	4.1	-1.0
Securities loans ⁹	.9	.1	.1	.5	1.2	-1.5
Net financial saving (1 + 2 + 3 + 4 + 5 + 6 - 7).....	23.0	30.0	29.8	29.8	47.6	9.8

¹Includes unincorporated business savings of the types specified. Figures are rounded and will not necessarily add to totals. The foregoing data have been compiled by the Commission from many different sources. Because of the nature of the figures, current data are necessarily estimates and, therefore, are subject to revision.

²Includes shares in savings and loan associations and shares and deposits in credit unions.

³Includes non-guaranteed Federal agency securities.

⁴Includes closed-end investment companies as well as mutual funds.

⁵In addition to corporate funds, includes reserves of nonprofit organizations and multi-employer plans.

⁶Includes civil service, railroad retirement and state and local retirement funds.

⁷Mortgage debt to institutions on one-to-four-family non-farm dwellings.

⁸Consumer debt owed to corporations. Policy loans on life insurance have been deducted from those items of saving.

⁹Change in bank loans to brokers and dealers and others made for the purpose of purchasing or carrying securities.

U. S. Commercial Banks With Deposits Over One Billion

A compilation of the 300 largest commercial banks in the United States is made twice a year by the American Banker, daily banking newspaper, 67 Pearl St., New York, N. Y. Of these the first 45 banks had deposits of more than 1 billion on Jan. 1, 1968. They are listed below. (Copyright 1968, by American Banker.)

Rank	Deposits (in \$1,000)	Rank	Deposits (in \$1,000)
1 Bank of America NT&SA, San Fran.	\$19,099,938	25 Harris Trust & Sav. Bank, Chicago	1,545,479
2 Chase Manhattan Bank, N. Y.	15,760,249	26 Philadelphia National Bank	1,543,606
3 First National City Bank, N. Y.	15,201,192	27 First Nat'l Bank of Oregon, Portland	1,438,767
4 Mfrs. Hanover Trust Co., N. Y.	8,026,564	28 Bank of Calif. NA, San Francisco	1,409,635
5 Morgan Guaranty Trust Co., N. Y.	7,284,075	29 Pittsburgh National Bank	1,403,669
6 Chemical Bank, N. Y. Trust Co., N. Y.	7,091,763	30 Nat'l Bank of N. A., Jamaica, N. Y.	1,392,986
7 Bankers Trust Co., N. Y.	6,016,142	31 Republic National Bank, Dallas	1,364,202
8 Continental Ill. Nat'l B&T Co., Chi.	5,419,388	32 U. S. Nat'l Bank of Oregon, Portland	1,354,929
9 Security Pac. Nat'l Bank, L. A.	5,128,941	33 First National Bank, Dallas	1,313,171
10 First National Bank, Chicago	5,119,398	34 Bank of New York	1,301,863
11 Wells Fargo Bank, San Francisco	4,064,757	35 Girard Trust Bank Philadelphia	1,289,941
12 Crocker-Citizens Nat'l Bank, San Fran.	3,769,454	36 Union Bank, Los Angeles	1,233,387
13 Irving Trust Co., New York	3,523,345	37 National City Bank, Cleveland	1,208,280
14 United Calif. Bank, Los Angeles	3,426,527	38 Marine Midland Trust Co. of Western N. Y., Buffalo	1,202,509
15 Mellon Nat'l Bank & Trust Co., Pitts.	3,281,753	39 Wachovia Bank & Trust Co., Winston-Salem, N. C.	1,183,085
16 National Bank of Detroit	3,145,903	40 Northern Trust Co., Chicago	1,177,490
17 First National Bank, Boston	2,923,361	41 Citizens & Southern National Bank, Savannah, Ga.	1,140,514
18 Franklin Nat'l Bank, Mineola, N. Y.	2,171,455	42 Valley Nat'l Bank of Ariz. Phoenix	1,134,054
19 Cleveland Trust Co.	2,025,148	43 Fidelity Bank, Philadelphia	1,057,891
20 First Penn. Bank & Trust Co., Phila.	1,896,916	44 Central National Bank, Cleveland	1,026,085
21 Detroit Bank & Trust Co.	1,726,215	45 Mercantile Tr. Co. NA, St. Louis, Mo.	1,008,384
22 Manufacturers Nat'l Bank Detroit	1,670,967		
23 Marine Mid'l Grace Trust Co., N. Y.	1,637,664		
24 Seattle-First National Bank, Wash.	1,553,602		

Bank Rates on Short-Term Business Loans*

Source: Federal Reserve System

Percent per annum. Estimates based on reports from large banks in 19 leading cities. Short-term loans comprise loans maturing in one year or less.

Year	Ave. 19 Cities	N.Y.C.	7 N. & E. Cities	11 S. & W. Cities	Size of Loans (\$1,000)			
					\$1-9	\$10-99	\$100-199	over \$200
1940.....	2.1	1.8	2.0	2.5	4.3	3.0	2.0	1.8
1950.....	2.7	2.4	2.7	3.2	4.5	3.6	3.0	2.4
1960.....	5.2	5.0	5.2	5.5	6.0	5.7	5.4	5.0
1965.....	5.1	4.8	5.1	5.3	5.9	5.6	5.4	4.9
1966.....	6.0	5.8	6.1	6.2	6.5	6.4	6.2	5.9

*Starting with the first quarter of 1967 the Survey has been revised. The reporting periods have been shifted from the last month of each calendar quarter to the middle month of the quarter. Consequently it will preclude precise comparability between the old and the revised series.

	Ave. 35 Cities	N. Y. C.	7 Other N. E.	8 No. Cent. Cities	7 S. E. Cities	8 S. W. Cities	4 West Cities	\$1-9	\$10-99	\$100 to 499	\$500 to 999	\$1,000 to and over
*1967 Feb. 1-15	6.13	5.86	6.45	6.12	6.07	6.18	6.26	6.73	6.64	6.33	6.13	5.90
May 1-15	5.95	5.67	6.32	5.91	5.93	6.04	6.05	6.61	6.43	6.16	5.89	5.73
Aug. 1-15	5.95	5.66	6.29	5.92	5.92	6.01	6.02	6.68	6.46	6.16	5.89	5.73
	5.96	5.71	6.29	5.91	5.94	6.03	6.03	6.60	6.48	6.17	5.90	5.73
1968 Feb. 1-15	6.36	6.14	6.73	6.35	6.21	6.41	6.31	6.82	6.76	6.56	6.31	6.19
May 1-15	6.84	6.60	7.18	6.89	6.61	6.87	6.76	7.18	7.21	7.00	6.81	6.68

Federal Reserve System

The Federal Reserve System, central banking system of the United States, was established Dec. 23, 1913, by an Act of Congress to give the country an elastic currency, to provide facilities for discounting commercial paper, and to improve supervision of banking. Today it is generally recognized that the primary function of the System is to foster a flow of credit and money that will facilitate orderly economic growth, a stable dollar, and a long-run balance in international payments.

The Federal Reserve System consists of the (1) Board of Governors of the Federal Reserve System; (2) Federal Open Market Committee; (3) 12 Fed. Reserve Banks and 24 branches; (4) member banks; and (5) Fed. Advisory Council.

The 7 members of the Board of Governors in Washington are appointed by the President with advice and consent of the Senate; Wm. McC. Martin, Jr., is chairman. One of the Board's principal functions is in the area of monetary policy. The Board has authority to approve changes in discount rates, to change member bank reserve requirements within specified limits, to set margin requirements for certain kinds of stock transactions, and to set maximum interest rates payable on member banks' savings and time deposits. Another important duty of the Board relates to supervision of Federal Reserve Banks and member banks. Expenses of the Board of Governors are paid out of assessments upon the Reserve Banks.

The Federal Open Market Committee is composed of the 7 members of the Board of Governors and 5 Federal Reserve Bank representatives

elected annually. The Committee establishes System open market policy for the purchases and sales of securities and for operations in foreign currencies.

Rather than having one central bank in the political capital, as in central banking systems of most countries, the Federal Reserve System is divided into 12 districts, each with a Federal Reserve Bank—in Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, and San Francisco. Reserve Banks are operated for public service. By statute, their stock is held entirely by member banks, which include all national banks and such state banks and trust companies as have been admitted to membership. Ownership of Reserve Bank stock is in the nature of an obligation incident to membership in the System and does not carry with it the attributes of control and financial interest ordinarily attached to stock ownership in corporations that are operated for profit. The amount of stock that member banks own is specified by law and dividends are limited to 6% per annum. In case of the liquidation of any Reserve Bank, its surplus would be paid entirely to the United States. Each Reserve Bank has 9 directors, 6 of whom are chosen by member banks and 3 by the Board of Governors.

The 12-member Federal Advisory Council is composed of one member selected annually by the directors of each Federal Reserve Bank. The Council meets in Washington at least 4 times a year and advises the Board of Governors on matters within the Board's jurisdiction.

Per Capita Personal Income, by States and Regions

Source: Department of Commerce, Office of Business Economics

State and region	Per capita income ¹ (dollars)				State and region	Per capita income ¹ (dollars)			
	1964	1965	1966	1967		1964	1965	1966	1967
United States.....	2,586	2,765	2,978	3,159	Southeast.....	1,954	2,103	2,294	2,456
New England.....	2,853	3,027	3,267	3,503	Virginia.....	2,267	2,422	2,619	2,804
Maine.....	2,134	2,309	2,500	2,657	West Virginia.....	1,895	2,029	2,174	2,334
New Hampshire.....	2,440	2,581	2,845	3,053	Kentucky.....	1,891	2,058	2,243	2,426
Vermont.....	2,150	2,377	2,651	2,825	Tennessee.....	1,877	2,047	2,242	2,394
Massachusetts.....	2,919	3,072	3,290	3,541	North Carolina.....	1,919	2,054	2,278	2,439
Rhode Island.....	2,660	2,819	3,075	3,328	South Carolina.....	1,692	1,852	2,060	2,213
Connecticut.....	3,244	3,455	3,732	3,969	Georgia.....	2,009	2,171	2,373	2,541
Mideast.....	2,958	3,124	3,347	3,561	Florida.....	2,296	2,450	2,647	2,853
New York.....	3,138	3,296	3,519	3,759	Alabama.....	1,778	1,923	2,062	2,163
New Jersey.....	3,076	3,260	3,466	3,668	Mississippi.....	1,486	1,615	1,763	1,896
Pennsylvania.....	2,599	2,755	2,998	3,187	Louisiana.....	1,943	2,084	2,281	2,456
Delaware.....	3,139	3,346	3,482	3,642	Arkansas.....	1,746	1,839	2,031	2,099
Maryland.....	2,834	3,027	3,235	3,421	Southwest.....	2,200	2,348	2,533	2,709
Dist. of Col.....	3,549	3,694	3,853	4,123	Oklahoma.....	2,121	2,303	2,462	2,643
Great Lakes.....	2,775	3,011	3,243	3,395	Texas.....	2,216	2,360	2,559	2,744
Michigan.....	2,782	3,052	3,280	3,396	New Mexico.....	2,100	2,240	2,370	2,477
Ohio.....	2,649	2,859	3,081	3,213	Arizona.....	2,281	2,400	2,568	2,720
Indiana.....	2,603	2,860	3,056	3,196	Rocky Mountain.....	2,386	2,552	2,705	2,873
Illinois.....	3,060	3,304	3,554	3,750	Montana.....	2,266	2,465	2,662	2,765
Wisconsin.....	2,546	2,733	2,991	3,156	Idaho.....	2,128	2,409	2,415	2,575
Plains.....	2,399	2,647	2,862	3,021	Wyoming.....	2,435	2,570	2,779	3,002
Minnesota.....	2,443	2,683	2,908	3,116	Colorado.....	2,570	2,723	2,919	3,135
Iowa.....	2,406	2,741	3,024	3,109	Utah.....	2,270	2,379	2,495	2,604
Missouri.....	2,466	2,662	2,811	2,993	Far West.....	3,047	3,188	3,400	3,597
North Dakota.....	1,981	2,311	2,412	2,487	Washington.....	2,722	2,913	3,270	3,521
South Dakota.....	1,885	2,220	2,469	2,590	Oregon.....	2,609	2,771	2,933	3,063
Nebraska.....	2,369	2,643	2,951	3,081	Nevada.....	3,246	3,320	3,499	3,583
Kansas.....	2,491	2,678	2,884	3,060	California.....	3,142	3,274	3,468	3,665
					Alaska.....	3,088	3,214	3,452	3,738
					Hawaii.....	2,771	2,863	3,117	3,331

¹Per capita personal income for each state is derived by the division of total personal income by total population. Personal income is a measure of the income received from all sources during the calendar year by the residents of each state. It comprises income received by individuals in the form of wages and salaries, net income of proprietors (including farmers), dividends, interest, net rents, and other items such as social insurance benefits, relief, veterans pensions and benefits, and allotment payments to dependents of military personnel.

Truth-in-Lending Becomes Federal Law

The Consumer Credit Protection Act, better known as the Truth-in-Lending law, was enacted by Congress in 1968 and signed by President Johnson on May 29.

The law provides that consumers must be given comprehensive and easily understandable information on what they pay in finance charges on both loans and credit purchases.

Effective July 1, 1969, the law requires banks, finance companies and other lenders, and also retailers, to provide borrowers and credit customers

the amount, in writing, of finance charges, in terms of dollars and cents and in annual percentages as well.

In addition, the law puts restrictions, effective July 1, 1970, on the garnishment of wages.

The law further is designed to protect home owners from mortgaging their properties, without realizing they are doing so, in order to finance repairs. It also makes extortionate lending and collection practices a Federal crime.

N. Y. Stock Exchange Transactions and Seat Prices

Source: New York Stock Exchange

Year (Cal.)	Stocks	Bonds	Seats		Year (Cal.)	Stocks	Bonds	Seats	
	Shares	Par Value	High	Low		Shares	Par Value	High	Low
	No.	Dollars	Dollars	Dollars		No.	Dollars	Dollars	Dollars
1900...	138,981,000	579,293,000	47,500	37,500	1935...	381,635,752	3,339,455,000	145,000	70,000
1905...	260,569,000	1,026,254,000	85,000	72,000	1940...	207,599,749	1,669,438,000	60,000	33,000
1910...	163,705,000	634,863,000	94,000	65,000	1945...	377,563,575	2,261,985,110	95,000	49,000
1915...	172,497,000	961,700,000	74,000	38,000	1950...	524,799,621	1,112,425,170	54,000	46,000
1920...	227,636,000	3,868,422,000	115,000	85,000	1955...	649,602,291	1,045,949,100	90,000	80,000
1925...	459,717,623	3,427,042,210	150,000	99,000	1960...	766,693,818	1,346,119,750	162,000	135,000
1929...	1,124,800,410	2,996,398,000	625,000	525,000	1966...	1,899,495,014	3,092,789,700	270,000	197,000
1930...	810,632,546	2,720,301,800	480,000	205,000	1967*...	2,529,962,472	3,955,538,100	450,000	220,000

*Record high for trading in stocks.

As of the close of business Dec. 31, 1967, there was 1,700 stock issues aggregating 11,622,496,614 shares listed on the New York Stock Exchange, with a total value of \$605,816,849,182.

American Stock Exchange Transactions and Seat Prices

Source: American Stock Exchange

Date	Yearly volumes		Seat price ranges		Date	Yearly volumes		Seat price ranges	
	Stocks	Bonds	High	Low		Stocks	Bonds	High	Low
1929..	476,140,375	\$513,551,000	\$254,000	\$150,000	1955..	228,955,915	\$35,330,000	\$22,000	\$17,500
1930..	222,270,065	863,541,000	225,000	70,000	1960..	286,039,982	32,670,000	60,000	51,000
1935..	75,747,764	1,171,440,000	33,000	12,000	1964..	374,183,842	103,886,000	63,000	52,000
1940..	42,928,377	303,902,000	7,250	6,900	1965..	534,221,999	146,927,000	80,000	55,000
1945..	143,309,392	167,333,000	32,000	12,000	1966..	690,762,585	159,724,000	120,000	90,000
1950..	107,792,340	47,549,000	11,000	6,500	1967..	1,145,090,300	554,824,000	230,000	90,000

Change of name from New York Curb Exchange was effected January 5, 1953.

Largest Banks in Foreign Countries

Source: 500 Largest Banks in the Free World, compiled by the American Banker, New York

(Copyright, 1968) Based on deposits Jan. 1, 1968, or nearest fiscal year-end.

Bank and Country (in \$1,000)		Deposits in U. S. \$	Bank and Country (in \$1,000)		Deposits in U. S. \$
England—Barclays Bank Limited, London		\$9,742,593	Australia—Commonwealth Banking Corporation, Sydney ...		4,307,471
France—Banque Nationale de Paris		7,694,839	England—Westminster Bank Limited, London		4,211,782
England—Midland Bank Limited, London		6,710,767	England—National Provincial Bank Limited, London		4,098,044
Canada—Royal Bank of Canada, Montreal		6,535,898	Germany—Dresdner Bank, Frankfurt/Main		3,763,922
France—Credit Lyonnais, Paris		6,505,765	Japan—Tokai Bank Limited, Nagoya		3,719,975
Canada—Canadian Imperial Bank of Commerce, Toronto..		6,353,480	Brazil—Banco do Brasil, Brasilia ..		3,651,904
Italy—Banca Nazionale del Lavoro, Rome		6,338,842	Japan—Dai-ichi Bank Limited, Tokyo		3,622,324
France—Societe Generale, Paris		5,984,906	Italy—Banco di Roma, Rome		3,574,605
England—Lloyds Bank Limited, London		5,508,295	Canada—Bank of Nova Scotia, Toronto		3,528,830
Japan—Fuji Bank Limited, Tokyo..		5,504,762	Japan—Long-Term Credit Bank of Japan Limited, Tokyo..		3,498,303
Japan—Sumitomo Bank Limited, Osaka		5,312,029	Japan—Mitsui Bank Limited, Tokyo		3,477,546
Canada—Bank of Montreal		5,187,853	Germany—Rheinische Giro. und Provinzialbank, Duesseldorf		3,349,612
Japan—Sanwa Bank Limited, Osaka		5,084,337	Japan—Nippon Kangyo Bank Limited, Tokyo		3,316,735
Germany—Deutsche Bank, Frankfurt/Main		4,879,115	Japan—Daiwa Bank Limited, Osaka		3,200,079
Italy—Banca Commerciale Italiana, Milan		4,721,249	England—Barclays Bank D.C.O., London		3,081,151
Japan—Industrial Bank of Japan Limited, Tokyo		4,676,936	Germany—Commerzbank, Duesseldorf		3,073,800
Italy—Credito Italiano, Milan		4,339,027	Canada—Toronto-Dominion Bank, Toronto		2,935,057

Gold Reserves of Central Banks and Governments

Source: Federal Reserve Board

Millions of dollars; at par of exchange.

Dec.	(Est.) total world ¹	Int'l Mone- tary Fund	United States	(Est.) rest of world	Bel- gium	France	Ger- many Fed. Rep. of	Italy	Neth- er- lands	Swit- zer- land	United King- dom
1955.....	37,585	1,808	21,753	14,025	928	942	920	352	865	1,597	2,012
1960.....	40,540	2,439	17,804	20,295	1,170	1,641	2,971	2,203	1,451	2,185	2,800
1963.....	42,305	2,312	15,596	24,395	1,371	3,175	3,843	2,343	1,601	2,820	2,484
1964.....	43,015	2,179	15,471	25,365	1,451	3,729	4,248	2,107	1,688	2,725	2,136
1965.....	43,225	1,869	13,806	27,280	1,558	4,706	4,410	2,404	1,756	3,042	2,265
1966.....	43,180	2,652	13,235	27,295	1,525	5,238	4,292	2,416	1,730	2,842	1,940
1967.....	41,600	2,682	12,065	26,855	1,480	5,234	4,228	2,400	1,711	3,089	1,291

¹Excludes USSR, other Eastern European countries, and China Mainland.

Argentina 84, Australia 231, Austria 701, Brazil 45, Canada 1,015, Chile 45, Colombia 31, Denmark 107, Dominican Rep. 3, Ecuador 17, El Salvador 18, Finland 45, Greece 130, Guatemala 20, India 243, Iran 144, Iraq 115, Ireland 25, Lebanon 193, Mexico 166, Norway 18, Pakistan 53, Peru 20, Philippines 60, Portugal 699, So. Africa 583, Spain 785, Sweden 203, Thailand 92, Turkey 97, UAR (Egypt) 93, Uruguay 140, Venezuela 401, Yugoslavia 22, B. I. S. (net) 624, European Fund 42.

Consumer Credit Statistics

Source: Federal Reserve System (Estimated amounts outstanding. In millions of dollars.)

End of year or month	Total	Instalment credit					Noninstalment credit			
		Total	Automobile paper ¹	Other consumer goods paper ¹	Repair and modernization loans ¹	Personal loans	Total	Single payment loans	Charge accounts	Service credit
1945.....	\$5,66b	\$2,462	\$455	\$816	\$182	\$1,009	\$1,204	\$746	\$1,612	\$845
1950.....	21,471	14,703	6,074	4,799	1,016	2,814	6,768	1,821	3,367	1,580
1955.....	38,830	28,906	13,460	7,641	1,693	6,112	9,924	3,002	4,795	2,127
1957.....	44,970	33,867	15,340	8,844	2,101	7,582	11,103	3,364	5,146	2,593
1958.....	45,129	33,642	14,152	9,028	2,346	8,116	11,487	3,627	5,060	2,800
1959.....	51,542	39,245	16,420	10,630	2,809	9,386	12,297	4,129	5,104	3,064
1960.....	56,028	42,832	17,688	11,525	3,139	10,480	13,196	4,507	5,329	3,360
1961.....	57,678	43,527	17,223	11,857	3,191	11,256	14,151	5,136	5,324	3,691
1962.....	63,164	48,034	19,540	12,605	3,246	12,643	15,130	5,456	5,684	3,990
1963.....	70,461	54,158	22,433	13,556	3,405	14,464	16,303	6,117	5,871	4,315
1964.....	78,142	60,548	25,195	15,593	3,532	16,228	17,594	6,954	6,300	4,640
1965.....	87,884	68,565	28,843	17,693	3,675	18,354	19,319	7,982	6,746	4,891
1966.....	94,786	74,656	30,961	19,834	3,751	20,110	20,130	7,844	7,144	5,142
1967.....	99,228	77,946	31,197	21,328	3,731	21,690	21,282	8,267	7,595	5,420
1968 Jan.....	98,225	77,467	31,061	21,097	3,678	21,631	20,758	8,288	6,970	5,500
Feb.....	97,672	77,327	31,137	20,785	3,653	21,752	20,345	8,325	6,386	5,634
Mar.....	97,875	77,581	31,380	20,692	3,636	21,873	20,294	8,370	6,263	5,661
Apr.....	99,142	78,345	31,766	20,802	3,649	22,128	20,797	8,488	6,559	5,702
May.....	100,275	79,270	32,240	20,953	3,699	22,378	21,005	8,598	6,830	5,667
June.....	101,467	80,363	32,774	21,176	3,727	22,686	21,104	8,519	6,912	5,673

¹Includes all consumer instalment credit extended for the purpose of purchasing automobiles and other consumer goods, whether held by retail outlets or financial institutions. Includes credit on purchases by individuals of automobiles or other consumer goods that may be used in part for business.

Includes only repair and modernization loans held by financial institutions; such loans held by retail outlets are included in "other consumer goods paper."

World Gold Production

Source: Federal Reserve System. In millions of dollars at \$35 per fine troy ounce.

Year or month	Estimated world prod.	Africa				North and South America					Other			
		South Africa	Rhodesia	Ghana	Congo (Kinshasa)	United States	Canada	Mexico	Nicaragua	Colombia	Australia	India	Phil- ippines	All other ¹
1959	1,125.0	702.2	19.8	32.0	12.2	57.2	156.9	11.0	7.3	13.9	38.1	5.8	14.1	54.5
1960	1,175.0	748.4	19.6	30.8	11.1	58.8	162.0	10.5	7.0	15.2	38.0	5.6	14.4	53.6
1962	1,295.0	892.2	19.4	31.1	7.1	54.5	146.2	8.3	7.8	13.9	37.4	5.7	14.8	56.6
1963	1,355.0	960.1	19.8	32.2	7.5	51.4	139.0	8.3	7.2	11.4	35.8	4.8	13.2	64.3
1964	1,395.0	1,018.9	20.1	30.3	6.6	51.4	133.0	7.4	7.9	12.3	33.7	5.2	14.9	62.8
1965	1,440.0	1,069.4	19.0	26.4	2.3	58.6	125.6	7.6	6.9	11.2	30.7	4.6	15.3	61.5
1966	1,415.0	1,080.8	19.3	21.0	5.6	63.1	114.6	7.5	7.9	9.8	32.1	4.2	15.8	61.2
1967	1,410.0	1,068.8	18.0	26.7	5.4	55.4	103.7	6.4	6.2	9.0	3.4	17.5	2.4	61.2
1968 Jan.		90.3					7.7							2.0
Feb.		90.0					7.7							2.0
Mar.		91.8					7.7							2.8
Apr.		91.8					7.7							
May		93.1					7.7							
June		91.5					7.7							

¹Estimated; excludes U.S.S.R., other Eastern European countries, China Mainland, and North Korea.

U. S. and World Silver Production

Source: Director of the Mint

Largest production of silver in the United States in 1915—74,961,075 fine ounces.

Year (Cal.)	United States		World		Year (Cal.)	United States		World
	Fine ozs.	Value	Fine ozs.	Value		Fine ozs.	Value	Fine ozs.
1925.....	66,155,424	\$45,911,000	245,213,903	.....	1960.....	36,990,000	\$33,305,858	241,300,000
1930.....	50,748,127	19,538,000	248,708,426	.....	1962.....	36,345,000	39,481,574	245,800,000
1935.....	45,924,454	33,008,000	220,704,231	.....	1963.....	35,000,000	44,814,000	249,700,000
1940.....	69,585,734	49,483,000	275,487,000	.....	1964.....	37,000,000	47,888,730	248,000,000
1945.....	29,063,255	20,667,200	182,000,000	.....	1965.....	39,000,000	50,477,310	254,100,000
1950.....	42,308,739	38,291,545	203,300,000	.....	1966.....	42,500,000	55,007,325	253,000,000
1955.....	36,469,610	33,006,839	224,000,000	.....	1967.....	31,000,000	40,080,800	.....

United States Customs and Internal Revenue Receipts

Source: Treasury Department

Gross. Not reduced by appropriations to Federal old-age and survivors insurance trust fund, or refunds or receipts. Data are for fiscal years; for 1968 preliminary.

Year	Customs		Year	Customs		Year	Customs	
	Dollars	Dollars		Dollars	Dollars		Dollars	Dollars
1930.....	587,000,903	3,039,295,014	1954.....	562,020,618	70,299,651,501	1962.....	1,171,205,973	99,440,839,244
1935.....	343,353,031	3,277,690,028	1955.....	606,396,634	66,288,691,586	1963.....	1,240,537,884	105,925,395,241
1940.....	381,590,635	5,303,133,988	1956.....	704,897,516	75,109,083,197	1964.....	1,284,176,379	112,206,115,000
1945.....	351,775,542	33,902,001,929	1957.....	754,461,446	80,171,970,804	1965.....	1,477,548,821	114,428,991,753
1950.....	422,650,329	39,448,607,109	1958.....	799,501,808	79,978,476,483	1966.....	1,811,170,211	128,842,541,298
1951.....	624,000,052	51,106,094,995	1959.....	948,412,215	79,797,972,808	1967.....	1,971,799,790	147,899,815,900
1952.....	550,696,379	65,634,894,258	1960.....	1,123,037,579	91,774,802,823	1968.....	2,113,475,000	153,072,543,900
1953.....	613,419,582	70,170,973,876	1961.....	1,007,755,214	94,401,086,397			

How to Determine the Value of Silver in Coins

Source: Treasury Department

To figure the value of the silver contained in the silver coins issued by the U. S. Treasury prior to the clad or copper sandwiched coins it is necessary to find the value of pure silver. This may be accomplished by taking the market price as listed and dividing by .999 (the fineness of commercial grade silver) to arrive at the price for silver 1,000 fine. Then multiply by the fraction shown under the table beneath. This will give you the value of the silver content in each coin.

Fine Troy Weight

	Oz.	Grain
Dollar	.7734375	371.25
Half-Dollar	.3616875	173.61

Fine Troy Weight

	Oz.	Grain
Quarter	.18084375	86.805
Dime	.0723375	34.722

For example: If the market price is \$2.30 per troy ounce, then divide \$2.30 by .999 the fineness of commercial grade silver = \$2.3023 per troy ounce 1,000 fine. For dollars, then multiply .7734375 by \$2.3023 = \$1.78. For half dollars .3616875 × \$2.3023 = 83 cents. For quarters .18084375 × \$2.3023 = 41.6 cents. For dimes .0723375 × \$2.3023 = 16.6 cents.

The silver content of the new silver-copper half dollar is .14789341504 of a fine troy ounce and this multiplied by the selling price of \$2.3023 gives a value for the silver content of 34 cents.

The Secretary of the Treasury by the authority of the Coinage Act of 1965 issued an order effective May 18, 1967, prohibiting the melting of silver coins of the United States; exportation (with certain exceptions), or the treatment of any such coins.

Average Consumer Price Indexes

Source: Bureau of Labor Statistics, United States Department of Labor

The Consumer Price Index measures the average change in prices of goods and services purchased by urban wage-earner and clerical-worker families and single workers living alone. Data for 56 large, medium size, and small cities are combined for the all-city average.

(1957-59=100)

Year and month	All items	Housing							Transportation	Medical care	Personal care	Reading and recreation	Other goods and services
		Food	Total	Rent	Gas and electricity	Fuel and Utilities	Household furnishings & operation	Apparel and Upkeep					
1964 Avg.....	108.1	106.4	107.2	107.8	107.9	107.3	102.8	105.7	109.3	119.4	109.2	114.1	108.8
1965 Avg.....	109.9	108.5	108.5	108.9	107.8	107.2	103.1	106.8	111.1	122.3	109.9	115.2	111.4
1966 Avg.....	113.1	114.2	111.1	110.4	108.1	107.7	105.9	109.6	112.7	127.7	112.2	117.1	114.9
1967 Avg.....	116.3	115.2	114.3	112.4	108.5	109.0	108.2	114.0	115.9	136.7	115.5	120.1	118.2
1968 Jan.....	118.6	117.0	116.4	113.7	108.9	109.5	110.6	115.9	118.7	141.2	117.6	122.7	121.9
Feb.....	119.0	117.4	116.9	113.9	109.3	109.8	111.2	116.6	118.6	141.9	117.6	123.0	122.1
Mar.....	119.5	117.9	117.2	114.2	109.3	109.9	111.8	117.6	119.0	142.9	118.4	124.2	122.4
Apr.....	119.9	118.3	117.5	114.4	109.5	110.0	112.2	118.4	119.0	143.5	119.0	124.9	122.5
May.....	120.3	118.8	117.8	114.6	109.5	110.3	112.5	119.5	119.1	144.0	119.6	125.3	122.6
June.....	120.9	119.1	118.7	114.9	109.4	110.3	112.9	119.9	119.7	144.1	120.1	125.6	123.5
July.....	121.5	120.0	119.5	115.1	109.5	110.6	113.1	119.7	119.8	145.1	120.4	125.9	123.9
Aug.....	121.9	120.5	120.1	115.4	109.7	110.7	113.3	120.3	120.0	145.5	120.9	126.3	124.2

INDEXES BY CITIES, ALL ITEMS AND FOOD (1957-59=100)

City	Annual Average				City	Annual Average			
	All Items		Food			All Items		Food	
	1966	1967	1966	1967		1966	1967	1966	1967
Average of 56 Cities...	113.1	116.3	114.2	115.2	Los Angeles, Calif.	114.7	117.6	113.3	114.1
Atlanta, Ga.	111.5	115.0	112.9	114.2	Milwaukee, Wis.	110.6	112.9	114.0	114.5
Baltimore, Md.	113.4	116.1	115.9	116.3	Minneapolis, Minn.	112.2	115.9	112.4	113.0
Boston, Mass.	117.0	119.8	117.0	119.4	New York, N. Y.	116.0	119.0	115.1	115.7
Buffalo, N. Y.	107.0	109.9	108.8	110.0	Philadelphia, Pa.	113.7	116.8	113.1	114.5
Chicago, Ill.	110.7	113.6	114.6	115.4	Pittsburgh, Pa.	113.0	115.0	111.8	111.2
Cincinnati, Ohio	110.3	113.5	111.8	112.5	Portland, Ore.	115.3	118.2	114.7	115.4
Cleveland, Ohio	109.7	112.9	110.9	111.4	St. Louis, Mo.	113.5	116.8	117.8	119.0
Dallas, Texas	105.0	108.1	110.0	109.7	San Diego, Calif.	102.1	105.1	106.5	107.6
Detroit, Mich.	111.1	114.9	112.2	114.1	San Francisco, Calif.	115.6	119.0	114.2	114.7
Honolulu, Hawaii	104.9	107.8	106.3	108.3	Scranton, Pa.	114.9	118.0	112.8	113.6
Houston, Tex.	111.5	114.4	115.4	115.8	Seattle, Wash.	114.1	117.5	114.1	114.6
Kansas City, Mo.	116.3	118.7	117.2	117.9	Washington, D. C.	113.3	116.5	114.0	115.9

Purchasing Power of the Dollar

Source: U. S. Department of Labor, Bureau of Labor Statistics
1957-59=\$1.00

Beginning 1961, wholesale prices include data for Alaska and Hawaii; and, beginning 1964 consumer prices include them. Obtained by dividing the average price index for 1957-59 base period (100.0) by the price index for a given period and expressing the result in dollars and cents.

Year	Monthly average as measured by—		Year	Monthly average as measured by—	
	Whole-sale prices	Con-sumer prices		Whole-sale prices	Con-sumer prices
1940.....	\$2.326	\$2.048	1957.....	\$1.010	\$1.021
1945.....	1.727	1.595	1958.....	.996	.994
1947.....	1.232	1.285	1959.....	.994	.985
1948.....	1.138	1.194	1960.....	.993	.971
1949.....	1.198	1.205	1961.....	.997	.960
1950.....	1.152	1.194	1962.....	.994	.949
1951.....	1.034	1.106	1963.....	.997	.937
1952.....	1.064	1.081	1964.....	.995	.925
1953.....	1.079	1.072	1965.....	.976	.910
1954.....	1.076	1.069	1966.....	.944	.894
1955.....	1.073	1.071	1967.....	.942	.864
1956.....	1.040	1.056			

Worktime Required to Buy Food and Other Articles

Source: Bureau of Labor Statistics, U. S. Dept. of Labor

Production workers in manufacturing in the United States in Sept. 1967, earned an average of \$2.85 per hour, including overtime. At this rate with average prices as they were at that time, he worked 13 minutes to earn enough to buy one pound of ground beef, 19 minutes for one pound of butter, and corresponding lengths of time for other articles, as shown below. A month's rent for a dwelling unit of average cost would be earned in about 3 working days. Prices of automobiles and equipment vary widely throughout the United States, roughly, however, a good used car could be bought for about 9½ weeks' work, and a new car of one of the popular makes for about 26½ weeks' work

Article	Aver. retail price	Worktime		Article	Aver. retail price	Worktime	
		Hrs.	Mins.			Hrs.	Mins.
FOOD							
White flour.....1 pd	\$ 0.119		3	Nylon stockings, 1 pr.....	.98		21
White wheat bread.....1 pd	.221		5	Man's work shoes, high.....	12.46	4	22
Rice, short grain.....1 pd	.187		4	Man's street shoes, oxford.....	19.87	6	58
Beef: Round steak (best grade).....1 pd	1.125		24	Boy's sneakers, oxford.....	5.46	1	55
Chuck roast (best grade).....1 pd	.621		13	Printed cotton percale cloth, 36 inches wide, 1 yard.....	.44		9
Hamburger (ground beef).....1 pd	.552		12	Medical			
Pork: Chops, center cut.....1 pd	1.059		22	Penicillin prescription, 12 tablets.....	2.14		45
Bacon (sliced, best grade).....1 pd	.859		18	Hospital, semiprivate room, per day.....	36.05	12	39
Ham (whole, smoked).....1 pd	.698		15	Physician, house visit.....	10.43	3	10
Fish: Frozen filet of haddock.....1 pd	.672		14	Dentist, extraction.....	7.76	2	13
Canned tuna.....6½ oz.	.342		7	Dentist, filling.....	6.79	2	23
Chicken (ready-to-cook).....1 pd	.391		8	Eyeglasses, with examination.....	34.47	12	6
Butter, 92 score.....1 pd	.833		18	MISCELLANEOUS			
Oleomargarine, colored.....1 pd	.280		6	Toothpaste, per oz.....	.17		4
Shortening, hydrogenated.....3 pds	.864		18	Man's haircut.....	2.22		47
Cheese (American Cheddar).....1 pd	.864		18	Permanent wave.....	13.59	4	46
Fresh milk, at grocery store.....½ gal.	.519		11	Washing machine, automatic.....	212.41	74	32
Eggs (large, grade A).....1 doz	.499		11	Gas cooking stove.....	196.79	69	3
Oranges, (size, approximately 5 pds per dozen).....1 doz	.835		18	Refrigerator, freezer.....	276.58	97	3
Potatoes.....1 pd	.074		2	Vacuum cleaner, electric.....	44.75	15	42
Cabbage.....1 pd	.097		2	Television set, 19-inch portable.....	141.12	49	31
Dried beans.....1 pd	.183		4	Radio, 4 tubes, table model.....	16.59	5	49
Canned tomatoes.....1 pd	.199		4	Movies, admission, adult.....	1.51		32
Sugar.....1 pd	.122		3	Cigarettes, pack of 20.....	.36		8
Coffee, can.....1 pd	.761		16	Cigarettes, carton (200).....	3.01	1	3
Teabags.....pkg. of 48	.608		13	Beer, per 6 12-ounce cans or bottles.....	1.20		25
CLOTHES							
Man's 2-piece suit, wool, hard-finished worsted, medium grade.....	65.31	22	55	Spirit blended whiskey, ½ gallon.....	4.79	1	41
Man's work pants, cotton.....	4.73	1	40	Sheet, percale, 81 x 108 inches.....	3.20	1	7
Man's business shirt, broadcloth.....	4.92	1	44	Detergent, 20 ounces.....	.34		7
Man's socks, dress, cotton.....	.90		19	Paper napkins, pkg of 80.....	.16		3
Boy's undershirts.....	.75		16	Laundry service: 10-pd bundle finished.....	2.58		54
Woman's skirt, wool.....	6.61	2	19	Drv cleaning: Man's 2-piece suit, cash and carry.....	1.46		31
Woman's slip, nylon, tricot, plaid.....	4.00	1	24	Domestic service: general housework, 8-hour day.....	11.22	3	56
				Gas, 25 therms.....	4.11	1	27
				Electricity, 250 kilowatt hours.....	7.41	2	36
				Automobile tires, (7.50 x 15).....	27.80	9	45
				Gasoline, premium, gallon (3.785 liters).....	.38		8
				Bus fare, one.....	.25		5

Indexes of Retail Prices of Foods

Source: Bureau of Labor Statistics, United States Department of Labor (1957-59=100)

Year and month	Total food	Food at home	Cereals, bakery products	Meats, poultry, fish	Dairy products	Fruits, vegetables	Other foods
1963 Avg.....	105.1	103.5	109.1	100.2	103.8	111.0	97.8
1964 Avg.....	106.4	104.7	109.6	98.6	104.7	115.3	101.6
1965 Avg.....	108.8	107.2	111.2	105.1	105.0	115.2	101.8
1966 Avg.....	114.2	112.6	115.8	114.1	111.8	117.6	103.9
1967 Avg.....	115.2	112.3	118.5	111.2	116.7	117.5	101.9
1968 Jan.....	117.0	113.8	118.3	111.6	118.5	124.1	101.9
Feb.....	117.4	114.2	118.2	112.0	118.6	124.9	102.6
Apr.....	118.3	115.1	118.3	112.7	118.8	128.3	103.0
June.....	119.1	115.8	118.6	113.2	120.9	130.0	102.5
July.....	120.0	116.7	119.2	114.0	121.0	132.2	103.3
Aug.....	120.5	117.1	119.6	115.3	121.5	128.2	105.5

Average Percent Increase in Earnings

Source: Bureau of Labor Statistics, United States Department of Labor

Period and area	All industries				Manufacturing			
	Clerical men and women	Industrial nurses	Skilled maintenance trades	Unskilled plant workers	Clerical men and women	Industrial nurses	Skilled maintenance trades	Unskilled plant workers
Feb. 1966 to Nov. 1967								
United States.....	1.6	7.0	5.1	5.1	3.9	6.9	5.2	4.9
Northeast.....	4.5	6.3	4.6	4.5	3.8	5.6	4.7	4.1
South.....	4.6	7.2	4.4	6.9	4.4	7.1	4.8	5.8
North Central.....	4.9	7.4	6.0	5.0	3.9	7.2	6.2	5.3
West.....	4.2	7.3	4.2	4.5	3.9	5.2	4.0	4.9

U.S. Business Indexes

Source: Federal Reserve System

Year	Industrial production (physical volume) 1957-59=100						Construct' n con- tracts (value) ¹ 1957-59=100			Employ- ment ² 1957-59=100			Prices 1957-59= 100		
	Total	Manufactures				Utilities	Total	Residential	All other	Non- agricultural	Manuf. production workers		Freight carloadings 1957-1959=100	Consumer	Wholesale commodity
		Total	Durable	Non- durable	Minerals						Employ- ment	Payrolls			
1955.....	97	97	102	92	99	80	91	95	89	96.5	105.5	94.8	115	93.3	93.2
1960.....	109	109	109	110	102	116	106	102	109	103.3	99.9	106.8	95	103.1	100.7
1961.....	110	110	107	113	103	122	108	108	108	102.9	95.9	105.4	91	104.2	100.3
1962.....	118	119	118	120	105	131	119	121	119	105.9	99.2	113.8	92	105.4	100.6
1963.....	124	125	125	125	108	140	132	137	128	108.0	99.7	117.9	93	106.7	100.3
1964.....	132	133	134	133	111	151	137	137	137	111.1	101.5	124.3	95	108.1	100.5
1965.....	143	145	148	141	115	161	143	142	143	115.8	106.5	136.6	97	109.9	102.5
1966.....	156	159	165	151	121	174	145	119	165	121.9	113.5	151.7	97	113.1	105.9
1967.....	158p	160p	164p	154p	124p	184p	153	131	170	125.7p	113.5p	155.0p	92	116.3	106.1

¹Indexes for 1955 are estimated for 37 States only. Indexes beginning 1956 are based on data from 48 states. ²Revisions have been made in some figures. ^pPreliminary.

Employed Persons by Major Occupation Groups and Sex

Source: Bureau of Labor Statistics; Estimates in thousands of persons 16 years old and over

Annual average, 1967	Both sexes		Male		Female		Percent distribution		
							Both sexes	Male	Female
Professional, technical and kindred workers.....	9,879		6,183		3,697		13.3	13.0	13.7
Farmers and farm managers.....	1,970		1,871		98		2.6	3.9	.4
Managers, officials and proprietors, except farm	7,495		6,318		1,177		10.1	13.3	4.4
Clerical and kindred workers.....	12,333		3,406		8,928		16.6	7.2	33.2
Sales workers.....	4,525		2,621		1,904		6.1	5.5	7.1
Craftsmen, foremen and kindred workers.....	9,845		9,560		285		13.2	20.1	1.1
Operatives and kindred workers.....	13,884		9,706		4,178		18.7	20.4	15.5
Private household workers.....	1,769		33		1,737		2.4	.1	6.5
Service workers, except private household.....	7,556		3,301		4,255		10.2	7.0	15.8
Farm laborers and foremen.....	1,584		1,065		520		2.1	2.2	1.9
Laborers, except farm and mine.....	3,533		3,417		117		4.8	7.2	.4
Total employed.....	74,372		47,479		26,893		100.0	100.0	100.0

Employment and Unemployment in the United States

CIVILIAN LABOR FORCE, PERSONS 16 YEARS OF AGE AND OVER

Source: Bureau of Labor Statistics

Year	Civilian Labor Force	Employed	Unem- ployed	Year	Civilian Labor Force	Employed	Unem- ployed
1955.....	65,023,000	62,171,000	2,852,000	1965.....	74,455,000	71,088,000	3,366,000
1956.....	66,552,000	63,802,000	2,750,000	1966.....	75,770,000	72,895,000	2,875,000
1957.....	66,929,000	64,071,000	2,859,000	1967.....	78,402,000	75,460,000	2,942,000
1958.....	67,639,000	63,036,000	4,602,000				
1959.....	68,369,000	64,630,000	3,740,000				
1960.....	69,628,000	65,778,000	3,852,000				
1961.....	70,459,000	65,746,000	4,714,000	1965.....	73,780,000	70,017,000	3,763,000
1962.....	70,614,000	66,702,000	3,911,000	1966.....	74,888,000	71,811,000	3,077,000
1963.....	71,833,000	67,762,000	4,070,000	1967.....	76,291,000	73,283,000	3,008,000
1964.....	73,091,000	69,305,000	3,786,000	1968.....	77,992,000	75,042,000	2,950,000

*Figures beginning with 1960 include Alaska and Hawaii.

Wholesale Price Indexes

Source: Bureau of Labor Statistics, United States Department of Labor

The Wholesale Primary Market Price Index is designed to show the rate and direction of the composite of price movements, and to measure price changes not influenced by quality, quantity, terms of sale, etc. Wholesale refers to sales in quantities, not to prices received or paid by wholesalers.

Commodity group (1957-59=100)	1968 ¹	July	June	Jan.	1967 Avg.
All commodities.....	109.1	108.7	107.2	106.1	106.1
Farm products and processed foods.....	109.4	108.0	105.3	105.2	105.2
Farm products.....	103.9	102.5	99.0	99.7	99.7
Processed foods and feeds.....	115.9	114.6	112.4	111.7	111.7
All commodities except farm products.....	109.6	109.3	108.1	106.8	106.8
Industrial commodities.....	108.9	108.8	107.8	106.3	106.3
Textile products and apparel.....	105.8	105.2	104.3	102.1	102.1
Hides, skins, leather and related products.....	119.5	118.7	116.5	115.8	115.8
Fuel, related products and power.....	103.3	103.7	101.8	103.6	103.6
Chemicals and allied products.....	98.2	98.5	98.2	98.4	98.4
Rubber and rubber products.....	100.7	99.9	99.5	97.0	97.0
Lumber and wood products.....	119.2	117.2	108.6	105.4	105.4
Pulp, paper and allied products.....	104.9	104.7	105.2	104.0	104.0
Metals and metal products.....	111.4	111.7	111.7	109.6	109.6
Machinery and equipment.....	115.2	115.0	113.9	111.8	111.8
Furniture and household durables.....	104.1	103.9	103.0	101.0	101.0
Nonmetallic minerals products.....	108.4	108.3	106.0	104.3	104.3
Miscellaneous products.....	111.5	111.8	111.0	109.2	109.2

¹Preliminary

Bureau of the Mint

Source: Bureau of the Mint

The first United States Mint was established in Philadelphia, Pa., then the nation's capital, by the Act of April 2, 1792 which provided for gold, silver and copper coinage. Originally, supervision of the Mint was a function of the Secretary of State, but it became (1799) an independent agency reporting directly to the President. When the Coinage Act of 1873 was passed, all mint and assay office activities were placed under a newly organized Bureau of the Mint in the Department of the Treasury.

The Bureau of the Mint manufactures all domestic coins, receives and disburses gold and silver bullion and safeguards the Government's holdings of monetary metals. Other activities include the refining of gold and silver, coinage for foreign governments, manufacture of medals for the armed services, manufacture of coinage dies and platinum assay utensils, and special assays of bullion and ores. Coinage production for the calendar year 1967 is shown as follows:

Production of U. S. coins by the Philadelphia and Denver Mints, and the San Francisco Assay Office¹, calendar year 1967

Denomination	Number of pieces ²	Face value	Weight (short tons)
SUBSIDIARY			
Half dollars.....	296,910,322	\$148,455,161.00	3,764
Quarters.....	1,525,895,192	381,473,798.00	9,537
Dimes.....	2,245,870,664	224,587,066.40	5,815
Five cent pieces.....	109,189,144	5,459,457.20	602
One cent pieces.....	3,050,530,444	30,505,304.44	10,457
Total	7,228,395,766	790,480,787.04	29,975

¹Coinage operations authorized by Public Law 89-81, approved July 23, 1965. ²Includes 1,863,344 special Mint Sets.

New U. S. Composite-Type Coins in Circulation

The Coinage Act of 1965 (Public Law 89-81, approved July 23, 1965) authorized a change in the metallic composition of the three subsidiary denominations to clad or composite-type coins. The clad dimes and quarters are composed of an outer layer of 75% copper and 25% nickel metallurgically bonded to a center core of pure copper. The clad half dollars, with an overall silver content of 40%, contain an outer layer of 80% silver and 20% copper bonded to an inner core of approximately 20% silver and 80% copper. The new quarters were placed in circulation Nov. 1, 1965, and the dimes and half dollars in Mar. 1966. Subsidiary coins of 90% silver and 10% copper circulate alongside the clad coins. The Coinage Act of 1965, first basic change in U. S. coinage since the nation's monetary system was established in 1792, left the composition of one and five cent coins and silver dollars unchanged. One cent coins are 95% copper and 5% zinc, and five cent coins, 75% copper and 25% nickel. Standard silver dollars are 90% silver and 10% copper.

Portraits on U. S. Currency

Amt.	Portrait on Face	Embellishment on Back	Amt.	Portrait on Face	Embellishment on Back
\$1	Washington	Great Seal of U. S.	\$100	Franklin...	Independence Hall
2	Jefferson...	Monticello	500	McKinley...	Ornate denominational marking
5	Lincoln...	Lincoln Memorial	1,000	Cleveland...	Ornate denominational marking
10	Hamilton...	U. S. Treasury	5,000	Madison...	Ornate denominational marking
20	Jackson...	White House	10,000	Chase...	Ornate denominational marking
50	Grant...	U. S. Capitol	*100,000	Wilson...	Ornate denominational marking

*For use only in transactions between Federal Reserve System and Treasury Department.

Portraits on U. S. Treasury Bills, Bonds, Notes and Savings Bonds

Denomination	Savings bonds	Treas. bills	Treas. bonds	Treas. notes
25.....	Washington.....			
50.....	Jefferson.....		Jefferson.....	
75.....	Kennedy.....			
100.....	Cleveland.....		Jackson.....	
200.....	F. D. Roosevelt.....		Washington.....	
500.....	Wilson.....		Lincoln.....	Lincoln
1,000.....	Lincoln.....	H. McCulloch.....	Monroe.....	Monroe
5,000.....		J. G. Carlisle.....	Cleveland.....	Cleveland
10,000.....	T. Roosevelt.....	J. Sherman.....		
50,000.....		C. Glass.....		
100,000.....		A. Gallatin.....	Grant.....	Grant
1,000,000.....		O. Wolcott.....	T. Roosevelt.....	T. Roosevelt
100,000,000.....				Madison
500,000,000.....				McKinley

Bank Suspensions

Source: Federal Reserve System. The figures for bank suspensions represent banks which during the periods shown, closed temporarily or permanently on account of financial difficulties; does not include banks whose deposit liabilities were assumed by other banks at the time of closing (in some instances with the aid of Federal Deposit Insurance Corporation loans).

Year	Suspensions	Deposits	Year	Suspensions	Deposits	Year	Suspensions	Deposits
1929.....	659	230,643,000	1941.....	8	3,726,000	1956.....	3	11,881,000
1930.....	1,352	853,363,000	1942.....	9	1,702,000	1957.....	3	12,869,000
1931.....	2,294	1,690,669,000	1943.....	4	6,223,000	1958.....	8	6,287,000
1932.....	1,456	715,626,000	1944 (a).....	1	405,000	1959.....	3	2,048,000
1933*.....	4,004	3,598,975,000	1947.....	1	167,000	1960.....	2	7,987,000
1934.....	57	36,937,000	1949.....	4	2,443,000	1961.....	9	7,527,000
1935.....	34	10,015,000	1950.....	1	42,000	1962.....	2	1,201,000
1936.....	44	11,306,000	1951.....	3	3,113,000	1963.....	2	23,256,000
1937.....	59	19,723,000	1952.....	3	1,414,000	1964.....	7	22,022,000
1938.....	55	13,012,000	1953.....	4	44,412,000	1965.....	3	44,857,000
1939.....	42	34,998,000	1954.....	3	2,880,000	1966.....	1	699,000
1940.....	22	6,943,000	1955.....	4	6,498,000	1967.....	4	10,802,000

*Figures for 1933 comprise 628 banks with deposits of \$360,413,000 suspended before or after the banking holiday (the holiday began March 6 and closed March 15) or placed in receivership during the holiday; 2,124 banks with deposits of \$2,520,391,000 which were not licensed following the banking holiday and were placed in liquidation or receivership; and 1,252 banks with deposits of \$718,171,000 which had not been licensed by June 30, 1933. (a) No suspensions in years 1945, 1946 and 1948.

Civilian Employment of the Federal Government

Source: U. S. Civil Service Commission, Statistics Section, data as of June 30, 1968

Includes all paid employees of agencies listed; excludes employees of Central Intelligence Agency, National Security Agency (not reported to Civil Service Commission) and uncompensated employees.

Agency	Total all areas	United States			Outside United States		
		Total	Full- time	Part- time	Total	Terr.	For- eign
Total, all agencies (a)	3,055,201	2,815,723	2,665,115	150,608	239,478	36,531	202,947
Percent distribution	100	92	87	5	8	1	7
Legislative Branch:							
Congress.....	10,670	10,670	10,670				
Architect of the Capitol.....	1,542	1,542	1,201	332			
Botanic Garden.....	56	56	56				
General Accounting Office.....	4,300	4,241	4,229	12	59		59
Government Printing Office.....	7,902	7,902	7,387	515			
Library of Congress.....	4,205	4,189	3,933	256	16		
Judicial Branch:	6,561	6,505	6,347	158	56	56	16
Executive Branch:							
Executive Office of the President:							
White House Office.....	273	273	251	22			
Bureau of the Budget.....	594	594	569	25			
Comm. on Marine Science, En- gineering and Resources.....	38	38	15	23			
Council of Economic Advisers.....	78	78	62	16			
Executive Mansion and Grounds.....	73	73	73				
National Advisory Commission on Civil Disorders.....	5	5	4	1			
National Aeronautics and Space Council.....	26	26	26				
Natl. Council on Marine Resources and Engineering Development.....	34	34	30	4			
National Security Council.....	35	35	34	1			
Office of Economic Opportunity.....	3,455	3,455	3,426	29			
Office of Emergency Planning.....	467	467	383	84			
Office of Science and Technology.....	83	83	54	29			
Office of Special Representative for Trade Negotiations.....	27	27	27				
President's Commission on Income Maintenance Programs.....	31	31	29	2			
President's Committee on Con- sumer Interests.....	17	17	17				
President's Committee on Urban Housing.....	12	12	12				
Pres.'s Council on Youth Oppor- tunity.....	48	48	37	11			
U. S.-Mexico Comm. for Border Development and Friendship.....	10	10	10				
Executive departments:							
State (b).....	48,761	12,613	12,113	500	34,148	19	34,129
Treasury.....	89,125	88,406	87,506	900	719	418	301
Defense:							
Office of the Secretary.....	2,731	2,638	2,546	92	93		93
Army.....	486,859	401,819	399,564	2,255	85,040	3,852	81,188
Navy.....	430,205	387,322	383,340	3,832	42,883	7,410	35,473
Air Force.....	322,661	280,969	278,859	1,110	41,692	2,626	39,066
Other Defense Activities.....	74,521	73,777	73,505	272	744	16	728
Justice.....	35,811	35,353	34,930	423	458	231	227
Post Office.....	730,977	728,724	639,203	89,521	2,253	2,243	10
Interior.....	77,534	76,887	73,007	3,874	653	172	481
Agriculture.....	122,715	121,282	103,043	18,239	1,433	601	832
Commerce.....	38,611	38,183	35,492	2,691	428	95	333
Labor.....	10,594	10,511	10,178	333	83	58	25
Health, Education, and Welfare.....	117,113	116,134	113,104	3,030	979	534	445
Housing and Urban Development.....	15,686	15,445	15,333	112	214	240	1
Transportation.....	61,972	60,597	59,549	1,048	1,375	967	408
Independent Agencies:							
Adm. Conf. of the U. S.....	5	5	5				
Advisory Commission on Inter- governmental Relations.....	34	34	28	6			
American Battle Monuments Comm.....	438	8	8		430		430
Appalachian Region Commission.....	8	8	8				
Arms Control and Disarmament Agency.....	186	186	181	5			
Atlantic-Pacific InterOceanic Canal Study Commission.....	5	5	3	2			
Atomic Energy Commission.....	7,665	7,630	7,463	167	35	11	24
Board of Governors, Federal Reserve System.....	808	808	790	18			
Canal Zone Government.....	3,255				3,255	3,255	
Civil Aeronautics Board.....	670		667	3			
Civil Service Commission.....	5,577	5,566	5,365	201	11	11	
Coastal Plains Regional Comm.....	8	8	7	1			
Commission of Fine Arts.....	8	8	8				
Commission on Civil Rights.....	186	186	175	11			
Delaware River Basin Commission.....	2	2	2				
Equal Employment Opportunity Commission.....	476	476	462	14			
Export-Import Bank.....	332	332	331	1			
Farm Credit Administration.....	232	232	215	17			
Federal Coal Mine Safety Board of Review.....	9	9	4	5			
Federal Communications Commission.....	1,453	1,446	1,444	5	7	7	
Federal Deposit Insurance Corporation.....	2,025	2,023	1,964	59	2	2	
Federal Field Committee for Develop- ment Planning in Alaska.....	18	18	10	8			
Federal Home Loan Bank Board.....	1,341	1,341	1,329	12			
Federal Maritime Commission.....	245	245	244	1			
Federal Mediation and Conciliation Service.....	458	458	454	4			
Federal Power Commission.....	1,110	1,110	1,110				
Federal Radiation Council.....	4	4	4				

Agency	Total all areas	United States			Outside United States		
		Total	Full-time	Part-time	Total	Terr.	For- eign
Federal Trade Commission.....	1,235	1,235	1,228	7			
Foreign Claims Settlement Commission.....	98	98	98				
Four Corner Regional Comm.....	7	7	7				
General Services Administration.....	39,925	39,872	39,292	580	53	39	14
Indian Claims Commission.....	42	42	42				
Information Agency.....	11,603	3,638	3,610	28	7,965		7,965
Interagency Comm. on Mexican-American Affairs.....	28	28	28				
Interstate Commerce Commission.....	1,893	1,893	1,891	2			
National Aeronautics and Space Administration.....	34,641	34,615	34,352	263	26	2	24
National Capital Housing Authority.....	653	653	649	4			
National Capital Planning Commission.....	84	84	83	1			
National Commission, Reform of Federal Criminal Laws.....	15	15	11	4			
National Foundation on the Arts and the Humanities.....	127	127	86	41			
National Labor Relations Board.....	2,433	2,404	2,389	15	29	29	
National Mediation Board.....	143	143	101	42			
National Science Foundation.....	1,464	1,132	982	150	332		332
New England Regional Commission.....	5	5	5				
Ozarks Regional Commission.....	5	5	5				
Panama Canal Company.....	12,805	157	157		12,648	12,638	10
Public Land Law Review Commission.....	46	46	46				
Railroad Retirement Board.....	1,824	1,824	1,816	8			
Renegotiation Board.....	184	184	184				
Securities and Exchange Commission.....	1,388	1,388	1,381	7			
Selective Service System.....	9,027	8,849	6,960	1,889	178	178	
Small Business Administration.....	4,667	4,577	4,527	50	90	90	
Smithsonian Institution.....	2,617	2,580	2,454	126	37	35	2
Soldiers' Home.....	1,143	1,143	1,093	50			
Subversive Activities Control Board.....	13	13	13				
Tariff Commission.....	286	286	283	3			
Tax Court of the United States.....	156	156	156				
Tennessee Valley Authority.....	19,958	19,954	19,720	234	4		4
Upper Great Lakes Regional Commission.....	8	8	8				
Veterans Administration: (c).....	175,668	174,646	157,834	16,812	1,022	696	326
Water Resources Council.....	33	33	30	3			

(a) Includes approximately 61,900 participants in furtherance of the President's Youth Opportunity Campaign program. (b) Includes 1,570 employees in the Peace Corps of whom 894 were in Washington; and 18,030 employees in the Agency for International Development, of whom 3,833 were in Washington; employees in foreign countries include 6,506 paid from local currency trust funds established by foreign governments. (c) Includes resident physicians and interns. Civilian employment of the Federal Government—total as of June 30—(1930) 601,319; (1935) 780,582; (1940) 1,042,420; (1945) 3,816,310; (1950) 1,960,708; (1955) 2,397,309; (1956) 2,398,736; (1957) 2,417,565; (1958) 2,382,491; (1959) 2,282,807; (1960) 2,398,704; (1961) 2,435,804; (1962) 2,514,197; (1963) 2,527,960; (1964) 2,500,503; (1965) 2,527,915; (1966) 2,759,019; (1967) 3,002,461; (1968) 3,055,201.

Federal Civilian Employment

Source: U. S. Civil Service Commission, Statistics Section

Year and month	United States ¹				Washington, D. C. ²			
	Total ¹	Executive ³	Legislative	Judicial	Total	Executive ³	Legislative	Judicial
1955 Average.....	2,187,000	2,161,700	21,600	4,100	230,000	209,500	19,800	700
1961 Average.....	2,347,800	2,317,500	24,500	5,800	267,200	243,600	22,700	900
1965 Average.....	2,377,900	2,346,900	25,400	5,900	274,900	250,500	23,500	900
1966 Average.....	2,563,900	2,531,900	26,000	6,000	290,200	265,100	24,200	900
1967 Average.....	2,719,000	2,685,300	27,400	6,300	309,900	283,400	25,500	900
1968 June (actual).....	2,815,700	2,780,600	28,600	6,500	329,900	302,300	26,700	900

¹ Beginning 1959 includes Alaska and Hawaii.

² Includes all Federal civilian employment in the Wash., D. C. Standard Metropolitan Statistical Area which includes the District of Columbia; Alexandria, Falls Church, and Fairfax cities, Arlington and Fairfax Counties, Virginia; and Montgomery and Prince Georges Counties, Maryland. Since July 1967 includes Loudoun and Prince William Counties in Virginia.

³ Includes all executive agencies except Central Intelligence Agency and National Security Agencies.

Commercial and Industrial Failures in the United States

Source: Dun & Bradstreet, Inc.; data do not include banks

Year*	Number	Liabilities	Year*	Number	Liabilities	Year*	Number	Liabilities
		(\$1,000)			(\$1,000)			(\$1,000)
1940....	13,619	166,684	1954....	11,086	462,628	1961....	17,075	1,090,123
1945....	809	30,225	1955....	10,969	449,380	1962....	15,782	1,213,601
1949....	9,246	308,109	1956....	12,686	562,697	1963....	14,374	1,352,593
1950....	9,162	248,283	1957....	13,739	615,293	1964....	13,501	1,329,223
1951....	8,058	259,547	1958....	14,964	728,258	1965....	13,514	1,321,668
1952....	7,611	283,314	1959....	14,053	692,808	1966....	13,061	1,385,659
1953....	8,862	391,153	1960....	15,445	938,630	1967....	12,364	1,265,227

* Data exclude Alaska and Hawaii.

A business failure, as defined for this record, occurs when a commercial or industrial enterprise is involved in a court proceeding or a voluntary action which is likely to end in loss to creditors. Specifically, the Dun and Bradstreet record of failure includes discontinuances following assignment, voluntary or involuntary petition in bankruptcy, attachment, execution, foreclosure, etc.; voluntary withdrawals from business with known loss to creditors, also enterprises involved in court action, such as receivership, and since June, 1943, reorganization, or arrangement, which may or may not lead to disturbances; as well as businesses making voluntary compromises with creditors out of court. Comparison of this series with the bankruptcy reports of the Attorney General of the United States is not possible. The latter give complete coverage of all types of cases, including farmers, employees, professional men and others not in business, all which are excluded from the Dun & Bradstreet statistics.

Interest Laws and Consumer Finance Loan Rates

Source: Revised by Roger S. Barrett of Chicago, Editor Consumer Finance Law Bulletin.

Most states have laws regulating interest rates. These laws fix a legal or conventional rate which applies when there is no contract for interest. They also fix a general maximum contract rate, but there are exceptions for particular purposes including consumer finance loan laws. In many states there are so many exceptions that the general contract maximum actually applies only to exceptional cases.

1. **Legal rate of interest.** The legal or conventional rate of interest applies to money obligations when no interest rate is contracted for and also to judgments. The rate is usually 6% a year, but in some states it is 5% or 7%.

2. **General maximum contract rates.** All states, except Colorado, Massachusetts, and New Hampshire have general laws fixing the maximum rate of interest which may be contracted for, unless another law authorizes a higher rate. The general maximum is fixed by the state constitution in Arkansas, California, Oklahoma, Tennessee, and Texas. The most common maximum rates are 6% and 8% a year, but some states permit 10% or 12%. Rhode Island permits 21%. Penalties for infraction range from forfeiture of interest to loss of the entire principal and even imprisonment. Loans to corporations are frequently exempted or subject to a higher maximum. Courts generally hold that installment sale charges are not interest, but installment sale charges are limited by laws in many states.

3. **Specific enabling acts.** In many states

special statutes permit industrial loan companies and banks to charge interest and fees without regard to installment payments which yield 1½% a month or more. Credit unions may generally charge 1% a month. Pawnbrokers' rates vary widely. Building and loan associations, loans insured by the Federal Housing Administration, and frequently retail charge account credit are also specially regulated.

4. **Consumer finance loan statutes.** Consumer finance loan statutes are based on early models drafted by the Russell Sage Foundation (1916-42) to provide small loans to wage earners under license and other protective regulations. In general, licensed lenders may charge 2½% or 3% a month for \$300 or less and reduced rates for additional amounts up to \$1,000, \$1,500 or more. A number of states permit add-on rates of 17% to 20% (\$17 to \$20 per \$100) a year of the original principal for \$300 and lower rates for additional amounts. An add-on of 17% (\$17 per \$100) per year yields about 2½% per month when the loan is paid in equal monthly installments. In the table below unless otherwise stated, monthly rates are based on reducing principal balances, annual add-on rates are based on the original principal for the full term, and two or more rates apply to different portions of balance or original principal.

The states with consumer finance loan laws and the rates of charge as of October 1, 1968, are as follows:

State	Maximum rate	State	Maximum rate
Ala.....	Monthly unless otherwise stated 3% to \$200, 2% to \$300. Special rate up to 8%.	N. H....	2% to \$600, 1½% to \$1,500, 1½% on larger loans to \$5,000
Alaska....	4% to \$300, 2½% to \$600, 2% to \$1,000; 5% for loans up to \$50	N. J.....	24% per annum to \$500, 22% to \$1,000
Ariz.....	3% to \$300, 2% to \$600, 1% to \$1,000	N. M.....	2½% to \$150, 2½% to \$300, 1% to \$1,000
Calif.....	2½% to \$200, 2% to \$500, 1½% to \$700, 1% to \$5,000.	N. Y.....	3½% to \$100, 2% to \$300, ½% to \$800
Colo.....	3% to \$300, 1½% to \$500, 1% to \$1,500	N. C....	Annual Add-on: 20% to \$100, 18% to \$200, 15% to \$300, 6% to \$600. Special rate up to \$75
Conn.....	Annual Add-on: 17% to \$300, 9% to \$1,000	N. D....	2½% to \$250, 2% to \$500, 1½% to \$750, 1½% to \$1,000
D. of C....	1% to \$200	Ohio.....	Annual Add-on: 16% to \$500, 9% to \$1,000, 7% to \$2,000, or equivalent simple interest rate
Fla.....	3% to \$300, 2% to \$600	Okl.....	10% per annum plus various fees to \$300
Hawaii....	3½% to \$100, 2½% to \$300	Ore.....	3% to \$300, 2% to \$500, 1% to \$1,500
Idaho....	3% to \$300, 2% to \$500, 1% to \$1,000	Penna....	3% to \$150, 2% to \$300, 1% to \$600
Ill.....	3% to \$150, 2% to \$300, 1% to \$800	P. Rico...	Annual Add-on: 20% to \$300, 7% to \$600
Ind.....	3% to \$150, 2% to \$300, 1½% to \$1,000.	R. L....	3% to \$300; 2½% for loans between \$300 and \$800; 2% for larger loans to \$2,500
Ia.....	3% to \$150, 2% to \$300, 1½% to \$700, 1% to \$1,000	S. C.....	Annual Add-on: 20% to \$100, 18% to \$300, 9% to \$1,000; 7% for larger loans to \$7,500, plus service fee. Special rate to \$150
Kan.....	3% to \$300, 5/6% to \$2,100	S. D.....	3% to \$300, ¼% to \$2,500; \$2 minimum
Ky.....	3% to \$150, 2% to \$600, 1% to 800; or annual add-on of 20% to \$150; 15% to \$600, 11% to \$800	Tenn.....	6% per annum plus 4% fee; no size limit.
La.....	3½% to \$150, 2½% to \$300	Texas....	Annual Add-on: 18% to \$300, 8% to \$2,500. Special rates to \$100
Me.....	2½% to \$300, 1½% to \$2,000; 25c minimum	Utah....	3% to \$300, 1% to \$600
Md.....	3% to \$300, 2% to \$500.	Vt.....	2½% to \$125, 2¼% to \$300, 1% to \$600
Mass....	2½% to \$200, 2% to \$600; 1½% to \$1,000, ¼% to \$3,000	Va.....	2½% to \$300, 1½% to \$1,000; or annual add-on of 17% to \$300, 12% to \$1,000.
Mich....	2½% to \$300, 1½% to \$1,000	Wash....	3% to \$300, 1½% to \$500, 1% to \$1,000; \$1 minimum
Minn....	2½% to \$300, 1½% to \$600, 1¼% to \$900	W. Va...	3% to \$200, 2% to \$600, 1½% to \$800; or annual add-on of 19% to \$200, 16% to \$600, 12% to \$800
Miss....	Interest and service charges combined exceed 3% per month	Wis....	2½% to \$100, 2% to \$200, 1% to \$300
Mo.....	2.218% to \$600, 8% per annum on any remainder	Wyo....	3½% to \$150, 2½% to \$300, 1% to \$1,000; plus \$1 for loans up to \$50
Mont....	Annual Add-on: 20% to \$300, 16% to \$500, 12% to \$1,000. Special rate to \$90		
Nebr....	30% per annum to \$300, 24% to \$500, 18% to \$1,000, 12% to \$3,000		
Nev.....	Annual Add-on: 9% to \$1,000, 8% to \$2,500; monthly fee of 1% on first \$200 and ½% on next \$200		

Federal Deposit Insurance Corporation (FDIC)

The primary purpose of the Federal Deposit Insurance Corporation (FDIC) is to insure the deposits of all banks entitled to insurance benefits under the Federal Deposit Insurance Act. The major functions of the FDIC are to pay off depositors of insured banks closed without adequate provision having been made to pay depositors' claims, to act as receiver for all national banks placed in receivership and for state banks placed in receivership when appointed receiver by state authorities, and to prevent the continuance or development of unsafe and unsound banking practices. The FDIC's entire income consists of assessments on insured banks and income from investments; it receives no appropriations from Congress. It may borrow from the U. S. Treasury not to exceed \$3 billion outstanding at any one time, but has made no such borrowings since it was organized in 1933. The FDIC surplus (Deposit Insurance Fund) as of Dec. 31, 1967, was \$3,485,486,215.

SOCIAL SECURITY PROGRAMS

Medicare; Old-Age, Survivors and Disability Insurance

Legislation Signed in 1968 Increases Old-Age, Survivors and Disability Benefits by 13% ; Tax Base Changed

Source: Office of Research and Statistics, Social Security Administration, Dept. of Health, Education and Welfare

The Social Security Amendments of 1967, signed Jan. 2, 1968, included changes that raised old-age, survivors, and disability benefits 13% beginning with the check for February, 1968, raised the taxable and creditable earnings base, revised the contribution schedule, raised the amount a worker may earn and still get benefits, provided benefits for disabled widows and widowers at reduced rates at age 50, and made it possible for workers disabled before age 31 to qualify for benefits. Changes in Medicare included coverage of added days of hospital care, coverage of physical therapy services and certain podiatrists' services under medical insurance, and transfer of all outpatient hospital services to medical insurance.

The Social Security Act provides that the Secretary of Health, Education, and Welfare is to determine and promulgate each year between July 1 and October 1 the deductible (the amount paid by the patient) for inpatient hospital services under Medicare for the next calendar year. In 1968, the Secretary announced that the patient must pay the first \$44 (instead of the first \$40) for the first 60 days' hospital care in 1969.

The Commissioner of Social Security is Robert M. Ball. There are 642 district offices (with 117 branch offices) in the country, where the public may obtain information about its right to benefits.

MEDICARE HEALTH INSURANCE FOR AGED

Beginning July 1966, most Americans aged 65 and over became eligible for hospital insurance and if they choose to take it, for voluntary medical insurance, in addition.

Hospital Insurance—In the second year of operation (July 1967-June 1968) about \$3.7 billion was paid in hospital benefits. About 19,700,000 persons were enrolled as of June 1968. There were 5,600,000 hospital admissions, 450,000 admissions to extended-care facilities, and 260,000 start-of-care notices for home health services recorded under the program in the 12-month period.

The hospital insurance program pays the cost of covered services for hospital and posthospital care as follows:

- Up to 90 days of hospital care during a benefit period (spell of illness, starting on the 1st day of care as a bedpatient is received in a hospital or extended-care facility and ending when the individual has not been a bedpatient for 60 consecutive days). For the first 60 days, the hospital insurance pays for all but the first \$44 of expenses; for the 61st to 90th day, the program pays all but \$10 a day for covered services. In addition, each person has a 60-day lifetime reserve that can be used after the 90 days of hospital care in a benefit period are exhausted, and all but \$20 a day of expenses during the reserve days are paid. Once used the reserve days are not replaced. (Payment for care in a mental hospital is limited to 190 days.)
 - Up to 100 days' care in an extended-care facility (skilled nursing home) in each benefit period. Hospital insurance pays for all covered services for the first 20 days and all but \$5 daily for the next 80 days. At least 3 days' hospital stay must precede these services, and the extended-care facility must be entered within 14 days after leaving the hospital.
 - Up to 100 visits by nurses or other health workers (not doctors) from a home health agency in the 365 days after release from a hospital or extended-care facility.
- Money to pay these benefits comes from a spe-

cial contribution paid by workers and by their employers and by the self-employed. In 1968 and for 1969 through 1972, it is 1/6 of 1% (0.6%) on earnings up to \$7,800 (the maximum taxable amount under the 1967 amendments). The tax gradually increases then by steps stated in the law. The contributions are placed in a separate Hospital Insurance Trust Fund from which benefits and administrative expenses are paid. These contributions are made at the same time as those for social security cash benefits.

Medical insurance—Aged persons can receive benefits under this supplementary program only if they sign up for them and agree to pay a monthly premium (\$4, beginning April 1968). The Federal Government pays a matching amount.

The medical insurance program pays 80% of the reasonable charges (after the first \$50 in each calendar year) for the following services:

- Physicians' and surgeons' services, whether in the doctor's office, a clinic, or hospital or at home.
- Home health services even without a hospital stay—up to 100 visits in a year.
- Other medical and health services, such as diagnostic tests, surgical dressings and splints, and rental or purchase of medical equipment.
- Physical therapy services furnished under the supervision of a participating hospital, clinic, extended-care facility, or agency.
- Certain services by podiatrists.
- All outpatient services of a participating hospital (including diagnostic tests).

Beginning April 1968, X-ray or laboratory services of physicians for hospital bedpatients are paid on the basis of full reasonable charges without the need to meet the \$50 deductible.

To get medical insurance protection, persons approaching age 65 may enroll in the 7-month period that includes 3 months before the 65th birthday, the month of the birthday, and 3 months after the birthday, but if they wish coverage to begin in the month they reach 65 they must enroll in the 3 months before their birthday. Persons not enrolling within their 7-month enrollment period may enroll during the first 3 months of each year, provided this period begins within 3 years after the first chance to enroll.

The monthly premium is deducted from the cash benefit for persons receiving social security, railroad retirement, or civil service retirement benefits. Income from the medical premiums and the Federal matching payments are put in a Supplementary Medical Insurance Trust Fund, from which benefits and administrative expenses will be paid.

Persons qualifying for hospital insurance under social security receive a health insurance card similar to the cards now used by Blue Cross and other health agencies. The card indicates whether the individual has taken out medical insurance protection. It is to be shown to the hospital, extended care facility, home health agency, doctor, or whoever provides the covered services. The part of the bill for which payment can be made is taken care of by the program. Payments are made only in the 50 States, Puerto Rico, the Virgin Islands, Guam, and American Samoa, except that hospital services may be provided in border areas immediately outside the U. S. if comparable services are not accessible in the U. S. for a beneficiary who becomes ill or is injured in the U. S.

The health insurance programs do not pay the entire costs of health care. Those unable to pay medical bills not covered by the health insurance programs may qualify for aid from the public welfare agency. Most States have programs to help persons who cannot pay their medical bills. Some of these programs provide aid only for the aged; others help the medically needy, regardless of age.

OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE

Retired and disabled workers and their families and the survivors of deceased workers received \$22.5 billion in social security cash benefits in the 12 months ended in June 1968. In that month the

average benefit being received by a retired worker was \$98; for retired workers just coming on the rolls, the average benefit award was about \$103. For a disabled worker, the June check was \$112, and new disabled-worker beneficiaries were awarded \$115, on the average.

Old-age, survivors, and disability insurance covers almost all jobs in which people work for wages or salaries, as well as most work of self-employed persons, whether in a city job, or in business, or on a farm.

Old-age, survivors, and disability insurance is paid for by a tax on earnings (beginning Jan. 1, 1968, up to \$7,800). The employed worker and his employer share the tax equally. (Beginning 1966, cash tips count as covered wages if they amount to \$20 or more from one place of employment. The worker reports them to his employer, who includes them in his social security tax reports, but only the worker pays contributions on the amount of the tips.)

The employer deducts the tax each payday and sends it, with an equal amount as his own share, to the District Director of Internal Revenue. The collected taxes are deposited in the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund; they can be used only to pay benefits and administrative expenses.

The contribution rates on the first \$7,800 of covered earnings and the schedule of increases to come are shown in the 2nd table on page 151 for the old-age, survivors, and disability insurance program and for the new hospital insurance program.

AMOUNT OF WORK REQUIRED

To qualify for benefits for himself and his family, the worker must have been in covered employment long enough to become insured. Just how long depends on his date of birth (or if he dies or becomes disabled, the date of his death or disability).

A person is fully covered if he has one quarter of coverage for every year after 1950 up to but not including the year in which he reaches age 65 (62 for women), dies, or becomes disabled. Under a special 1965 provision a person who reached retirement age before 1957 can qualify for benefits at age 72 with less than 6 quarters of coverage, and his wife or widow (if he was living in 1965) may also receive a benefit at 72 (\$40 benefit for the worker or the widow, \$20 for the wife).

To get disability benefits, the worker must also have credit for 5 out of 10 years before he becomes disabled. Under the 1965 amendments, persons disabled before age 31 because of blindness as defined in the law can qualify with a briefer period of coverage.

The following table shows the number of work years required to be fully insured for old-age benefits, according to the year worker reaches retirement age or dies.

Retirement age* or death	Years of credit
In 1957.....	1½
1958.....	1½
1959.....	2
1960.....	2½
1961.....	2½
1962.....	2½
1963.....	3
1964.....	3½
1965.....	3½
1966.....	3½
1967.....	4
1968.....	4½
1969.....	4½
1970.....	4½
1971.....	5
1975.....	6
1979.....	7
1983.....	8
1987.....	9
1991 or later.....	10

*Age 62 for women, age 65 for men. Men may actually retire at age 62 and receive a reduced benefit, but age 65 is used for men in determining the minimum number of quarters of coverage needed.

AGED 72 OR OVER

A 1966 provision made special benefits payable, beginning Oct. 1966, to non-insured persons aged 72 or over or reaching that age before 1968 and residing in the 50 states or the District of Columbia, even if they have no quarters of coverage. Persons reaching 72 after 1967 can also qualify for special benefits, but they must have at

least 3 quarters of coverage for each calendar year after 1966 and before the year they become 72.

SELF-EMPLOYED

A self-employed person who has earnings of \$400 or more in a year must report his earnings for income-tax and social security tax purposes. If he is not a farmer he reports only net returns from his business. He need not add income from real estate, savings, dividends, loans, pensions or insurance policies if these are not part of his business.

A self-employed person who has net earnings of \$400 or more in a year gets 4 quarters of coverage for that year. If his earnings are less than \$400 in a year they do not count toward social security credits.

Under a 1966 law, the nonfarm self-employed person must make estimated payments of his social security taxes, on a quarterly basis, for taxable years after Dec. 31, 1966, if combined estimated income tax and social security tax amount to at least \$40.

When a person has both taxable wages and earnings from self-employment, only as much of the self-employment income as will bring total earnings to \$7,800 is subject to tax for social security purposes. A self-employed person pays the tax at a lower rate than the combined rate for an employee and his employer, 1½ times what the employee alone pays.

Before the 1967 amendments, the religious work of ministers and members of religious orders was covered on an individual elective basis. Under the 1967 amendments, services of ministers and members of religious orders who have not taken a vow of poverty are covered automatically unless, within specified time limits, an exemption is obtained from the Internal Revenue Service on the grounds of religious principles or conscience. Once an exemption is obtained it cannot be withdrawn.

FARM OWNERS AND HANDS

Self-employed farmers whose gross annual earnings from farming are under \$2,400 may report ½ of their gross earnings instead of net earnings for social security purposes. Cash or crop shares received from a tenant or share farmer count if the owner participated materially in production or management. The self-employed farmer pays contributions at the same rate as other self-employed, but he may make his tax returns annually.

Farm Workers. Earnings from farm work count toward benefits (1) if the employer pays \$150 or more in cash during the year; (2) if the employee works on 20 or more days for cash pay figured on a time basis. Under these rules a person gets credit for one calendar quarter for each \$100 in cash pay in a year but no more than four quarters in any one year.

Foreign farm workers admitted to the United States on a temporary basis will not be covered.

HOUSEHOLD WORKERS

Anyone working as maid, cook, laundress, nursemaid, baby-sitter, chauffeur, gardener and at other household tasks in the home of another, is covered by social security if he or she earns \$50 or more in cash in three months from any one employer. Room and board do not count, but care counts if paid in cash. The job does not have to be regular or fulltime. The employee should get a card at the social security office and show it to the employer.

The employer deducts the amount of the social security tax from the worker's pay, adds an identical amount as his own tax and sends the total amount to the Federal Government, with the number of the employee's social security card.

WHAT AGED WORKERS GET

When a person has enough work in covered employment and reaches retirement age (65 for full benefit, 62 for reduced benefit), he may retire and get monthly old-age benefits. If he continues to work and has earnings of more than \$1,680, some benefits are withheld. But only \$1 in benefits will be withheld for every \$2 of earnings between \$1,680 and \$2,880 and \$1 in benefits for every \$1 in earnings above \$2,880. The eligible worker who is 72 receives the full amount of benefit, regardless of earnings.

When a person receives old-age benefits, payments can also be made to certain of his dependents including a wife 62 or over, dependent children under 18 or who became totally disabled before that age or who is a full-time student not yet aged 22, a wife (regardless of age) if caring for an eligible child, and a dependent husband 62 or over.

The special benefit for persons aged 72 or over who do not meet the regular coverage requirements is \$40 a month (\$60 for a couple if both members are eligible). It is not paid to persons on the public assistance rolls.

Social Security benefits are not subject to income taxes.

A woman worker is eligible for a full old-age benefit at age 65, but she may retire at 62 and get 80% of her full benefit for the rest of her life; the nearer she is to 65 when she begins collecting her benefit, the larger it will be. (Benefits for men retiring before 65 are reduced at the same rate as benefits for women retiring before 65.)

Under the 1967 amendments, a child can get benefits based on his mother's earnings on the same conditions as those entitling a child to benefits based on his father's earnings record.

BENEFITS FOR WORKER'S WIFE (OR HUSBAND)

The wife of a man who is getting social security retirement or disability payments may become entitled to wife's insurance benefits in a reduced amount when she reaches 62, or she may wait until she reaches 65 and get the entire amount of the wife's benefit, which is one-half of the husband's benefits (but not more than \$105). Benefits are also payable to the divorced wife of an insured worker if she was married to him for at least 20 years and he was contributing to or was ordered by a court to contribute to her support.

If a woman worker entitled to old-age benefit has a dependent husband aged 65 or over, he may draw a benefit similar to a wife's benefit at 65 (or a reduced benefit at age 62).

BENEFITS FOR CHILDREN OF RETIRED OR DISABLED WORKERS

If a worker has children under 18 when he retires for age or disability they will get a benefit that is half his benefit, and so will his wife, even if she is under 62. Total benefits based on his earnings up to \$6,600 cannot be more than \$395.60. (Eventually, as workers earnings records reflect more closely the new \$7,800 taxable earnings limit, the maximum family benefit will be \$434.40.)

When his children reach 18, their benefits will stop, except that a child permanently and totally disabled before 18 may get a benefit as long as his disability meets the definition in the law. In addition, his benefits are payable until the child reaches his 22nd birthday if he is attending school as a full-time student.

SURVIVOR BENEFITS

If a worker should die while insured, one or more types of survivor benefits would be payable to his survivors.

1. A cash payment to cover burial expenses that amounts to 3 times the basic benefit but not more than \$255, paid at the death of every insured worker.

2. A benefit for each child until the child reaches

18. The monthly benefit of each child of a worker who has died is three-quarters of the amount the worker would have received if he had lived and drawn retirement benefits. A child with a permanent disability that began before age 18 may receive his benefit after that age (or up to age 22, if he is attending school).

3. A mother's benefit for the widow, if children under 18 are left in her care. Her benefit is 75% of the basic benefit and she draws it until the youngest child reaches 18. Payments stop then even if the child's benefit continues because he is attending school. They will start again when she is 62 (or 60), unless she marries. If she marries and the marriage is ended, she regains benefit rights. If she has a disabled child beneficiary aged 18 or over in her care, her benefits also continue.

The 1967 amendments provide that disabled widows and widowers will be eligible for benefits at age 50 at reduced rates depending on the age at entitlement. The widow or widower must have become totally disabled before or within 7 years after the spouse's death.

4. If there are no children entitled to receive benefits, the widow will get a benefit at 62 that is 82½% of the basic benefit amount. She may choose to start getting benefits at age 60; if she makes this choice, her benefit is reduced by 5/9 of 1% for each month she receives a benefit before she is 62.

5. Dependent parents may be eligible for benefits, if they have been receiving at least half their support from the worker before his death, have reached retirement age (62) and are not eligible for an old-age benefit based on their own earnings. Each parent receives 75% of the basic benefit except that, if there is only one surviving parent, the benefit is 82% of the basic benefit.

The survivors of a woman worker receive benefits on the same basis as those of men workers.

WHAT DISABLED WORKER GETS

If a worker becomes so severely disabled that he is unable to work, he may be eligible to receive a monthly disability benefit that is the same amount he would receive as an old-age benefit if he were 65 at the start of his disability. When he reaches 65, his disability benefit becomes an old-age benefit.

Benefits like those provided for dependents of retired-worker beneficiaries may be paid to dependents of disabled beneficiaries.

FEDERAL CREDIT UNION

The Bureau of Federal Credit Unions is responsible for chartering, examining, and supervising Federal credit unions. These are voluntary cooperative associations to promote thrift among members and provide loans. Large numbers of credit unions are found among employee groups in commerce, industry, and government. At the end of June 1968 there were 12,500 Federal credit unions with about 10,163,000 members and assets of \$6,555 billion. The Bureau of Federal Credit Unions is a part of the Social Security Administration.

OLD-AGE AND SURVIVORS AND DISABILITY INSURANCE TRUST FUNDS

[In thousands]

Period and fiscal year	Receipts		Financial Transfers	Expenditures		Total assets at period end
	Net contribution income and transfers	Net interest received		Benefit payments	Administrative expenses	
1936-37.....	\$265,000	\$2,262	.....	\$27	.....	\$267,235
1940-41.....	688,141	55,958	.....	64,342	\$26,840	2,397,615
1945-46.....	1,238,218	147,766	.....	320,510	37,427	7,641,428
1950-51.....	3,124,098	287,392	.....	1,498,088	70,447	11,745,567
1955-56.....	6,442,370	487,450	\$7,439	5,360,813	124,339	22,594,109
1958-59.....	8,460,081	576,713	-124,441	9,388,377	227,504	23,208,045
1959-60.....	10,829,764	564,040	-573,606	10,798,013	234,291	22,995,939
1960-61.....	12,314,678	591,713	-336,882	11,888,527	272,187	23,404,734
1961-62.....	12,475,509	609,006	-371,815	13,669,211	315,417	22,132,803
1962-63.....	14,404,383	582,043	-442,132	15,015,262	329,040	21,432,795
1963-64.....	16,645,887	606,704	-421,775	15,830,373	370,100	21,962,838
1964-65.....	17,032,456	648,372	-459,253	16,618,084	377,145	22,187,184
1965-66.....	19,422,599	648,635	-468,782	19,792,586	437,159	21,878,935
1966-67.....	24,816,399	792,741	-538,680	20,763,125	432,735	25,536,995
1967-1968p.....	25,361,794	984,392	-458,022	22,840,888	559,559	28,118,691
Cumulative * to July 1968.....	\$218,896,566	\$11,621,801	-\$4,160,020	\$193,606,683	\$4,836,359	\$28,118,691

* Beginning 1966, includes amounts for rehabilitative services, authorized by 1965 amendments (a total of \$23,785,000 from 1965-66 to 1967-68).

* Includes \$204,386,000 transferred from general funds for benefits for certain World War II veterans and, beginning 1966, for military service wage credits.

pPreliminary.

*Cumulative totals are not totals of columns for several years are omitted.

Examples of Monthly OASDI Cash Payments

(Old-Age, Survivors, and Disability Insurance)

Average yearly earnings after 1950 ¹	\$899 or less	\$1800	\$3000	\$4200	\$5400	\$6600	\$7800
Retired worker—65 or older	\$55.00	\$ 88.40	\$115.00	\$140.40	\$165.00	\$189.90	\$218.00
Disabled worker—under 65	27.50	44.20	57.50	70.20	82.50	95.00	105.00
Wife 65 or older	44.00	70.80	92.00	112.40	132.00	152.00	174.40
Retired worker at 62	20.70	33.20	43.20	52.70	61.90	71.30	78.80
Wife at 62, no child	55.00	73.00	94.90	115.90	136.20	156.70	179.90
Widow at 60, no child	47.70	63.30	82.30	100.50	118.10	135.90	156.00
Disabled widow at 50, no child	33.40	44.30	57.60	70.30	82.70	95.10	109.20
Wife under 65 and one child	27.50	44.20	57.40	70.20	82.50	95.00	105.00
Widow under 62 and one child	82.50	132.60	172.60	210.60	247.60	285.00	327.00
Widow under 62 and two children	82.50	132.60	202.40	280.80	354.40	395.60	434.40
One child of retired or disabled worker	27.50	44.20	57.50	70.20	82.50	95.00	109.00
One surviving child	55.00	88.30	115.30	140.30	165.30	189.90	218.00
Maximum family payment	82.50	132.60	202.40	280.80	354.40	395.60	434.40

¹Generally, average earnings are figured over the period from 1950 until the worker reaches retirement age, becomes disabled, or dies. Up to 5 years of low earnings can be excluded. The maximum earnings creditable for social security are \$3,600 for 1951-1954; \$4,200 for 1955-1958; \$4,800 for 1959-1965; and \$6,600 for 1966-1967. The maximum creditable in 1968 and after is \$7,800, but average earnings cannot reach this amount until later. Because of this, the benefits shown in the last two columns on the right generally will not be payable until later. When a person is entitled to more than one benefit, the amount actually payable is limited to the larger of the benefits.

CONTRIBUTION RATE FOR EMPLOYEES, EMPLOYERS, AND SELF-EMPLOYED

Percent of Covered Earnings

Years	Employees and employers			Self-employed		
	OASDI Benefits	Hospital Insurance	Total	OASDI Benefits	Hospital Insurance	Total
1968	3.8	0.6	4.4	5.8	0.6	6.4
1969-70	4.2	.6	4.8	6.3	.6	6.9
1971-72	4.6	.6	5.2	6.9	.6	7.5
1973-75	5.0	.65	5.65	7.0	.65	7.65
1976-79	5.0	.7	5.7	7.0	.7	7.7
1980-86	5.0	.8	5.8	7.0	.8	7.8
1987 and after	5.0	.9	5.9	7.0	.9	7.9

Hospital insurance trust fund: Status, 1966-68

[IN THOUSANDS]

Period	Receipts				Expenditures		Total assets
	Net contribution income ¹	Transfers from general revenues ²	Transfers from railroad retirement account ³	Net interest ⁴	Net hospital and related service benefits ⁵	Administrative expenses ⁶	
Jan. 1966-June 1968 ⁷	\$7,111,531	\$621,481	\$60,354	\$112,423	\$6,244,095	\$231,058	\$1,430,636
Fiscal years:							
1965-66	908,797			5,970		63,564	851,204
1966-67	2,688,684	337,850	16,305	45,798	2,507,773	88,848	1,343,221
1967-68 ⁸	3,514,049	283,631	44,049	60,655	3,736,322	78,647	1,430,000

¹Represents amounts appropriated (estimated tax collections with suitable subsequent adjustments), after deductions for refund of estimated amount of employee-tax overpayment.

²Represents Federal Government transfers from general funds appropriations to meet costs of benefits for persons not insured for cash benefits under OASDIH or railroad retirement and for costs of benefits arising from military wage credits.

³Represents receipts under the financial interchange with railroad retirement account with respect to contributions for hospital insurance coverage of railroad workers.

⁴Represents interest and profit on investments after transfers of interest on administrative expenses reimbursed to the OASI trust fund.

⁵Represents (1) payment vouchers on letters of credit issued to fiscal intermediaries under sec. 1816 and (2) direct payments to providers of services under sec. 1815 of the Social Security Act.

⁶Subject to subsequent adjustment among all 4 social security trust funds, for allocated cost of each operation.

⁷Preliminary.

Supplementary medical insurance trust fund: Status, 1966-68

[IN THOUSANDS]

Period	Receipts			Expenditures		Total assets
	Premium income ¹	Transfers from general revenues ²	Net interest ³	Net medical service benefits ⁴	Administrative expenses ⁵	
July 1966-June 1968 ⁶	\$1,345,170	\$1,257,000	\$34,729	\$2,053,883	\$276,290	\$306,727
Fiscal years:						
1966-67	646,682	623,000	14,052	664,261	133,682	485,791
1967-68 ⁷	698,488	634,000	20,677	1,389,622	142,608	306,727

¹Represents voluntary premium payments from and in behalf of insured persons.

²Represent Federal Government transfers from general funds appropriations to match aggregate premiums paid.

³Represents interest and profit on investments after transfers of interest on administrative expenses reimbursed to the OASI trust fund (see footnote 5).

⁴Represents payment vouchers on letters of credit issued to carriers under section 1842 of the Social Security Act.

⁵Subject to subsequent adjustment among all 4 social security trust funds for allocated cost of each operation.

⁶Preliminary.

Employment Services and Unemployment Insurance

Source: Bureau of Employment Security, Manpower Administration, U. S. Department of Labor.
Robert C. Goodwin, Administrator

EMPLOYMENT SERVICES

The Federal-State Employment Service consists of the U. S. Employment Service in the Bureau of Employment Security and affiliated state employment services with their network of some 2,400 local offices, including 171 youth opportunity centers. During the fiscal year ended June 30, 1968, these local offices recorded 5,759,923 placements in nonfarm jobs and 4,601,501 in year-round seasonal farm jobs. There were 2,999,955 job tests given, and applicants received almost 2,599,022 job counseling interviews. Since the beginning of the training program under the Manpower Development and Training Act in Sept. 1962 through June 30, 1968, enrollees to institutional training have numbered 739,500 and to on-the-job training 295,900.

The Federal-State employment service is concerned with utilizing to the fullest the human resources of the nation; with referring those who are employable to job openings utilizing their highest skills; with reaching out and finding those who are unemployed or underemployed and providing or arranging for necessary service or training to make them employable; with counseling and testing as necessary; with developing appropriate job openings; with referral for employment; and with followup to insure placement.

Special services are provided for those with employment problems—older workers, the young and inexperienced, members of minorities, migrant workers, the handicapped, and the disadvantaged. Veterans are provided with special services in accordance with their needs for employment counseling, job development, and placement and there are Veterans Employment Service representatives in the Bureau's national, state and local offices. Since August 1967, at the direction of the President, the public employment service has been contacting all individuals discharged from military service, to assure that they find jobs rapidly.

The public employment service assists employers in meeting their labor needs and provides appropriate employment-related personnel services. It insures, before an immigrant worker may receive a visa, that there are insufficient workers available for the employment and that there will be no adverse effect upon wages and working conditions of similarly employed U. S. workers. In the case of supplementary seasonal foreign farmworkers, the employment service provides a special program of local and interstate recruitment to insure that domestic farmworkers are given preference in employment. The public employment service assists in development and utilization of civilian manpower capability for meeting national emergencies and disaster needs, and assists other countries to improve their manpower programs.

The human resources development concept was introduced in 1965 and by the end of fiscal year 1967 had been adopted as the operating policy of all public employment service offices. The goal of this effort is to provide total employment and related service to meet needs of the disadvantaged. Human resources development involves outreach—the sending of employment service staff into disadvantaged neighborhoods to seek out and help those who may become employable. Close cooperation with other agencies, such as local community action agencies, is basic to the program.

During the fiscal 1968, 1,236,000 applicants were reached by Youth Opportunity Centers for job placement, training, or other manpower services. Most applicants were between 16 and 22 years of age. These centers and other local employment service offices recorded 4,322,100 registrations of youth, 683,500 initial counseling interviews, and 2,784,400 placements in farm and nonfarm jobs. Employment service offices also referred 63,762 applicants to the Job Corps and 127,200 to the Neighborhood Youth Corps for work-training experience, and provided job placement and other related services to many of those completing or leaving these programs.

UNEMPLOYMENT INSURANCE

Unlike old-age and survivors insurance, entirely a Federal program, unemployment insurance is a

Federal-State program which provides insured wage earners with partial replacement of wages lost during involuntary unemployment. The program protects most workers in industry but few in agriculture. The amount of weekly benefits is determined by State laws, prior wages, and length of employment. Some 56,000,000 jobs in commerce, industry, and government, including the Armed Forces, were covered under the Federal-State system in fiscal year 1968. Another 700,000 railroad workers were insured against unemployment under a system administered by the Railroad Retirement Board.

Each state, as well as the District of Columbia and Puerto Rico, has its own law and operates its own program. The Federal Unemployment Tax Act levies an excise tax of 3.1% on the first \$3,000 of payrolls of employers with four employees or more in 20 weeks in a year. Although the Federal tax is limited to employers with four or more workers more than half of the state laws cover firms with fewer than four. Against that tax a credit of up to 2.7% is allowed for taxes paid under State unemployment insurance laws which meet certain criteria, leaving the Federal share at 0.4% of taxable wages from which the Federal Government grants to the states funds to cover the administrative cost of the unemployment insurance and employment service programs. The Social Security Act requires as a condition of such grants, prompt payment of benefits when due to unemployed workers under a state law, and provides safeguards for workers' rights to benefits if they do not take jobs that fail to meet certain labor standards. Through the Unemployment Insurance Service of the Bureau of Employment Security, the Secretary of Labor determines whether states qualify for grants for unemployment insurance administration, and for purposes of tax offset credit for employers.

Benefits are financed solely by employer contributions except in Alaska, Alabama, and New Jersey, where employees also contribute. Employers subject to state unemployment insurance taxes paid about \$2.6 billion in fiscal year 1968. Benefits are paid through state public employment offices at which unemployed workers must register for work and to which they must report regularly for referral to a possible job during the time when they are drawing weekly benefit payments. During the 1968 fiscal year, \$2,054,970,554 in benefits were paid under the state UI programs to 4,300,000 beneficiaries representing compensation for 50,858,504 weeks of unemployment. They received an average weekly payment of \$41.25 for total unemployment for an average duration of 11.7 weeks. See table on page 153 for data by states.

For Federal Services

Title 5, chapter 85 of the U. S. code provides unemployment insurance protection to about 2,950,000 Federal civilian employees and about 3,550,000 members of the armed forces. Benefits for unemployed Federal workers and ex-servicemen are financed through direct Federal appropriations but are paid by the state employment security agencies as agents of the Federal Government on the basis of each state's law.

During fiscal year 1968, a total of \$47,300,000 was paid to some 70,806 unemployed Federal civilian workers for a total of 1,086,354 weeks of unemployment. The average weekly payment was \$42.41 and was paid for an average of 15.3 weeks. A total of \$58,500,000 was paid to 148,161 unemployed ex-servicemen for 1,357,733 weeks of unemployment. The average weekly benefit was \$42.69 and was paid for an average of 9.2 weeks.

In fiscal year 1968, under arrangements made with state employment security agencies, weekly training allowances, including subsistence and transportation in certain cases, totaling about \$151,000,000 were paid to some 165,000 persons taking basic education or vocational training under sections 203 and 241 of the Manpower Development and Training Act. Arrangements were also in effect with state employment security agencies for payment of \$1,649,000 in readjustment allowances to 1,619 workers found to have been affected adversely under the Trade Expansion Act of 1962 or the Automotive Products Trade Act of 1965.

Employment Security

SELECTED UNEMPLOYMENT INSURANCE DATA BY STATE

Fiscal year 1967-68. State Program Only

State	Insured claimants ¹	Beneficiaries ²	Exhaustions ³	Initial claims ⁴	Benefit payments		Funds available for benefits, June 30, 1968 ⁶	Employers subject to State law March 31, 1968
					Total amount ⁵	Average weekly benefit for total unemployment (dollars)		
	(1,000)	(1,000)	(1,000)	(1,000)	(\$1,000)	(dollars)	(millions)	(1,000)
Alabama.....	75	66	17	141	\$22,653	\$32.25	\$117	24
Alaska.....	12	11	2	24	8,375	45.37	20	5
Arizona.....	39	29	7	82	12,224	37.97	85	18
Arkansas.....	51	39	9	98	13,471	31.64	44	36
California.....	832	641	156	1,098	419,286	50.24	1,010	345
Colorado.....	23	16	3	50	7,535	47.70	73	19
Connecticut.....	128	109	15	207	47,016	48.23	280	37
Delaware.....	18	15	2	30	6,580	44.44	24	10
Dist. of Col.....	17	13	3	25	7,988	45.60	73	18
Florida.....	81	67	23	181	21,937	31.24	231	55
Georgia.....	91	62	13	124	18,957	35.68	266	34
Hawaii.....	23	14	3	31	8,713	49.30	31	13
Idaho.....	24	18	4	40	7,347	42.87	39	14
Illinois.....	263	203	42	436	94,131	44.01	530	94
Indiana.....	138	105	25	242	34,364	37.27	267	38
Iowa.....	40	30	7	62	13,798	44.83	128	25
Kansas.....	31	24	5	51	10,551	42.22	88	21
Kentucky.....	66	53	12	110	21,426	37.29	152	25
Louisiana.....	77	61	18	146	30,742	37.25	161	29
Maine.....	29	30	5	58	8,582	36.49	42	9
Maryland.....	83	73	8	155	27,114	40.75	224	54
Massachusetts.....	220	178	38	423	93,072	44.51	346	106
Michigan.....	366	250	44	604	118,529	48.71	571	129
Minnesota.....	63	50	14	108	28,361	42.16	75	45
Mississippi.....	37	29	6	71	8,432	26.76	80	15
Missouri.....	132	100	15	302	35,906	39.75	269	39
Montana.....	20	14	4	33	5,295	31.81	22	16
Nebraska.....	19	15	4	28	6,146	37.21	50	14
Nevada.....	22	19	5	48	9,839	43.22	30	10
N. Hampshire.....	15	9	0	25	2,423	39.82	44	8
New Jersey.....	320	239	55	545	128,934	45.32	44	69
New Mexico.....	20	17	3	45	7,529	33.76	38	15
New York.....	640	526	80	1,567	285,754	43.95	1,620	379
N. Carolina.....	125	94	15	241	26,799	28.57	326	41
N. Dakota.....	8	7	1	13	3,953	41.23	7	6
Ohio.....	189	157	20	388	63,931	41.63	618	103
Oklahoma.....	33	27	9	73	12,353	30.16	58	20
Oregon.....	68	57	11	179	27,946	39.08	121	41
Pennsylvania.....	338	272	30	773	112,296	39.02	771	185
Puerto Rico.....	78	75	44	208	21,766	22.49	77	12
Rhode Island.....	50	37	6	105	14,971	41.92	76	22
S. Carolina.....	63	43	14	104	15,601	32.99	131	17
S. Dakota.....	5	4	1	8	2,915	34.11	18	7
Tennessee.....	111	88	21	169	30,753	32.29	167	27
Texas.....	112	75	21	200	26,938	33.66	334	84
Utah.....	25	20	6	45	10,661	40.43	42	18
Vermont.....	11	9	1	22	4,635	41.02	21	6
Virginia.....	46	32	7	78	9,027	33.10	189	33
Washington.....	115	94	17	249	39,524	33.48	308	64
West Virginia.....	56	48	6	93	14,330	29.95	84	14
Wisconsin.....	96	79	13	205	43,684	48.57	274	39
Wyoming.....	5	4	1	9	1,783	40.79	15	9
Total 1967-68.....	5,549	4,336	894	10,960	\$2,054,971	\$42.10	\$11,093	2,518

¹Claimants whose base-period earnings or whose employment—covered by the unemployment insurance program—was sufficient to make them eligible for unemployment insurance benefits as provided by State law. ²Based on number of first payments.

³Based on final payments. Some claimants shown, therefore, actually experienced their final week of compensable unemployment toward the end of the previous fiscal year but received their final payments in the current fiscal year. Similarly, some claimants who served their last week of compensable unemployment toward the end of the current fiscal year did not receive their final payment in this fiscal year and hence are not shown. A final week of compensable unemployment in a benefit year results in the exhaustion of benefit rights for the benefit year. Claimants who exhaust their benefit rights in one benefit year may be entitled to further benefits in the following benefit year.

⁴Excludes intrastate transitional claims to reflect more nearly instances of new unemployment. Includes claims filed by interstate claimants in the Virgin Islands.

⁵Adjusted for voided benefit checks and transfers under interstate combined wage plan.

⁶Sum of balance in State clearing accounts, benefit-payment accounts, and unemployment trust fund accounts maintained in the U. S. Treasury.

How Unemployment Statistics Are Obtained

Source: Bureau of Labor Statistics, U. S. Department of Labor

The main source of unemployment statistics in the United States is the Current Population Survey, a sample survey of households, conducted monthly since 1940. The material is collected and tabulated by the Bureau of the Census under contract with the Bureau of Labor Statistics, which analyzes and publishes the data in *Employment and Earnings* and *Monthly Report on the Labor Force*.

In this survey trained interviewers obtain information from approximately 50,000 households each month; the households form a probability sample representative of the entire civilian noninstitutional population. Sufficient information is obtained to classify persons 16 years of age and over as (1) employed (2) unemployed or (3) not in the labor force. The labor force is simply the total of the employed and the unemployed, and is com-

monly referred to as the civilian labor force since it excludes the Armed Forces.

Under this system the unemployed consist of all civilians 16 years of age or older who did not work during the survey week (the week including the 12th of the month) but who looked for work in the previous 4 weeks, and were available for work during the survey week. Persons who never had a job are counted among the unemployed if they meet these criteria. Persons with jobs but on lay-off and those planning to start new jobs within 30 days are also classified as unemployed. The data on the unemployed are analyzed by sex, age, previous occupation and industry, duration of unemployment, and other characteristics. The unemployment rate is the percent of the labor force who are unemployed.

Social and Rehabilitation Service

Source: Dept. of Health, Education and Welfare

A new agency, the Social and Rehabilitation Service, was established in the Department of Health, Education, and Welfare, Aug. 15, 1967, to strengthen and realign the former functions of the Vocational Rehabilitation Administration, the Administration on Aging, the Welfare Administration, and the Mental Retardation Division of the Bureau of Health Service, Public Health Service, Miss Mary E. Switzer, former Commissioner of Vocational Rehabilitation, was appointed Administrator.

The reorganization is designed to make possible a more unified attack on the problems of needy Americans, with special emphasis on the family and with a more concerted effort toward rehabilitation in the Department's social and welfare programs. A major goal is to give people who receive public assistance the help, the skills, and the incentives they need to become independent.

A Social and Rehabilitation Service Commissioner has been assigned to each of the 9 HEW regions and will supervise all programs and activities of the Service in his region and give approval to all state plans. This will enable states, communities, and voluntary private groups to establish closer working relationships with the Federal government on all SRS programs.

A large number of persons will benefit by the range of services now merged in SRS:

- About 7,600,000 persons (4% of the population) receive cash assistance at any given time under Federally-aided programs. These payments total \$7.8 billion annually; 58% (\$4.5 billion) comes from the Federal Government and the remainder from state and local governments.
- In 1967 200,000 persons were rehabilitated for gainful employment through vocational rehabilitation programs.
- Over 6,000,000 needy persons receive medical services each year through Federally-assisted programs, including the new Title XIX Medicaid program.
- Over 600,000 children receive child welfare services related to adoption, foster care, or neglect. An additional 4,000,000 dependent children of public assistance families will receive the same quality of child welfare services under the 1967 amendments to the Social Securities Act.
- Over 450,000 crippled children receive medical services each year with Federal assistance.
- More than 250,000 women received family planning help last year through Childrens Bureau programs.
- More than 700 projects assisted by the Administration on Aging provide services for many of the 19,000,000 Americans over 65.

The combined 1968 appropriations of the HEW components joined in the Social and Rehabilitation Service totalled \$6.05 billion in Federal funds. The new agency is staffed by about 1,900 employees in the following 5 major program units:

Rehabilitation Services Administration: responsible for programs aiding the handicapped, disabled Social Security applicants, crippled children, the mentally retarded, and for services for the blind and the permanently and totally disabled.

Children's Bureau: responsible for studies and investigations of the status of children, and for Federal-State child welfare, maternal and child health and juvenile delinquency programs, for health services to school children, and for family and child welfare services.

Administration on Aging: responsible for administration of the Older Americans Act, and for collecting and disseminating information on the status of Older Americans, for services for the aged (including insurance and assistance beneficiaries), for maintaining standards for services to OAA beneficiaries and for the Foster Grandparent program.

Medical Services Administration: responsible for medical assistance services by State and local agencies, including Title XIX programs (Medicaid).

Assistance Payments Administration: responsible for the money payment aspects of public assistance programs (Aid to Families with Dependent Children, Old Age Assistance, Aid to the Blind, and Aid to the Permanently and Totally Disabled) and for the administration of Work Experience and Community Work Training programs.

A significant aspect of the new SRS is the separation of cash payments and social service functions in public assistance. This was done to offer greater opportunities for recipients to obtain social and other rehabilitation services which could lead them to self support and terminate their need for public financial aid.

Recipients of Public Assistance and Money Payments

Year	Old Age	Blind	Recipients in thousands				Gen-eral	Total Money Payments (in 1,000)
			Dis-abled	Head	Families Total	Children		
1936-49.....	28,949	1,023	...	4,736	15,977	11,810	31,056	\$15,882,659
1950.....	2,786	97	69	651	2,233	1,661	866	2,354,485
1951.....	2,701	97	124	592	2,041	1,523	664	2,279,612
1952.....	2,635	98	161	598	1,991	1,495	697	2,311,540
1953.....	2,582	100	192	547	1,941	1,464	618	2,374,158
1954.....	2,553	102	222	604	2,173	1,639	880	2,451,785
1955.....	2,538	104	241	602	2,192	1,661	743	2,516,590
1956.....	2,499	107	266	615	2,270	1,731	731	2,584,204
1957.....	2,480	108	290	667	2,497	1,912	907	2,788,161
1958.....	2,438	110	325	755	2,486	2,181	1,246	3,068,701
1959.....	2,370	108	346	776	2,946	2,265	1,107	3,200,768
1960.....	2,305	107	369	803	3,073	2,370	1,244	3,262,449
1961.....	2,229	103	389	916	3,566	2,753	1,069	3,409,371
1962.....	2,183	99	428	932	3,789	2,844	900	3,510,456
1963.....	2,152	97	464	954	3,930	2,951	872	3,646,058
1964.....	2,120	95	509	1,012	4,219	3,170	779	3,815,178
1965.....	2,087	85	557	1,054	4,396	3,316	677	3,992,964
1966.....	2,073	84	588	1,127	4,666	3,526	663	4,303,814

BEST SELLING BOOKS IN 1968

(Listed according to frequency of citation in best-seller reports)

General

1. **Our Crowd: The Great Jewish Families of New York*, Stephen Birmingham
2. *Between Parent and Child*, Dr. Haim G. Ginott
3. *Nicholas and Alexandra*, R. K. Massie
4. *The Naked Ape*, Desmond Morris
5. *The New Industrial State*, John Kenneth Galbraith
6. *At Ease: Stories I Tell to Friends*, Dwight David Eisenhower
7. *Rickenbacker*, Eddie Rickenbacker
8. *Iberia*, James A. Michener
9. *The Right People*, Stephen Birmingham
10. *The Double Helix*, James D. Watson
11. *The Money Game*, "Adam Smith"
12. *Memoirs, 1925-1950*, Geo. F. Kennan
13. *The Doctor's Quick Weight Loss Diet*, Erwin M. Stillman & Sam S. Baker
14. *Tolstoy*, Henri Troyat
15. *Or I'll Dress You In Mourning*, Larry Collins & Dominique Lapierre
16. *Gipsy Moth Circles the World*, Sir Francis Chichester
17. *The Rich and the Super-Rich*, Ferdinand Lundberg
18. *The French Chef Cookbook*, Julia Child
19. *The American Challenge*, J.-J. Servan Schreiber
20. *The Way Things Work: An Illustrated Encyclopedia of Technology*
21. *The Center*, Stewart Alsop
22. *The English*, David Frost, Antony Jay
23. *Kennedy & Johnson*, Evelyn Lincoln
24. *Report From Iron Mountain*, Lester Lewin
25. *The Electric Kool-Aid Acid Test*, Tom Wolfe
26. *The Case Against Congress*, Drew Pearson & Jack Anderson
27. *The Economics of Crisis*, Eliot Janeway
28. *Soul On Ice*, Eldridge Cleaver
29. *Thomas Wolfe*, Andrew Turnbull
30. *The Essence of Security*, Robert S. McNamara
31. *Black Rage*, William H. Grier & Price M. Cobbs
32. *A Mass For the Dead*, Wm. Gibson

Fiction

1. **Topaz*, Leon Uris
2. **The Confessions of Nat Turner*, William Styron
3. **Rosemary's Baby*, Ira Levin
4. **The Chosen*, Chaim Potok
5. **Christy*, Catherine Marshall
6. *Vanished*, Fletcher Knebel
7. *Myra Breckinridge*, Gore Vidal
8. *Airport*, Arthur Hailey
9. *Couples*, John Updike
10. *The President's Plane is Missing*, Robert J. Serling
11. **The Gabriel Hounds*, Mary Stewart
12. *Testimony of Two Men*, Taylor Caldwell
13. **The Exhibitionist*, Henry Sutton
14. *The Tower of Babel*, Morris L. West
15. *True Grit*, Charles Portis
16. *Red Sky at Morning*, Richard Bradford
17. *The Instrument*, John O'Hara
18. *Heaven Help Us!*, Herbert Barr
19. *Tunc*, Lawrence Durrell
20. *Where Eagles Dare*, Alistair MacLean
21. *The Queen's Confession*, Victoria Holt
22. *The Triumph*, John Kenneth Galbraith
23. *The Senator*, Drew Pearson
24. *The Salzburg Connection*, Helen MacInnes
25. *Preserve and Protect*, Allen Drury
26. *Tell Me How Long the Train's Been Gone*, James Baldwin

*One of 10 best-sellers in 1967 according to Publishers' Weekly.

STATISTICS OF BOOK TRADE

The number of new books (titles) published in the U. S. fell from 30,050 in 1966 to 28,762 in 1967, (21,877 new books and 6,885 new editions) according to Publishers' Weekly. The lower figure, however, did not necessarily mean a decline in U. S. book publishing, but is accounted for, at least in part, by new counting procedures initiated by PW at the beginning of 1967. For example, multi-volume sets are now counted as individual books only if each volume in the set has a different title. Also, imported books are counted in the yearly total of new titles only if there is no more than a year's time between their publication abroad and the time they are available in the U. S. Accordingly, the number of imported books fell from 6,347 in 1966 to 4,852 in 1967 (4,107 new books and 745 new editions).

In 1966, the last year for which complete statistics were available, sales of all publishers totaled \$2,295,000,000, an increase of about 13% over 1965. Hardcover book prices have risen 51% since the base period 1957-59, but rose only about 6 tenths of 1% during 1966-67.

By far the best selling book of 1967 was William Manchester's *Death of a President*, with over 500,000 copies sold. The best selling work of fiction in 1967 was a first novel, Elia Kazan's *The Arrangement*, which sold about 212,500 copies in bookstores.

The Long Short Cut, a suspense novel by Andrew Garve, published in 1967 by Harper & Row, was purported to be the first book (other than directories) set into type by a computer. Using the R.C.A. Videocomp and computer system, up to 600 characters a second were set, a speed 60 times greater than the fastest earlier methods of book type setting.

Best Sellers of Government Printing Office

Of the 24,000 publications available at the Government Printing Office, Washington, D. C. 20402, these are the 15 best sellers. The 70,000,000 publications sold annually bring in \$17,000,000 and net \$7,000,000 for the Treasury.

Title	Cost	Total	Title	Cost	Total
Infant Care	\$0.20	14,308,789	Your Social Security	\$0.10	2,074,530
Your Federal Income Tax	.60	10,923,036	Rescue Breathing	.05	1,842,025
Prenatal Care	.20	8,372,972	Syphilis & Gonorrhea	.05	1,669,760
Your Child From 1 to 6	.20	6,389,722	Postage Stamps of U. S.	1.25	1,438,002
Your Child from 6 to 12	.25	3,015,815	Breast Feeding	.10	1,428,011
Tax Guide for Small Business	.60	2,606,056	Septic Tank Care	.05	1,351,090
Strictly for Teenagers	.05	2,446,350	Food for Fitness	.05	1,178,057
			Adolescent in Your Family	.25	1,154,772

THEATER-OPERA-FILMS

Broadway's Principal Events of 1967-68

PLAYS PRODUCED BEFORE OCT. 1, 1967, CLOSED BEFORE OCT. 15, 1968; OR CONTINUING
 *Still running Oct. 15, 1968; M designates musicals; stars listed appeared in original cast

Production	Stars	Opened	Closed	Run
Hello Dolly (M)	Carol Channing, David Burns	Jan. 16, 1964		1,964*
Fiddler on the Roof (M)	Zero Mostel, Maria Karnilova	Sept. 22, 1964		1,694*
Man of La Mancha (M)	Richard Kiley, Joan Diener	Nov. 22, 1965		1,206*
Cactus Flower	Lauren Bacall, Barry Nelson	Dec. 8, 1965		1,158*
Manne (M)	Angela Lansbury, Frankie Michaels	May 24, 1966		998*
The Apple Tree (M)	Barbara Harris, Larry Blyden	Oct. 20, 1966	Nov. 25, 1967	463
Don't Drink the Water	Kay Medford, Lou Jacob	Nov. 17, 1966	Apr. 20, 1968	588
Cabaret (M)	Jill Haworth, Jack Gifford			
	Joel Grey	Nov. 20, 1966		792*
I Do! I Do! (M)	Mary Martin, Robert Preston	Dec. 5, 1966	June 15, 1968	584
Black Comedy	Geraldine Page, Lynn Redgrave	Jan. 12, 1967	Dec. 2, 1967	337
You Know I Can't Hear You	Martin Balsam, Eileen Heckart	Mar. 13, 1967		662*
Illyia Darling (M)	Melina Mercouri, Orson Bean	Apr. 11, 1967	Jan. 13, 1968	319
Hallelujah Baby (M)	Leslie Uggams, Robert Hooks	Apr. 26, 1967	Jan. 13, 1968	293

PLAYS PRODUCED OCT. 1, 1967 TO OCT. 15, 1968

Play	Stars	Opened	Run
1967			
The Birthday Party	Ruth White, Henderson Forsythe	Oct. 3	126
A Minor Adjustment	William Redhead, Austin Willis, Joan Darling	Oct. 6	3
Johnny No-Trump	Pat Hingle, Don Scardino	Oct. 8	1
After the Rain	Alec McCowen, Nancy Marchand	Oct. 9	64
By George	Max Adrian	Oct. 12	13
Daphne in Cottage D	Sandy Dennis, William Daniels	Oct. 15	40
Rosencrantz and Guildenstern etc.	Brian Murray, John Wood	Oct. 16	414*
There's a Girl in My Soup	Gig Young, Barbara Ferris, Rita Gam	Oct. 18	322
What Did We Do Wrong?	Paul Ford, Philippa Bevans	Oct. 22	48
Henry, Sweet Henry (M)	Don Ameche, Carol Bruce	Oct. 24	80
More Stately Mansions	Ingrid Bergman, Arthur Hill, Colleen Dewhurst	Nov. 1	143
The Trial of Lee Harvey Oswald	Peter Masterson, Dan Priest	Nov. 5	9
The 90-Day Mistress	Dyan Cannon, Ruth Ford, Walter Abel	Nov. 6	24
Halfway Up the Tree	Anthony Quayle, Eileen Herlie	Nov. 7	64
The Promise	Ian McShane, Eileen Atkins	Nov. 14	20
Something Different	Bob Dishy, Claudia McNeil	Nov. 28	99
Everything in the Garden	Barry Nelson, Barbara Bel Geddes	Nov. 29	84
How Now, Dow Jones (M)	Marilyn Mason, Anthony Roberts	Dec. 7	13
Sporford	Melvin Douglas, Pert Kelton, Barbara Britton	Dec. 14	202
Brief Lives	Roy Dotrice	Dec. 20	16
How to Be a Jewish Mother	Molly Picon, Godfrey Cambridge	Dec. 28	21
1968			
Staircase	Eli Wallach, Milo O'Shea	Jan. 10	61
Before You Go	Marian Seldes, Gene Troobnick	Jan. 11	29
The Prime of Miss Jean Brodie	Zoe Caldwell, Lennox Milne	Jan. 16	309*
The Happy Time (M)	Robert Goulet, David Wayne	Jan. 18	286
I Never Sang for My Father	Hal Holbrook, Lillian Gish, Teresa Wright	Jan. 25	124
Darling of the Day (M)	Vincent Price, Patricia Routledge	Jan. 27	32
Avant!	Robert Reed, Betty von Furstenberg	Jan. 31	21
A Day in the Death of Joe Egg	Albert Finney, Zena Walker	Feb. 1	154
Golden Rainbow (M)	Steve Lawrence, Eydie Gorme	Feb. 4	283*
The Price	Pat Hingle, Arthur Kennedy, Kate Reid	Feb. 7	28
Plaza Suite	George C. Scott, Maureen Stapleton	Feb. 14	278*
Carry Me Back to Morningside Hgts.	Dorothy Tutin, Dennis King	Feb. 27	7
Portrait of A Queen	Louthy Tutin, Dennis King	Feb. 28	61
Here's Where I Belong (M)	Paul Rogers, Walter McGinn	Mar. 3	5
The Guide	Zia Mohyeddin, Tiltos Vandi	Mar. 7	1
Weekend	John Forsythe, Kim Hunter, Carol Cole		
	Rosemary Murphy	Mar. 13	21
Loot	Liam Redmond, George Rose	Mar. 18	23
The Seven Descents of Myrtle	Harry Guardino, Estelle Parsons		
	Brian Bedford	Mar. 28	29
The Education of Hyman	Tom Bosley, Gary Krawford, Hal Linden		
Kaplan (M)	Barbara Minkus	Apr. 4	28
George M! (M)	Joel Grey, Jerry Dodge	Apr. 10	214*
Mike Downstairs	Dane Clark, Tom Pedl	Apr. 18	4
I'm Solomon (M)	Dick Shawn, Karen Morrow, Salome Jens	Apr. 23	7
The Exercise	Stephen Joyce, Anne Jackson	Apr. 24	5
Hair (M)	James Rado, Jerome Ragni	Apr. 29	194*
Soldiers	John Colicos, Tony Church	May 1	21
New Faces '68 (revue)	Madeline Kahn, Robert Klein	May 2	52
Happiness Is Just a Little Thing			
Called a Rolls-Royce	Pat Harrington, John McGiver	May 11	1
The Only Game in Town	Barry Nelson, Tammy Grimes, Leo Genn	May 20	16
Lovers & Other Strangers	Art Carney, Anna Manahan	July 25	93*
The Cuban Thing	Rene Taylor	Sept. 18	30
Woman Is My Idea	Rip Torn, Jane White	Sept. 24	1
The Man in the Glass Booth	John Heffernan, Hugh Marlowe	Sept. 25	5
Noel Coward's Sweet Potato (M)	Donald Pleasence	Sept. 26	21*
The Great White Hope	Dorothy Loudon, George Grizzard	Sept. 29	18*
The Flip Side	James Earl Jones, Jane Alexander	Oct. 3	13
	David McCallum, Monica Evans	Oct. 10	6*

Long Run Plays

Life With Father	3,213
Tobacco Road	3,182
My Fair Lady	2,717
Able's Irish Rose	2,327
Oklahoma!	2,246
*Hello Dolly	1,964
South Pacific	1,925
Irave	1,775
*Fiddler on the Roof	1,684
Born Yesterday	1,643
Mary, Mary	1,572
Voice of the Turtle	1,558

PLAYS IN NEW YORK

*Still running Oct. 15, 1968

Barefoot in the Park	1,532	*Man of La Mancha	1,206
Arsenic and Old Lace	1,444	Guys and Dolls	1,200
The Sound of Music	1,442	*Cactus Flower	1,188
How to Succeed in		Mister Roberts	1,157
Business Without Really		Annie Get Your Gun	1,147
Trying	1,416	The Seven Year Itch	1,141
Hells-a-poppin	1,404	Pins and Needles	1,108
The Music Man	1,376	Kiss Me Kate	1,077
Funny Girl	1,368	The Palmyra Game	1,067
Angel Street	1,295	Teahouse of August Moon	1,027
Lightnin'	1,291	Damn Yankees	1,019
The King and I	1,246	Never Too Late	1,007

PLAYS IN LONDON

*Still running Oct. 10, 1968

*The Mousetrap.....	6,594	Boeing-Boeing.....	1,362	Our Boys.....	1,362
*Black and White.....		Blithe Spirit.....	1,997	Knights of Madness.....	1,361
Minstrels.....	3,978	Worm's Eye View.....	1,745	Maid of the Mountains.....	1,352
Oliver.....	2,811	Me and My Girl.....	1,646	Arsenic and Old Lace.....	1,337
Sound of Music.....	2,383	Together Again.....	1,566	The Farmer's Wife.....	1,329
Salad Days.....	2,282	Seagulls over Sorrento.....	1,551	Annie Get Your Gun.....	1,304
My Fair Lady.....	2,281	Oklahoma!.....	1,543	One for the Pot.....	1,151
Chu Chin Chow.....	2,238	Charley's Aunt.....	1,466		
The Boy Friend.....	2,082	The Beggar's Opera.....	1,463		

U. S. Opera Survey

Reviews of Activities of Opera Companies in Twenty-One U. S. Cities

The number of operatic performances in the U. S. held fairly steady in the 1967-1968 season with 5,222 performances of 343 works, as against 5,487 performances of 335 works in the 1966-1967 season, according to Opera News and Central Opera Service. The most performed opera was The Barber of Seville with 299 performances; Hansel and Gretel had 156 and La Boheme had 143. However, the most performed opera by all groups, including high schools and church groups, was, for the 15th consecutive year, Menotti's Amahl and the Night Visitors with 368 performances.

The U. S. had 297 opera companies and 325 colleges with productive opera departments in 1967-68. Colleges continued to pioneer the production of less well known works of intrinsic value which would rarely, if ever, get a hearing in the commercial or civic theater. For instance, Virginia's Lynchburg College performed Monteverdi's Orfeo, Northern Illinois Univ. gave Telemann's Pimpinone and Cornell produced Cesti's Oronthea.

METROPOLITAN OPERA ASSN., New York, opened its 84th season Sept. 16, 1968, and was scheduled to close Apr. 19, 1969. The season, the third at the Metropolitan Opera House in Lincoln Center, was highlighted by the presentation of 4 new productions: Puccini's *Tosca*, Strauss' *Der Rosenkavalier*, Verdi's *Il Trovatore*, and Wagner's *Das Rheingold*, the second installment in a new Ring Cycle, conducted by Herbert von Karajan. The repertoire also included: La Sonnambula, Wozzeck, Carmen, Peter Grimes, Andriana Lecouvreur, Lucia di Lammermoor, Faust, Romeo et Juliette, Don Giovanni, La Boheme, Turandot, Il Barbiere di Siviglia, Die Frau ohne Schatten, Don Carlo, Rigoletto, Simon Boccanegra, Die Meistersinger and Die Walkure. Rudolf Bing is general manager. Singers and conductors (*designates new artist): **SOPRANOS:** Karola Agay*, Lucine Amara, Karan Armstrong, Martina Arroyo, Radmila Bakocevic, Colette Boky, Phyllis Britell, Montserrat Caballé, Clarice Carson, Joy Clements, Régine Crespin, Phyllis Curtin, Mary Curtis-Verna, Gianna d'Angelo, Ina Delcampe, Judith DePaul, Loretta Di Franco, Jean Penn, Mirella Freni, Reri Grist, Gundula Janowitz, Raina Kabaivanska, Margaret Kalli, Dorothy Kirsten, Evelyn Lear, Brenda Lewis, *Marlon Lippert, Pilar Lorengar, *Simone Mangelsdorf, Anna Moffo, *Edda Moser, Birgit Nilsson, Carlota O'Grady, *Rita Orlandi, Roberta Peters, Jeannette Pilon, Mary Ellen Pracht, Leontyne Price, Judith Raskin, *Liselotte Rebbmann, Leonie Rysanek, Milka Stojanovic, Teresa Stratas, Lillian Sukis, Joan Sutherland, Renata Tebaldi, Gabriella Tucci, Patricia Welting, *Teresa Zylis-Gara. **MEZZO-SOPRANOS AND CONTRALTOS:** Marcia Baldwin, Teresa Berezanga, Grace Bumbry, Nedda Casel, Elena Cernel, Lili Chookasian, Fiorenza Cossotto, Irene Dalis, Mignon Dunn, Rosalind Hupp, *Judith Forst, Joann Grillo, Rosalind Hupp, Gwendolyn Kilbreath, Shirley Love, Christa Ludwig, Jean Madeira, Mildred Miller, Louise Pearl, Nell Rankin, Regina Resnik, *Anna Reynolds, *Josephine Veasey, *Shirley Verrett.

TENORS: John Alexander, Luigi Alva, Charles Anthony, Giacomo Aragall*, Carlo Bergonzi, Gabor Cellai, Mariano Caruso, William Cochran*, Franco Corelli, Enrico DiGiuseppe*, Plácido Domingo*, Loren Driscoll, Paul Franke, Nicolai Gedda, James King, Sándor Kónya, Flaviano Labò, Karl Liehl, *Jerome LeMonaco, *Rod MacWherter, James McCracken, Barry Morell, Robert Nagy, William Olvis, *Luciano Pavarotti, Bruno Prevedi, Gianni Raimondi, Robt. Schmorl, Peter Schreier, Geo. Shirley, *Gerhard Stolze, Richard Tucker, Andrea Velis, Jon Vickers, *Erwin Wohlfahrt.

BARTONES: Gabriel Bacquier, Walter Berry, Ron Botcher, Gene Boucher, Russell Christopher, Anselmo Colzani, Karl Dönch, William Dooley, Otto Edelmann, Geraint Evans, Robert Goodloe, Frank Guarrera, Clifford Harvout, *Zoltán Kelemen, *Rudolf Knoll, Tom Krause, Theodore Lambrinos, Cornell MacNeil, Morley Meredith, Robert Merrill, Sherrill Milnes, John Reardon, Mario Sereni, Thomas Stewart, Theo. Uppman, Wm. Walker.

BASSES: Theo Adam*, Lorenzo Alvary, Fernando C.rena, Justino Diaz, Ezio Flagello, Nicolai Ghiauroy, Donaldo Gialotti, Donald Gramm, Jerome Hines, John Macurdy, Raymond Michalski, Paul Plishka, Karl Ridderbusch, Norman Scott, Louis Sgarro, Cesare Siepi, *Martti Talvela, Giorgio Tozzi, Ernst Wiemann.

CONDUCTORS: Claudio Abbado*, Kurt Adler, Franz Allers, Karl Böhm, Richard Bonynge, Fausto Cleva, Colin Davis, *Carlo Franci, Herbert von Karajan, Alain Lombard, Zubin Mehta, Francesco Molinari-Pradelli, Joseph Rosenstock, George Schick, Silvio Variso.

METROPOLITAN OPERA NATIONAL AUDITIONS, New York. Nine National Finalists were to compete for a Metropolitan Opera contract and a number of other awards at the Metropolitan Opera House, Nov. 17, 1968. The 9 finalists were winners of regional contests held throughout the U. S. and Canada, Puerto Rico and Australia in which approximately 2,000 singers were auditioned. The finalists were Jacquelyn Benson, Patricia Craig, Helen-Kay Eberley, Glenys Fowles, Jessye Norman, Nancy Shade, Ruth Welton, Loretta Ziskin (all sopranos) and Gwen Jones, mezzo-soprano.

NEW YORK CITY OPERA CO., New York State Theater, Lincoln Center, N. Y., opened its third season at Lincoln Center (after 41 seasons at the City Center) with Puccini's *Il Trittico* on Sept. 19. The 1968 repertoire included a new production of Gounod's *Faust* and the world premiere of Weisgall's *Nine Rivers From Jordan*. Other operas included Barber of Seville, Bomarzo, La Boheme, Cavalleria Rusticana, Pagliacci, Julius Caesar, Le Coq D'Or, Magic Flute, Manon, Tosca and La Traviata. The fall season was to conclude on Nov. 17. The winter season (Feb. 17-Apr. 20, 1969) had scheduled *The Turn of the Screw*, *Madama Butterfly* and *The Ballad of Baby Doe*. Julius Rudel is general director and John S. White is associate director.

BALTIMORE CIVIC OPERA CO., Baltimore, Md., presented 3 operas in its 1968-69 season. Opening night, Oct. 24, featured Verdi's *Otello* with Robert Nagy, Mary Curtis Verna and Louis Quilico. Other operas scheduled were: Puccini's *Manon Lescaut* with Raina Kabaivanska and John Reardon; and Puccini's *Tosca* with Jeannine Crader, Chester Ludwig and Bernabe Marti. Rosa Ponselle is artistic director and the Baltimore Symphony Orchestra accompanies each performance. The season was to be concluded Apr. 28, 1969.

OPERA COMPANY OF BOSTON, Boston, Mass., scheduled 4 American premiers for its 11th season: The original versions of Strauss' *Ariadne Auf Naxos* and Verdi's *Macbeth*; Bartok's ballet *The Wooden Prince* performed with his *Bluebeard's Castle* and *Miraculous Mandarin*; and *Roger Sessions' Montezuma*. A fifth production was to be Mozart's *The Marriage of Figaro*. Sarah Caldwell is artistic director.

CENTRAL CITY OPERA HOUSE ASSN., Central City, Colo., a summer operation, presented 5 weeks

of Gilbert and Sullivan performed by the D'Oyly Carte Co. from June to Aug., 1968.

CINCINNATI SUMMER OPERA, Cincinnati, Ohio, presented, during summer 1968, 10 operas for its 48th annual season. Opening June 26 with *Il Trovatore*, the repertory also included *The Elixir of Love*, *Madama Butterfly*, *Manon*, *Salome*, *Don Pasquale*, *Lucia di Lammermoor*, *Carmen*, *La Traviata*, and *The Tales of Hoffmann*, which closed July 28, 1968. Styck Orwoll is general manager.

DALLAS CIVIC OPERA, Dallas, Tex., scheduled the opening of its 1968 season Nov. 8 with Offenbach's *Orpheus in the Underworld* with Graziella Porretta and Loren Driscoll singing the leading roles and Jacques d'Amboise and Melissa Hayden the ballet soloists. *Otello* was to follow on Nov. 15, starring John Vickers and Victoria de los Angeles. The regular season concluded with Donizetti's *Anna Bolena*, featuring Elena Suliotis and Ezio Flagello. A special Dorothy Kirsten Concert was scheduled for Nov. 30. Lawrence Kelly is general manager.

FORT WORTH OPERA ASSN. was to open its 1968-69 season Nov. 21 with *La Traviata* with Maralin Niska and Dominic Cossa. Three other operas scheduled were *Don Pasquale* with Spiro Malas and Joy Clements; *Turandot* with Elinor Ross and Flaviano Labo; and *Romeo and Juliet* with John Alexander and Karan Armstrong, which was scheduled to close the season Apr. 20, 1969. Rudolph Kruger is musical director.

HOUSTON GRAND OPERA, Houston, Tex., scheduled 26 performances of 5 operas, 11 of them student matinees, for its 1968-1969 season. The season was to open Oct. 29 with *La Boheme*, featuring Teresa Stratas and Maralin Niska. Also to be presented were *Salome* with Nell Rankin, *The Barber of Seville* with Sherrill Milnes and Anne Elgar, *Don Carlo* with Placido Domingo and Raina Kabaivanska, and to conclude the season on May 12, 1969, *Don Quixote* with Norman Treigle. Walter Herbert is the conductor and director.

INDIANA UNIV. OPERA THEATER, Bloomington, Ind., opened its 1968-1969 season Oct. 12 with Rossini's *The Italian Girl in Algiers*. This was to be followed by Verdi's *La Traviata*, Mozart's *The Marriage of Figaro*, Stravinsky's *The Rake's Progress*, Tchaikovsky's *The Queen of Spades* and Wagner's *Parsifal*, which was to close the season Mar. 23.

LYRIC OPERA OF CHICAGO, Chicago, Ill., scheduled 9 operas, including a double-bill of Stravinsky operas, *Le Rossignol* and *Oedipus Rex*, for its 1968 season. *Salome* was presented opening night Sept. 27, followed by *Norma*, *Tosca*, *Falstaff*, *A Masked Ball*, *Don Pasquale* and *Manon Lescaut* starring Renata Tebaldi, which was to close the season Dec. 14.

PHILADELPHIA GRAND OPERA CO., Philadelphia, Pa., scheduled 8 operas for the 1968-1969 season including the world premiere of *Jericho Road* by Pietro Ariea on Mar. 12, 1969. *Carmen* was performed opening evening, Oct. 10, with Rosalind Elias and Richard Tucker. Other operas billed were *Aida*, *La Boheme*, *Lucia di Lammermoor* with Roberta Peters, *La Traviata* with Gabriella Tucci, *I Pagliacci*, and *Il Trovatore*, both with Richard Tucker, which was to close the season Apr. 18, 1969.

PHILADELPHIA LYRIC OPERA CO., Philadelphia, Pa., opened its 1968-1969 season Oct. 22 with Bellini's *I Capuletti e Montecchi*, with Renata Scott. The repertory also included: *La Boheme*, *Lakme* with Joan Sutherland, *Madama Butterfly* with Martina Arroyo, *Lucrezia Borgia* with Montserrat Caballe and John Alexander, and *Tosca* with Dorothy Kirsten, which was scheduled to close the season Mar. 25, 1969.

PITTSBURGH OPERA CO., Pittsburgh, Pa., scheduled 6 operas for its 30th season, 1968-1969. The season opened Oct. 24 with *Rigoletto*. This was to be followed by *Samson Et Dalila* with Mignon Dunn, *La Boheme* with Heather Thomson, *Cavalleria Rusticana* with Edith Lang, *Pagliacci* with Gianni Savelli; *Le Nozze Di Figaro* starring Roberta Peters was to close the season Apr. 12, 1969. Richard Karp is general and musical director.

SAN ANTONIO SYMPHONY SOCIETY, San Antonio, Tex., was to celebrate its 25th anniversary

with its annual Grand Opera Festival in March, 1969. The Festival scheduled 4 operas: *Faust* with Norman Treigle, Placido Domingo and Beverly Sills; *Il Trovatore* with Montserrat Caballe; *Turandot* with Birgit Nilsson and Richard Tucker; and *Lucia di Lammermoor* with Roberta Peters.

SAN DIEGO OPERA, San Diego, Calif., presented *Rigoletto* Oct. 17, as the first of 3 operas scheduled for its 1968-1969 season. The leading roles were sung by Peter Glossop and Anne Elgar. Remaining productions were *La Boheme* with John Stewart and Lee Venora and Massenet's *Don Quixote* with Norman Treigle and Nedda Casei, which was to close the season Apr. 26, 1969. Walter Herbert is artistic director and conductor.

SAN FRANCISCO OPERA, San Francisco, Calif., opened its 46th season Sept. 13, 1968, with Verdi's *Ernani*, starring Leontyne Price. Other productions included *Il Barbiere di Siviglia*, *Les Troyens*, *Die Walkure*, *Madama Butterfly*, *Schoenberg's Erwartung*, *Well's Royal Palace*, *Milhaud's Christopher Columbus*, *Il Trovatore*, *Wozzeck*, *Lucia di Lammermoor*, *Salome*, *Don Giovanni*, *Turandot*, and *Fra Diavolo*. The fall season was scheduled to end Dec. 1, 1968. From Mar. 1 to 29, 1969, the Music Center Opera Assn. of Los Angeles, in conjunction with the San Francisco Opera, scheduled 10 operas. This is the first season in a plan to merge eventually the operatic operations of both cities. Kurt Herbert Adler is general director and Howard K. Skinner is manager.

SANTA FE OPERA, Santa Fe, N. M., was destroyed by fire July 27, 1967. A new open-air opera house was scheduled for completion in time for the opening of the 1968 season on July 2, 1968, with a production of *Madama Butterfly*. The repertory included two American premieres, *The Bassarids* by Hans Werner Henze and *Die Jacobsleiter* by Arnold Schoenberg, in addition to *Persephone*, *The Magic Flute*, *La Traviata*, *The Elixir of Love* and *Der Rosenkavalier*. John Crosby is the general director.

ST. LOUIS MUNICIPAL OPERA, St. Louis, Mo., one of America's most famous summer theaters, presented a varied repertory for the 1968 season. The first evening opened with *My Fair Lady*. This was followed by *The Pajama Game*, *Annie Get Your Gun*, *The Merry Widow*, *Brigadoon*, *Carousel*, *Call Me Madam*, *Show Boat*, *The Wizard of Oz*, *The Sound of Music* and *Hello Dolly*. America's oldest summer musical theater, the St. Louis Municipal Opera presented its first performance June 15, 1919. Since that time, the theater has given over 230 different comic and light operas, operettas and musical comedies. The group that founded the theater believed that it should belong to all the people of St. Louis and thus they decided not to charge admission for a portion of the seats. Today, approximately 1,500 seats are free of charge. The total seating capacity of the outdoor amphitheater in Forest Park is 12,000.

ST. PAUL CIVIC OPERA ASSN., St. Paul, Minn., was scheduled to open its 1968-1969 season Dec. 14, with *Hansel and Gretel*. The second half of the season was to present *Manon Lescaut*, and conclude on May 3 with a double-bill consisting of *De Falla's* two-act opera *La Vida Breve* and his two-act ballet *El Sombrero De Tres Picos*.

SEATTLE OPERA ASSN., Seattle, Wash., opened its 1968-1969 season with *Aida* Sept. 11 and continued with Giordano's *Andrea Chenier* starring Franco Corelli; *Der Rosenkavalier* featuring Regine Crespin and Regina Sarafy; *Tosca* presenting Dorothy Kirsten and Cornell MacNeil in the leading roles; and *L'Elisir d'Amore*, which was to close the season May 3, 1969. Glynn Ross is gen. dir.

SHREVEPORT SYMPHONY SOCIETY, Shreveport, La., scheduled 3 operas for its 1968-1969 season. *La Traviata*, was performed opening night, Nov. 26, Poulenc's *La Voix Humaine* was to follow in Feb. and the season was to close with the Barber of Seville Apr. 18, 1969. John Shenaut is musical director and Joe V. Graber is manager.

TULSA OPERA, Tulsa, Okla., opened its 1968-1969 season Nov. 7 with *Rigoletto* starring Roberta Peters as Gilda and Sesto Bruscantini as Rigoletto. As a Christmas delight, *Hansel and Gretel* was to be performed with Marija Kova and Lee Venora in the title roles. The season was scheduled to close Mar. 13, 1969, with *Die Fledermaus* featuring Eileen Schauler as Rosalinda.

Movies of the Year (Oct. 1, 1967, to Oct. 1, 1968)

Selected and Rated by the New York Daily News Film Critics

While movie fans have complained bitterly, justifiably, of pornography and violence on the screen, there are still many fine films that have eschewed these two undesirable elements.

The fiscal year, October 1967 to October 1968, has flourished at the box office, as good or better financially as the previous year, the record breaker in motion picture history. Available are clean films of various types that make paying customers glad they spent their money for appealing entertainment.

The Odd Couple has made millions of movie goers happy. And is still doing so everywhere it is shown. *The Graduate*, a more sophisticated comedy, may, as a money maker, come just under the big two of all times, *Sound of Music* and *Gone With the Wind*. A phenomenal success all over the world is *2001—A Space Odyssey*, a grand spectacle that appeals especially to men and boys.

Planet of the Apes was the big surprise of the year, popular with all ages. *Guess Who's Coming to Dinner*, an important contribution to motion pictures, is among the year's successes. Sidney Poitier, one of its stars, who has since made his own film, *For Love of Ivy*, is the actor of the year. Paul Newman is close to Poitier in popularity with the public here and abroad. Katharine Hepburn, Oscar winner for *Guess Who's Coming to Dinner*, is the actress of the year. And watch out for Joanne Wood-

ward with the same distinction next year.

Doctor Doolittle, a splendid musical made primarily for children, is a financial disappointment while, on the other side of the coin, the sordid melodrama, *Valley of the Dolls*, torn to shreds by the New York Film Critics, is in the big money class. Three foreign films worth mentioning are *Closely Watched Trains*, from Czechoslovakia, *The Two of Us*, from France and *War and Peace*, a magnificent production of Tolstoy's classic, from Russia.

The Fall season started off in New York City with a unique drama, *Rachel, Rachel* and the stunning, wonderful musical, *Funny Girl*. And the greatest of them all, *Gone With the Wind*, is being released all over the country, every scene re-colored and for the first time on wide screen with stereophonic sound.

Listed below, alphabetically, are films rated by The New York Daily News star system. ★★★★★ is for excellent; ★★★★★½, very good; ★★★★, good; ★★★½, mediocre; ★★, fair; ★½, poor; ★ very poor. Documentaries, such as *Survival 1967*, do not receive stars because they are photographic records of people and places, not fictional stories with actors playing the roles. Included are foreign films of merit.

Wanda Hale
N. Y. Daily News
Movie Editor and Critic

Movie	Star rating	Stars	Director
Anniversary, The	★★★★	Bette Davis	Roy Ward Baker
Bedazzled	★★★★	Peter Cook, Dudley Moore	Stanley Donen
Camelot	★★★★½	Richard Harris, Vanessa Redgrave	Joshua Logan
Chappaqua	★★★★½	Jean-Louis Barrault	Conrad Rooks
Charly	★★★★½	Cliff Robertson, Claire Bloom	Ralph Nelson
Charlie Bubbles	★★★★½	Albert Finney	Albert Finney
Closely Watched Trains	★★★★	Vaclav Neckar, Jitka Bendova	Jiri Menzel
Comedians, The	★★★★½	Elizabeth Taylor, Richard Burton	Peter Glenville
Cool Hand Luke	★★★★½	Paul Newman, George Kennedy	Stuart Rosenberg
Devil's Brigade, The	★★★★½	William Holden, Cliff Robertson	Andrew McLaglen
Dr. Doolittle	★★★★	Rex Harrison, Samantha Eggar	Richard Fleischer
Dr. Faustus	★★★★	Elizabeth Taylor, Richard Burton	R. Burton and Nevill Coghill
Duffy	★★★★	James Coburn, James Mason	Robert Parrish
Elvira Madigan	★★★★	Pia Degermark, Tommy Berggren	Bo Wilderberg
Far From the Madding Crowd	★★★★	Julie Christie, Terence Stamp	Schlesinger
For Love of Ivy	★★★★	Sidney Poitier, Abbey Lincoln	Daniel Mann
Fox, The	★★★★	Sandy Dennis, Keir Dullea	Mark Rydell
Funny Girl	★★★★	Barbra Streisand, Omar Sharif	William Wyler
Gone With the Wind	★★★★	Clark Gable, Vivien Leigh	Victor Fleming
Graduate, The	★★★★½	Anne Bancroft, Dustin Hoffman	Mike Nichols
Green Berets, The	★★★★	John Wayne, David Janssen	John Wayne & Ray Kellogg
Guess Who's Coming to Dinner	★★★★	Spencer Tracy, Katharine Hepburn, Sidney Poitier	Stanley Kramer
Hagbard and Signe	★★★★	Gitte Haenning, Oleg Vidov	Gabriel Axel
Half a Sixpence	★★★★½	Tommy Steele, Julia Foster	George Sidney
Happiest Millionaire, The	★★★★	Fred MacMurray, Tommy Steele	Norman Tokar
Heart Is a Lonely Hunter, The	★★★★	Alan Arkin, Sondra Locke	Robert Ellis Miller
Here We Go 'Round the Mulberry Bush	★★★★½	Barry Evans, Judy Geeson	Clive Donner
Hot Millions	★★★★	Peter Ustinov, Maggie Smith	Eric Till
Hour of the Wolf	★★★★	Liv Ullmann, Max Von Sydow	Ingram Bergman
I'll Never Forget What's a Name	★★★★½	Orson Welles, Oliver Reed	Michael Winner
In Cold Blood	★★★★	Robert Blake, Scott Wilson	Richard Brooks
Interlude	★★★★	Oskar Werner, Barbara Ferris	Kevin Billington
Isabel	★★★★½	Benevise Bujold	Paul Almond
Jungle Book, The	★★★★	Phil Harris, Sebastian Cabot	Wolfgang Reitherman
Legend of Lylah Clare, The	★★★★	Elsa Brinkmann, Kim Novak	Robert Aldrich
Lemonade Joe	★★★★	Carl Fiala, Olinka Berova	Oldrich Lipsky
Les Carabiniers	★★★★	Genevieve Galea	Jean-Luc Godard
Live for Life	★★★★½	Evlyn Manland, Candice Bergen	Claude Lelouch
Long Day's Dying, The	★★★★½	David Hemmings, Tom Bell	Peter Collinson
Madigan	★★★★½	Richard Widmark, Henry Fonda	Donald Siegel
Matter of Innocence, A	★★★★	Hayley Mills, Trevor Howard	Guy Green
No Way to Treat a Lady	★★★★½	Rod Steiger, Lee Remick	Jack Smight
Odd Couple, The	★★★★	Jack Lemmon, Walter Matthau	Gene Sacks
Our Mother's House	★★★★½	Dirk Bogarde, Susannah York	Jack Clayton
Planet of the Apes	★★★★½	Charlton Heston, Roddy McDowall	Franklin Schaffner

Movie	Star rating	Stars	Director
Poor Cow	★★★½★	Terence Stamp, Carol White	Kenneth Loach
Producers, The	★★★★	Zero Mostel, Gene Wilder	Mel Brooks
Prudence and the Pill	★★★★	Deborah Kerr; David Niven	Fleider Cook
Rachel, Rachel	★★★★	Joanne Woodward, Estelle Parsons	Paul Newman
Reflections In A Golden Eye	★★★½★	Elizabeth Taylor, Marlon Brando	John Huston
Rosemary's Baby	★★★★	Mia Farrow, John Cassavetes	Roman Polanski
Scalphunters, The	★★★★½★	Dean Martin, George Peppard	Arnold Laven
Sebastian	★★★★	Burt Lancaster, Shelley Winters	Sydney Pollack
Secret War of Harry Frigg, The	★★★★½★	Dirk Bogarde, Susannah York	David Greene
Smashing Time	★★★★½★	Paul Newman, Sylva Koscina	Jack Smight
Stranger Returns, The	★	Rita Tushingham, Lynn Redgrave	Desmond Davis
Survival 1967	doc.	Tony Anthony, Dan Vadis	Vance Lewis
Tony Rome	★★★★½★	Israel	Jules Dassin
Trans-Europe Express	★★★★½★	Frank Sinatra, Jill St. John	Gordon Douglas
Two of Us, The	★★★★	Jean-Louis Trintignant	Alain Robbe-Grillet
Valley of the Dolls, The	★★★½★	Michel Simon, Luce Fablote	Claude Berri
Venom	★	Barbara Parkins, Patty Duke	Mark Robson
Wait Until Dark	★★★★½★	Søren Stenmberg	Knud Leif Thomsen
War and Peace	★★★★	Audrey Hepburn, Alan Arkin	Terence Young
Where Were You When the Lights Went Out?	★★★★	Ludmilla Savelyeva	Sergei Bondarchuk
Who's Minding the Mint?	★★★★½★	Doris Day, Robert Morse	Hy Averback
Yours, Mine and Ours	★★★★	Jim Hutton, Dorothy Provine	Howard Morris
Zita	★★★★½★	Lucille Ball, Henry Fonda	Melville Shavelson
	★★★	Joanna Shimkus, Katina Paxinou	Robert Enrico

RECORDINGS

Sales of Discs Pass the Billion Dollar Mark in 1968

U. S. record producers, blessed with an ever-growing market for recordings of music both new and classical, set a "record" of their own in 1968, reaching and passing a billion dollars in sales.

The Beatles claimed worldwide sales of more than 210,000,000 records, a figure keeping them in the lead, ahead of that long-time popularity king, Bing Crosby, whose total output was reckoned at "over 200,000,000."

In an industry where sales statistics are not readily available to the public, the Record Industry Assn. of America kept count of new top-selling recordings. It regularly presents Gold Record Awards in two categories: for single records it certifies as having sold 1,000,000 copies, and for long-play (LP) albums it certifies as having \$1,000,000 in sales (reckoned in manufacturers' sales figured at 50% of list prices). The RIAA certified awards, it should be noted, did not begin until 1958; many artists sold millions of records before that year.

Under the certification system, the Beatles have been credited with 16 singles with sales of 1,000,000 each, and 12 LP albums with over \$1,000,000 in sales each. Their top-selling single was reportedly "I Want to Hold Your Hand," with 5,300,000 copies.

Bing's Mark Still Stands

Bing Crosby, with most of his sales in the days of singles, before the age of the LP album and the RIAA certification, still was tops in individual record sales with 16,000,000 of "White Christmas," over 10,000,000 of "Silent Night" and over 7,000,000 of "Jingle Bells."

Crosby had a total of 20 singles which sold a million copies each. His "Merry Christmas" album, having sold over 5,000,000 copies in various speeds and sizes, racked up new sales annually.

Elvis Presley is credited with 45 singles which sold more than 1,000,000 each, including "Hound Dog" with 6,485,000 copies. His total sales have reached well over 100,000,000; those of his singles alone were put at \$1,450,000; he also has sold 11 LP albums which won Gold Record awards.

Sinatra Ranks High

Frank Sinatra has made 11 such LP albums, as well as 5 singles with over a million copies each, and a great number of singles with lesser sales.

Fats Domino made 22 singles that sold over a million each, including "Blueberry Hill," with total sales (in the '50s and '60s) of 27,000,000 records. Eddy Arnold, though credited with only one single in the over-a-million class, "Bouquet of Roses" (1948), and two albums with \$1,000,000 in sales, reportedly has sold over 49,000,000 discs.

Artists ranking high in numbers of Gold Record LP albums include:

The Beatles, 12; Frank Sinatra, Elvis Presley, Andy Williams, Mitch Miller, 11 each; The Beach Boys, Herb Alpert & the Tijuana Brass, 10; Kingston Trio, 9; Dean Martin, Rolling Stones, Johnny Mather, 8; Barbra Streisand, Bill Cosby,

Ray Conniff, 7; Mantovani, Harry Belafonte, Roger Williams, 6; Bob Dylan, The Monkees, and Peter, Paul & Mary, 5. Simon & Garfunkel have sold 3 LP albums and 2 singles which won Gold Record awards.

Top mark for sales of an LP album was the 8,000,000 copies claimed for of the movie soundtrack of "The Sound of Music," followed by the original cast recording of "My Fair Lady," 6,000,000.

The only LP classical to sell a million copies was the Van Cliburn rendition of Tchaikovsky's "Piano Concerto No. 1," with nearly 2,000,000.

Leopold Stokowski hit a million copies with both "Tales from the Vienna Woods" and "Blue Danube Waltz." Arthur Fiedler did it with "Jalousie," Jose Iturbi hit the magic number with two singles, "Clair de Lune" and Chopin's "Polonaise in A-Flat." Percy Faith joined the club with "Song from Moulin Rouge" and "Theme from a Summer Place."

No Figures on Caruso

Among the top recording artists of all times were Enrico Caruso and Arturo Toscanini, but figures on their sales are not available.

Only a half-dozen records sold the magic number of a million in the 1920s. Technical improvements and a tremendous growth in the number of phonographs and record players helped bring the industry to its present peak.

Artists ranking high in singles which had sales of more than 1,000,000 each include:

Perry Como, Connie Francis, 13; Pat Boone, 12; Glenn Miller, 10; Artie Shaw, Frankie Laine, 8; Patti Page, Harry James, Kay Kyser, Little Richard, Ricky Nelson, 7; Aretha Franklin, The Monkees, Guy Mitchell, Evely Brothers, 6; Nat King Cole, Al Jolson, Gene Autry, Chubby Checkers, Bobby Darin, The Platters, Bobby Rydell, Dean Martin, The Weavers, Doris Day, The Drifters, Hank Ballard & The Midnighters, 5.

Those who have sold at least 4 singles over a million each include: Guy Lombardo, Les Paul and Mary Ford, Ames Brothers, Paul Anka, Tony Bennett, Jimmy Dorsey, Tommy Dorsey, Eddie Fisher, Joni James, Vaughan Monroe, Jimmy Rodgers, Four Aces, The Coasters, Bill Black's Combo.

Among those who sold singles of a million each in the '30s and are not among those named above were: Rudy Vallee, "Stein Song," 1930; Jeanette MacDonald and Nelson Eddy, "Indian Love Call," 1935; Ella Fitzgerald, "A-Tisket, A-Tasket," 1938; Will Glaze, "Beer Barrel Polka," 1938; Cab Calloway, "Jumpin' Jive," 1939; Orrin Tucker, "Oh, Johnny," 1939.

The recorders who managed to sell a million copies in the '20s were Paul Whiteman, "Whispering," 1920, and "Three O'Clock in the Morning," 1922; Clyde McCoy, "Sugar Blues," 1923 (in 1946 McCoy again sold over a million copies of "Sugar Blues"); Vernon Dalhart, "Prisoner's Song," 1924; Gene Austin, "My Blue Heaven," 1927, and "Ramona," 1928.

Symphony Orchestras of the United States and Canada

(As of September 1968)

Source: American Symphony Orchestra League Inc.
Classifications are based on annual budgets of orchestras.

Major Symphony Orchestras

(Conductors)

American Symphony Orch.	200 W. 57th St., New York, N. Y. 10019	Leopold Stokowski
Atlanta Symphony	Peachtree Center, Atlanta, Ga. 30303	Robert Shaw
Baltimore Symphony	120 Mount Royal Ave., Baltimore, Md. 21201	Sergiu Comissiona
Boston Symphony	Symphony Hall, Boston, Mass. 02115	Erich Leinsdorf
Buffalo Philharmonic	Kleinhans Music Hall, Buffalo, N. Y. 14201	Lukas Foss
Chicago Symphony	220 S. Michigan Ave., Chicago, Ill. 60604	Irwin Hoffman,
		Act. Music Dir.
Cincinnati Symphony	Central Trust Bk. Tower, Cincinnati, Ohio 45202	Max Rudolf
Cleveland Orchestra	11001 Euclid Ave., Cleveland, Ohio 44106	George Szell
Dallas Symphony	P.O. Box 8472, Dallas, Tex. 75205	Donald Johanos
Denver Symphony	1615 California St., Denver, Colo. 80202	V. Golschmann
Detroit Symphony	20 E. Jefferson Ave., Detroit Mich. 48226	Sixten Ehrling
Houston Symphony	Music Hall, Houston, Tex. 77002	Andre Previn
Indianapolis Symphony	4600 Sunset Ave., Indianapolis, Ind. 46207	Izler Solomon
Kansas City Philharmonic	210 W. 10th St., Kansas City, Mo. 64105	Hans Schwieger
Los Angeles Philharmonic	135 North Grand, Los Angeles, Calif. 90012	Zubin Mehta
Milwaukee Symphony Orch.	161 W. Wisconsin Ave., Milwaukee, Wis. 53202	Ken Schermerhorn
Minneapolis Symphony	Corus Northrop Mem. Aud., Minneapolis, Minn. 55455	S. Skrowaczewski
Montreal Symphony	200 Ontario St., West Montreal, Quebec, Can.	Franz-Paul Decker
New Orleans Philharmonic	333 St. Charles Ave., New Orleans, La. 70130	W. Torkanowsky
New York Philharmonic	Broadway at 65th St., New York, N. Y. 10023	Leonard Bernstein
Philadelphia Orchestra	230 S. 15th St., Philadelphia, Pa. 19102	Eugene Ormandy
Pittsburgh Symphony	Rockwell Standard Bldg., Pittsburgh, Pa. 15222	William Steinberg
Rochester Philharmonic	60 Gibbs St., Rochester, N. Y. 14604	Laszlo Somogyi
St. Louis Symphony	Powell Hall, St. Louis, Mo. 63101	Walter Susskind
San Antonio Symphony	Suite 414, S. Texas Bldg., San Antonio, Tex. 78205	Victor Alessandro
San Francisco Symphony	Veteran's Memorial Bldg., San Francisco, Calif. 94102	Joseph Krips
Seattle Symphony	Fourth & Pike Bldg., Seattle, Wash. 98101	Milton Krimms
Toronto Symphony	215 Victoria St., Toronto 2, Ontario, Can.	Seiji Ozawa
Utah Symphony	P.O. Box 782, Salt Lake City, Utah 84101	Maurice Abravanel
Washington Nat. Symphony	Roosevelt Hotel, Washington, D.C. 20009	Howard Mitchell

Metropolitan Orchestras

(Conductors)

Birmingham Symphony	710 N. 20th St., Birmingham, Ala. 35203	Amerigo Marino
Brooklyn Philharmonia	30 Lafayette Ave., Brooklyn, N. Y. 11217	Siegfried Landau
Calgary Philharmonic	Allied Arts Center, Calgary, Alberta, Can.	Irwin Hoffman
Columbus Symphony	100 E. Broad St., Columbus, Ohio 43215	Evan Whallon
Dayton Philharmonic	Sheraton-Dayton Hotel, Dayton, Ohio 45402	Paul Katz
Duluth Symphony	704 Alworth Bldg., Duluth, Minn. 55802	Joseph Hawthorne
Edmonton Symphony	The Bay, Edmonton, Alberta, Can.	Lawrence Leonard
Fort Wayne Philharmonic	201 W. Jefferson St., Fort Wayne, Ind. 46802	James Sample
Florida Gulf Coast Orch.	P.O. Box 449, Tampa, Fla. 33601	Frank Hoffman
Florida Symphony	P.O. Box 782, Orlando, Fla. 32802	Hermann Herz
Fort Worth Symphony	3505 W. Lancaster, Fort Worth, Tex. 76107	Ezra Rachlin
Fresno Philharmonic	1632 N. Fresno St., Fresno, Calif. 93703	Thomas Grissold
Glendale Symphony	121 W. Lexington Dr., Glendale, Calif. 91203	Carmen Dragon
Grand Rapids Symphony	Auditorium Center, Grand Rapids, Mich. 49502	Gregory Millar
Hartford Symphony	15 Lewis St., Room 316, Hartford, Conn. 06103	Arthur Winograd
Hofstra University	Hofstra University, Hempstead, N. Y. 11550	Eleazar de Carvalho
Orchestra da Camera		
Honolulu Symphony	Merchandise Mart Bldg., Honolulu, Hawaii 96813	Robt. LaMarchina
Hudson Valley Symphony	54 Naxon St., Poughkeepsie, N. Y. 12601	Claude Monteux
Jacksonville Symphony	46 W. Duval St., Jacksonville, Fla. 32202	John Canarina
Kalamazoo Symphony Soc.	426 S. Park St., Kalamazoo, Mich. 49007	Pierre Eiu
Little Orchestra Soc.	1860 Broadway, New York, N. Y. 10023	Thomas Scherman
Louisville Orchestra	321 W. Broadway, Louisville, Ky. 40202	Jorge Mester
Memphis Symphony	Crostown Sta., Box 4682, Memphis, Tenn. 38104	Vincent DeFrank
Miami Philharmonic	P.O. Box 97, Coral Gables, Fla. 33184	Alain Lombard
Midland Odessa Symphony	P.O. Box 6266, Air Terminal Sta., Midland, Tex. 79701	Robert G. Mann
Mobile Symphony	P.O. Box 1403, Mobile, Ala. 36601	James Yestadt
Nashville Symphony	Bennie Dillon Bldg., Nashville, Tenn. 37203	Thor Johnson
New Haven Symphony	25 College St., New Haven, Conn. 06510	Frank Briffel
New Jersey Symphony	1020 Broad St., Newark, N. J. 07102	Henry Lewis
North Carolina Symphony	Box 1213, Chapel Hill, N. C. 27514	Benjamin Swalin
Oakland Symphony	Latham Sq. Bldg., Oakland, Calif. 94612	Gerhard Samuel
Oklahoma City Symphony	Municipal Auditorium, Oklahoma City, Okla. 73102	Guy F. Harrison
Omaha Symphony	W.O.W. Bldg., Omaha, Neb. 68102	Joseph Levine
Orange County Symphony	777 South Main St., Orange, Calif.	Guests
Oregon Symphony	729 W.S. Alder, Portland, Ore. 97205	Jacques Singer
Pasadena Symphony	301 E. Colorado Blvd., Pasadena, Calif. 91101	Richard Lert
Phoenix Symphony	1515 E. Osborn Rd., Phoenix, Ariz.	Guy Taylor
Portland Maine Symphony	City Hall, Portland, Me. 04101	Paul Vermet
Quebec Symphony	378 Rue St. Jean, Quebec 4, Can.	Wilfred Pelletier
Rhode Island Philharmonic	The Arcade, Providence, R. I. 02903	Francis Madeira
Richmond Symphony	112 E. Franklin St., Richmond, Va. 23219	Edgar Schenkman
Sacramento Symphony	P.O. Box 2249, Sacramento, Calif. 95804	Harry Newstone
San Diego Symphony	P.O. Box, 3175, San Diego, Calif. 92103	Zoltan Rozsnyai
Savannah Symphony	P.O. Box 217, Savannah, Ga. 31401	Chauncey Kelley
Shreveport Symphony	2803 Woodlawn Ave., Shreveport, La.	John Shenaut
Spokane Symphony	Peyton Building, Spokane, Wash. 99201	Donald Thulean
Springfield Symphony	49 Chestnut St., Springfield, Mass.	Robt. L. Staffansson
Syracuse Symphony	113 E. Onondaga St., Syracuse, N. Y. 13202	Karl Kriz
Toledo Orchestra	323 Huron St., Toledo, Ohio 43604	Serge Fournier
Tucson Symphony	2719 E. Broadway, Tucson, Ariz. 85716	Gregory Millar
Tulsa Philharmonic	1579 E. 21st St., Tulsa, Okla. 74114	Franco Autori
Vancouver Symphony	566 Hornby St., Vancouver 2, B. C., Can.	Meredith Davies
Victoria Symphony	613 Pandora Ave., Victoria, B. C., Can.	Laszlo Gati
Wichita Symphony	105 W. Second St., Wichita, Kan. 67202	James Robertson
Winnipeg Symphony	Hudson's Bay, Portage Ave., Winnipeg 1, Manitoba, Can.	George Cleve
Youngstown Symphony	35 S. Phelps St., Youngstown, Ohio 44503	Franz Bibo

Chamber Orchestras

Chamber Symphony of Phil.	1405 Locust St., Philadelphia, Pa. 19102	Anshel Brusilow
Princeton Chamber Orch.	P.O. Box 455, Princeton, N. J.	Nicholas Harsanyi

Famous Paintings and Where You Can See Them

The paintings in this list have been chosen because of the fame they have achieved (for various reasons, not necessarily their individual artistic merit) and because of their being viewable in public, rather than private collections. They are listed chronologically. Some are representative of a famed artist, several of whose works are equally well-known. A few of these paintings may not be on view at a particular time in the museum listed because of being on loan elsewhere.

- Giotto, Pieta**, 1305, Arena Chapel, Padua.
- Fra Filippo Lippi, Adoration of the Child**, c. 1435, Staatliches Museum, Berlin.
- Piero Della Francesca, Duke of Urbino**, 1465, Uffizi Gallery, Florence.
- Giovanni Bellini, Pieta**, c. 1466, Brera, Milan.
- Botticelli, The Birth of Venus**, c. 1480, Uffizi Gallery, Florence.
- Hieronymus Bosch, Christ Crowned with Thorns**, c. 1500, National Gallery, London.
- Leonardo da Vinci, Mona Lisa (La Gioconda)**, c. 1505, Louvre, Paris.
- Michelangelo, Creation of Adam**, 1508-12, Sistine Chapel, Vatican, Rome.
- Giorgione, Sleeping Venus**, c. 1508, Gemaldegalerie, Dresden.
- Raphael, The Sistine Madonna**, 1515-19, Gemaldegalerie, Dresden.
- Titian, The Tribute Money**, 1516, Gemaldegalerie, Dresden.
- Durer, The Four Apostles**, 1523-26, Alte Pinakothek, Munich.
- Holbein, Henry VIII**, 1540, National Gallery, Rome.
- Pieter Brueghel the Elder, Massacre of the Innocents**, 1566, Kunsthistorisches Museum, Vienna.
- El Greco, The Burial of Count Orgaz**, 1586, Santo Tome, Toledo, Spain.
- Rubens, Venus and Adonis**, c. 1620, Metropolitan Museum of Art, N. Y.
- Frans Hals, Laughing Cavalier**, 1624, Wallace Collection, London.
- Van Dyck, Charles I of England**, c. 1635, Louvre, Paris.
- Ribera, The Martyrdom of St. Bartholomew**, 1630-39, Prado, Madrid.
- Rembrandt, The Night Watch**, 1642, Rijksmuseum, Amsterdam.
- Velasquez, Maids of Honor**, 1656, Prado, Madrid.
- Vermeer, Young Woman with a Water Jug**, c. 1658-64, Metropolitan, N. Y.
- Ruisdael, View of Haarlem**, c. 1670, Rijksmuseum, Amsterdam.
- Murillo, Virgin and Child**, c. 1672, Metropolitan, N. Y.
- Natteau, The Embarkation for Cythera**, c. 1712, Louvre, Paris.
- Jogarth, The Orgy (Rake's Progress)**, c. 1734, Soane's Museum, London.
- Fragonard, The Love Letter**, c. 1769-70, Metropolitan, N. Y.
- Gainsborough, The Blue Boy**, c. 1770, Huntington Gallery, San Marino, Calif.
- John Singleton Copley, Watson and the Shark**, 1778, Museum of Fine Arts, Boston.
- Joshua Reynolds, Mrs. Siddons as the Tragic Muse**, 1784, Huntington Gallery, San Marino, Cal.
- John Trumbull, The Declaration of Independence**, 1786-94, Capitol, Washington, D. C.
- Gilbert Stuart, George Washington**, c. 1795, Museum of Fine Arts, Boston. (Others in Metropolitan, N. Y., etc.)
- David, The Rape of the Sabines**, 1799, Louvre, Paris.
- Goya, The Naked Maja**, 1799, Prado, Madrid.
- Ingres, Odalisque**, 1814, Louvre, Paris.
- John Constable, The Hay Wain**, 1821, National Gallery, London.
- Thomas Lawrence, The Calmady Children**, 1823, Metropolitan, N. Y.
- John James Audubon, Birds of America** (433 of the original 435 paintings), early 19th Century, New York Historical Society.
- Joseph M. W. Turner, The Grand Canal, Venice**, early 19th Century, Metropolitan, N. Y.
- George Caleb Bingham, Fur Traders Descending the Missouri**, 1845, Metropolitan, N. Y.
- Emanuel Leutze, Washington Crossing the Delaware**, 1851, Washington Crossing State Park, Pa.
- Rosa Bonheur, The Horse Fair**, 1853-55, Metropolitan, N. Y.
- Jean-Baptiste Corot, Le Lac de Terni**, 1861, Corcoran Gallery, Washington.
- Honore Daumier, The Third-Class Carriage**, c. 1862, Metropolitan, N. Y.
- Jean-Francois Millet, Man with the Hoe**, 1863, San Francisco Museum.
- James McNeill Whistler, Arrangement in Black and Gray—The Artist's Mother**, c. 1872, Louvre, Paris.
- Thomas Eakins, The Gross Clinic**, 1875, Jefferson Medical College, Philadelphia.
- A. M. Willard Spirit of '76**, 1876 (3 versions): Cleveland City Hall; Western Reserve Historical Society, Cleveland; Abbot Hall, Marblehead, Mass.
- Edgar Degas, La Danseuse au Bouquet**, 1878, Rhode Island School of Design Museum, Providence.
- Edouard Manet, In a Boat**, 1879, Metropolitan, N. Y.
- Pierre-Auguste Renoir, Luncheon of the Boating Party**, 1881, Phillips Collection, Washington.
- Georges Seurat, Sunday Afternoon on the Grande Jatte**, 1884-86, Art Institute of Chicago.
- Paul Cezanne, Mont Sainte-Victoire**, 1885-87, Metropolitan, N. Y.
- Vincent Van Gogh, Wheat Field and Cypress Trees**, 1889, National Gallery, London.
- Albert Pinkham Ryder, Trollers of the Sea**, c. 1890, Addison Gallery, Andover, Mass.
- Paul Gauguin, La Orana Maria (Hail Mary)**, 1891, Metropolitan, N. Y.
- Henri de Toulouse-Lautrec, At the Moulin Rouge**, 1892, Art Institute of Chicago.
- Claude Monet, Rouen Cathedral**, 1894, Metropolitan, N. Y.
- Winslow Homer, Gulf Stream**, 1899, Art Institute of Chicago.
- John Singer Sargent, The Wyndham Sisters**, 1900, Metropolitan, N. Y.
- Frederic Remington, Cavalry Charge on the Southern Plains**, 1907, Metropolitan, N. Y.
- Georges Braque, Head of a Woman**, 1909, Musee d'Art Moderne, Paris.
- Henri Rousseau, The Dream**, 1910, Museum of Modern Art, N. Y.
- Marc Chagall, I and the Village**, 1911, Museum of Modern Art, N. Y.
- Marcel Duchamp, Nude Descending a Staircase**, 1912, Philadelphia Museum of Art.
- Paul Chabas, September Morn**, 1912, Metropolitan, N. Y.
- Amadeo Modigliani, Portrait of Madame Zboroski**, 1917-18, Rhode Island School of Design Museum, Providence.
- Piet Mondrian, Composition**, 1921, Kunstmuseum, Basel, Switzerland.
- Paul Klee, Twittering Machine**, 1922, Museum of Modern Art, N. Y.
- George Bellows, The Dempsey-Firpo Fight**, 1924, Whitney Museum of American Art, N. Y.
- Vasily Kandinsky, Several Circles**, 1926, Guggenheim Museum, N. Y.
- Henri Matisse, Odalisque**, 1928, Musee d'Art Moderne, Paris.
- Grant Wood, American Gothic**, 1930, Art Institute of Chicago.
- Joan Miro, Man, Woman and Child**, 1931, Philadelphia Museum of Art.
- Jose Clemente Orozco, Zapatistas**, 1931, Museum of Modern Art, N. Y.
- Maurice Utrillo, Sacred-Heart and Montmartre Square**, 1932, Musee d'Art et d'Histoire, Geneva.
- William Gropper, The Senate**, 1935, Museum of Modern Art, N. Y.
- Pablo Picasso, Guernica**, 1937, Museum of Modern Art, N. Y.
- Georges Rouault, The Old King**, 1937, Carnegie Institute Museum, Pittsburgh.
- Thomas Hart Benton, Threshing Wheat**, 1939, Swope Gallery, Terre Haute, Ind.
- John Steuart Curry, John Brown**, 1939, Metropolitan, N. Y.
- Anna (Grandma) Moses, The Thanksgiving Turkey**, 1943, Metropolitan, N. Y.
- Andrew Wyeth, Christina's World**, 1948, Museum of Modern Art, N. Y.
- Jackson Pollock, Autumn Rhythm**, 1950, Metropolitan, N. Y.
- Salvador Dali, Crucifixion**, 1954, Metropolitan, N. Y.
- Raphael Soyer, Portrait of Hugo Kaster**, 1957, Metropolitan, N. Y.

Famous Sculptures and Where You Can See Them

The statues, monuments and other sculptures in the following list have been chosen because of the fame they have won, independent of the question of their individual artistic merit, and because they are on public view. They are listed chronologically, except for the group titled Non-Western. In a few cases, two works by the same artist have been listed. Some of the works are representative of a famed artist, many of whose works are equally well-known. The creators of some of the earliest works are unknown.

ANCIENT EGYPT

The Great Sphinx, c. 2900 B.C., limestone and masonry, Giza, United Arab Republic.

Queen Nofretete, c. 1365 B.C., painted limestone, State Museum, West Berlin.

Colossus of Ramses II, c. 1230 B.C., sandstone, Abu Simbel, United Arab Republic.

ANCIENT GREECE

Charlotte of Delphi, c. 470 B.C., bronze, Museum, Delphi, Greece.

Myron: Discobolus (Discus Thrower), marble Roman copy of Myron's bronze original of c. 450 B.C., Terme Museum, Rome.

Phidias: Parthenon Sculptures, c. 438 B.C., marble (by or under direction of Phidias), British Museum, London.

Polycletus: Doryphorus (Spear Bearer), marble Roman copy of Polycletus' original of late 5th Century B.C., National Museum, Naples.

Praxiteles: Hermes with the Infant Dionysus, c. 350 B.C., Museum, Olympia; **Aphrodite of Cnidus**, marble Roman copy of Praxiteles' original of 330 B.C., Vatican, Rome.

Scopas: Head from the Temple at Tegea, c. 350 B.C., National Museum, Athens.

Lysippus: Apoxyomenos (athlete cleansing himself with a scraper), marble Roman copy of Lysippus' bronze original of 330 B.C., Vatican, Rome.

Nike of Samothrace (Winged Victory), c. 300 B.C., marble, Louvre, Paris.

Aphrodite of Melos (Venus de Milo), 2nd Century B.C., marble, Louvre, Paris.

Laocoön, 2nd Century B.C., marble, by Agesander, Athenodorus and Polydorus of Rhodes, Vatican, Rome.

ANCIENT ROME

Augustus, c. 20 B.C., marble, Vatican, Rome.

Caracalla, 211-217 A.D., marble, National Museum, Naples.

GOTHIC

Virgin of Paris, early 14th Century, stone, Notre Dame Cathedral, Paris.

Claus Sluter: Moses, c. 1400, stone, Champmol Monastery, near Dijon.

Tomb of Philippe Pot, c. 1480, painted stone, Louvre, Paris.

RENAISSANCE

Donatello: St. George, c. 1415, marble, National Museum, Florence; **Gattamelata**, 1445-50, bronze, Piazza del Santo, Padua.

Andrea del Verrocchio: Colleoni, c. 1485, bronze, Campo SS. Giovanni e Paolo, Venice; **Michelangelo Buonarroti: David**, 1501-04, marble, Academy, Florence; **Pieta**, 1498-99, marble, St. Peter's, Rome.

Benvenuto Cellini: Perseus with the Head of Medusa, 16th Century, marble, Loggia dei Lanzi, Florence.

Gianlorenzo Bernini: Ecstasy of St. Theresa, 1645-52, marble, Church of Santa Maria della Vittoria, Rome.

NON-WESTERN

Buddha Vairocana, 8th Century A.D., bronze, Nara, Japan.

Tlaloc (Toltec Rain God), 900 A.D. or earlier, stone, Anthropology Museum, Mexico City.

Amida Buddha, 1252, bronze, Kamakura, Japan.

Aztec Calendar Stone, 1427-29, painted volcanic rock, Anthropology Museum, Mexico City.

Stone Heads, 17th Century or earlier, Easter Island.

Mask with Horns, 19th Century, wood, from south-east Congo (Baluba), Royal Museum of Central Africa, Tervuren, Belgium.

Buddha, 1960, concrete, Changhua, Taiwan.

18th-19th CENTURIES

Jean Antoine Houdon: George Washington, 1788-92, marble, State Capitol, Richmond, Va.

Thomas Crawford: Statue of Freedom, bronze, 1863, atop the Capitol dome, Washington, D. C.

Frederic Auguste Bartholdi: Liberty Enlightening the World, 1886, copper on steel frame, Liberty Is., N. Y.

Auguste Rodin: The Thinker, 1879-89, bronze, Metropolitan Museum of Art, N. Y.

Augustus St. Gaudens: Abraham Lincoln, 1887, bronze, Lincoln Park, Chicago.

John Quincy Adams Ward: Henry Ward Beecher, bronze, 1891, Cadman Plaza, Brooklyn, N. Y.

20th CENTURY

Aristide Maillol: The Mediterranean, 1902-05, bronze, Museum of Modern Art, N. Y.

Mateo Alonso: Christ of the Andes, 1904, bronze, Uspallata Pass, Chile-Argentina border.

Ivan Mestrovic: My Mother, 1908, marble, State Museum, Belgrade.

Constantin Brancusi: The Kiss, 1908, stone, Philadelphia Museum of Art; **Bird in Space**, 1927, bronze, Museum of Modern Art, N. Y.

Wilhelm Lehmbruck: Kneeling Woman, 1911, cast stone, Museum of Modern Art, N. Y.

Edvard Eriksen: The Little Mermaid, 1913, bronze, Copenhagen harbor.

Daniel Chester French: Abraham Lincoln, 1922, marble, Lincoln Memorial, Washington, D. C.

William Zorach: Child with Cat, 1926, marble, Museum of Modern Art, N. Y.

Gaston Lachaise: Standing Woman, 1912-27, bronze, Albright Art Gallery, Buffalo.

Ernst Barlach: Hovering Angel, 1927, bronze, Antoniter Church, Cologne.

Jacob Epstein: Madonna and Child, 1927, bronze, Riverside Church, N. Y.

Heitor da Silva Costa and Paul Landowski: Christ the Redeemer, 1931, reinforced concrete, Corcovado Mtn., Rio de Janeiro.

Vernon March: Canadian War Memorial, 1926-32 (dedicated 1939), bronze, Confederation Sq., Ottawa.

Paul Manship: Prometheus, 1934, bronze and gold-leaf, Rockefeller Center, N. Y.

Alexander Calder: Lobster Trap and Fish Tail, 1939, steel wire and aluminum, Museum of Modern Art, N. Y.

Carl Milles: Meeting of the Waters Fountain, 1940, Alce Plaza, St. Louis; **Millesgarden Sculptures**, Stockholm.

Gutzon Borglum: Mt. Rushmore Natl. Memorial, 1927-41, granite, near Keystone, S. D.

Gustav Vigeland: Sculpture Park, 1906-43, stone and bronze, Oslo.

Pablo Picasso: She-Goat, bronze, 1950, Museum of Modern Art, N. Y.

Felix de Weldon: Marine Corps War Memorial (Iwo Jima Flag-Raising), 1954, bronze, near Arlington Natl. Cemetery, Va.

Jose de Creeft: Alice in Wonderland, 1959, bronze, Conservatory Lake, Central Park, N. Y.

Henry Moore: Reclining Figure, 1963-65, bronze, Lincoln Center, N. Y.

Sculpture Carves Its Niche in the News

Sculpture, both ancient and modern, made news during 1968.

There were new, and paradoxical, activities underwater. At the eastern end of the Mediterranean, divers used suction pumps, underwater phones and a submerged decompression chamber in a search near Greece for ancient statues and other relics of sunken ships. At the western end of the same sea, modern artist Joan Miro, with the aid of other divers and a sea-going crane, deposited his statue *Sea Venus* in an underwater grotto on the Mediterranean's floor near Juan-les-Pins, France.

Rising in the wake of the New York Metropolitan

Museum's denunciation of its own long-revered ancient Bronze Greek horse as a fake and a forgery, two world-renowned art experts declared it was genuine. They cited technical reasons to back their opinions, just as the Metropolitan's expert had done in denouncing the statue.

In England, the dean of British sculptors, Henry Moore, was feted with an unprecedented round of tributes on his 70th birthday, July 38. There were testimonial dinners, full-page articles in newspapers (including Britain's biggest-circulation tabloid), and exhibits of his works. An American collector donated \$30,000 to the famed Tate Gallery in Moore's honor.

For new PRESIDENT and VICE PRESIDENT see Index under ELECTION RETURNS and ELECTIONS (1968)

UNITED STATES GOVERNMENT

THE JOHNSON ADMINISTRATION

As of October 1, 1968

Terms of office of the President and Vice President, from January 20, 1965 to January 20, 1969. No person may be elected President of the United States for more than two four-year terms.

PRESIDENT—Lyndon B. Johnson of Texas. Receives salary of \$100,000 a year, taxable, and in addition an expense allowance, also taxable, of \$50,000 to assist in defraying expenses resulting from his official duties. Also there may be expended not exceeding \$40,000, nontaxable, a year for travel expenses and official entertainment. Congress in 1958 provided lifetime pensions of \$25,000 a year, free mailing privileges, free office space, and up to \$65,000 a year for office help for ex-Presidents and \$10,000 annually for their widows.

VICE PRESIDENT—Hubert H. Humphrey of Minnesota. Salary \$43,000 a year and \$10,000 for expenses, all of which is taxable.

Order of succession to Presidency See P. 195.

The Cabinet

(Salaries \$35,000 each)

Secretary of State—Dean Rusk, of New York.
Secretary of Treasury—Henry H. Fowler, Va.
Secretary of Defense—Clark M. Clifford, Md.
Attorney General—Ramsey Clark, Tex.
Postmaster General—W. Marvin Watson, Tex.
Secretary of the Interior—Stewart L. Udall, of Arizona.
Secretary of Agriculture—Orville L. Freeman, of Minnesota.
Secretary of Commerce—C. R. Smith, New York.
Secretary of Labor—William Willard Wirtz, Ill.
Secretary of Health, Education and Welfare—Wilbur J. Cohen, Michigan.
Secretary of Housing and Urban Development—Robert C. Weaver, New York.
Secretary of Transportation—Alan S. Boyd, Fla.

The White House Staff

Special Assistants to the President—Joseph A. Califano, Jr., S. Douglass Cater, Jr., George E. Christian, E. Ernest Goldstein, Donald F. Hornig, Walt Whitman Rostow, James R. Jones.
Special Assistant to the President for Consumer Affairs—Betty Furness.
Special Consultant to the President—Gen. Maxwell D. Taylor, USA, Retired.
Special Consultant to the President—George E. Reedy.
Special Counsel to the President—Harry C. McPherson, Jr., Larry E. Temple.
Counselor to the President—Charles S. Murphy.
Deputy Special Counsel to the President—Lawrence E. Levinson.
Associate Special Counsel to the President—W. DeVier Pierson.
Deputy Press Secretary to the President—Wyatt T. Johnson, Jr.
Administrative Assistant to the President—Mike N. Manatos.
Physician to the President—Vice Adm. George G. Burkley (MC), USN.
Armed Forces Aide to the President—Col. Haywood R. Smith, USMC.
Personal Secretary to the President—Mrs. Juanita Duggan Roberts.
Press Secretary and Staff Director for the First Lady—Mrs. Elizabeth S. Carpenter.
Social Secretary—Mrs. Bess Abell.

EXECUTIVE AGENCIES

National Security Council—Members are the President, the Vice President, the Secretary of State, the Secretary of Defense, the Director of the Office of Emergency Planning, Walt Whitman Rostow, special assistant to the President, and Bromley Smith, exec. secy.
Bureau of the Budget—Charles J. Zwick, dir.
Council of Econ. Advisers—Arthur M. Okun, chmn.
Central Intelligence Agency—Richard Helms, dir.
Nat'l. Aeronautics & Space Council—Edward C. Welsh, exec. secy.
Of. of Economic Opportunity—Bertram M. Harding, act. dir.
Office of Science & Tech.—Donald F. Hornig, dir.
Office of Emergency Planning—Price Daniel, dir.
Special Representative for Trade Negotiations—William M. Roth.
Marine Resources and Engineering Devel.—Edward Wenk Jr., exec. secy.

Department of State

Secretary of State—Dean Rusk.
Under Secretary—Nicholas deB. Katzenbach.
Under Sec. for Political Affairs—Eugene V. Rostow.
Deputy Under Secretaries—Charles E. Bohlen (for political affairs), Idar Rimestad (for administration).
Ambassadors at Large—W. Averell Harriman, George C. McGhee.
Chmn. of Policy Planning Council—Henry D. Owen.
Assistant Secretaries for:
African Affairs—Joseph Palmer, II.
Congressional Relations—W. B. Macomber, Jr.
Economic Affairs—Anthony M. Solomon.
European Affairs—John M. Ledy.
East Asian & Pacific Affairs—William P. Bundy.
Internat'l. Organiz. Affairs—Joseph J. Sisco.
Inter-American Affairs—Covey T. Oliver.
Near-Eastern & So. Asian Affairs—L. D. Battle.
Public Affairs—Dixon Donnelley.
Bureau of Security & Consular Affairs—Barbara M. Watson (admin.).
Inspector Gen., For. Assistance—J. K. Mansfield.
Chief of Protocol—Tyler Abell.
Dir. General, Foreign Service—John M. Steeves.
Director of Intelligence & Research—Thomas L. Hughes.
Director of Internat'l. Scientific and Technological Affairs—Herman Pollack.
Insp. Gen., Foreign Service—Fraser Wilkins.
Foreign Service Inst.—George V. Allen.
Agency for Internat'l. Development—William S. Gaud, administrator.
Advisory Committee on Foreign Aid—Charles P. Taft, chmn.
Peace Corps—Jack H. Vaughn, dir.
U. S. Rep. to the UN and Rep. in the Security Council—James Russell Wiggins, ambassador.

Treasury Department

Secretary of the Treasury—Henry H. Fowler.
Under Sec. of the Treasury—Joseph W. Barr.
Under Sec. for Monetary Affairs—Frederick L. Deming.
Assistant Secretaries—Joseph M. Bowman, Jr., John R. Petty, Stanley S. Surrey, Robert A. Wallace.
Deputy Under Sec. for Monetary Affairs—Frank W. Schiff.
Fiscal Assistant Secretary—John K. Carlock.
Asst. Sec. for Adm.—Artemus E. Weatherbee.
Assistants to the Sec.—Raymond J. Albright, R. Duane Saunders, John P. Kane.
Office of Budget and Finance—E. C. Betts, Jr., dir.
Bureaus of:
Accounts—Sidney S. Sokol, commissioner.
Customs—Lester D. Johnson, commissioner.
Engraving & Printing—James A. Conlon, dir.
Mint—Eva B. Adams, dir.
Public Debt—Donald M. Merritt, commissioner.
Internal Revenue Service—Sheldon S. Cohen, commissioner.
Comptroller of the Currency—William B. Camp.
Treasurer of the U. S.—Vacant.
U. S. Savings Bonds—Glen R. Johnson, dir.
U. S. Secret Service—James J. Rowley, dir.

Department of Defense

Secretary of Defense—Clark M. Clifford.
Deputy Sec. of Defense—Paul H. Nitze.
Armed Forces Policy Council—Sec. of Defense Clark M. Clifford, chmn.
Dir. of Def. Research & Eng.—John S. Foster Jr.
Assistant Secretaries of Defense:
Administration—Solis Horwitz.
Comptroller—Robert C. Moot.
Installations & Logistics—Thomas D. Morris.
Int'l. Security Affairs—Paul C. Warneke.
Manpower and Reserve Affairs—Alfred B. Pitt.
Public Affairs—Phil G. Goulding.
Systems Analysis—Alain C. Enthoven.
Joint Chiefs of Staff:
Chairman—Gen. Earle G. Wheeler, USA.
Chief of Staff, Army—Gen. William C. Westmoreland, USA.
Chief of Naval Operations—Adm. Thomas H. Moorer, USN.
Chief of Staff, Air Force—Gen. John P. McConnell, USAF.

Commandant of the Marine Corps—Gen. Leonard F. Chapman Jr., USMC.
 Joint Staff—V. Adm. Nels E. Johnson, USN, dir.
 Spec. Asst. to Joint Chiefs of Staff for Arms Control—Maj. Gen. E. F. Evans, USA.
 Joint Command & Control Requirements Group—R. Adm. L. H. Sell, USN, chief.
 Defense Atomic Support Agency—V. Adm. Lloyd M. Mustin, USN, dir.
 Defense Communications Agency—Lt. Gen. Richard P. Klocko, USAF, dir.
 Defense Contract Audit Agency—W. B. Petty, dir.
 Defense Intelligence Agency—Lt. Gen. Joseph F. Carroll, USAF, dir.
 Defense Supply Agency—Lt. Gen. Earl C. Hedlund, USAF, dir.

U. S. UNIFIED AND SPECIFIED COMMANDS

Alaskan Command—Lt. Gen. Robert A. Breitweiser, USAF.
 Atlantic Command—Adm. E. P. Holmes, USN.
 Continental Air Defense Command—Lt. Gen. Raymond J. Reeves, USAF.
 European Command—Gen. Lyman L. Lemnitzer, USA.
 Pacific Command—Adm. John S. McCain Jr., USN.
 Southern Command—Gen. R. W. Porter, Jr., USA.
 Strat. Air Command—Gen. Bruce K. Holloway, USAF.
 Strike Command—Gen. T. J. Conway, USA.

INTERNATIONAL COMMANDS

Under North Atlantic Treaty Organization
 Supr. Allied Commander, Europe (SACEUR)—Gen. Lyman L. Lemnitzer, USA.
 Deputy SACEUR—Sir Robert Bray (Britain).
 Air Deputy to SACEUR—Gen. William B. Stone, USAF.
 C-in-C, Allied Forces, Northern Europe—Gen. Sir Kenneth Darling (Britain).
 C-in-C Allied Force, Central Europe—Gen. J. Bennecke (Germany).
 C-in-C, Allied Forces, Southern Europe—Adm. H. Rivero Jr., USN.
 C-in-C, Allied Forces, Mediterranean—Adm. L. Sotgiu (Italy).
 Supr. Allied Comdr., Atlantic (SACLANT)—Adm. Ephraim P. Holmes, USN.
 Deputy SACLANT—V. Adm. Peter M. Compston (Britain).
 Comdr. Striking Fleet Atlantic—V. Adm. Benedict J. Semmes Jr., USN.
 Allied Comdr. in Chief, Channel—Adm. Sir John Bush (Britain).

DEPARTMENT OF THE ARMY

Secretary of the Army—Stanley R. Resor.
 Under Secretary—David E. McGiffert.
 Assistant Secretaries for:
 Financial Management—Eugene M. Becker.
 Installations & Logistics—Robert A. Brooks.
 Research & Development—Russell D. O'Neal.
 Manpower & Reserve Affairs—W. K. Brehm.
 Chief of Public Information—Maj. Gen. Wendell J. Coats.
 Civil Defense—Joseph Romm, dir.
 Chief of Staff—Gen. William C. Westmoreland.
 Surgeon General—Lt. Gen. Leonard D. Heaton.
 Adjutant General—Maj. Gen. K. G. Wickham.
 Chief of Engineers—Lt. Gen. William F. Cassidy.
 U. S. Women's Army Corps—Col. Elizabeth P. Eisington.
 Natl. Guard Bureau—Maj. Gen. Winston P. Wilson.
 Chief, Army Reserve—Maj. Gen. William J. Sutton.
 U. S. Army Materiel Command—Gen. Frank S. Besson, Jr.
 U. S. Army Combat Developments Command—Lt. Gen. Harry W. O. Kinnard.
 U. S. Continental Army Command—Gen. James K. Woolnough.
 Commanding Generals, U. S. Armies:
 1st, Fort Meade, Md.—Lt. Gen. J. O. Seaman.
 3rd, Ft. McPherson, Ga.—Lt. Gen. John L. Throckmorton.
 4th, Ft. Sam Houston, Tex.—Lt. Gen. Harry H. Critz.
 5th, Chicago, Ill.—Lt. Gen. John H. Michaelis.
 6th, Presidio of San Francisco, Calif.—Lt. Gen. Stanley R. Larsen.
 Military Dist. of Washington—Maj. Gen. Charles S. O'Malley, Jr.

DEPARTMENT OF THE NAVY

Secretary of the Navy—Paul E. Ignatius.
 Under Secretary—Charles F. Baird.
 Assistant Secretaries for:
 Financial Management—Charles A. Bowsher.
 Installations & Logistics—Barry J. Shillito.
 Manpower & Reserve Affairs—R. S. Driver.
 Research & Development—Robert A. Froesch.
 Judge Advocate Gen.—R. Adm. J. B. McDewitt.
 Chief of Naval Operations—Adm. Thomas H. Moorer.
 Chief Naval Material Command—Adm. I. J. Galantin.

Bureau Chiefs:

Medicine & Surgery—V. Adm., Robert B. Brown.
 Naval Personnel—V. Adm. C. K. Duncan.
 Military Sea Transport Serv.—V. Adm. Lawson P. Ramage, Comdr.

U. S. Marine Corps:

Commandant—Gen. Leonard F. Chapman Jr.
 Asst. Commandant—Lt. Gen. Lewis W. Walt Jr.
 Quartermaster Gen.—Maj. Gen. Paul R. Tyler.
 Dir. of Women Marines—Col. B. J. Bishop.

Commandants, Naval Districts:

1st, Boston, Mass.—R. Adm. R. S. Benson.
 3rd, New York, N. Y.—R. Adm. F. D. Foley.
 4th, Philadelphia, Pa.—R. Adm. Robt. H. Speck.
 5th, Norfolk, Va.—R. Adm. J. C. Dempsey.
 6th, Charleston, S. C.—R. Adm. H. J. Kossler.
 8th, New Orleans, La.—R. Adm. R. A. MacPherson.
 9th, Great Lakes, Ill.—R. Adm. H. A. Renken.
 10th, New York, N. Y.—R. Adm. A. R. Matter.
 11th, San Diego, Calif.—R. Adm. M. E. Dornin.
 12th, San Francisco, Calif.—R. Adm. L. B. McCuddin.
 13th, Seattle, Wash.—R. Adm. F. L. Johnson.
 14th, San Francisco, Calif.—R. Adm. F. E. Bakutis.
 15th, New York, N. Y.—R. Adm. E. P. Koch.
 17th, Seattle, Wash.—R. Adm. D. M. White.
 Naval District, Washington, D. C.—R. Adm. D. G. Irvine.

DEPARTMENT OF THE AIR FORCE

Secretary of the Air Force—Dr. Harold Brown.
 Under Secretary—Townsend W. Hoopes.
 Assistant Secretaries for:
 Financial Management—Thomas H. Nielsen.
 Research & Development—Alexander H. Flax.
 Installations & Logistics—Robert H. Charles.
 Dir. of Info.—Maj. Gen. William C. Garland.
 Dir. of Systems—Brig. Gen. W. R. Hedrick.
 Chief of Staff—Gen. John P. McConnell.
 Vice Chief of Staff—Gen. B. K. Holloway.
 Secretary of the Air Staff—Col. James H. Watkins.
 Scientific Advisory Board—Dr. H. G. Stever.
 Surgeon General—Lt. Gen. Kenneth E. Pletcher.
 Inspector General—Lt. Gen. Joseph H. Moore.
 Judge Advocate—Maj. Gen. Robert W. Manss.
 Major Air Commands:

U. S. Air Force Academy—Lt. Gen. Thomas S. Moorman.
 Air Force Accounting and Finance—Col. James C. Gross.
 Off. of Aero. Research—Brig. Gen. L. Kiley.
 Air National Guard—Maj. Gen. Winston P. Wilson.
 Air Defense, Ent. AFB, Colo.—Lt. Gen. Arthur C. Agan.
 Air Force Logistics, Wright-Patterson AFB, Ohio—Gen. Jack G. Merrell.
 Air Force Systems, Andrews AFB, Md.—Gen. James Ferguson.
 Air Training, Randolph AFB, Tex.—Lt. Gen. Sam Maddux, Jr.
 Air University, Maxwell AFB, Ala.—Lt. Gen. John W. Carpenter III.
 Continental Air Command, Robins AFB, Ga.—Lt. Gen. Henry Viccellio.
 Headquarters Command, Bolling AFB, D. C.—Maj. Gen. Milton B. Adams.
 Military Airlift, Scott AFB, Ill.—Gen. Howell M. Estes, Jr.
 Strategic Air, Offutt AFB, Neb.—Gen. Joseph J. Nazzaro.
 Tactical Air, Langley AFB, Va.—Gen. Gabriel P. Discoway.
 Alaskan Air, Elmendorf AFB, Alaska—Maj. Gen. Thomas E. Moore.
 U.S.A.F. Southern Command, Altbrooke AFB, Balboa, Canal Zone—Maj. Gen. R. J. Clizbe.
 Pacific Air Forces, Hickam AFB, Hawaii—Gen. John D. Ryan.
 U. S. Air Forces in Europe, Wiesbaden, Germany—Gen. Maurice A. Preston.
 U. S. Air Force Security Service, San Antonio, Tex.—Maj. Gen. Louis E. Coira.
 Air Force Communications Service, Scott AFB, Ill.—Maj. Gen. Robert W. Paulson.

Department of Justice

Attorney General—Ramsey Clark.
 Solicitor General—Erwin N. Griswold.
 Assistant Attorneys General:
 Administrative—Leo M. Pellerzi.
 Antitrust Div.—Edwin M. Zimmerman.
 Civil Div.—Edwin L. Weisl, Jr.
 Civil Rights Div.—Stephen J. Pollak.
 Criminal Div.—Fred M. Vinson, Jr.
 Internal Security Div.—J. Walter Yeagley.
 Lands Div.—Clyde O. Mertz.
 Legal Counsel—Frank Wozencraft.
 Tax Div.—Mitchell Rogovin.
 Fed. Bureau of Investigation—J. Edgar Hoover, dir.
 Bureau of Prisons—Myrl Alexander.
 Federal Prison Industries, Inc.—Myrl E. Alexander, assoc. commissioner.

Board of Parole—Walter Dunbar, chmn.
 Immigration and Naturalization Service—Raymond
 F. Farrell, commissioner.
 Board of Immigration Appeals—Maurice A.
 Roberts, chmn.
 Pardon Attorney—T. Oscar Smith.

Post Office Department

Postmaster General—W. Marvin Watson.
 Deputy Postmaster General—Frederick C. Belen.
 Exec. Asst. to Postmaster Gen.—Lloyd H. Taylor,
 Jr., Doug R. Nobles.
 Spec. Asst. to the Postmaster Gen. (Public Info.)—
 Bill McSweeney.
 Assistant Postmasters General:
 Bureau of Facilities—John L. O'Marra.
 Bureau of Finance—Ralph W. Nicholson.
 Bureau of Operations—William M. McMillan.
 Bureau of Personnel—Richard J. Murphy.
 Bureau of Transportation—Frederick E. Batrus.
 Bureau of Research & Engineering—Leo S.
 Packer.
 General Counsel—Timothy J. May.
 Chief Postal Inspector—H. E. Montague.

Department of the Interior

Secretary of the Interior—Stewart L. Udall.
 Under Secretary—David S. Black.
 Assistant Secretaries for:
 Fish & Wildlife—*vacant*.
 Mineral Resources—J. Cordell Moore.
 Public Land Management—Harry R. Anderson.
 Water & Power—Kenneth Holm.
 Water Pollution Control—Max N. Edwards.
 Administration—Robert C. McConnell.
 Bureau of Indian Affairs—Robert L. Bennett.
 Bur. of Land Management—B. L. Rassmussen, dir.
 Bur. of Mines—*vacant*.
 Bur. of Outdoor Recreation—Edward C. Crafts, dir.
 Bur. of Reclamation—Floyd E. Dominy, comm.
 Fish & Wildlife Service—Clarence F. Pautzke.
 Bur. of Commercial Fisheries—Harold E. Crowther
 (act.), dir.
 Bur. of Sport Fisheries & Wildlife—
 John S. Gottschalk, dir.
 Geological Survey—William T. Pecora, dir.
 National Park Service—George B. Hartzog, Jr., dir.
 Office of Coal Research—George Fumich, Jr., dir.
 Office of Information—Charles K. Boatner, dir.
 Office of Minerals & Solid Fuels—William E. S.
 Flory, dir.
 Office of Oil & Gas—Onnie P. Lattu.
 Office of Saline Water—Jack A. Hunter, dir.
 Office of Solicitor—Edward Weinberg.
 Office of Territories—Ruth G. VanCleve, dir.
 Office of Water Resources Research—Roland R.
 Renne, dir.
 Oil Import Administration—Elmer L. Hoehn.
 Water Pollution Control Admn.—J. G. Moore Jr.

Department of Agriculture

Secretary of Agriculture—Orville L. Freeman.
 Under Secretary—John A. Schnitzler.
 Agric. Economics—Walter W. Wilcox, dir.
 Assistant Secretaries—John A. Baker, Dorothy H.
 Jacobson, Joseph M. Robertson.
 Consumer & Mktg. Service—R. E. Leonard, admin.
 Agric. Research Service—G. W. Irving, Jr., admin.
 Agric. Stabilization & Conserv. Service—Horace
 D. Godfrey, admin.
 Commodity Credit Corp.—John A. Schnitzler, pres.
 Commodity Exch. Auth.—Alex C. Caldwell, admin.
 Cooperative State Research Service—T. C. Byerly,
 admin.
 Econ. Research Service—Melvin L. Upchurch.
 Farmer Coop. Service—David W. Angevine, admin.
 Farmers Home Admin.—Howard Bertsch, admin.
 Fed. Crop Insurance Corp.—John N. Luit, mgr.
 Fed. Extension Service—Lloyd Davis, admin.
 Foreign Agric. Service—Raymond A. Ioanes, admin.
 Forest Service—Edward P. Cliff, chief.
 Rural Community Development Service—R. D.
 Matthews, act. admin.
 Rural Electric. Admin.—Norman Clapp, admin.
 Soil Conservation Service—D. A. Williams, admin.
 Statistical Reporting Service—Harry C. Trelogan.
 Office of Information—Harold R. Lewis, dir.
 International Agric. Development Service—Lester
 R. Brown, admin.

Department of Commerce

Secretary of Commerce—C. R. Smith.
 Under Secy. of Commerce—Joseph W. Bartlett.
 Asst. Secretaries—John P. Kincaid, Lawrence C.
 McQuade, David R. Baldwin, William H. Char-
 terner, Ross D. Davis.
 General Counsel—Frederick Simplich.
 Bureau of the Census—A. Ross Eckler, dir.
 Bureau of Internal Commerce—L. A. Fox, dir.
 Business & Defense Services Admin.—Rodney L.
 Borum, admin.
 Environmental Science Services Admin.—Robert
 M. White, admin.
 Econ. Develop. Admin.—Ross D. Davis, asst. sec.

Maritime Administrator—James W. Gulick (act.).
 Natl. Bureau of Standards—A. V. Astin, dir.
 Office of Administration, Domestic and Interna-
 tional Business—Richard M. Gottfried, dir.
 Office of Business Econ.—George Jaszi, dir.
 Office of Field Services—Charles F. Boehm, dir.
 Office of Foreign Commercial Services—Donald S.
 Gilpatrick, dir.
 U. S. Patent Office—Edward J. Brenner.
 U. S. Travel Service—William G. Arey, act. dir.
 Office of Publications and Information, Domestic
 and International Business—Dean Smith, dir.
 Economic Development—Ross D. Davis, asst. sec.
 Office of State Technical Services—Philip K. Reilly.

Department of Labor

Secretary of Labor—Willard Wirtz.
 Under Secretary—James J. Reynolds.
 Assistant Secretary for Manpower—Stanley H.
 Rutledge.
 Bur. of Employment Security—Robert C.
 Goodwin, adm.
 Bur. of Apprenticeship & Training—Hugh C.
 Murphy, adm.
 Bureau of Work-Training Programs—Mark Bat-
 tle, admin.
 Bureau of Work Programs—Mark Battle, admin.
 Asst. Secy. for Labor-Management Relations—
 Thomas R. Donahue.
 Office of Labor-Management and Welfare-
 Pension Reports—Frank M. Kleiler, dir.
 Office of Veterans' Reemployment Rights—
 Hugh W. Bradley, dir.
 Office of Labor-Management Relations
 Services—Beatrice M. Burgoon, dir.
 Wage and Hour and Public Contracts Div.—
 Clarence T. Lundquist, adm.
 Asst. Secy. for Intl. Affairs—George L-P Weaver
 Bureau of Intl. Labor Affairs—H. N. Blackman.
 Asst. Secy. for Wage and Labor Standards—Esther
 Peterson.
 Women's Bur.—Marv Dublin Keyserling, dir.
 Bur. of Labor Standards—David M. Swankin.
 Bur. of Employees' Compensation—Thomas A.
 Tinsley, dir.
 Employees' Compensation Appeals Board—
 Theodore M. Schwartz, chmn.
 Office of Federal Contract Compliance—Ward Mc-
 Creedy, act. dir.
 Office of Policy Planning and Research—Phillip
 Arnow, dir.
 Office of Legislative Liaison—H. Floyd Sherrod.
 Solicitor of Labor—Charles Donahue.
 Bur. of Labor Statistics—Ben Burdetsky, Comm.
 Asst. Secy. for Administration—Leo R. Werts.
 Office of Information, Publications & Reports—
 John W. Leslie, dir.

Department of Health, Education, and Welfare

Secretary of Health, Education, and Welfare—
 Wilbur J. Cohen.
 Under Secretary—James H. McCrocklin.
 Assistant Secretaries—Ralph K. Hutt, Dr. Philip
 R. Lee, Lynn M. Bartlett, Alice M. Rivlin, Ed-
 ward C. Sylvester Jr., D. F. Simpson, J. F. Kelly.
 General Counsel—Alanson W. Wilcox.
 Surgeon General, Public Health Service—William
 H. Stewart, M.D.
 Consumer Protection & Environmental Health
 Service—Charles C. Johnson Jr.
 Social and Rehabilitation Service—Mary E. Switzer.
 Commissioners of:
 Education—Harold Howe, II.
 Social Security—Robert M. Ball.
 Health Services & Mental Health Admin.—
vacant.
 Natl. Institute of Health—R. Q. Marston, M. D.,
 dir.

Department of Housing and Urban Development

Secretary of Housing & Urban Development—
 Robert C. Weaver.
 Under Secretary—Robert C. Wood.
 Assistant Secretaries:
 Administration—Dwight A. Ink.
 Renewal and Housing Assistance—Don Hummel.
 Metropolitan Development—Charles M. Haar.
 Demonstrations and Intergovernmental Relations
 —N. Ralph Taylor.
 Mortgage Credit and Federal Housing
 Commissioner—Philip N. Brownstein.
 President Federal National Mortgage Assn.—
 Raymond H. Lavin.
 Division of Public Affairs—Gerald Huard, dir.
 Office of Equal Opportunity—Walter B. Lewis, dir.
 Division of International Affairs—James A. Moore.
 Inspection Division—William H. T. Smith, dir.

Department of Transportation

Secretary—Alan S. Boyd.
 Under Secretary—John Robson.
 Nat'l Trans. Safety Board—Joseph O'Connell, Jr.
 U. S. Coast Guard—Adm. Willard J. Smith.

JUDICIARY OF THE UNITED STATES

AS OF SEPTEMBER 1968

Source: Administrative Office of the United States Courts, Washington, D. C.

SUPREME COURT

For roster of Supreme Court, past and present, see page 169.

Clerk—John F. Davis, Marshal—T. Perry Lippitt, Reporter of Decisions—Henry Putzel, Jr. Librarian—H. Charles Hallam, Jr. Press Information—Banning E. Whittington—Washington, D. C.

UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS

Chief Judge—Eugene Worley, Tex.

Associate Judges—Giles S. Rich, N. Y.; Arthur M. Smith, Mich.; J. Lindsay Almond, Jr., Va.; Phillip B. Baldwin, (\$33,000 each.)

Clerk—George E. Hutchinson. Address of Court—717 Madison Pl., N.W., Washington, D. C. 20439.

UNITED STATES CUSTOMS COURT

Judges—Paul P. Rao, N. Y.
Judges—Webster J. Oliver, W. J. Morgan Ford, N. D.; Scovel Richardson, Mo.; Edward D. Be; Frederick Landis; James L. Watson; Herbert N. Maletz; Bernard Newman; Samuel M. Rosenstein. (\$30,000 each.)

Clerk—Howard Basler. Address of Court—One Federal Pl., New York, N. Y. 10007.

UNITED STATES COURT OF CLAIMS

Chief Judge—Wilson Cowen, Associate Judges—Don N. Laramore, Ind.; James R. Durfee, Wis.; Oscar H. Davis, N. Y.; Linton M. Collins, Ga. B. G. Skelton; Philip Nichols, Jr. (\$33,000 each.)

Clerk—Frank T. Peartree. Address of Court—717 Madison Pl., N.W., Washington, D. C. 20005.

TAX COURT OF THE UNITED STATES

Chief Judge—William M. Brennan, W. Va.
Judges—Norman C. Tietjens, Ohio; Arnold Raum, Mass.; Graydon G. Wither, Mich.; Craig S. Atkins, Md.; Bruce M. Forrester, Mo.; Irene F. Scott, Ala.; William M. Fay, Pa.; Howard A. Dawson, Jr., Ark.; Austin Hoyt, Colo.; Theodore Tannenwald, Jr., N. Y.; Charles R. Simpson, Ill.; C. Moxley Featherston, Va.; Leo H. Erwin, N. C. (two vacancies). (\$30,000 each.)

Retired Judges Recalled For Duty—J. Gregory Bruce, Ky.; Marion J. Harron, Calif.; John W. Murkin, Ind.; John E. Mulrooney, Iowa; J. Edgar McDook, Jr., E. B. Turner, Ark.—(\$30,000 each.)

Administrative Officer—Otto W. Schoenfelder. Clerk—Randolph F. Caldwell, Jr. Address of Court—1111 Constitution Ave., N.W., Wash. D. C.

U. S. COURTS OF APPEALS

Where no address other than city and state is given, office is in the U. S. Courthouse. Salaries, \$33,000 each.

District of Columbia Circuit—David L. Bazelon, Chief Judge; John A. Danaher, Warren E. Burger, J. Skelly Wright, Carl McGowan, Edward Allen Tamm, Harold Leventhal, Spottswood W. Robinson, III. Clerk—N. J. Paulson, all Wash., D. C. 20001.

First Circuit (Maine, Massachusetts, New Hampshire, Rhode Island, Puerto Rico)—Bailey Atchison, Chief Judge, Boston, Mass.; Edward M. McEntee, Providence, R. I.; Frank M. Coffin, 156 Federal St., Portland, Me. Clerk—Roger A. Stinchfield, Boston, Mass. 02109.

Second Circuit (Connecticut, New York, Vermont) (Room 2401, U. S. Courthouse, Foley Square, New York, N. Y. 10007., unless otherwise indicated.)—J. Edward Lumbard, Chief Judge; Sterry R. Waterman, St. Johnsburg, Vt.; Leonard P. Moore, Henry J. Friendly, J. Joseph Smith, Hartford, Conn. Irving R. Kaufman, Paul R. Hays, Robert P. Anderson, Hartford, Conn.; Wilfred Feinberg, Clerk—A. Daniel Fusaro, New York, N. Y. 10007.

Third Circuit (Delaware, New Jersey, Pennsylvania, Virgin Islands)—William Henry Hastie, Chief Judge, Philadelphia, Pa.; Harry E. Kalodner, Philadelphia, Pa.; Gerald McLaughlin, Newark, N. J.; Ruggero J. Aldisert, Pittsburgh, Pa.; Abraham L. Freedman, Philadelphia, Pa.; Collins J. Seltz, Wilmington, Del.; Francis L. Van Dusen, Philadelphia, Pa. Clerk—Thomas F. Quinn, Phila., Pa. 19107.

Fourth Circuit (Maryland, North Carolina, South Carolina, Virginia, West Virginia)—Clement F. Haynsworth, Jr., Chief Judge, Greenville, S. C.; Simon E. Sobeloff, Baltimore, Md.; Herbert S. Boreman, Parkersburg, W. Va.; Albert V. Bryan, Alexandria, Va.; John D. Butzner, Jr., Richmond, Va.; Harrison L. Winter, Baltimore, Md.; J. Braxton Craven, Jr., Shelby, N. C. Clerk—Samuel W. Phillips, Richmond, Va. 23219.

Fifth Circuit (Alabama, Florida, Georgia, Louisiana, Mississippi, Texas, Central Zone)—Elbert Parr Tuttle, Atlanta, Ga.; John R. Brown, Chief Judge, Houston, Tex.; John Minor Wisdom, New Orleans, La.; Walter Pettus Gwin, Tuscaloosa, Ala.; Griffin B. Bell, Atlanta, Ga.; Homer Thornberry, Austin, Tex.; James P. Coleman, Ackerman, Miss.; John Godbold, Montgomery, Ala.; Robert A. Alnsworth, Jr., New Orleans, La.; Irving L. Goldberg, Dallas, Tex.; David W. Dyer, Miami, Fla.; Bryan

Simpson, Jacksonville, Fla.; Claude F. Clayton, Aberdeen, Miss.; Lewis R. Morgan, Newnan, Ga. Clerk—Edward W. Wadsworth, 400 Royal St., New Orleans, La. 70130.

Sixth Circuit (Kentucky, Michigan, Ohio, Tennessee)—Paul C. Weick, Chief Judge, Akron, Ohio; Clifford O' Sullivan, Port Huron, Mich.; Harry Phillips, Nashville, Tenn.; George Clifton Edwards, Jr., Detroit, Mich.; Anthony J. Celebrezze, Cleveland, Ohio; John W. Peck, Cincinnati, Ohio; Wade Hampton McCree, Jr., Detroit, Mich.; Bert T. Combs, Louisville, Ky. Clerk—Carl W. Reuss, Cinn., Ohio 45202.

Seventh Circuit (Illinois, Indiana, Wisconsin)—Latham Castle, Chief Judge; John S. Hastings, Roger Kiley, Luther M. Swygert, Walter J. Cummings, Jr., Otto Kerner (all Chicago, Ill.); Thomas E. Fairchild, Milwaukee, Wis. Clerk—Kenneth J. Carrick, 219 S. Dearborn St., Chicago, Ill. 60604.

Eighth Circuit (Arkansas, Iowa, Minnesota, Missouri, Nebraska, North Dakota, South Dakota)—Martin D. Van Oosterhout, Chief Judge, Sioux City, Ia.; M. Matthes, St. Louis, Mo.; Harry Blackmun, Winona, Minn.; Pat Mehrtz, Little Rock, Ark.; Floyd R. Gibson, Kansas City, Mo.; Donald P. Lay, Omaha, Neb.; Gerald W. Heaney, Duluth, Minn.; Myron H. Bright, Fargo, N. D. Clerk—R. C. Tucker, St. Louis, Mo. 63101.

Ninth Circuit (Arizona, California, Idaho, Montana, Nevada, Oregon, Washington, Alaska, Hawaii, Guam)—Richard H. Chambers, Chief Judge, Tucson, Ariz.; Stanley N. Barnes, Los Angeles, Calif.; Frederick G. Hamley, San Francisco, Calif.; Charles M. Merrill, M. Oliver Koelsch, both San Francisco, Calif.; James R. Browning, Great Falls, Mont.; Ben C. Duniway, San Francisco, Calif.; Walter Ely, Los Angeles, Calif.; James C. Carter, San Diego, Calif. Clerk—William B. Luck, P. O. Box 547, San Francisco, Calif. 94101.

Tenth Circuit (Colorado, Kansas, New Mexico, Oklahoma, Utah, Wyoming)—Alfred P. Murrah, Chief Judge, P. O. Box 1554, Oklahoma City, Okla.; David T. Lewis, Salt Lake City, Utah; Jean S. Breitenstein, Denver, Colo.; Delmas C. Hill, Wichita, Kan.; Oliver Seth, Santa Fe, N. M.; John J. Cheyenne, Wyo. Clerk—William L. Whitaker, Denver, Colo. 80202.

UNITED STATES DISTRICT JUDGES

Districts in parentheses. Salaries, \$30,000 each.

Alabama—(Northern) Seymour H. Lynne, Chief Judge; Harlan Hobart Grooms, Clarence W. Allgood, Clerk—William E. Davis, all Birmingham 35202. (Middle) Frank M. Johnson, Jr., Chief Judge, Montgomery; Virgil Pittman, Mobile. Clerk—Robert C. Dobson, Montgomery 36101. (Southern) Daniel Holcombe Thomas, Chief Judge; Virgil Pittman, both Mobile. Clerk—W. J. O'Connor, Mobile 36602.

Alaska—Raymond Plummer, Chief Judge; James von der Heydt, Clerk—John M. Kroninger, all Anchorage 99501.

Arizona—James A. Walsh, Chief Judge, Tucson; Walter Early Craig, C. A. Muecke, William P. Coppel, all Phoenix. Clerk—William H. Lovelless, Phoenix 85001.

Arkansas—(Eastern) J. Smith Henley, Chief Judge; Gordon E. Young, both Little Rock; Oren Harris, El Dorado. Clerk—Woodrow McClellan, Little Rock 72203. (Western) Oren Harris, Chief Judge, El Dorado; F. Smith Henley, Little Rock; Paul X. Williams, Fort Smith. Clerk—E. A. Riddle, Fort Smith 72902.

California—(Northern) George B. Harris, Chief Judge; Oliver J. Carter, Albert C. Wollenberg, William T. Sweigert, Lloyd H. Burke, Altonso J. Zirpoli, and Stanley A. Weigel, all San Francisco; Robert F. Peckham, San Jose. Clerk—James P. Welsh, San Francisco 94102. (Central) Thurmond Clarke, Chief Judge; Peterson M. Hall, Albert L. Stephens, Jr., Charles H. Carr, Jesse W. Curtis, E. Avery Gray, Francis C. Whelan, Irving Hill, A. Andrew Hawk, Wm. P. Gray, Warren J. Ferguson, Manuel L. Real, Harry Pregerson, Clerk—John A. Childress, all Los Angeles 90012. (Eastern) M. D. Crocker, Fresno; Sherrill Halbert, Thomas J. McBride, Chief Judge, both Sacramento. Clerk—William C. Robb, Sacramento 95814. (Southern) Fred Kunzel, Chief Judge; Edward Schwartz, Clerk—William W. Luddy, all San Diego 92101.

Colorado—Alfred A. Arraj, Chief Judge; Olin Hatfield Chilson, William E. Doyle, Clerk—G. Walter Bowman, all Denver 80201.

Connecticut—William H. Timbers, Chief Judge, Bridgeport; M. Joseph Blumenfeld, T. Emmett Clarke, both Hartford; Robert C. Zampano, New Haven. Clerk—Gilbert C. Earl, New Haven 06505.

Delaware—Caleb M. Wright, Chief Judge; James L. Latchum, Edwin D. Steel, Jr. Clerk—E. G. Polard, all Wilmington 19899.

District of Columbia—Edward M. Curran, Chief Judge (\$30,500). John H. Pratt, June L. Green,

Gerhard Gesell, John J. Sirica, George L. Hart, Jr., Leonard P. Walsh, William B. Jones, Howard P. Corcoran, Oliver Gasch, William B. Bryant, John Lewis Smith, Jr., Aubrey E. Robinson, Jr., Joseph C. Waddy, Clerk—Robert M. Stearns, all Washington, D. C. 20001.

Florida—(Northern) George H. Carswell, Chief Judge, Tallahassee; Winston Arnow, Pensacola. Clerk—Marvin S. Walts, Tallahassee 32302. (Middle) Joseph P. Lieb, Chief Judge, Tampa; William A. McRae, Jr., Jacksonville; George C. Young, Orlando; Ben Krentzman, Tampa; Charles E. Scott, Jacksonville. Clerk—Wesley R. Thals, Jacksonville 32201. (Southern) Charles B. Fulton, Chief Judge; W. O. Mehrtens, C. Clyde Atkins, T. Cabot, Joe Eaton, all Miami. Clerk—J. I. Bogart, Miami 33101.

Georgia—(Northern) Sidney O. Smith, Jr., Chief Judge, Gainesville; Newell Edenfield, Atlanta. Clerk—Claude L. Goza, Atlanta 30301. (Middle) William A. Bootle, Chief Judge, Macon; J. Robert Elliott, Columbus. Clerk—John P. Cowart, Macon 31202. (Southern) Alexander A. Lawrence, Savannah. Clerk—E. F. Edwards, Savannah 31402.

Hawaii—Martin Pence, Chief Judge; C. Nils Tavares, Clerk—Walter Chinn, all Honolulu 96801. **Idaho**—Fred M. Taylor, Chief Judge; Roy Mc Nichols, Clerk—Edward M. Bryna, all Boise 83702.

Illinois—(Northern) William J. Campbell, Chief Judge; J. Sam Perry, Julius J. Hoffman, Edwin A. Robson, Richard B. Austin, James B. Parsons, Hubert L. Will, Bernard M. Decker, Abraham L. Marovitz, William J. Lynch, Alexander J. Napoli. Clerk—Elbert A. Wagner, Jr., all Chicago 60604. (Eastern) William G. Juergens, Chief Judge, Benton; Henry S. Wise, Danville. Clerk—Thomas S. Mefford, E. St. Louis. (Southern) Omer Poos, Chief Judge, Springfield; Robert D. Morgan, Peoria. Clerk—Wm. J. Littell, Peoria 61601.

Indiana—(Northern) Robert A. Grant, Chief Judge, South Bend; George N. Beamer, Hammond; Jesse E. Eschbach, Ellettsburg. Clerk—Francis T. Grandys, Hammond 46325. (Southern) W. E. Steckler, Chief Judge; C. J. Holder, S. H. Dillin, J. E. Noiland, Clerk—R. G. Newbold, Indianapolis 46204.

Iowa—(Northern) Edward J. McManus, Chief Judge, Cedar Rapids; William C. Hanson, Ft. Dodge. Clerk—John J. O'Connor, Cedar Rapids 52401. (Southern) Roy L. Stephenson, Chief Judge, Des Moines; William C. Hanson, Ft. Dodge. Clerk—Ronald E. Longstaff, Des Moines 50309.

Kansas—Arthur J. Stanley, Jr., Chief Judge, Kansas City; Wesley E. Brown, Wichita; G. Tempalar, Topeka; Frank G. Thels, Wichita. Clerk—C. W. Cahill, Wichita 67201.

Kentucky—(Eastern) Mac Swinford, Chief Judge; Benard T. Joyanah, Jr., Clerk—Davis T. McGarvey, all Lexington 40501. (Western) Henry L. Brooks, Chief Judge, Louisville; Mac Swinford, Lexington, James F. Gordon, Louisville. Clerk—August Winkenhof, Jr., Louisville 40202.

Louisiana—(Eastern) E. Gordon West, Chief Judge, Baton Rouge; Herbert Christenberry, New Orleans, Frederick J. R. Heebe, Edward J. Boyle Sr., Lansing L. Mitchell, Fred J. Cassibry, Alvin B. Rubin, James A. Comiskey, Clerk—A. Dallam O'Brien, Jr., all New Orleans 70130. (Western) Benjamin C. Dawkins, Jr., Chief Judge, Shreveport; Edwin F. Hunter, Jr., Lake Charles; Richard J. Putnam, Lafayette. Clerk—Alton L. Curtis, Shreveport 71102.

Maine—Edward T. Gignoux, Clerk—Morris Cox, both Portland 04112.

Maryland—Roszel C. Thomsen, Chief Judge; R. Dorsey Watkins, Edward S. Northrop, Frank A. Kaufman, Alexander Harvey II, Clerk—Wilfred W. Butschky, all Baltimore 21202.

Massachusetts—Charles E. Wyzanski, Jr., Chief Judge; Frank J. Murray, Francis J. W. Ford, Anthony Julian, Andrew A. Caffrey, A. Arthur Garrity Jr., Clerk—R. H. Peck, all Boston 02109.

Michigan—(Eastern) Ralph M. Freeman, Chief Judge; Theodore Levin, Frederick W. Kaess, Thaddeus M. Machrowicz, Talbot Smith, Damon Keith, all Detroit; Stephen J. Roth, Flint. Clerk—Frederick W. Johnson, Detroit 48226. (Western) W. W. Kent, Chief Judge, Kalamazoo; N. P. Fox, Grand Rapids. Clerk—H. T. Ziel, Grand Rapids 49502.

Minnesota—Edward J. Devitt, Chief Judge, St. Paul; Earl R. Larson, Miles W. Lord, both Minneapolis; Philip Neville, St. Paul. Clerk—Frank A. Massey, St. Paul 55101.

Mississippi—(Northern) William C. Keady, Chief Judge; Orma R. Smith, both Aberdeen. Clerk—William T. Robertson, Oxford 38655. (Southern) William H. Cox, Chief Judge, Jackson; Dan M. Russell, Jr., Walter L. Nixon, Jr., both Biloxi. Clerk—R. C. Thomas, P. O. Box 769, Jackson 39205. **Missouri**—(Eastern) Roy W. Harper, Chief Judge; James H. Meredith, John E. Regan, all St. Louis; William R. Collinson, Kansas City. Clerk—Harold G. Pryce, St. Louis 63101. (Western) William H. Becker, Chief Judge; John W. Oliver, William R. Collinson, Elmo B. Hunter, all Kansas City; Roy W. Harger, St. Louis. Clerk—John C.

Truman, Kansas City 64106.

Montana—William J. Jameson, Billings; Russell E. Smith, Chief Judge, Missoula. Clerk—John J. Parker, Butte 59701.

Nebraska—Richard E. Robinson, Chief Judge, Omaha; Robert Van Pelt, Lincoln. Clerk—Richard C. Peck, Omaha 68101.

Nevada—Roger D. Foley, Chief Judge, Las Vegas; Bruce R. Thompson, Reno. Clerk—Bernard Supera, Jr., 300 Booth St., Reno 89502.

New Hampshire—Hugh H. Bownes, Clerk—Mrs. Elizabeth M. Hoyt, both Concord 03302.

New Jersey—Anthony T. Augelli, Chief Judge; Reynier J. Wortendyke, Jr., James A. Coolahan, Robert Shaw, Lawrence Whipple, all Newark; M. H. Cohen, Camden. Clerk—M. Keller, Jr., Trenton 08605.

New Mexico—H. Vearle Payne, Chief Judge; Howard C. Bratton, Clerk—Eugene E. Greeson, all Albuquerque 87103.

New York—(Northern) James T. Foley, Chief Judge, Albany; Edmund Port, Auburn. Clerk—W. Arthur Dwyer, Utica 13503. (Southern) Sidney Sugarman, Chief Judge, Sylvester J. Ryan, John F. X. McGohey, Edward Weinfeld, Thomas F. Murphy, David N. Edelstein, Edmund L. Palmieri, William B. Egan, Frederick van Pelt, Bryan Charles M. Metzner, Lloyd F. MacMahon, Thomas F. Croake, Dudley B. Bonsal, Irving Ben Cooper, Harold R. Tyler, Jr., Edward C. McLean, Inzer B. Wyatt, John M. Cannella, Charles H. Tenney, Marvin E. Frankel, Walter R. Mansfield, Constance Baker Motley, Milton Pollack. Clerk—John J. Olear, Jr., all New York City 10007. (Eastern) Joseph C. Zavatt, Chief Judge; John R. Bartels, Jacob Misher, John F. Dooling, Jr., George Rosling, Jack B. Weinstein, Anthony J. Travia, Orrin G. Judd. Clerk—Lewis Orgel, all Brooklyn 11201. (Western) Harold P. Burke, Rochester; John O. Henderson, Chief Judge; John T. Curtain, both Buffalo. Clerk—R. E. Logel, Buffalo 14202.

North Carolina—(Eastern) Algernon L. Butler, Chief Judge, Clinton; John D. Larkins, Jr., New Bern. Clerk—Samuel A. Howard, Raleigh 27602. (Middle) Edwin M. Stanley, Chief Judge, Greensboro; Eugene A. Gordon, Winston-Salem. Clerk—Herman A. Smith, Greensboro 27402. (Western) Woodrow Wilson Jones, Chief Judge, Shelby; James B. McMillan, Charlotte. Clerk—Thomas E. Rhodes, Asheville 28802.

North Dakota—George S. Register, Chief Judge, Bismarck, Ronald N. Davies, Fargo. Clerk—Miss Florence Williams, Fargo 58103.

Ohio—(Northern) Glard E. Kalbfleisch, Chief Judge; James C. Connell, Ben C. Green, William K. Thomas, Thomas D. Lambros, Frank Battisti, all Cleveland; Don J. Young, Toledo. Clerk—James Green, Cleveland 44144. (Southern) Carl A. Weinman, Chief Judge, Dayton; J. P. Kinneary, Columbus; Timothy S. Hogan, David S. Porter, both Cincinnati. Clerk—J. D. Lyter, Columbus 43216.

Oklahoma—(Eastern) Edwin Langley, Chief Judge, Muskogee; Luther L. Bohanon, Frederick A. Daugherty, both Oklahoma City. Clerk—John B. Fink, Muskogee 74402. (Western) Stephen S. Chandler, Chief Judge; Rose Rizeley, Luther L. Bohanon, Frederick A. Daugherty, Luther B. Eubanks, Clerk—Miss Vera L. Howard, all Oklahoma City 73102. (Northern) Allen E. Barrow, Chief Judge, Tulsa; Luther L. Bohanon, Frederick A. Daugherty, both Oklahoma City. Clerk—Milam M. Ewing, Tulsa 74103.

Oregon—Gus J. Semon, Chief Judge; John P. Kilkenny, Robert C. Beiloni. Clerk—D. D. Sullivan, all Portland 97207.

Pennsylvania—(Eastern) Thomas J. Clary, Chief Judge; John W. Lord, Jr., C. William Kraft, Jr., Harold K. Wood, Joseph S. Lord, 3rd, Alfred L. Luongo, John Morgan Davis, A. Leon Higginbotham, Jr., John P. Fullam, Charles R. Weiner, Thomas A. Masterson, all Philadelphia; E. Mac Troutman, Ralph C. Body, both Easton. Clerk—John J. Harding, Philadelphia 19107. (Middle) Michael H. Sheridan, Chief Judge; William J. Nealon, Jr., Clerk—Thomas H. Campion, all Scranton 18501. (Western) Wallace S. Gourley, Chief Judge; R. Johnson, Marsh. Joseph F. Wilson, John L. Miller, Herbert F. Sorrell, Edward Dumbault, Louis Rosenberg, all Pittsburgh; G. J. Weber, Erie. Clerk—J. Wallace, Pittsburgh 15230.

Rhode Island—Edward William Day, Chief Judge, Raymond J. Pettine. Clerk—N. D. Murphy, all Providence 02901.

South Carolina—J. Robert Martin, Jr., Chief Judge, Greenville; Robert W. Hamphill, Columbia. Charles E. Simons, Jr., Charleston; Donald Russell, Spartanburg. Clerk—Miller C. Foster, Jr., Columbia 29201.

South Dakota—Fred J. Nichol, Chief Judge, Sioux Falls; Axel J. Eck, Aberdeen. Clerk—William J. Srska, Sioux Falls 57101.

Tennessee—(Eastern) Robert L. Taylor, Chief Judge, Knoxville; Frank W. Wilson, Chattanooga; C. G. Nease, Greeneville. Clerk—Carl D. Sappaw, Jr., P. O. Box 2348, Knoxville 37901. (Middle) William E. Miller, Chief Judge; Frank Gray, Jr.,

Clerk—Brandon Lewis, all Nashville 37203. (Western) Bailey Brown, Chief Judge, Robert M. McRae, Jr. Clerk—W. Lloyd Johnson, All Memphis 38103.

Texas—(Northern) Joe Ewing Estes, Chief Judge; Sarah T. Hughes, both Dallas; Leo Brewster, Ft. Worth; William M. Taylor, Jr., Dallas; Halbert Woodward, Lubbock. Clerk—Bailey B. Rankin, P. O. Box 929, Dallas 75221. (Southern) Ben C. Connally, Chief Judge; Allen B. Hannay, Joe M. Ingraham, James L. Noel, Jr., all Houston; Reynaldo G. Garza, Brownsville, Woodrow B. Seals, John V. Singleton, Jr., both Houston. Clerk—V. Bailey Thomas, Houston 77061. (Eastern) Joe J. Fisher, Chief Judge, Beaumont; William W. Justice, Tyler. Clerk—James R. Cooney, Beaumont 77704. (Western) Adrian A. Spears, Chief Judge, San Antonio; Dorwin W. Suttle, Ernest Guinn, both El Paso; Jack Roberts, Austin. Clerk—Daniel Benedict, San Antonio 78206.

Utah—Willis W. Ritter, Chief Judge; A. Sherman Christensen, both Salt Lake City. Clerk—Andrew J. Brennan, Salt Lake City 84101.

Vermont—Ernest W. Gibson, Chief Judge, Brattleboro; Bernard J. Leddy, Burlington. Clerk—Edward J. Trudell, Burlington 05402.

Virginia—(Eastern) Walter E. Hoffman, Chief Judge, Norfolk; Oren R. Lewis, Alexandria; Robert R. Merhige, Jr., Richmond; Richard B. Kellam, John A. MacKenzie, both Norfolk. Clerk—W. Farley Powers, Jr., Norfolk 23510. (Western) Ted Dalton, Chief Judge, Roanoke; T. J. Michie, Charlottesville. Clerk—L. B. Hanes, Jr., Roanoke 24006.

Washington—(Eastern) Charles L. Powell, Chief Judge, Spokane, William N. Goodwin, Yakima.

Clerk—Miss Dorothy E. Moulton, P. O. Box 1493, Spokane 99210. (Western) William J. Lindberg, Chief Judge, William T. Beeks, both Seattle; George H. Boldt, Tacoma, William N. Goodwin, Yakima. Clerk—Harold W. Anderson, 308 U. S. Courthouse, Seattle 98104.

West Virginia—(Northern) Robert Earl Maxwell, Chief Judge, Elkins; Sidney L. Christie, Bluefield. Clerk—Thomas F. Stafford, Elkins 26241. (Southern) John A. Field, Jr., Chief Judge, Charleston; Sidney L. Christie, Bluefield. Clerk—Virgil F. Frizzell, Charleston 25329.

Wisconsin—(Eastern) Robert E. Tehan, Chief Judge; John W. Reynolds, Myron L. Gordon. Clerk—Mrs. Ruth La Fave, all Milwaukee 53202. (Western) J. E. Doyle, Madison. Clerk—J. R. Adams, Madison 53701.

Wyoming—Ewing T. Kerr, Cheyenne. Clerk—A. Marvin Helart, P. O. Box 727, Cheyenne 82001.

TERRITORIAL JUDGES

Canal Zone—District Judge, Guthrie F. Crowe (\$30,000). Box 2006, Balboa Hts. Clerk—Mrs. Lois Harrison, Ancon.

Guam—District Judge, Paul D. Shriver, Agaña 96910. (\$30,000). Clerk—Edward Aguon, P. O. Box DC, Agaña 96910.

Puerto Rico—District Judge, Hiram R. Cancio, Chief Judge; Juan Fernandez-Badillo (\$30,000). Clerk—Miss Carmen A. Carreras, all San Juan 00904.

Virgin Islands—District Judge, Walter A. Gordon (\$30,000). Clerk—Leo Penha, both Charlotte Amalie, St. Thomas 00801.

Justices of the United States Supreme Court

The Supreme Court comprises the Chief Justice of the United States and such number of Associate Justices as may be fixed by Congress. By virtue of an act of June 25, 1943, the number of Associate Justices is eight. Power to nominate is vested in the President and appointments are made by and with the advice and consent of the Senate. Judges of the Federal courts hold office during good behavior and their compensation may not be diminished while they are in office. A Justice may retire at 70 after serving 10 years as a Federal judge or at 65 after 15 years of service. Salary of the Chief Justice is \$40,000 annually, that of each Associate Justice \$39,500.

Name and residence		Service		Born	Died	Name and residence		Service		Born	Died
Chief Justices in Italics		Term	Yrs			Chief Justices in Italics		Term	Yrs		
John Jay, N. Y.	1789-1795	5	1745	1829		Melville W. Fuller, Ill.	1888-1910	21	1833	1910	
John Rutledge, S. C.	1789-1791	10	1739	1800		David J. Brewer, Kan.	1890-1910	20	1837	1910	
William Cushing, Mass.	1789-1800	18	1723	1810		Henry B. Brown, Mich.	1891-1906	15	1836	1913	
James Wilson Pa.	1789-1798	8	1742	1798		George Shiras, Jr., Pa.	1892-1903	10	1832	1924	
John Blair, Va.	1789-1796	6	1732	1800		Howell E. Jackson, Tenn.	1893-1895	2	1832	1895	
Robert H. Harrison, Md.	1789-1790	1	1745	1790		Edward D. White, La.	1894-1910	16	1845	1921	
James Iredell, N. C.	1790-1799	9	1751	1799		Rufus W. Peckham, N. Y.	1896-1909	13	1838	1906	
Thomas Johnson, Md.	1791-1793	1	1732	1819		Joseph McKenna, Cal.	1898-1925	26	1843	1926	
William Paterson, N. J.	1793-1806	13	1745	1806		Oliver W. Holmes, Mass.	1902-1932	29	1841	1935	
John Rutledge, S. C.	1795(a)	1	1739	1800		William R. Day, Ohio.	1903-1922	19	1849	1923	
Samuel Chase, Md.	1796-1811	15	1741	1811		William H. Taft, Mass.	1906-1910	3	1853	1917	
Oliver Ellsworth, Conn.	1796-1799	4	1745	1807		Horace H. Lurton, Tenn.	1910-1914	4	1844	1914	
Bushrod Washington, Va.	1798-1803	5	1762	1829		Charles E. Hughes, N. Y.	1910-1915	5	1862	1948	
Alfred Moore, N. C.	1799-1804	4	1737	1814		Willis Van Devanter, Wyo.	1911-1937	26	1859	1941	
John Marshall, Va.	1801-1835	34	1755	1835		Joseph R. Lamar, Ga.	1911-1916	5	1857	1916	
William Johnson, S. C.	1804-1834	30	1771	1834		Edward D. White, La.	1910-1921	10	1845	1921	
Brockholst Livingston, N.Y.	1806-1823	16	1757	1823		Mahlon Pitney, N. J.	1912-1922	10	1858	1924	
Thomas Todd, Ky.	1807-1826	18	1765	1826		Jas. C. McReynolds, Tenn.	1914-1941	26	1862	1946	
Joseph Story, Mass.	1811-1845	33	1779	1845		Louis D. Brandeis, Mass.	1916-1939	22	1856	1941	
Gabriel Duval, Md.	1812-1835	22	1752	1844		John H. Clarke, Ohio.	1916-1922	5	1857	1945	
Smith Thompson, N. Y.	1823-1843	20	1768	1843		William H. Taft, Conn.	1921-1930	8	1857	1930	
Robert Trimble, Ky.	1826-1828	2	1777	1828		George Sutherland, Utah.	1922-1936	15	1862	1942	
John McLean, Ohio.	1829-1861	32	1785	1861		Pierce Butler, Minn.	1922-1939	16	1866	1939	
Henry Baldwin, Pa.	1830-1844	14	1780	1844		Edward T. Sanford, Tenn.	1923-1930	7	1865	1930	
James M. Wayne, Ga.	1835-1867	32	1790	1867		Harlan F. Stone, N. Y.	1925-1941	16	1872	1946	
Roger B. Taney, Md.	1836-1864	28	1777	1864		Charles E. Hughes, N. Y.	1930-1941	11	1862	1948	
Philip P. Barbour, Va.	1836-1841	4	1783	1841		Owen J. Roberts, Penn.	1930-1945	15	1875	1955	
John Catron, Tenn.	1837-1865	28	1786	1865		Benjamin N. Cardozo, N.Y.	1932-1938	6	1870	1938	
John McKinley, Ala.	1837-1852	15	1780	1852		Hugo L. Black, Ala.	1937	1	1886	1961	
Peter V. Daniel, Va.	1841-1860	19	1784	1860		*Stanley F. Reed, Ky.	1938-1957	19	1884	1957	
Samuel Nelson, N. Y.	1845-1872	27	1792	1873		Felix Frankfurter, Mass.	1939-1962	23	1882	1965	
Levi Woodbury, N. H.	1845-1851	5	1789	1851		William O. Douglas, Conn.	1939	1	1897	1980	
Ernst C. Grier, Pa.	1846-1870	23	1794	1870		Frank Murphy, Michigan.	1940-1949	9	1890	1949	
Benj. R. Curtis, Mass.	1851-1857	6	1809	1857		Harlan F. Stone, N. Y.	1941-1946	5	1882	1946	
John A. Campbell, Ala.	1853-1861	8	1811	1889		James F. Byrnes, S. C. (b)	1941-1942	1	1879		
Nathan Clifford, Me.	1858-1881	23	1803	1881		Robert H. Jackson, N. Y.	1941-1954	12	1892	1954	
Noah H. Swayne, Ohio.	1862-1881	18	1804	1884		Wiley B. Rutledge, Iowa.	1943-1949	6	1894	1949	
Samuel F. Miller, Iowa.	1862-1890	28	1816	1890		Harold H. Burton, Ohio.	1945-1958	13	1888	1964	
David Davis, Ill.	1862-1877	14	1815	1886		Fred M. Vinson, Kentucky	1946-1953	7	1890	1953	
Stephen J. Field, Cal.	1863-1897	34	1816	1899		*Tom C. Clark, Texas.	1949-1967	18	1899		
Salmon P. Chase, Ohio.	1864-1873	8	1808	1873		Sherman Minton, Indiana.	1949-1956	7	1890	1965	
William Strong, Pa.	1870-1880	10	1808	1895		Earl Warren, Calif.	1953	1	1891		
Joseph B. Bradley, N. J.	1870-1892	21	1813	1892		John Marshall Harlan, N.Y.	1955	1	1896		
Ward Hunt, N. Y.	1873-1886	13	1816	1886		William J. Brennan, Jr., N.J.	1956	1	1906		
Morrison R. Waite, Ohio.	1874-1888	14	1816	1888		*Charles E. Whittaker, Mo.	1957-1962	5	1901		
John M. Harlan, Ky.	1877-1911	34	1833	1911		Potter Stewart, Ohio.	1958	1	1915		
William B. Woods, Ga.	1881-1887	6	1824	1887		Byron R. White, Colo.	1962	1	1917		
Stanley Matthews, Ohio.	1881-1889	7	1824	1889		Arthur J. Goldberg, Ill. (c)	1962-1965	3	1908		
Horace Gray, Mass.	1882-1902	20	1825	1902		Abe Fortas, Tenn.	1965	1	1910		
Samuel Blatchford N. Y.	1882-1893	11	1820	1893		Thurgood Marshall, N. Y.	1967	1	1908		
Lucius Q. C. Lamar, Miss.	1888-1893	5	1825	1893							

*Retired. (a) Rejected Dec. 15, 1795; (b) Resigned Oct. 3, 1942, to assume new post as chairman of Economic Stabilization Board. (c) Resigned court, appointed UN Ambassador July 20, 1965.

Robert H. Harrison, who is listed above as an Associate Justice of the Court, was nominated Sept. 24, 1789; confirmed by the Senate, September 26, 1789; and commissioned September 28, 1789. There is nothing affirmative to show that he ever accepted the commission or took the oath. Justice Iredell was nominated February 9, 1790, "vice Harrison, resigned." Under date of Jan. 1790, Harrison wrote to the President saying, "I cannot accept the appointment."

Ambassadors and Ministers

AS OF OCTOBER 1, 1968

The address of foreign embassies to the United States is Washington, D. C.

*Embassy has been closed and personnel withdrawn. Limited staffs remain in Algeria, Sudan, and UAR but no ambassadors are assigned.

Countries	Envoys from United States	Envoys to United States
Afghanistan....	Robert G. Neuman, Amb.	Abdullah Malikyar, Amb.
Algeria.....	* <i>Vacant</i> .	<i>Vacant</i> .
Argentina.....	Carter L. Burgess, Amb.	Alvaro C. Alsogaray, Amb.
Australia.....	William H. Crook, Amb.	Sir Keith Waller, Amb.
Austria.....	Douglas MacArthur, II.	Dr. Ernst Lemberger, Amb.
Barbados.....	Frederick R. Mann, Amb.	Hilton Augustus Vaughan, Amb.
Belgium.....	Ridgway B. Knight, Amb.	Baron Scheyven, Amb.
Bolivia.....	Raul H. Castro, Amb.	Julio Sanjines-Goytia, Amb.
Botswana.....	* <i>Vacant</i> .	Phineas Phokoje Makepe, Amb.
Brazil.....	John W. Tuthill, Amb.	Jorge de Sá Almeida, Amb.
Bulgaria.....	John M. McSweeney, Amb.	Dr. Luben N. Guerassimov, Amb.
Burma.....	Arthur W. Hummel, Jr., Amb.	U Ula Maung, Amb.
Burundi.....	George W. Renchard, Amb.	Terence Nsanze, Amb.
Cameroon.....	Robert L. Payton, Amb.	Joseph N. Owono, Amb.
Canada.....	Harold Francis Linder, Amb.	A. Edgar Ritchie, Amb.
Centr. Afr. Rep.	Geoffrey W. Lewis, Amb.	Michel Gallin-Douathe, Amb.
Ceylon.....	Andrew V. Corry, Amb. (also Maldives Is.)	Oliver Weerasinghe, Amb.
Chad.....	Sheldon B. Vance, Amb.	Boukar Abdoul, Amb.
Chile.....	Edward M. Korry, Amb.	Domingo Santa Maria, Amb.
China (Taiwan).....	Walter P. McConaughy, Amb.	Chow Shu-kai, Amb.
Colombia.....	Reynold E. Carlson, Amb.	Dr. Hernan Echavarria, Amb.
Congo (Braz'vill).....	* <i>Vacant</i> .	<i>Vacant</i> .
Congo (Kinshasa).....	Robert H. McBride, Amb.	Cyrille Adoula, Amb.
Costa Rica.....	Clarence A. Boonstra, Amb.	Luis Demetrio Tinoco, Amb.
Cyprus.....	Taylor G. Belcher, Amb.	Zenon Kossides, Amb.
Czechoslovakia.....	Jacob D. Beam, Amb.	Dr. Karel Duda, Amb.
Danmark.....	Clinton E. Knox, Amb.	Maxime-Leopold Zollner, Amb.
Dennmark.....	Angier Biddle Duke, Amb.	Torben Ronne, Amb.
Dominican Rep.....	John Hugh Cridmins, Amb.	Dr. Hector Garcia-Godoy, Amb.
Ecuador.....	Edson O. Sessions, Amb.	Carlos Mantilla-Ortega, Amb.
Egypt.....	(See United Arab Republic)	
El Salvador.....	William G. Bowlder, Amb.	Col. Julio A. Rivera, Amb.
Es'onia.....		Ernst Jaakson, Consul General
Ethiopia.....	William O. Hall.....	Dr. Getachew Abdi, Chargé d'Affaires
Finland.....	Tyler Thompson, Amb.	Olavi Munkki, Amb.
France.....	Robert Sargent Shriver, Jr., Amb.	Charles E. Lucet, Amb.
Gabon.....	David M. Bane, Amb.	Leonard Antoine Badinga, Amb.
Gambia, The.....	L. Dean Brown (also Senegal)	<i>Vacant</i> .
Germany.....	Henry E. Lodge, Amb.	Karl Heinrich Knapstein, Amb.
Ghana.....	Thomas W. McElhinney, Amb.	Ebenezer Moses Debrah, Amb.
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Greece.....	Phillips Talbot, Amb.	Christian Xanthopoulos-Palamas, Amb.
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Guinea.....	Robinson McIlvaine, Amb.	Karlín Bangoura, Amb.
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India.....	Chester Bowles, Amb.	Nawab Ali Yavar Jung, Amb.
Indonesia.....	Marshall Green, Amb.	Soedjatmoko, Amb.
Iran.....	Arnold H. Meyer, Amb.	Hushang Ansary, Amb.
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Italy.....	E. Gardner Ackley, Amb.	Egldio Ortona, Amb.
Ivory Coast.....	George A. Morgan, Amb.	Timothee N'Guetta Ahoua, Amb.
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Japan.....	U. Alexis Johnson, Amb.	Takeso Shimoda, Amb.
Jordan.....	Harrison M. Symmes, Amb.	Abdul-Hamid Sharaf, Amb.
Kenya.....	Glenn W. Ferguson, Amb.	Burirdi Nahwera, Amb.
Korea.....	William J. Porter.....	Dong Jo Kim, Amb.
Kuwait.....	Howard Rex Cottam, Amb.	Talati Al-Ghoussein, Amb.
Laos.....	William Healy Sullivan, Amb.	Khamking Souvanlasy, Amb.
Latvia.....		Dr. Arnolds Spekke, Chargé d'Affaires
Lebanon.....	Dwight J. Porter, Amb.	Soletman Farah, Chargé d'Affaires
Lesotho.....	* <i>Vacant</i> .	Albert Steerforth Mohale, Amb.
Liberia.....	Ren Hill Brown, Jr., Amb.	S. Edward Peal, Amb.
Libya.....	David D. Newson, Amb.	Fathi Abidia, Amb.
Lithuania.....		Joseph Kajeckas, Chargé d'Affaires
Luxembourg.....	George J. Feldman, Amb.	Maurice Steinmetz, Amb.
Malagasy Rep.....	David S. King, Amb. (also Mauritius)	René Gilbert Rollion, Chargé d'Affaires
Malawi.....	Marshall P. Jones, Amb.	Nyemba Wales Mbekeani, Amb.
Malaysia.....	James D. Bell, Amb.	Tan Sri Ong Yoke Lin, Amb.
Maldives Islands.....	Andrew V. Corry, Amb. (also Ceylon)	Abdul Sartar, Amb.
Malta.....	George Clark, Amb.	Moussa Louisa, Amb.
Mauritania.....	Hugh H. Smythe, Amb.	Dr. Arvid Pardo, Amb.
Mauritius.....	* <i>Vacant</i> .	<i>Vacant</i> .
Mexico.....	David S. King, Amb. (also Malagasy Rep.)	Pierre Guy Girard Balancy, Amb.
Morocco.....	Fulton Freeman, Amb.	Hugo B. Margain, Amb.
Nepal.....	Henry J. Tasea, Amb.	Ahmed Osman, Amb.
Netherlands.....	Miss Carol C. Laise, Amb.	Maj. Gen. Padma Bahadur Khatri, Amb.
New Zealand.....	William R. Tyler, Amb.	Carl W. A. Schurmann, Amb.
Nicaragua.....	John F. Hennig, Amb.	Frank Corner, Amb.
Niger.....	Kennedy M. Crockett, Amb.	Dr. Guillermo Sevilla-Sacasa, Amb.
Nigeria.....	Samuel C. Adams, Jr., Amb.	Adamou Mayaki, Amb.
Norway.....	Elbert G. Mathews, Amb.	Joe Iyalla, Amb.
Pakistan.....	Miss Margaret Joy Tibbetts, Amb.	Arne Gunneg, Amb.
Panama.....	Bernard H. Oehlert, Jr., Amb.	Agha Hilla, Amb.
Paraguay.....	Charles W. Adair, Jr., Amb.	Jorge T. Velasquez, Amb.
Peru.....	Benigno C. Hernandez, Amb.	Dr. Rogue J. Avila, Amb.
Philippines.....	J. Wesley Jones, Amb.	Celso Pastor, Amb.
Poland.....	G. Mennen Williams, Amb.	Salvador P. Lopez, Amb.
Portugal.....	Walter J. Stoessel, Jr., Amb.	Jerzy Michalowski, Amb.
Romania.....	W. Tapley Bennett, Jr., Amb.	Vasco Vieira Garin, Amb.
Rwanda.....	Richard H. Davis, Amb.	Cornellu Bogdan, Amb.
	Leo G. Cyr, Amb.	Celestin Kabanda, Amb.

Countries	Envoys from United States	Envoys to United States
Saudi Arabia....	Hermann F. Elits, Amb.	Ibrahim Al-Sowayel, Amb.
Senegal.....	L. Dean Brown (also The Gambia).	Cheikh Ibrahim Fall, Amb.
Sierra Leone....	Robert G. Miner, Amb.	Adesanya K. Hyde, Amb.
Singapore.....	Francis J. Galbraith, Amb.	Prof. Wong Lin Ken, Amb.
Somali Rep.....	Raymond L. Thurston, Amb.	Yusuf O. Azhari, Amb.
South Africa....	William M. Rountree, Amb.	H. L. T. Taswell, Amb.
Spain.....	Robert F. Wagner, Amb.	Marquis de Merry Del Val, Amb.
Sudan.....	*Vacant.	Vacant
Sweden.....	William W. Heath, Amb.	Hubert de Besche, Amb.
Switzerland....	John S. Hayes, Amb.	Felix Schnyder, Amb.
Syrian Arab Rep.	*Vacant.	Vacant
Tanzania.....	John H. Burns, Amb.	Chief Michael Lukumbuzya, Amb.
Thailand.....	Leonard Unger, Amb.	Bunchana Athakora, Amb.
Togo.....	Albert W. Sherer, Jr., Amb.	Dr. Alexandre Ohlin, Amb.
Trinidad and Tobago.....	William A. Costello, Amb.	Sir Ellis Emmanuel Innocent Clarke, Amb.
Tunisia.....	Francis H. Russell, Amb.	Rachid Driss, Amb.
Turkey.....	Vacant	Melih Esenbel, Amb.
Uganda.....	Henry E. Stebbins, Amb.	E. Otema Allimadi, Amb.
U.S.S.R.....	Llewellyn E. Thompson, Amb.	Anatoliy F. Dobrynin, Amb.
United Arab Rep.	*Vacant.	Vacant
Upper Volta....	Elliot F. Skinner, Amb.	Paul Rouamba, Amb.
Uruguay.....	Robert M. Sayre, Amb.	Juan F. Yrizar, Amb.
Venezuela.....	Maurice M. Bernbaum, Amb.	Dr. Enrique Tejera-Paris, Amb.
Viet Nam.....	Ellsworth Bunker, Amb.	Bui Dien, Amb.
Yemen.....	*Vacant.	Vacant
Yugoslavia....	C. Burke Elbrick, Amb.	Bogdan Crnobrnja, Amb.
Zambia.....	Robert C. Good, Amb.	Rupiah B. Banda, Amb.
Ambassadors at Large.....	W. Averell Harriman. George C. McGhee.	

SPECIAL MISSIONS

- U. S. Mission to the N. Atlantic Treaty Org., Brussels—Harlan Cleveland.
- U. S. Mission to the European Communities, Brussels—J. Robert Schaetzel.
- U. S. Mission to the Internatl. Atomic Energy Agency, Vienna—Henry DeWolf Smyth.
- U. S. Mission to the Organization of American States, Washington—Sol M. Linowitz.
- U. S. Mission to the United Nations, New York—James Russell Wiggins.
- U. S. Mission to the European Office of the United Nations and other International Organizations, Geneva—Roger W. Tubby.
- U. S. Mission to the Organization for Economic Cooperation and Development, Paris—Philip H. Trezise.

The National Anthem—The Star-Spangled Banner

The Star-Spangled Banner was ordered played by the military and naval services by President Woodrow Wilson in 1916. It was designated the National Anthem by Act of Congress, March 3, 1931. It was written by Francis Scott Key, of Georgetown, D. C., during the bombardment of Fort Mchenry, Baltimore, Md., Sept. 13-14, 1814. Key was a lawyer, a graduate of St. John's College, Annapolis, and a volunteer in a light artillery company. When a friend, Dr. Beanes, a physician of Upper Marlborough, Md., was taken aboard Admiral Cockburn's British squadron for interfering with ground troops, Key and J. S. Skinner, carrying a note from President Madison, went to the fleet under a flag of truce on a cartel ship to ask Beanes' release. Admiral Cockburn consented, but as the fleet was about to sail up the Patapsco to bombard Fort Mchenry he detained them, first on H. M. S. Surprise, and then on a supply ship. Key witnessed the bombardment from his own vessel. It began at 7 a.m., Sept. 13, 1814, and lasted, with intermissions, for 25 hours. The British fired over 1,500 shells, each weighing as much as 220 lbs. They were unable to approach closely because the Americans had sunk 22 vessels in the channel. Only four Americans were killed and 24 wounded. A British bomb-ship was disabled.

Oh, say can you see by the dawn's early light
What so proudly we hail'd at the twilight's last gleaming?
Whose broad stripes and bright stars, thru the perilous fight,
O'er the ramparts we watch'd were so gallantly streaming?
And the rocket's red glare, the bombs bursting in air,
Gave proof through the night that our flag was still there.
Oh, say does that star-spangled banner yet wave
O'er the land of the free and the home of the brave?

On the shore, dimly seen through the mists of the deep,
Where the foe's haughty host in dread silence reposes,
What is that which the breeze, o'er the towering steep,
As it fitfully blows, half conceals, half discloses?
Now it catches the gleam of the morning's first beam,
In full glory reflected now shines on the stream:
'Tis the star-spangled banner! O long may it wave
O'er the land of the free and the home of the brave!

During the bombardment Key wrote a stanza on the back of an envelope. Next day at Indian Queen Inn, Baltimore, he wrote out the poem and gave it to his brother-in-law, Judge J. H. Nicholson. Nicholson suggested the tune, Anacreon in Heaven, and had the poem printed on broadsides, of which two survive. On Sept. 20 it appeared in the Baltimore American. Later Key made 3 copies; one is in the Library of Congress and one in the Pennsylvania Historical Society.

The copy that Key wrote in his hotel Sept. 14, 1814, remained in the Nicholson family for 93 years. In 1907 it was sold to Henry Walters of Baltimore. In 1934 it was bought at auction in New York from the Walters estate by the Walters Art Gallery, Baltimore, for \$26,400. The Walters Gallery in 1953 sold the manuscript to the Maryland Historical Society for the same price.

The flag that Key saw during the bombardment is preserved in Smithsonian Institution, Washington. It is 30 by 42 ft., and has 15 alternate red and white stripes and 15 stars, for the original 13 states plus Kentucky and Vermont. It was made by Mary Young Pickersgill. The Baltimore Flag house, a museum, occupies her premises, which were restored in 1953.

And where is that band who so vauntingly swore
That the havoc of war and the battle's confusion,
A home and a country should leave us no more!
Their blood has wash'd out their foul footsteps' pollution
No refuge could save the hireling and slave
From the terror of flight, or the gloom of the grave:
And the star-spangled banner in triumph doth wave
O'er the land of the free and the home of the brave!

Oh! thus be it ever, when freemen shall stand
Between their loved homes and the war's desolation!
Blest with victory and peace, may the heav'n rescued land
Praise the Power that hath made and preserved us a nation.
Then conquer we must, when our cause it is just,
And this be our motto: "In God is our trust."
And the star-spangled banner in triumph shall wave
O'er the land of the free and the home of the brave!

National Political Committees

As of Sept., 1968

DEMOCRATIC OFFICERS

Chairman—Lawrence O'Brien
 Vice Chairman—Mrs. Geri Joseph
 Secretary—Mrs. Dorothy Vredenburg Bush
 Treasurer—Robert Short (act.)
 National Headquarters—2600 Virginia Ave.
 N.W., Washington, D. C. 20037

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 Secretary—Consuelo Northrop Bailey
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California	Stephen Reinhart	Los Angeles
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	Mrs. Minette Doderer	Iowa City
Kansas	Tom Corcoran	Topeka
	Mrs. Nell Blangers	Sallina
Kentucky	Edward Breathitt	Hopkinsville
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	Mrs. Blanche Long	Baton Rouge
Maine	George J. Mitchell	Falmouth
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Michigan	Coleman A. Young	Detroit
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	Mrs. Norma Keil	Ledger
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	Mrs. Wilma Moody	Hawthorne
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So. Car.	Robert McNair	Columbia
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	Mrs. Mary Walner	Sioux Falls
Tenn.	Herbert S. Walters	Morristown
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Tom Stagg	Shreveport
Mrs. Jean Boese	Alexandria
Robert A. Marden	Waterville
Mrs. Brooks Brown, Jr.	York
D. Eldred Rinehart	Smithsburg
Mrs. K. B. Massenburg	Baltimore
Bruce Crane	Dalton
Mrs. H. Dunster Howe	Brookline
Harold McClure	Alma
Mrs. Eily Peterson	Lansing
George F. Etzell	Clarissa
Mrs. Russell T. Lund	Minneapolis
James M. Moye	Laurel
Mrs. James F. Hooper	Columbus
Gene Taylor	Sarcoxie
Mrs. Mary Sturdy Ginn	Santa Mateo
James Murphy	Kalspell
Mrs. Isabel C. Moberly	Shelby
Donald R. Ross	Omaha
Mrs. Clifton B. Batchelder	Omaha
William Laub	Las Vegas
Mrs. Lucie Humphrey	Reno
David A. Sterling	Hillsboro
Mrs. Mildred K. Perkins	Concord
Bernard M. Shanley	Newark
Mrs. K. K. Neuberger	Lincroft
Robert Anderson	Roswell
Mrs. Floyd W. John	Santa Mateo
George L. Hinnman	New York
Mrs. Keith McHugh	New York
J. E. Broyles	Lenoir
Mrs. Louis G. Rogers	Charlotte
Ben J. Clayburgh	Grand Forks
Mrs. Joe Burgum	Arthur
Ray C. Bliss	Akron
Mrs. Martha C. Moore	Cambridge
Bud Wilkinson	Norman
Mrs. Dorothy Stanislaus	Vinita
George P. Stadelman	The Dalles
Mrs. Collis P. Moore	Moro
Thomas H. McCann	Philadelphia
Mrs. Sarah A. Stauffer	Lancaster Co.
Frederick Lippitt	Providence
Mrs. D. E. Jackson, Jr.	Providence
J. Drake Edens, Jr.	Columbia
Mrs. Alice Wilder	Alken
D. Jack Gibson	Sioux Falls
Mrs. Louise B. Humphrey	White River
George E. Wilson, Jr.	Harriman
Mrs. Keith Spurrier	Memphis
Albert B. Fay	Houston
Mrs. Tobin Armstrong	Armstrong
Kendall D. Garff	Salt Lake City
Mrs. Madge Fairbanks	Salt Lake City

State	DEMOCRATIC MEMBERS		REPUBLICAN MEMBERS	
	Name	City	Name	City
Vermont...	Daniel O'Brien	S. Burlington	Edward G. Janeway	So. Londonderry
Virginia...	Mrs. Margaret Hartigan	Buclington	Mrs. C. N. Bailey	Burlington
Washington...	William Hopkins, Jr.	Roanoke	I. Lee Potter	Arlington
West Va...	Mrs. A. Stuart Bolling	Portsmouth	Mrs. Cynthia Newman	Falls Church
Wisconsin...	Lloyd K. Graham	Seattle	Robert D. Timm	Olympia
Wyoming...	Mrs. Mary Weber	Quincy	Mrs. Harlan Anderson	Kennewick
	Hulett C. Smith	Beckley	Arch A. Moore, Jr.	Moundsville
	Mrs. Hilda Long	Huntington	Mrs. Irvin Humphreys	Huntington
	Robert T. Huber	West Allis	John E. Hough	Janesville
	Miss Mary Lou Berg	West Bend	Mrs. Byron Ising	Oshkosh
	William A. Norris, Jr.	Cheyenne	Robert Gosman	Casper
	Mrs. June Boyle	Laramie	Mrs. Jack L. Stacy	Douglas

OTHER CHIEF POLITICAL COMMITTEES

AMERICANS FOR DEMOCRATIC ACTION
(1424 16th St., N.W., Washington, D. C. 20036)
National Chairman—John Kenneth Galbraith
National Director—Leon Shull
Chairman, Exec. Comm.—Jack T. Conway

COMM. ON POLITICAL EDUCATION, AFL-CIO
(AFL-CIO Building, 815 16th St., Washington, D. C. 20006)
Chairman—George Meany
Secretary-Treasurer—William F. Schnitzler
National Director—Alexander E. Barkan

CONSERVATIVE PARTY OF THE STATE OF NEW YORK
(468 Park Ave. So., New York, N. Y. 10016)
Chairman—J. Daniel Mahoney
Secretary—C. Charles Burns

GREENBACK PARTY
(1522 Northwest 58th St., Seattle 7, Wash.)
National Chairman—Fred C. Proehl

LIBERAL PARTY OF NEW YORK STATE
(1560 Broadway, New York, N. Y. 10036)
Chairman—Donald S. Harrington
First Vice Chairman—David Dubinsky

Exec. Director—Ben Davidson
Treasurer—Harry Uviller

NATIONAL STATES' RIGHTS PARTY
(P. O. Box 6263, Savannah, Ga. 31405)
Chairman—Ned Dupes
Secretary-Treasurer—Bernice Settle

PROHIBITION NATIONAL COMMITTEE
(P. O. Box 2255, Kalamazoo, Mich.)
National Chairman—E. H. Munn, Sr.
Executive Secretary—Earl F. Dodge
National Secretary—Julia B. Kohier

SOCIALIST LABOR PARTY
In Minnesota: Socialist Industrial Gov't. Party
(116 Nassau St., Brooklyn, N. Y. 11201)
National Secretary—Arnold Petersen

SOCIALIST PARTY
(1182 Broadway, New York, N. Y. 10001)
National Chairman—Darlington Hoopes
National Honorary Chairman—Norman Thomas
National Secretary—George W. Woywod

SOCIALIST WORKERS PARTY
(873 Broadway, New York, N. Y. 10003)
National Chairman—James P. Cannon
National Secretary—Farrell Dobbs

Chairmen of State Political Committees

State	DEMOCRATIC		REPUBLICAN	
	Name	City	Name	City
Alabama...	Robert S. Vance	Birmingham	Alfred W. Goldthwaite	Montgomery
Alaska...	John M. Kerttula	Palmer	Robert A. Davenny	Anchorage
Arizona...	Richard Duffield	Tucson	Harry Rosenzweig	Phoenix
Arkansas...	Leon Catlett	Little Rock	Odell Pollard	Searcy
California...	Roger Boas	San Francisco	James W. Halley	San Francisco
Colorado...	William Grant	Denver	Howard B. Propst	Denver
Conn...	John M. Bailey	Hartford	Howard E. Hausman	Hartford
Delaware...	Alevis I. Du Pont Bayard	Wilmington	Clayton S. Harrison	Wilmington
D. of C...	Bruce Terris	Washington	Carl L. Shipley	Washington
Florida...	Pat Thomas	Tallahassee	William F. Murfin	Ft. Lauderdale
Georgia...	James Grey	Atlanta	G. Paul Jones, Jr.	Macon
Hawaii...	David C. McClung	Honolulu	Edward E. Johnston	Honolulu
Idaho...	E. T. Waters	Boise	Roland Wilber	Lewiston
Illinois...	James A. Ronan	Chicago	Victor L. Smith	Robinson
Indiana...	Gordon St. Angelo	Indianapolis	Buena Chaney	Indianapolis
Iowa...	Clark Rasmussen	Des Moines	John E. Warren	Des Moines
Kansas...	Norbert Dreling	Hays	George E. Nettels, Jr.	Topeka
Kentucky...	J. R. Miller	Frankfort	John H. Kerr	Lexington
Louisiana...	Arthur C. Watson	Natchitoches	Charles de Gravelles	Lafayette
Maine...	Severin Bellevau	Rumford	Cyril M. Joly, Jr.	Waterville
Maryland...	Marvin Mandel	Baltimore	Joseph M. Dukert	Washington, D.C.
Mass...	Lester S. Herman	Boston	J. A. Spaulding	Boston
Michigan...	Sander Levin	Lansing	Mrs. E. M. Peterson	Lansing
Minnesota...	Warren B. Spannaus	Minneapolis	George Thiss	Minneapolis
Mississippi...	Aaron Henry	Jackson	Clarke Reed	Greenville
Missouri...	Delton L. Houtchens	Clinton	Dorman L. Steelman	Jefferson City
Montana...	Chet Blaylock	Laurel	M. F. (Millett) Keller	Great Falls
Nebraska...	John C. Mitchell	Kearney	Mrs. Lorraine Orr	No. Platte
Nevada...	Robert E. Ross	Reno	George W. Abbott	Minden
N. Hamp...	William Craig	Manchester	John Palazzi	Concord
N. Jersey...	Robert J. Burkhardt	Trenton	Webster B. Todd	Trenton
N. Mexico...	Vacant		Rex Mattingly	Albuquerque
N. York...	John J. Burns	Binghamton	Charles A. Schoenbeck, Jr.	Albany
N. Car...	James V. Johnson	Charlotte	James E. Holshouser, Jr.	Boone
N. Dak...	Larry Erickson	Minot	Thomas L. Secrest	Hettinger
Ohio...	Eugene P. O'Grady	Columbus	John S. Andrews	Columbus
Oklahoma...	William G. Kerr	Oklahoma City	E. L. (Bud) Steward, Jr.	Oklahoma City
Oregon...	Joe Allen	Portland	Irving Enna	Portland
Penn...	Thomas Z. Minehart	Harrisburg	Jack Jordan	Harrisburg
Rhode Isl...	Anthony A. Giannini	Providence	C. George DeStefano	Providence
So. Car...	E. Crosby Lewis	Columbia	Harry S. Dent	Columbia
So. Dak...	Feder K. Becker	Sioux Falls	Charles A. Howard, Jr.	Aberdeen
Tenn...	James Peeler	Covington	Claude K. Robertson	Knoxville
Texas...	Will Davis	Austin	Peter O'Donnell, Jr.	Dallas
Utah...	A. Wally Sandack	Salt Lake City	Richard Richards	Ogden
Vermont...	William Hunter	Burlington	Elbert G. Moulton	Montpelier
Virginia...	Watkins M. Abbott	Washington, D. C.	Samuel E. Carpenter	McLean
Washington...	Robert R. Kull	Seattle	C. Montgomery Johnson	Olympia
West Va...	Rudolph L. DiTrapano	Charleston	Thomas E. Potter	Charleston
Wisconsin...	James W. Wimmer, Jr.	Madison	Ody J. Fish	Hartland
Wyoming...	John Rooney	Cheyenne	Clarence A. Brimmer	Casper

U. S. Administrative Abbreviations Commonly Used

ACDA.....	Arms Control and Disarmament Agency.	ICC.....	Interstate Commerce Commission or Indian Claims Commission.
ADP.....	Automatic Data Processing.	IRS.....	Internal Revenue Service.
AEC.....	Atomic Energy Commission.	LOREAN ..	Long-range navigation.
AID.....	Agency for International Development.	MA.....	Maritime Administration.
ARC.....	American Red Cross.	MAC.....	Military Airlift Command.
ARPA.....	Advanced Research Projects Agency	NARS.....	National Archives and Records Service.
ARS.....	Agricultural Research Service.	NASA.....	National Aeronautics and Space Administration.
PDSA.....	Business and Defense Services Adm.	NATO.....	North Atlantic Treaty Organization.
BEC.....	Bureau of Employees' Compensation.	NBS.....	National Bureau of Standards.
BLS.....	Bureau of Labor Statistics.	NIH.....	National Institutes of Health.
CAB.....	Civil Aeronautics Board.	NLRB.....	National Labor Relations Board.
CAP.....	Civil Air Patrol.	NSA.....	National Shipping Authority.
CCC.....	Commodity Credit Corporation.	NSC.....	National Security Council.
CEA.....	Council of Economic Advisers.	NSF.....	National Science Foundation.
CIA.....	Central Intelligence Agency.	NYC.....	Neighborhood Youth Corps.
CMS.....	Consumer and Marketing Service.	OECD.....	Organization for Economic Cooperation and Development
CONUS ..	Continental United States.	OEO.....	Office of Economic Opportunity.
CRO.....	Civil Rights Commission.	OEP.....	Office of Emergency Planning.
CSC.....	Civil Service Commission.	PBS.....	Public Buildings Service.
DASA.....	Defense Atomic Support Agency.	PHA.....	Public Housing Administration.
DOD.....	Department of Defense.	PHS.....	Public Health Service.
DOT.....	Department of Transportation.	RE.....	Renegotiation Board.
ESSA.....	Environmental Science Services Admin- istration.	REA.....	Rural Electrification Administration.
FAA.....	Federal Aviation Agency.	RRA.....	Railroad Retirement Board.
FAS.....	Foreign Agricultural Service.	SBA.....	Small Business Administration.
FBI.....	Federal Bureau of Investigation.	SEC.....	Securities and Exchange Commission.
FCA.....	Farm Credit Administration.	SPARS ..	Women's Coast Guard Reserves (From Coast Guard motto "Semper-Paratus —Always Ready")
FCC.....	Federal Communications Commission.	SSA.....	Social Security Administration.
FDA.....	Food and Drug Administration.	SSS.....	Selective Service System.
FDIC.....	Federal Deposit Insurance Corporation.	TVA.....	Tennessee Valley Authority.
FHA.....	Federal Housing Administration.	USCG.....	United States Coast Guard.
FHLEB..	Federal Home Loan Bank Board.	USCS.....	United States Employment Service.
FMC.....	Federal Maritime Commission.	USIA.....	United States Information Agency.
FMCS.....	Federal Mediation and Conciliation Service.	USIS.....	United States Information Service.
FNMA.....	Federal National Mortgage Association.	USMC.....	United States Marine Corps.
FPC.....	Federal Power Commission.	VA.....	Veterans Administration.
FRS.....	Federal Reserve System.	VISTA.....	Volunteers in Service to America.
FTC.....	Federal Trade Commission.	WAC.....	Women's Army Corps.
GAO.....	General Accounting Office.	WAVES.....	Women Accepted for Volunteer Emer- gency Service (Women's Reserve. USNR).
GPO.....	Government Printing Office.		
GSA.....	General Services Administration.		
HEW.....	Dept. of Health, Education and Welfare.		
HHFA.....	Housing and Home Finance Agency.		
HUD.....	Dept. of Housing & Urban Development		
IADB.....	Inter-American Defense Board.		

Abbreviations Commonly Used for International and Regional Organizations

ADB.....	Asian Development Bank	ICJ.....	Intl. Court of Justice
ADELA ..	Atlantic Community Development Group for Latin America	IDA.....	Intl. Development Assn.
AL.....	Arab League	IDB.....	Inter-American Development Bank
ANZUS ..	Australia-New Zealand-United States Defense Treaty and Council	IFC.....	Intl. Finance Corporation
ASPAC ..	Asian and Pacific Council	ILO.....	Intl. Labor Org.
BIS.....	Bank for Intl. Settlements	IMCO ..	Intergovernmental Maritime Consultative Org.
CABEI ..	Central American Bank for Economic Integration	IMF.....	Intl. Monetary Fund
CARE.....	Cooperative for American Relief Everywhere	INTERPOL	Intl. Criminal Police Org.
CB.....	Casablanca Bloc	IOC.....	Intergovernmental Oceanographic Commission
CE.....	Council of Europe	ITU.....	Intl. Telecommunicative Union
CENTO ..	Central Treaty Org.	LAFTA ..	Latin American Free Trade Assn.
CERN.....	European Org. for Nuclear Research	NATO.....	North Atlantic Treaty Org.
CMEA.....	Council for Mutual Economic Assistance	NC.....	Nordic Council
CMN.....	Common Market Nations	OAS.....	Org. of American States
CN.....	Commonwealth of Nations	OAU.....	Org. of African Unity
COMECON	Council for Mutual Economic Assistance (Communist Nations)	ODECA ..	Org. of Central American States (C. A. Common Market)
ECSC.....	European Coal and Steel Community	OECD.....	Org. for Economic Cooperation and Development
ECOSOC ..	Economic and Social Council	SEATO ..	Southeast Asia Treaty Org.
EEC.....	European Economic Community (European Common Market)	SHAPE ..	Supreme Headquarters Allied Powers, Europe
EFTA.....	European Free Trade Assn. (Outer Seven)	UCAR.....	Union of Central African Republics
ELDO.....	European Launcher Development Org.	UDEAC ..	Central African Customs and Economic Union
EURATOM	European Atomic Energy Community	UDEAO ..	Customs Union of West African States
FAO.....	Food and Agricultural Org.	UN.....	United Nations
GATT.....	General Agreement on Tariffs and Trade	UNCTAD ..	United Nations Conference on Trade and Development
IAEA.....	Intl. Atomic Energy Agency	UNDP.....	United Nations Development Program
IATA.....	Intl. Air Transport Assn.	UNESCO ..	United Nations Educational, Scientific & Cultural Org.
IBEC.....	Intl. Bank for Economic Cooperation	UNICEF ..	United Nations Children's Fund
IBRD.....	Intl. Bank for Reconstruction and Development (World Bank)	UNIDO ..	United Nations Industrial Development Organization
ICAO.....	Intl. Civil Aviation Org.	UPU.....	Universal Postal Union
ICFTU ..	Intl. Confederation of Free Trade Unions	WHO.....	World Health Org.
		WMO.....	World Meteorological Org.
		WP.....	Warsaw Pact

International Boundary Lines of the United States

The length of the northern boundary of the conterminous United States—the U.S.-Canadian border, excluding Alaska—is 3,987 miles according to the U. S. Geological Survey, Dept. of the Interior. The length of the Alaskan-Canadian border is 1,538 miles. The length of the U.S.-Mexican border, from the Gulf of Mexico to the Pacific Ocean, is approximately 1,933 miles (1963 boundary agreement).

United States Government Independent Agencies

- Address: Washington, D. C. Location and zip codes of agencies in parentheses, as of September, 1968
- Appalachian Regional Commission**—Federal co-chairman: Joe W. Fleming, 2nd. State co-chairman: Gov. Mills Godwin. (1666 Conn. Ave., Wash., D. C. 20233)
- Arms Control & Disarmament Agency**—Director: William C. Foster. (Department of State Bldg., 20451)
- Atomic Energy Commission**—The Commission: Glenn T. Seaborg, chmn., Wilfred E. Johnson, James T. Ramey, Gerald F. Tape. (Wash., D. C. 20545)
- Central Intelligence Agency**—Richard M. Helms, Director. (Wash., D. C. 20505)
- Civil Aeronautics Board**—Chairman: John H. Crocker, Jr. (1825 Connecticut Ave. 20428)
- Commission on Civil Rights**—Staff Dir., William L. Taylor. (801 19th St., 20425)
- Commission of Fine Arts**—William Walton, chmn. (7000 Interior Department Bldg., 20240)
- Civil Service Commission**—John W. Macy, Jr., chmn., L. J. Andolsek, vice chmn. (1900 E St., 20415)
- Consumer Advisory Council**—Betty Furness, exec. secy. (100 Executive Office Bldg., 20506)
- Economic Opportunity Office**—Bertrand Harding (act.) Dir. (1200 19th St., 20506)
- Emergency Planning Office**—Price Daniel, Dir. (Winder Bldg., 20504)
- Equal Employment Opportunity Commission**—Clifford L. Alexander, Jr., chmn. (1800 G St., 20506)
- Farm Credit Administration**—Lorin Bice, chmn. (So. Agriculture Bldg., 20578)
- Federal Aviation Administration**—Administrator: Gen. William F. McKee. (800 Independence Ave., 20590)
- Federal Communications Commission**—Commissioners: Rosel H. Hyde, chmn., Les Loevinger, Nicholas Johnson, James J. Wadsworth, Robert T. Bartley, Robert E. Lee, Kenneth A. Cox. (1919 M St. 20554)
- Federal Deposit Insurance Corporation**—Chairman: K. A. Randall. (550 17th St., 20429)
- Federal Home Loan Bank Board**—Chairman: John E. Horne. (101 Indiana Ave., 20552)
- Federal Maritime Commission**—John Harlee, chmn.; (1321 H St., 20573)
- Federal Mediation and Conciliation Service**—Director: William F. Simkin. (Dept. of Labor Bldg., 20427)
- Federal Power Commission**—Lee C. White, chmn., Lawrence J. O'Connor, Jr., vice chmn. (441 G St., 20426)
- Federal Reserve System**—Chairman, Board of Governors: William McC. Martin, Jr. (20th St. & Constitution Ave., 20551)
- Federal Trade Commission**—Commissioners: Paul Rand Dixon, chmn., Philip Elman, Everette
- MacIntyre, Mary Gardiner Jones, James M. Nicholson. (Pennsylvania Ave. at 6th St., 20580)
- Food and Drug Administration**—J. L. Goddard, comm. (200 C St., 20204)
- General Accounting Office**—Comptroller General of the U.S.: Elmer B. Staats. (441 G St., 20548)
- General Services Administration**—Administrator: Lawson B. Knott, Jr. (General Services Bldg., 20405)
- Government Printing Office**—Public Printer: James L. Harrison. (North Capitol and H Sts., 20401)
- Indian Claims Commission**—John T. Vance, chmn. (726 Jackson Place, Wash., D. C. 20506)
- Interstate Commerce Commission**—Commissioners: Paul J. Tierney, chmn., Mr. Virginia Mae Brown, Willard Deason, John Bush, George M. Stafford, Kenneth H. Tuggle, Rupert L. Murphy, Laurence K. Walrath, Dale Hardin. (12th St. and Constitution Ave., 20423)
- National Academy of Sciences and National Research Council**—President: Dr. Frederick Seitz. (2101 Constitution Ave., 20418)
- National Aeronautics and Space Administration**—Administrator: *Vacant*. (Washington, D. C. 20546)
- National Labor Relations Board**—Chairman: F. W. McCulloch. (1717 Pennsylvania Ave., 20570)
- National Mediation Board**—Members: Howard G. Gamser, chmn.; Francis A. O'Neill, Jr., Leverett Edwards, Thomas A. Tracy. (1230 16th St., 20572)
- National Science Foundation**—Director: Leland J. Haworth. (1800 G St., 20550)
- Ozarks Regional Commission**—Federal cochairman: William M. McCandless. State cochairman: Gov. Winthrop Rockefeller. (2001 Wisc. Ave. 20235)
- Public Health Service**—Surgeon General: William H. Stewart. (330 Independence Ave., 20201)
- Railroad Retirement Board**—Chairman: Howard W. Habermeier. (Rm. 444, 425 13th St., 20004), Main Office, 844 Rush St., Chicago, Ill. 60611)
- Securities and Exchange Commission**—Commissioners: Manuel F. Cohen, chmn., Hamer H. Budge, Hugh F. Owens, Francis M. Wheat, Richard B. Smith. (500 N. Capitol St., 20549)
- Selective Service System**—Director: Lt. Gen. Lewis B. Hershey. (1724 F St., 20435)
- Small Business Administration**—Administrator: Robert C. Moot. (1441 L St., 20416)
- Tariff Commission, United States**—Chairman: Stanley Metzger. (8th and E Sts. 20436)
- Tennessee Valley Authority**—Directors: Aubrey J. Wagner, chmn. (New Sprankle Bldg., Knoxville, Tenn. 37901 and Woodward Bldg., Washington, D. C. 20444)
- United States Information Agency**—Director: *Vacant*. (1750 Pennsylvania Ave., 20547)
- Veterans Administration**—Administrator: W. J. Driver. (Vermont Ave. at H St., 20420)

The Mayflower Compact

The Mayflower Compact, regarded by some historians as marking the beginning of democracy in America, was signed by 41 adult male members of the Pilgrims aboard the Mayflower as it lay alongside the present site of Provincetown, Mass., in 1620. Because the Pilgrims' patent from the Virginia Company gave them no right to settle so far north, there was grumbling among some members of the company who said abandonment of the Virginia patent left their leaders with no authority over them. To prevent disorder, the Mayflower Compact was signed, binding the Pilgrims to form a government and to abide by its laws. See *Index* for other details.

The text of the compact follows:

In the Name of God, Amen. We whose names are underwritten, the loyal subjects of our dread sovereign Lord, King James, by the grace of God, of Great Britain, France and Ireland; King, Defender of the Faith, etc.

Having undertaken, for the glory of God, and advancement of the Christian faith and honor of our King and Country, a voyage to plant the first colony in the northern parts of Virginia, do by these presents solemnly and mutually in the presence of God and one of another, covenant and combine ourselves together into a civil body politic, for our better ordering and preservation and furtherance of the ends aforesaid; and by virtue hereof enact constitute and frame such just and equal laws, ordinances, acts, constitutions and offices, from time to time, as shall be

thought most meet and convenient for the general good of the Colony; unto which we promise all due submission and obedience.

In witness whereof we have hereunder subscribed our names at Cape Cod the 11 of November, (Nov. 21 new style calendar), in the year of the reign of our sovereign Lord, King James of England, France and Ireland the eighteenth, and of Scotland the fifty-fourth. Ano Dom. 1620.

John Carver
William Bradford
Edward Winslow
William Brewster
Isaac Allerton
Miles Standish
John Alden (*)
Samuel Fuller
Christopher Martin
William Mullins
William White
Richard Warren
John Howland
Steven Hopkins
Edward Tilly
John Tilly
Francis Cooke
Thomas Rogers
Thomas Tinker
John Ridgdale

Edward Fuller
John Turner
Francis Eaton
James Chilton
John Craxton
John Billington
Moses Fletcher
John Goodman
Digery Priest
Thomas Williams
Gilbert Winslow
Edmund Margesson
Peter Brown
Richard Bitteridge
George Soule
Richard Clark
Richard Gardiner
John Allerton
Thomas English
Edward Doten
Edward Lester

*Last male survivor, died Sept. 12, 1687.

How America Was Named

America was named for Amerigo Vespucci (1454-1512), an Italian reputed to have made 4 voyages to the New World for Spain (1497-1503). The German geographer, Martin Waldseemüller, first used the name to honor Vespucci in a book published in 1507.

Proper Display and Use of the United States Flag

President Johnson signed July 5, 1968, a bill providing penalties of up to a year's imprisonment or a \$1,000 fine, or both, for burning publicly or otherwise deliberately desecrating the United States flag. All the states and the District of Columbia already had laws against flag desecration, with varying penalties, but the 1968 legislation provided the first Federal penalties.

A flag code for civilians was adopted June 14, 1923, by a conference of patriotic organizations in Washington. A joint resolution of Congress to codify display of the flag was approved June 22, 1942, for the use of civilians.

When to Display the Flag—The flag should be displayed on all days when the weather permits, especially on legal holidays and other special occasions, on official buildings when in use, in or near polling places on election days, and in or near schools when in session. A citizen may fly the flag at any time he wishes. It is customary to display the flag only from sunrise to sunset on buildings and on stationary flagstaffs in the open. However, it may be displayed at night on special occasions, preferably lighted. In Washington, the flag flies over the White House from sunrise to sunset. It flies over the Senate wing of the Capitol when the Senate is in session and over the House wing when that body is in session. It flies day and night over the east and west fronts of the Capitol, without floodlights at night but receiving light from the illuminated Capitol dome. It flies 24 hours a day at several other places, including the Fort McHenry National Monument in Baltimore, where it inspired Francis Scott Key to write The Star Spangled Banner.

How to Fly the Flag—The flag should be hoisted briskly and lowered ceremoniously, and should never be allowed to touch the ground or the floor. When hung over a sidewalk from a rope extending from a building to a pole, the union should be away from the building. When hung over the center of a street it should have the union to the north in an east-west street and to the east in a north-south street. No other flag may be flown above or, if on the same level, to the right of the United States flag, except that at the United Nations Headquarters the UN flag may be placed above flags of all member nations and other national flags may be flown with equal prominence or honor with the flag of the United States. Also, at services conducted by Navy chaplains at sea, the church pennant may be flown above the flag.

When two flags are placed against a wall with crossed staffs, the U. S. flag should be at right—its own right, and its staff should be in front of the staff of the other flag; when a number of flags are grouped and displayed from staffs, it should be at the center and at the highest point of the group.

Church and Platform Use—In an auditorium, the flag may be displayed flat, above and behind the speaker. If on a staff in a church chancel or on a speaker's platform, it should be in the position of honor at the clergyman's or speaker's right as he faces the congregation or audience. Any other flag in the chancel or on the platform should be displayed at the clergyman's or speaker's left. If elsewhere than in chancel or on platform, the flag should be displayed at the right of the congregation or audience as they face the speaker. The flag should not cover a speaker's desk or be draped in front of a platform.

When the flag is displayed horizontally or vertically against a wall, the stars should be at the observer's left.

When to Salute the Flag—All persons present should face the flag, stand at attention and salute on the following occasions: (1) When the flag is passing in a parade or in a review, (2) During the

ceremony of hoisting or lowering, (3) When the National Anthem is played and the flag is displayed, and (4) During the Pledge of Allegiance. Those present in uniform should render the military salute. When not in uniform, men should remove the hat with the right hand holding it at the left shoulder, the hand being over the heart. Men without hats should salute in the same manner. Aliens should stand at attention. Women should salute by placing the right hand over the heart.

On Memorial Day, May 30, the flag should fly at half-staff until noon, then be raised to the peak.

As proclaimed by President Eisenhower in 1954, the flag should fly at half-staff for 30 days from the day of a death of a President or former President; for 10 days from the day of death of a Vice President, Chief Justice or retired Chief Justice of the U.S., or Speaker of the House of Representatives; from day of death until burial of an Associate Justice of the Supreme Court, Cabinet member, former Vice President, or Secretary of the Army, Navy or Air Force; for a U. S. Senator, Representative, Territorial Delegate, or the Resident Commissioner of Puerto Rico, on day of death and the following day within the metropolitan area of the District of Columbia and from day of death until burial within the decedent's state, Congressional district, territory or commonwealth; and for the death of the governor of a state, territory or possession of the United States, the flag should fly at half-staff from day of death until burial within that state, territory or possession.

When used to cover a casket, the flag should be placed so that the union is at the head and over the left shoulder. The flag should not be lowered into the grave nor touch the ground.

Prohibited Uses of the Flag—The flag should not be dipped to any person or thing. It should never be displayed with the union down save as a signal of distress. It should never be carried flat or horizontally, but always aloft and free.

It should not be displayed on a float, motor car or boat except from a staff.

It should never be used as a covering for a ceiling, nor have placed upon it any word, design, or drawing. It should never be used as a receptacle for carrying anything. It should not be used to cover a statue or a monument.

The flag should never be used for advertising purposes, nor be embroidered on such articles as cushions or handkerchiefs, printed or otherwise impressed on boxes or used as a costume or athletic uniform. Advertising signs should not be fastened to its staff or halyard.

The flag should never be used as drapery of any sort, never festooned, drawn back, nor up, in folds, but always allowed to fall free. Bunting of blue, white and red always arranged with the blue above and the white in the middle, should be used for covering a speaker's desk, draping the front of a platform, and for decoration in general.

How to Dispose of Worn Flags—The flag, when it is in such condition that it is no longer a fitting emblem for display, should be destroyed in a dignified way, preferably by burning. Because of the dignity and reverence due the flag, it should be burned in private.

The President's Flag—It has a dark blue rectangular background on which appears the coat of arms of the President surrounded by a circle of 50 white stars.

When the President visits a vessel of the United States, the President's flag is broken at the main the moment he reaches the deck and is kept flying as long as he is on board.

Pledge of Allegiance to the Flag

I pledge allegiance to the flag of the United States of America and to the republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

This, the current official version of the Pledge of Allegiance, has developed from the original pledge, which was first published in the Sept. 8, 1892, issue of the Youth's Companion, a weekly magazine then published in Boston. The original pledge contained the phrase "my flag," which was changed more than 30 years later to "flag of the United States of America." An act of Congress in 1954 added the words "under God."

The authorship of the pledge has been in dispute for many years. The Youth's Companion stated in

1917 that the original draft was written by James B. Upham, an executive of the magazine who died in 1910. A letter, circulated by the magazine later named Upham as the originator of the draft "afterwards condensed and perfected by him and his associates of the Companion force."

Francis Bellamy, a former member of the Youth's Companion editorial staff, publicly claimed authorship of the pledge in 1923. The United States Flag Assn., acting on the advice of a committee named to study the controversy, upheld in 1939 the claim of Bellamy, who had died 8 years earlier. The Library of Congress issued in 1957 a report attributing the authorship to Bellamy.

The Flag of the United States—The Stars and Stripes

The 50-star flag of the United States was raised for the first time officially at 12:01 a.m. on July 4, 1960, at Fort McHenry National Monument in Baltimore, Md. The 50th star had been added for Hawaii; a year earlier the 49th, for Alaska. Before that, no star had been added since 1912, when New Mexico and Arizona were admitted to the Union.

In the 50-star flag, the stars are arranged in alternate rows of 6 and 5, staggered; there are 5 rows of 6 and 4 rows of 5 stars.

HISTORY OF THE FLAG

The true history of the Stars and Stripes has become so cluttered by a volume of myth and tradition that the facts are difficult, and in some cases impossible, to establish. For example, it is not certain who designed the Stars and Stripes, who made the first such flag, or even whether it ever flew in any sea fight or land battle of the American Revolution. Historians disagree on many details of the history of the Stars and Stripes and the flags that preceded it in the American colonies.

One thing all agree on is that the Stars and Stripes originated as the result of a resolution offered by the Marine Committee of the Second Continental Congress at Philadelphia and adopted June 14, 1777. It read:

Resolved: that the flag of the United States be made of thirteen stripes, alternate red and white; that the union be thirteen stars, white in a blue field, representing a new constellation.

Congress gave no hint as to the designer of the flag, no instructions as to the arrangement of the stars, and no information on its appropriate uses. Historians have been unable to find anything to reveal what provided the basis of the resolution—the original flag law.

The resolution establishing the flag was not even published until Sept. 2, 1777, more than 11 weeks after its passage. Despite repeated requests by the American commander, Gen. George Washington, for the "Standard of the United States" for his army, he did not get the flags until 1783, after the Revolutionary War was over. And there is no certainty that the flags were indeed the Stars and Stripes.

EARLY FLAGS

Although it was never officially adopted by the Continental Congress, many historians consider the first flag of the United States to have been the Grand Union (sometimes called Great Union) flag. This was a modification of the British Meteor flag, which had the red cross of St. George and the white cross of St. Andrew combined in the blue canton. For the Grand Union flag, 6 horizontal stripes were imposed on the red field, dividing it into 13 alternate red and white stripes. On Jan. 1, 1776, when the Continental Army came into formal existence, this flag was unfurled on Prospect Hill, Somerville, Mass. Washington wrote that "we hoisted the Union Flag in compliment to the United Colonies."

Citizens of Easton, Pa., started in 1968 a movement to have the Post Office Department include in a series of U. S. flag commemorative stamps a red, white and blue flag that has been in the public library at Easton for almost 150 years. Supporters of the movement contend that this flag was actually the first Stars and Stripes, and that it was first displayed on July 8, 1776, on the occasion of the public reading of the Declaration of Independence at the court house in Easton. This flag has 13 red and white stripes in the canton, 13 white stars centered in a blue field.

A flag was hastily improvised from garments by the defenders of Fort Schuyler at Rome, N. Y., Aug. 3-22, and this has led to the assumption that it was the Stars and Stripes. Historians believe it was the Grand Union Flag.

The Sons of Liberty had a flag of 9 red and white stripes, to signify 9 colonies, when they met in New York in 1765 to oppose the Stamp Tax. By 1775 the flag had grown to 13 red and white stripes, with a rattlesnake on it.

At Concord, Apr. 19, 1775, the minute men from Bedford, Mass., are said to have carried a flag having a silver arm with sword on a red field.

At Cambridge, Mass., the Sons of Liberty used a plain red flag with a green pine tree on it.

In June, 1775, Washington went from Philadelphia to Boston to take command of the army, escorted to New York by the Philadelphia Light Horse Troop. It carried a yellow flag which had

an elaborate coat of arms—the shield charged with 13 knots, the motto "For These We Strive"—and a canton of 13 blue and silver stripes.

In February, 1776, Col. Christopher Gadsden, member of the Continental Congress, gave the South Carolina Provincial Congress a flag "such as is to be used by the commander-in-chief of the American Navy." It had a yellow field, with a rattlesnake about to strike and the words Don't Tread on Me. Benjamin Franklin's paper, the Pennsylvania Gazette, had suggested sending a cargo of rattlesnakes to London parks to retaliate for British injustice.

At the battle of Bennington, Aug. 16, 1777, patriots used a flag of 7 white and 6 red stripes with a blue canton extending down 9 stripes and showing an arch of 11 white stars over the figure 76 and a star in each of the upper corners. The stars are seven-pointed. This flag is preserved in the Historical Museum at Bennington, Vt.

At the battle of Cowpens, Jan. 17, 1781, the 3rd Maryland Regt. is said to have carried a flag of 13 red and white stripes, with a blue canton containing 12 stars in a circle around one star.

LEGENDS ABOUT THE FLAG

Who Designed the Flag? No one knows for a certainty. Francis Hopkinson, a signer of the Declaration of Independence and designer of seals for the State Department, the Treasury Board and of a naval flag, declared he also had designed the flag and in 1781 asked Congress to reimburse him for his services. Congress did not do so. Dumas Malone of Columbia Univ. wrote: "This talented man . . . designed the American flag."

Who Called the Flag Old Glory?—The flag is said to have been named Old Glory by William Driver, a sea captain of Salem, Mass. One legend has it that when he raised the flag on his brig, the Charles Doggett, in 1824, he said: "I name thee Old Glory." But his daughter, who presented the flag to the Smithsonian Institution, said he named it at his 21st birthday celebration Mar. 17, 1824, when his mother and some neighbors presented the homemade flag to him.

Washington Coat-of-Arms Legend—The idea that the flag was suggested by Washington's coat of arms was publicized by Martin F. Tupper, an English writer, in a play in the 1870s. It rests on a coincidence and has no connection with the flag.

Washington's Invocation Legend—Circulation has been given to this speech attributed to General Washington: "We take the stars from heaven, the red from our mother country, separating it by white stripes, thus showing that we have separated from her, and the white stripes shall go down to posterity representing liberty." There is no proof that Washington ever said this.

The Betsy Ross Legend—The widely publicized legend that Mrs. Betsy Ross made the first Stars and Stripes in June, 1776, at the request of a committee composed of George Washington, Robert Morris and George Ross, an uncle, was first made public in 1870 by a grandson of Mrs. Ross. Historians have been unable to find a historical record of such a meeting or committee. Dr. Milo Milton Quaife wrote: "No record has ever been found of the creation by Mrs. Ross of the first Stars and Stripes." The New Century Encyclopedia of Names (1954) says: "There is documentary evidence that she was paid in May, 1777, for 'making ships colours, etc.' but no direct documentary evidence has been found to link her with the flag adopted by the Continental Congress on June 14, 1777, as the national emblem, and most historians now doubt if she made it."

ADDING NEW STARS

The flag of 1777 was used until 1795. Then, on the admission of Vermont and Kentucky to the Union, Congress passed and President Washington signed an act that after May 1, 1795, the flag should have 15 stripes, alternate red and white, and 15 white stars on a blue field in the union.

When new states were admitted it became evident that the flag would become burdened with stripes. Congress thereupon ordered that after July 4, 1818, the flag should have 13 stripes, symbolizing the 13 original states; that the union have 20 stars, and that whenever a new state was admitted a new star should be added on the July 4 following admission. No law designates the permanent arrangement of the stars. However, since 1912 when a new state has been admitted, the new design has been announced by executive order. No star in the flag is specifically identified with any state.

Presidents, Vice Presidents, Congresses

President	Vice President	Service	Congress
1 George Washington.....	1 John Adams.....	Apr. 30, 1789-Mar. 3, 1797	1, 2, 3, 4.
2 John Adams.....	2 Thomas Jefferson.....	Mar. 4, 1797-Mar. 3, 1801	5, 6.
3 Thomas Jefferson.....	3 Aaron Burr.....	Mar. 4, 1801-Mar. 3, 1805	7, 8.
do.....	4 George Clinton.....	Mar. 4, 1805-Mar. 3, 1809	9, 10.
4 James Madison.....	do ¹	Mar. 4, 1809-Mar. 3, 1813	11, 12.
do.....	5 Elbridge Gerry.....	Mar. 4, 1813-Mar. 3, 1817	13, 14.
5 James Monroe.....	6 Daniel D. Tompkins.....	Mar. 4, 1817-Mar. 3, 1825	15, 16, 17, 18.
6 John Quincy Adams.....	7 John C. Calhoun.....	Mar. 4, 1825-Mar. 3, 1829	19, 20.
7 Andrew Jackson.....	do ²	Mar. 4, 1829-Mar. 3, 1833	21, 22.
do.....	8 Martin Van Buren.....	Mar. 4, 1833-Mar. 3, 1837	23, 24.
8 Martin Van Buren.....	9 Richard M. Johnson.....	Mar. 4, 1837-Mar. 3, 1841	25, 26.
9 William Henry Harrison ³	10 John Tyler.....	Mar. 4, 1841-Apr. 4, 1841	27.
10 John Tyler.....	11 George M. Dallas.....	Apr. 6, 1841-Mar. 3, 1845	27, 28.
11 James K. Polk.....	12 Millard Fillmore.....	Mar. 4, 1845-Mar. 3, 1849	29, 30.
12 Zachary Taylor ⁴	do.....	Mar. 5, 1849-July 9, 1850	31.
13 Millard Fillmore.....	do.....	July 10, 1850-Mar. 3, 1853	31, 32.
14 Franklin Pierce.....	13 William R. King ⁵	Mar. 4, 1853-Mar. 3, 1857	33, 34.
15 James Buchanan.....	14 John C. Breckinridge.....	Mar. 4, 1857-Mar. 3, 1861	35, 36.
16 Abraham Lincoln.....	15 Hannibal Hamlin.....	Mar. 4, 1861-Mar. 3, 1865	37, 38.
do ⁶	16 Andrew Johnson.....	Mar. 4, 1865-Apr. 15, 1865	39.
17 Andrew Johnson.....	do.....	Apr. 15, 1865-Mar. 3, 1869	39, 40.
18 Ulysses S. Grant.....	17 Schuyler Colfax.....	Mar. 4, 1869-Mar. 3, 1873	41, 42.
do.....	18 Henry Wilson ⁶	Mar. 4, 1873-Mar. 3, 1877	43, 44.
19 Rutherford B. Hayes.....	19 William A. Wheeler.....	Mar. 4, 1877-Mar. 3, 1881	45, 46.
20 James A. Garfield ⁷	20 Chester A. Arthur.....	Mar. 4, 1881-Sept. 19, 1881	47.
21 Chester A. Arthur.....	do.....	Sept. 20, 1881-Mar. 3, 1885	47, 48.
22 Grover Cleveland ⁷	21 Thomas A. Hendricks ⁸	Mar. 4, 1885-Mar. 3, 1889	49, 50.
23 Benjamin Harrison.....	22 Levi P. Morton.....	Mar. 4, 1889-Mar. 3, 1893	51, 52.
24 Grover Cleveland ⁷	23 Adlai E. Stevenson.....	Mar. 4, 1893-Mar. 3, 1897	53, 54.
25 William McKinley.....	24 Garret A. Hobart ⁹	Mar. 4, 1897-Mar. 3, 1901	55, 56.
do.....	25 Theodore Roosevelt.....	Mar. 4, 1901-Sept. 14, 1901	57.
26 Theodore Roosevelt.....	do.....	Sept. 14, 1901-Mar. 3, 1905	57, 58.
do.....	26 Charles W. Fairbanks.....	Mar. 4, 1905-Mar. 3, 1909	59, 60.
27 William H. Taft.....	27 James S. Sherman ¹⁰	Mar. 4, 1909-Mar. 3, 1913	61, 62.
28 Woodrow Wilson.....	28 Thomas R. Marshall.....	Mar. 4, 1913-Mar. 3, 1921	63, 64, 65, 66.
29 Warren G. Harding ⁴	29 Calvin Coolidge.....	Mar. 4, 1921-Aug. 2, 1923	67.
30 Calvin Coolidge.....	do.....	Aug. 3, 1923-Mar. 3, 1925	68.
do.....	30 Charles G. Dawes.....	Mar. 4, 1925-Mar. 3, 1929	69, 70.
31 Herbert C. Hoover.....	31 Charles Curtis.....	Mar. 4, 1929-Mar. 3, 1933	71, 72.
32 Franklin D. Roosevelt.....	32 John N. Garner.....	Mar. 4, 1933-Jan. 20, 1941	73, 74, 75, 76.
do.....	33 Henry A. Wallace.....	Jan. 20, 1941-Jan. 20, 1945	77, 78.
33 Harry S. Truman.....	34 Harry S. Truman.....	Jan. 20, 1945-Apr. 12, 1945	79.
do.....	do.....	Apr. 12, 1945-Jan. 20, 1949	79, 80.
34 Dwight D. Eisenhower.....	35 Alben W. Barkley.....	Jan. 20, 1949-Jan. 20, 1953	81, 82.
35 John F. Kennedy ⁴	36 Richard M. Nixon.....	Jan. 20, 1953-Jan. 20, 1961	83, 84, 85, 86.
36 Lyndon B. Johnson.....	37 Lyndon B. Johnson.....	Jan. 20, 1961-Nov. 22, 1963	87, 88.
do.....	38 Hubert H. Humphrey.....	Nov. 22, 1963-Jan. 20, 1965	88, 89.

¹Died Apr. 30, 1812. ²Died Nov. 23, 1814. ³Resigned Dec. 28, 1832, to become United States Senator. ⁴Died in office. ⁵Died Apr. 18, 1853. ⁶Died Nov. 23, 1875. ⁷Terms not consecutive. ⁸Died Nov. 25, 1885. ⁹Died Nov. 21, 1899. ¹⁰Died Oct. 30, 1912.

Vice Presidents of the United States

The numerals given Vice Presidents do not coincide with those given Presidents, because some Presidents had none and some had more than one.

Name	Birthplace	Yr.	Residence	Qualified	Politics	Place of Death	Yr. Age.
1 John Adams.....	Quincy, Mass.....	1735	Mass.	1789	Fed.	Quincy, Mass.....	1826 90
2 Thomas Jefferson.....	Shadwell, Va.....	1743	Va.	1797	Rep.	Monticello, Va.....	1826 83
3 Aaron Burr.....	Newark, N. J.....	1756	N. Y.	1801	Rep.	Staten Island, N. Y.....	1836 80
4 George Clinton.....	Ulster Co., N. Y.....	1739	N. Y.	1805	Rep.	Washington, D. C.....	1812 73
5 Elbridge Gerry.....	Marblehead, Mass.....	1744	Mass.	1813	Rep.	Washington, D. C.....	1814 70
6 Daniel D. Tompkins.....	Scarsdale, N. Y.....	1774	N. Y.	1817	Rep.	Staten Island, N. Y.....	1823 51
7 *John C. Calhoun.....	Abbeville, S. C.....	1768	S. C.	1825	Rep.	Washington, D. C.....	1850 88
8 Martin Van Buren.....	Kinderhook, N. Y.....	1782	N. Y.	1843	Dem.	Kinderhook, N. Y.....	1862 79
9 Richard M. Johnson.....	Louisville, Ky.....	1780	Ky.	1847	Dem.	Frankfort, Ky.....	1850 70
10 John Tyler.....	Greenway, Va.....	1790	Va.	1841	Whig.	Richmond, Va.....	1862 71
11 George M. Dallas.....	Philadelphia, Pa.....	1792	Pa.	1845	Dem.	Philadelphia, Pa.....	1864 72
12 Millard Fillmore.....	Summerhill, N. Y.....	1800	N. Y.	1849	Whig.	Buffalo, N. Y.....	1874 74
13 William R. King.....	Sampson Co., N. C.....	1786	N. C.	1843	Dem.	Dallas Co., Ala.....	1853 67
14 John C. Breckinridge.....	Lexington, Ky.....	1821	Ky.	1857	Dem.	Lexington, Ky.....	1875 54
15 Hannibal Hamlin.....	Paris, Me.....	1809	Me.	1865	Rep.	Bangor, Me.....	1891 81
16 Andrew Johnson.....	Raleigh, N. C.....	1808	Tenn.	1865	Rep.	Carroll Co., Tenn.....	1875 66
17 Schuyler Colfax.....	New York City, N. Y.....	1826	Ind.	1869	Rep.	Mankato, Minn.....	1885 62
18 Henry Wilson.....	Farmington, N. H.....	1812	Mass.	1873	Rep.	Washington, D. C.....	1875 63
19 William A. Wheeler.....	Malone, N. Y.....	1819	N. Y.	1877	Rep.	Malone, N. Y.....	1887 68
20 Chester A. Arthur.....	Fairfield, Vt.....	1830	N. Y.	1881	Rep.	New York City, N. Y.....	1886 56
21 Thomas A. Hendricks.....	Muskingum Co., Ohio.....	1819	Ind.	1885	Dem.	Indianapolis, Ind.....	1885 66
22 Levi P. Morton.....	Shoreham, Vt.....	1824	N. Y.	1889	Rep.	Rhinebeck, N. Y.....	1920 96
23 Adlai E. Stevenson.....	Christian Co., Ky.....	1835	Ill.	1891	Dem.	Chicago, Ill.....	1914 78
24 Garret A. Hobart.....	Long Branch, N. J.....	1844	N. J.	1897	Rep.	Paterson, N. J.....	1899 55
25 Theodore Roosevelt.....	New York City, N. Y.....	1858	N. Y.	1901	Rep.	Oyster Bay, N. Y.....	1919 60
26 Charles W. Fairbanks.....	Unionville Centre, Ohio.....	1852	Ind.	1905	Rep.	Indianapolis, Ind.....	1918 66
27 James S. Sherman.....	Utica, N. Y.....	1835	N. Y.	1909	Rep.	Utica, N. Y.....	1912 77
28 Thomas R. Marshall.....	No. Manchester, Ind.....	1841	Ind.	1913	Dem.	Washington, D. C.....	1945 71
29 Calvin Coolidge.....	Plymouth, Vt.....	1872	Mass.	1921	Rep.	Northampton, Mass.....	1943 60
30 Charles G. Dawes.....	Marietta, Ohio.....	1865	Ill.	1925	Rep.	Evansport, Ill.....	1951 85
31 Charles Curtis.....	Topeka, Kan.....	1860	Kan.	1929	Rep.	Washington, D. C.....	1930 76
32 John Nance Garner.....	Red River Co., Tex.....	1868	Tex.	1933	Dem.	Uvalde, Tex.....	1967 98
33 Henry Agard Wallace.....	Adair County, Ia.....	1888	Iowa	1941	Dem.	Danbury, Conn.....	1965 77
34 Harry S. Truman.....	Lamar, Mo.....	1884	Mo.	1945	Dem.	Do.....	Do.....
35 Alben W. Barkley.....	Graves County, Ky.....	1877	Ky.	1949	Dem.	Lexington, Va.....	1956 78
36 Richard M. Nixon.....	Yorba Linda, Calif.....	1913	Calif.	1953	Rep.	Do.....	Do.....
37 Lyndon B. Johnson.....	Johnson City, Tex.....	1908	Tex.	1961	Dem.	Do.....	Do.....
38 Hubert H. Humphrey.....	Wallace, S. D.....	1911	Minn.	1965	Dem.	Do.....	Do.....

(*) John C. Calhoun resigned Dec. 28, 1832, having been elected to the U. S. Senate (Dec. 12, 1832) to fill vacancy caused by the resignation of Robert Y. Hayne. (x) Andrew Johnson—A Democrat nominated by Republicans and elected with Lincoln on the Nation Union ticket. Adlai E. Stevenson, 23rd Vice President, was grandfather of Democratic candidate for President, 1952 and 1956.

CABINETS OF THE UNITED STATES

Secretaries of State

The Department of Foreign Affairs was created by Act of Congress July 27, 1789, and the name changed to Department of State on Sept. 15. Thomas Jefferson, the minister to France, was appointed Secretary of State by President Washington Sept. 26, and took office March 21, 1790. John Jay, who had held the office of Secretary for Foreign Affairs since his appointment by the Ninth Continental Congress in March 1784, in place of Robert R. Livingston (appointed Jan. 1781), left it in September 1789, when the U. S. Supreme Court was established with him as Chief Justice.

The Secretary of State is charged, under the direction of the President, with the duties appertaining to correspondence with the public ministers and the consuls of the United States and with the representatives of foreign powers accredited to the United States, and to negotiations of whatever character relating to the foreign affairs of the United States.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Washington..	Thomas Jefferson..	Va...	1789	Arthur.....	James G. Blaine.....	Me...	1881
"	Edmund Randolph..	"	1794	"	F. T. Frelinghuysen..	N. J...	1881
"	Timothy Pickering..	Pa...	1795	Cleveland....	"	"	1885
J. Adams.....	"	"	1795	"	Thomas F. Bayard....	Del...	1885
"	John Marshall.....	Va...	1800	B. Harrison..	"	"	1889
Jefferson.....	James Madison.....	"	1801	"	James G. Blaine.....	Me...	1889
Madison.....	Robert Smith.....	Md...	1809	"	John W. Foster.....	Ind...	1892
"	James Monroe.....	Va...	1811	Cleveland....	Walter Q. Gresham..	Ill...	1893
Monroe.....	John Quincy Adams..	Mass..	1815	"	Richard Olney.....	Mass..	1895
J. Q. Adams..	Henry Clay.....	Ky...	1827	McKinley....	"	"	1897
Jackson.....	Martin Van Buren... N. Y.	"	1829	"	John Sherman.....	Ohio..	1897
"	Edward Livingston... La.	"	1831	"	William R. Day.....	"	1898
"	Louis McLane.....	Del...	1833	"	John Hay.....	D. C...	1898
"	John Forsyth.....	Ga...	1834	T. Roosevelt..	"	"	1901
Van Buren... W. H. Harrison	Daniel Webster..... Mass..	"	1837	"	Ellhu Root.....	N. Y...	1905
Tyler.....	"	"	1841	"	Robert Bacon.....	"	1909
"	Abel P. Upshur..... Va...	"	1843	Taft.....	"	"	1909
"	John C. Calhoun..... S. C.	"	1844	"	Philander C. Knox... Pa.	"	1909
Polk.....	"	"	1845	Wilson.....	"	"	1913
"	James Buchanan..... Pa...	"	1845	"	William J. Bryan.... Neb...	"	1913
Taylor.....	"	"	1849	"	Robert Lansing..... N. Y.	"	1915
Fillmore....	John M. Clayton... Del...	"	1849	"	Bainbridge Colby... "	"	1920
"	"	"	1850	Harding.....	Charles E. Hughes... "	"	1921
"	Daniel Webster..... Mass..	"	1850	Coolidge....	"	"	1923
"	Edward Everett..... "	"	1852	Hoover.....	Frank B. Kellogg.... Minn.	"	1925
Pierce.....	William L. Marcy... N. Y.	"	1853	"	Henry L. Stimson.... N. Y.	"	1929
Buchanan....	"	"	1857	F. D. Roosevelt	Cordell Hull..... Tenn.	"	1933
"	Lewis Cass..... Mich.	"	1857	"	E. R. Stettinius, Jr.. Va...	"	1944
"	Jeremiah S. Black... Pa...	"	1860	Truman.....	"	"	1945
Lincoln.....	"	"	1861	"	James F. Byrnes.... S. C.	"	1945
"	William H. Seward... N. Y.	"	1861	"	George C. Marshall.. Pa...	"	1947
Johnson, A.	"	"	1865	"	Dean G. Acheson.... Conn.	"	1949
Grant.....	Ellhu B. Washburne.. Ill.	"	1869	Eisenhower..	John Foster Dulles... N. Y.	"	1953
"	Hamilton Fish..... N. Y.	"	1869	"	Christian A. Herter... Mass..	"	1959
Hayes.....	"	"	1877	Kennedy.....	Dean Rusk..... N. Y.	"	1961
"	William M. Evarts... "	"	1877	Johnson, L. B.	"	"	1963
Garfield....	"	"	1881				
"	James G. Blaine..... Me...	"	1881				

Secretaries of the Treasury

The second Continental Congress on July 29, 1775, appointed Michael Hillegas and George Clymer, Esqs., as "joint treasurers of the United Colonies." Francis Hopkinson was elected Treasurer of Loans July 27, 1778. Robert Morris was appointed Superintendent of Finance by the Seventh Continental Congress on Feb. 20, 1781. The Treasury Department was organized by Act of Congress on Sept. 2, 1789, and President Washington commissioned Alexander Hamilton Secretary of the Treasury on Sept. 11.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Washington..	Alexander Hamilton.. N. Y.	"	1789	Grant.....	William A. Richardson Mass..	"	1873
"	Oliver Wolcott..... Conn.	"	1795	"	Benjamin H. Bristow Ky...	"	1874
J. Adams.....	"	"	1797	"	Lot M. Morrill..... Me...	"	1876
"	Samuel Dexter..... Mass.	"	1801	Hayes.....	John Sherman..... Ohio..	"	1877
Jefferson.....	"	"	1801	Garfield....	William Windom.... Minn.	"	1881
"	Albert Gallatin..... Pa...	"	1801	Arthur.....	Charles J. Folger... N. Y.	"	1881
Madison.....	"	"	1809	"	Walter Q. Gresham.. Ind...	"	1884
"	George W. Campbell... Tenn.	"	1814	"	Hugh McCulloch.... N. Y.	"	1884
"	Alexander J. Dallas... Pa...	"	1814	Cleveland....	Daniel Manning..... N. Y.	"	1885
"	William H. Crawford.. Ga...	"	1816	"	Charles S. Fairchild.. "	"	1887
Monroe.....	"	"	1817	B. Harrison..	William Windom.... Minn.	"	1889
J. Q. Adams..	Richard Rush..... Pa...	"	1825	"	Charles Foster..... Ohio..	"	1891
"	Samuel D. Ingham... "	"	1829	Cleveland....	John G. Carlisle.... Ky...	"	1893
Jackson.....	Louis McLane..... Del...	"	1831	McKinley....	Lyman J. Gage..... Ill...	"	1897
"	William J. Duane.... Pa...	"	1833	T. Roosevelt..	"	"	1901
"	Roger B. Taney..... Md...	"	1833	"	Leslie M. Shaw..... Ia...	"	1902
Van Buren... W. H. Harrison	Levi Woodbury..... N. H.	"	1834	"	George B. Cortelyou.. N. Y.	"	1907
Tyler.....	"	"	1837	Taft.....	Franklin MacVeagh... Ill...	"	1909
"	Thomas Ewing..... Ohio..	"	1841	Wilson.....	William G. McAdoo... N. Y.	"	1913
"	"	"	1841	"	Carter Glass..... Va...	"	1918
"	Walter Forward.... Pa...	"	1841	"	David F. Houston.... Mo...	"	1920
"	John C. Spencer..... N. Y.	"	1843	Harding.....	Andrew W. Mellon... Pa...	"	1921
"	George M. Bibb..... Ky...	"	1844	Coolidge....	"	"	1923
Polk.....	Robert J. Walker.... Miss.	"	1845	Hoover.....	"	"	1929
Taylor.....	William M. Meredith.. Pa...	"	1849	"	Ogden L. Mills..... N. Y.	"	1932
Fillmore....	Thomas Corwin..... Ohio..	"	1850	F. D. Roosevelt	William H. Woodin... "	"	1933
"	James Guthrie..... Ky...	"	1853	"	Henry Morgenthau, Jr. "	"	1934
Pierce.....	"	"	1857	Truman.....	Fred M. Vinson..... Ky...	"	1945
"	Howell Cobb..... Ga...	"	1857	"	John W. Snyder..... Mo...	"	1946
Buchanan....	Philip F. Thomas.... Md...	"	1860	"	George M. Humphrey.. Ohio..	"	1953
"	"	"	1861	Eisenhower..	Robert B. Anderson... Conn.	"	1957
Lincoln.....	John A. Dix..... N. Y.	"	1861	"	C. Douglas Dillon.... N. J.	"	1961
"	Salmon P. Chase..... Ohio..	"	1861	Kennedy.....	"	"	1963
"	William P. Fessenden.. Me...	"	1864	Johnson, L. B.	Henry H. Fowler.... Va...	"	1965
Johnson A.. Grant.....	Hugh McCulloch.... Ind...	"	1865				
"	"	"	1865				
"	George S. Boutwell... Mass.	"	1869				

Secretaries of Housing and Urban Development

The Department of Housing and Urban Development was created by Act of Congress Sept. 9, 1965.

President	Cabinet Officer	Home	Apptd.	President	Cabinet Officer	Home	Apptd.
Johnson, L. B.	Robert C. Weaver...	Wash.	1966				

Secretaries of Defense

The Department of Defense, originally designated the National Military Establishment, was created Sept. 18, 1947. It is headed by the Secretary of Defense, who is a member of the President's cabinet. The Departments of the Army, of the Navy and of the Air Force function within the Department of Defense, and their respective secretaries are no longer members of the President's cabinet.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Truman.....	James V. Forrestal...	N. Y.	1947	Eisenhower...	Neil H. McElroy...	Ohio...	1957
"	Louis A. Johnson...	W. Va.	1949	"	Thomas S. Gates, Jr.	Pa.	1959
"	George C. Marshall...	Pa.	1950	"	Robert S. McNamara	Mich.	1961
"	Robert A. Lovett...	N. Y.	1951	"	Johnson, L. B.	"	1963
Eisenhower...	Charles E. Wilson...	Mich.	1953	"	Clark M. Clifford...	Md.	1968

Secretaries of War

The Second Continental Congress set up in June, 1776, a board of War and Ordnance consisting of five members: John Adams, Roger Sherman, Benjamin Harrison, James Wilson and Edward Rutledge. Richard Peters was elected Secretary on June 12. This Board, several times changed, continued until Oct. 30, 1781, when Congress appointed Benjamin Lincoln Secretary of War, a position created by Act of Congress the previous February. The Eleventh Continental Congress on March 6, 1785, appointed Gen. Henry Knox to succeed him with the added duties of the Navy. The War (and Navy) Department was created by Act of Congress Aug. 7, 1789, and Gen. Henry Knox was commissioned Secretary of War under that Act Sept. 12, 1789.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Washington...	Henry Knox...	Mass.	1789	Grant.....	John A. Rawlins...	Ill.	1869
"	Timothy Pickens...	Pa.	1795	"	William T. Sherman...	Ohio...	1869
"	James McHenry...	Md.	1796	"	William W. Belknap...	Iowa...	1869
J. Adams...	"	"	1797	"	Alphonse Taft...	Ohio...	1876
"	Samuel Dexter...	Mass.	1800	"	James Don. Cameron...	Pa.	1876
Jefferson...	Henry Dearborn...	N. Y.	1801	Hayes...	George W. McCrary...	Iowa...	1877
Madison...	William Eustis...	Mass.	1809	"	Alexander Ramsey...	Minn.	1879
"	John Armstrong...	N. Y.	1813	Garfield...	Robert T. Lincoln...	Ill.	1881
"	James Monroe...	Pa.	1814	"	"	"	1881
"	William H. Crawford...	S. C.	1815	"	William C. Endicott...	Mass.	1885
"	John C. Calhoun...	S. C.	1817	"	Arthur...	Vt.	1890
Monroe...	James Barbour...	Va.	1825	"	B. Harrison...	W. Va.	1891
J. Q. Adams...	Peter B. Porter...	N. Y.	1828	"	Stephen B. Elkins...	N. Y.	1893
"	John H. Eaton...	Tenn.	1829	"	Daniel S. Lamont...	N. Y.	1893
Jackson...	Lewis Cass...	Ohio...	1831	McKinley...	Russel A. Alger...	Mich.	1897
"	Benjamin F. Butler...	N. Y.	1837	"	Elihu Root...	N. Y.	1899
"	Joel R. Poinsett...	S. C.	1837	T. Roosevelt...	"	"	1901
Van Buren...	John Bell...	Tenn.	1841	"	William H. Taft...	Ohio...	1904
W. H. Harrison...	"	"	1841	"	Luke E. Wright...	Tenn.	1908
Tyler...	John C. Spencer...	N. Y.	1841	Taft...	Jacob M. Dickinson...	"	1909
"	James M. Porter...	Pa.	1843	"	Henry L. Stimson...	N. Y.	1911
"	William Wilks...	Pa.	1844	Wilson...	Lindley M. Garrison...	N. J.	1913
"	William L. Marcy...	N. Y.	1845	"	Newton D. Baker...	Ohio...	1916
Polk...	George W. Crawford...	Pa.	1849	Harding...	John W. Weeks...	Mass.	1921
Fillmore...	Charles M. Conrad...	La.	1850	"	Coolidge...	"	1923
Pierce...	Jefferson Davis...	Miss.	1853	"	Dwight F. Davis...	Mo.	1925
"	John B. Floyd...	Va.	1857	"	James W. Good...	Ill.	1929
Buchanan...	Joseph Holt...	Ky.	1861	"	Patrick J. Hurley...	Okl.	1929
"	Simon Cameron...	Pa.	1861	F. D. Roosevelt...	George H. Dern...	Utah...	1933
Lincoln...	Edwin M. Stanton...	Pa.	1862	"	Harry H. Woodring...	Kan.	1937
"	"	"	1865	"	Henry L. Stimson...	N. Y.	1940
Johnson, A...	John M. Schofield...	Ill.	1868	Truman...	Robert P. Patterson...	N. Y.	1945
"	"	"	1868	"	Kenneth C. Royall...	N. C.	1947

(*) Last member of the President's Cabinet. The War Dept. became the Dept. of the Army and is now a branch of the Dept. of Defense, created September 18, 1947.

Secretaries of the Navy

The Navy Department was created by Act of Congress April 30, 1798, which made the Secretary a member of the Cabinet. President Adams appointed George Cabot of Beverly, Mass., the first Secretary of the Navy, May 3, 1798, but he declined the office. Benjamin Stoddert was appointed the same day.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
J. Adams...	Benjamin Stoddert...	Md.	1798	Lincoln...	Gideon Welles...	Conn.	1861
Jefferson...	"	"	1801	Johnson, A...	"	"	1865
"	Robert Smith...	"	1801	Grant...	Adolph E. Borie...	Pa.	1869
Madison...	Paul Hamilton...	S. C.	1809	"	George M. Robeson...	N. J.	1869
"	William Jones...	Pa.	1813	Hayes...	Richard W. Thompson...	Ind.	1877
"	Benjamin Williams...	"	"	"	Nathan Goff, Jr...	W. Va.	1881
Monroe...	Crownshield...	Mass.	1814	Garfield...	William H. Hunt...	La.	1881
"	"	"	1817	"	William E. Chandler...	N. H.	1882
"	Smith Thompson...	N. Y.	1818	"	William C. Whitney...	N. Y.	1885
"	Samuel L. Southard...	N. J.	1823	"	Benjamin F. Tracy...	N. Y.	1889
J. Q. Adams...	"	"	1825	"	Hillary A. Herbert...	Ala.	1893
Jackson...	John Branch...	N. C.	1829	"	John D. Long...	Mass.	1897
"	Levi Woodbury...	N. H.	1831	T. Roosevelt...	"	"	1901
"	Mahlon Dickerson...	N. J.	1834	"	William H. Moody...	"	1902
Van Buren...	"	"	1837	"	Paul Morton...	Ill.	1904
"	James K. Paulding...	N. Y.	1838	"	Charles J. Bonaparte...	Md.	1905
W. H. Harrison...	George E. Badger...	N. C.	1841	"	Victor H. Metcalf...	Cal.	1906
Tyler...	"	"	1841	"	Truman H. Newberry...	Mich.	1908
"	Abel P. Upshur...	Va.	1841	Taft...	George von L. Meyer...	Mass.	1909
"	David Henshaw...	Mass.	1843	Wilson...	Josephus Daniels...	N. C.	1913
"	Thomas W. Gilmer...	Va.	1844	"	Edwin Denby...	Mich.	1921
"	John Y. Mason...	"	1844	Harding...	"	"	1923
Polk...	George Bancroft...	Mass.	1845	"	Curtis D. Wilbur...	Cal.	1924
"	John Y. Mason...	Va.	1846	"	Charles Francis Adams...	Mass.	1929
Taylor...	William B. Preston...	N. C.	1849	"	Laure A. Swanson...	Va.	1933
Fillmore...	William A. Graham...	N. C.	1850	"	Charles Edison...	N. J.	1940
"	John P. Kennedy...	Md.	1852	"	Frank Knox...	Ill.	1940
Pierce...	James C. Dobbin...	N. C.	1853	"	James V. Forrestal...	N. Y.	1944
Buchanan...	Isaac Toucey...	Conn.	1857	Truman...	"	"	1945

(*) Last member of the President's Cabinet. The Navy Department is now a branch of the Dept. of Defense, created September 18, 1947.

Secretaries of Transportation

The Department of Transportation was created by Act of Congress Oct. 15, 1966.

President	Cabinet Officer	Home	Apptd.	President	Cabinet Officer	Home	Apptd.
Johnson, L. B.	Alan S. Boyd...	Fla.	1966				

Postmasters General

Benjamin Franklin had been Deputy Postmaster in America (1737), and Postmaster General for the Colonies (1753) under the King until summarily dismissed by him Jan. 30, 1774. The Second Continental Congress created the Post Office Department with headquarters in Philadelphia and on July 26, 1775, elected Benjamin Franklin Postmaster General for one year. On his sailing later for France as one of the ambassadors, Richard Bache succeeded him on Nov. 7, 1776. Ebenezer Hazard was appointed Postmaster General Jan. 28, 1782. Congress temporarily established the Post Office Department as a branch of the Treasury, on Sept. 22, 1789, and Washington commissioned Samuel Osgood Postmaster General on Sept. 26. The Postmaster General was made a member of the Cabinet March 9, 1829. His is the only portfolio in the Cabinet that expires every four years. The Post Office Department was established as an executive department June 8, 1872.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Washington..	Samuel Osgood	Mass.	1789	Hayes	David McK. Key	Tenn.	1877
"	Timothy Pickering . .	Pa.	1791	"	Horace Maynard	Tenn.	1880
"	Joseph Habersham . .	Ga.	1795	Garfield	Thomas L. James	N. Y.	1881
J. Adams	"	"	1797	Arthur	Timothy O. Howe	Wis.	1881
Jefferson	"	"	1801	"	Walter Q. Gresham . . .	Ind.	1883
"	Gideon Granger	Conn.	1801	"	Frank Hatton	Iowa.	1884
Madison	"	"	1809	Cleveland	William F. Vilas	Wis.	1885
"	Return J. Meigs, Jr. . .	Ohio	1814	"	Don M. Dickinson	Mich.	1888
Monroe	"	"	1817	B. Harrison	John Wanamaker	Pa.	1889
"	John McLean	"	1823	Cleveland	Wilson S. Bissel	N. Y.	1893
J. Q. Adams	"	"	1825	"	William L. Wilson	W. Va.	1895
Jackson	William T. Barry . . .	Ky. . .	1829	McKinley	James A. Gary	Md.	1897
"	Amos Kendall	"	1835	"	Charles E. Smith	Pa.	1898
Van Buren	"	"	1837	T. Roosevelt	"	"	1901
"	John M. Niles	Conn.	1840	"	Henry C. Payne	Wis.	1902
W.H.Harrison	Francis Granger	N. Y.	1841	"	Robert J. Wynne	Pa.	1904
Tyler	Francis Granger	N. Y.	1841	"	George B. Cortelyou . .	N. Y.	1905
"	Charles A. Wickliffe . .	Ky.	1841	"	George von L. Meyer . . .	Mass.	1907
Polk	Cave Johnson	Tenn.	1845	Taft	Frank H. Hitchcock . . .	"	1909
Taylor	Jacob Collamer	Vt.	1849	Wilson	Albert S. Burleson . . .	Tex.	1913
Fillmore	Nathan K. Hall	N. Y.	1850	Harding	Will H. Hays	Ind.	1921
"	Samuel D. Hubbard . . .	Conn.	1852	"	Hubert Work	Colo.	1922
Pierce	James Campbell	Pa.	1853	"	Harry S. New	Ind.	1923
Buchanan	Aaron V. Brown	Tenn.	1857	"	"	"	1923
"	Joseph Holt	Ky.	1859	Coolidge	Walter F. Brown	Ohio.	1929
"	Horatio King	Me.	1861	Hoover	James A. Farley	N. Y.	1933
Lincoln	Montgomery Blair . . .	D. C.	1861	F.D.Roosevelt	Frank C. Walker	Pa.	1940
"	William Dennison	Ohio.	1864	Truman	Robt. E. Hannegan . . .	Mo.	1945
Johnson, A.	"	"	1865	"	Jesse M. Donaldson . . .	Mo.	1947
"	Alex. W. Randall	Wis.	1866	Eisenhower	A. E. Summerfield	Mich.	1953
Grant	John A. J. Creswell . .	Md.	1869	Kennedy	J. Edward Day	Calif.	1961
"	James W. Marshall . . .	Va.	1874	"	John A. Gronouski	Wis.	1963
"	Marshall Jewell	Conn.	1874	Johnson, L. B.	"	"	1963
"	James N. Tyner	Ind.	1876	"	Lawrence F. O'Brien . .	Mass.	1965
"	"	"	"	"	W. Marvin Watson	Texas.	1968

Attorneys General

The office of Attorney General was organized by Act of Congress Sept. 24, 1789. Washington appointed Edmund Randolph to the post. The Attorney General was made a member of the Cabinet in 1814. The Dept. of Justice was created June 22, 1870, and the Attorney General was placed at its head.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Washington..	Edmund Randolph..	Va.	1789	Grant.....	Alphonso Taft.....	Ohio.	1876
"	William Bradford..	Pa.	1794	Hayes.....	Charles Devens....	Mass.	1877
"	Charles Lee.....	Va.	1795	Garfield....	Wayne MacVeagh..	Pa.	1881
J. Adams....	Levi Lincoln.....	Mass.	1797	Arthur.....	Benjamin H. Brewster	"	1881
Jefferson....	John Breckenridge.	Ky.	1805	Cleveland....	Augustus Garland..	Ark.	1885
"	Caesar A. Rodney..	Del.	1807	B. Harrison..	William H. H.	"	1889
"	"	"	1809	"	Miller.....	Ind.	1889
Madison....	William Pinkney..	Md.	1804	Cleveland....	Richard Olney.....	Mass.	1893
"	Richard Rush.....	Pa.	1814	"	Judson Harmon....	Ohio.	1895
Monroe....	William Wirt.....	Va.	1817	McKinley....	Joseph McKenna....	Cal.	1897
"	"	"	1817	"	John W. Griggs....	N. J.	1898
J. Q. Adams..	"	"	1825	"	Philander C. Knox..	Pa.	1901
Jackson....	John McP. Berrien.	Ga.	1829	T. Roosevelt.	"	"	1901
"	Roger B. Taney....	Md.	1831	"	William H. Moody..	Mass.	1904
"	Benjamin F. Butler.	N. Y.	1833	"	Charles J. Bona- parte.....	Md.	1906
Van Buren....	Felix Grundy.....	Tenn.	1837	Taft.....	George W. Wicker- sham.....	N. Y.	1909
"	Henry D. Gilpin....	Pa.	1838	"	J. C. McReynolds..	N. Y.	1913
W.H. Harrison	John J. Crittenden.	Ky.	1841	Wilson.....	Thomas W. Gregory.	Tex.	1914
Tyler.....	"	"	1841	"	A. Mitchell Palmer.	Pa.	1919
"	Hugh S. Legare....	S. C.	1841	Harding....	Harry M. Daugh- erty.....	Ohio.	1921
"	John Nelson.....	Md.	1843	"	"	"	1923
Polk.....	John Y. Mason....	Va.	1845	Coolidge....	Harlan F. Stone....	N. Y.	1924
"	Nathan Clifford..	Me.	1846	"	John G. Sargent....	Vt.	1925
"	Isaac Toucey.....	Conn.	1848	"	William D. Mitchell.	Minn.	1929
Taylor.....	Reverdy Johnson..	Md.	1849	Hoover.....	Homer S. Cummings.	Conn.	1933
Fillmore....	John J. Crittenden.	Ky.	1850	F.D. Roosevelt	Frank Murphy.....	Mich.	1939
Pierce.....	Caleb Cushing.....	Mass.	1853	"	Robert H. Jackson..	N. Y.	1940
Buchanan....	Jehonah S. Black..	Pa.	1857	"	Francis Biddle....	N. Y.	1941
"	Edwin M. Stanton..	Pa.	1860	Truman.....	Tom C. Clark.....	Tex.	1945
Lincoln.....	Edward Bates.....	Mo.	1861	"	J. Howard McGrath.	R. I.	1949
"	James Speed.....	Ky.	1864	"	J. P. McGranery....	Pa.	1952
Johnson, A..	"	"	1865	Eisenhower..	H. Brownell, Jr....	N. Y.	1953
"	Henry Stanbery....	Ohio.	1866	"	William P. Rogers..	Md.	1957
"	William M. Everts..	N. Y.	1868	Kennedy....	Robert F. Kennedy..	Mass.	1961
Grant.....	Ebenezer R. Hoar..	Mass.	1869	"	"	"	1963
"	Amos T. Akerman..	Ga.	1870	Johnson, L. B.	"	"	1963
"	George H. Williams.	Ore.	1871	"	N. de B. Katzenbach	Ill.	1968
"	Edwards Pierrepont.	N. Y.	1875	"	Ramsey Clark.....	Tex.	1967

Secretaries of Health, Education and Welfare

The Department of Health, Education and Welfare was created by Act of Congress April 11, 1953.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Eisenhower..	Oveta Culp Hobby..	Texas.	1953	Kennedy....	Anthony J. Celebrezze	Ohio.	1962
"	Marion B. Folsom..	N. Y.	1955	"	"	"	1963
"	Arthur S. Flemming.	Ohio.	1958	Johnson, L. B.	John W. Gardner....	N. Y.	1965
Kennedy....	Abraham A. Ribicoff.	Conn.	1961	"	William J. Cohen....	Mich.	1968

Secretaries of the Interior

The Department of Interior was created by Act of Congress March 3, 1849.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Taylor.....	Thomas Ewing.....	Ohio.....	1849	McKinley.....	Cornelius N. Bliss.....	N. Y.....	1897
Fillmore.....	Thomas M. T. McKennan.....	Pa.....	1850	.....	Ethan A. Hitchcock.....	Mo.....	1898
.....	Alex. H. H. Stuart.....	Va.....	1850	T. Roosevelt.....	James R. Garfield.....	Ohio.....	1901
Pierce.....	Robert McClelland.....	Mich.....	1853	Taft.....	Richard A. Ballinger.....	Wash.....	1907
Buchanan.....	Jacob Thompson.....	Mass.....	1857	.....	Walter L. Fisher.....	Ill.....	1909
Lincoln.....	Caleb B. Smith.....	Ind.....	1861	Wilson.....	Franklin K. Lane.....	Cal.....	1913
.....	John P. Usher.....	.....	1863	.....	John B. Payne.....	Ill.....	1920
Johnson, A.....	James Harlan.....	Iowa.....	1865	Harding.....	Albert B. Fall.....	N. M.....	1921
.....	Orville H. Browning.....	Ill.....	1866	.....	Hubert Work.....	Colo.....	1923
Grant.....	Jacob D. Cox.....	Ohio.....	1869	Coolidge.....	Roy O. West.....	Ill.....	1929
.....	Columbus Delano.....	.....	1870	Hoover.....	Ray Lyman Wilbur.....	Cal.....	1929
.....	Zachariah Chandler.....	Mich.....	1875	F.D. Roosevelt.....	Harold L. Ickes.....	Ia.....	1933
Hayes.....	Carl Schurz.....	Mo.....	1877	Truman.....	.....	Ill.....	1945
Garfield.....	Sam. J. Kirkwood.....	Iowa.....	1881	.....	Julius A. Krug.....	Wis.....	1946
Arthur.....	Henry M. Teller.....	Colo.....	1882	.....	Oscar L. Chapman.....	Colo.....	1950
Cleveland.....	Lucius Q. C. Lamar.....	Miss.....	1883	Eisenhower.....	Douglas McKay.....	Oreg.....	1953
.....	William F. Vilas.....	Wis.....	1888	.....	Fred A. Seaton.....	Neb.....	1956
Mc Harrison.....	John W. Noble.....	Mo.....	1889	Kennedy.....	Stewart L. Udall.....	Ariz.....	1961
Cleveland.....	Hoke Smith.....	Ga.....	1893	Johnson, L. B.....	.....	.....	1963
.....	David R. Francis.....	Mo.....	1890				

Secretaries of Agriculture

The Department of Agriculture was created by Act of Congress, May 15, 1862. On Feb. 8, 1889, its Commissioner was renamed Secretary of Agriculture and became a member of the Cabinet.

Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
Cleveland.....	Norman J. Colman.....	Mo.....	1889	Coolidge.....	Howard M. Gore.....	W. Va.....	1924
R. Harrison.....	Jeremiah M. Rusk.....	Mo.....	1889	.....	W. M. Jardine.....	Kan.....	1925
Cleveland.....	J. Sterling Morton.....	Neb.....	1893	Hoover.....	Arthur M. Hyde.....	Mo.....	1929
McKinley.....	James Wilson.....	Ia.....	1897	F.D. Roosevelt.....	Henry A. Wallace.....	Iowa.....	1933
T. Roosevelt.....	.....	.....	1901	.....	Claude R. Wickard.....	Ind.....	1940
Taft.....	.....	.....	1909	Truman.....	Clinton P. Anderson.....	N. M.....	1945
Wilson.....	David F. Houston.....	Mo.....	1913	.....	Charles F. Brannan.....	Colo.....	1948
.....	Edward T. Meredith.....	Ia.....	1920	Eisenhower.....	Ezra Taft Benson.....	Utah.....	1953
Harding.....	Henry C. Wallace.....	Ia.....	1921	Kennedy.....	Orville L. Freeman.....	Minn.....	1961
Coolidge.....	.....	.....	1923	Johnson, L. B.....	.....	.....	1963

Secretaries of Commerce and Labor

The Dept. of Commerce & Labor, created by Congress Feb. 14, 1903, was divided by Congress Mar. 4, 1913, into separate Depts. of Commerce and Labor, the Secretary of each made a Cabinet member.

Secretaries of Commerce and Labor				Secretaries of Commerce			
Presidents	Cabinet Officers	Home	Apptd.	Presidents	Cabinet Officers	Home	Apptd.
T. Roosevelt.....	Geo. B. Cortelyou.....	N. Y.....	1903	Wilson.....	William C. Redfield.....	N. Y.....	1913
.....	Victor H. Metcalf.....	Cal.....	1904	.....	Josh. W. Alexander.....	Mo.....	1919
.....	Oscar S. Straus.....	N. Y.....	1906	Harding.....	Herbert C. Hoover.....	Cal.....	1921
Taft.....	Charles Nagel.....	Mo.....	1909	Coolidge.....	.....	.....	1923
Secretaries of Labor				.....	William F. Whiting.....	Mass.....	1928
Wilson.....	William B. Wilson.....	Pa.....	1913	Hoover.....	Robert P. Lamont.....	Ill.....	1929
Harding.....	James J. Davis.....	Pa.....	1921	.....	Roy D. Chapin.....	Mich.....	1932
Coolidge.....	.....	.....	1923	F.D. Roosevelt.....	Daniel C. Roper.....	S. C.....	1933
Hoover.....	.....	.....	1929	.....	Harry L. Hopkins.....	N. Y.....	1939
.....	.....	.....	.....	.....	Jesse Jones.....	Texas.....	1940
F.D. Roosevelt.....	William N. Doak.....	Va.....	1930	.....	Henry A. Wallace.....	Ia.....	1945
Truman.....	Frances Perkins.....	N. Y.....	1933	Truman.....	W. Averell Harriman.....	N. Y.....	1945
.....	L. B. Schweikendach.....	Wash.....	1945	.....	Charles Sawyer.....	Ohio.....	1947
.....	Maurice J. Tobin.....	Mass.....	1949	Eisenhower.....	Stclair Weeks.....	Mass.....	1953
Eisenhower.....	Martin P. Durkin.....	Ill.....	1953	.....	Lewis L. Strauss.....	N. Y.....	1958
.....	James P. Mitchell.....	N. J.....	1953	.....	Frederick H. Mueller.....	Mich.....	1959
Kennedy.....	Arthur J. Goldberg.....	Ill.....	1961	Kennedy.....	Luther H. Hodges.....	N. C.....	1961
.....	W. Willard Wirtz.....	Ill.....	1962	Johnson, L. B.....	John T. Connor.....	N. J.....	1965
Johnson, L. B.....	.....	.....	1963	.....	Alex. B. Trowbridge.....	N. J.....	1967
				.....	C. R. Smith.....	N. Y.....	1968

Secretaries of the U. S. Air Force, Army and Navy

Not Members of the President's Cabinet

The Department of Defense created September 18, 1947, consolidated the Departments of the Navy, Army, Air Force into a single executive department.

Secretaries of the Air Force		Appointed	Secretaries of the Navy		Appointed
W. Stuart Symington.....	.....	Sept. 18, 1947	Cyrus R. Vance.....	.....	May 21, 1962
Thomas K. Finletter.....	.....	Apr. 24, 1950	Stephen Ales.....	.....	Jan. 20, 1964
Harold E. Talbot.....	.....	Feb. 4, 1953	Stanley R. Resor.....	.....	June 17, 1965
Donald A. Quarles.....	.....	Aug. 12, 1955	*In addition, Gordon Gray was Acting Secretary of the Army from Apr. 28, 1919, and Under Secretary from May 25, 1949, until June 20, 1949.		
James H. Douglas.....	.....	Mar. 26, 1957	Secretaries of the Navy		
Dudley C. Sharpe.....	.....	Dec. 10, 1959	John L. Sullivan.....	.....	Sept. 18, 1947
Eugene M. Zuckert.....	.....	Jan. 23, 1961	Francis P. Matthews.....	.....	May 25, 1949
Dr. Harold Brown.....	.....	July 10, 1963	Dan A. Kimball.....	.....	July 31, 1951
Secretaries of the Army			Robert B. Anderson.....	.....	Feb. 4, 1953
Kenneth C. Royall.....	.....	Sept. 18, 1947	Charles S. Thomas.....	.....	May 8, 1954
Gordon Gray.....	.....	June 20, 1949	Thomas S. Gates, Jr.....	.....	Apr. 1, 1957
Frank Pace, Jr.....	.....	Apr. 12, 1950	William B. Franke.....	.....	June 1, 1958
Earl D. Johnson (Acting).....	.....	Jan. 20, 1953	John B. Connally, Jr.....	.....	Jan. 23, 1961
Robert T. Stevens.....	.....	Feb. 4, 1953	Fred Kortt.....	.....	Dec. 11, 1961
Wilber M. Brucker.....	.....	July 21, 1955	Paul H. Nitze.....	.....	Oct. 11, 1963
Elvis J. Stahr, Jr.....	.....	Jan. 23, 1961	Paul R. Ignatius.....	.....	Aug. 4, 1967

The American's Creed

Written by William Tyler Page, clerk of the U. S. House of Representatives, in 1917.

I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed, a democracy in a republic; a sovereign nation of many sovereign states, a perfect union, one and inseparable, established upon those principles of freedom, equality, justice and humanity for which American patriots sacrificed their lives and fortunes. I therefore believe it is my duty to my country to love it, to support its Constitution; to obey its laws; to respect its flag, and to defend it against all enemies.

Presidents of the United States

According to a ruling of the State Dept., Grover Cleveland is counted twice, as the 22nd and the 24th President, because his two terms were not consecutive. Only 35 individuals have been President.

No.	Name	Politics	Native State	Born	Inau.	Age at Inau.	Date of Death	Age at Death
1.	George Washington	Fed.	Va.	1732, Feb. 22	1789	57	1799, Dec. 14	67
2.	John Adams	Fed.	Mass.	1735, Oct. 30	1797	61	1826, July 4	90
3.	Thomas Jefferson	Dem.-Rep.	Va.	1743, April 13	1801	57	1826, July 4	83
4.	James Madison	Dem.-Rep.	Va.	1751, March 16	1809	57	1836, June 28	85
5.	James Monroe	Dem.-Rep.	Va.	1758, April 28	1817	58	1831, July 4	73
6.	John Quincy Adams	Dem.-Rep.	Mass.	1767, July 11	1825	57	1848, Feb. 23	80
7.	Andrew Jackson	Dem.	S. C.	1767, March 15	1829	61	1845, June 8	78
8.	Martin Van Buren	Dem.	N. Y.	1782, Dec. 5	1837	54	1862, July 24	79
9.	William Henry Harrison	Whig	Va.	1773, Feb. 9	1841	68	1841, April 4	68
10.	John Tyler	Whig	Va.	1790, March 29	1841	51	1862, Jan. 18	71
11.	James Knox Polk	Dem.	N. C.	1795, Nov. 2	1845	49	1849, June 15	53
12.	Zachary Taylor	Whig	Va.	1754, Nov. 24	1849	84	1850, July 9	65
13.	Millard Fillmore	Whig	N. Y.	1800, Jan. 7	1850	50	1874, March 8	74
14.	Franklin Pierce	Dem.	N. H.	1804, Nov. 23	1853	48	1869, Oct. 8	64
15.	James Buchanan	Dem.	Pa.	1791, April 23	1857	65	1868, June 1	77
16.	Abraham Lincoln	Rep.	Ky.	1809, Feb. 12	1861	52	1865, April 15	56
17.	Andrew Johnson	(see note)	N. C.	1808, Dec. 29	1865	56	1875, July 31	66
18.	Ulysses Simpson Grant	Rep.	Ohio	1822, April 27	1869	46	1885, July 23	63
19.	Rutherford Birchard Hayes	Rep.	Ohio	1822, Oct. 4	1877	54	1893, Jan. 17	70
20.	James Abram Garfield	Rep.	Ohio	1831, Nov. 19	1881	49	1881, Sept. 19	49
21.	Chester Alan Arthur	Rep.	Vt.	1830, Oct. 5	1881	50	1886, Nov. 18	56
22.	Grover Cleveland	Dem.	N. J.	1837, March 18	1885	47	1908, June 24	71
23.	Benjamin Harrison	Rep.	Ohio	1833, Aug. 20	1889	55	1901, March 13	67
24.	Grover Cleveland	Dem.	N. J.	1837, March 18	1893	55	1908, June 24	71
25.	William McKinley	Rep.	Ohio	1843, Jan. 29	1897	54	1901, Sept. 14	58
26.	Theodore Roosevelt	Rep.	N. Y.	1858, Oct. 27	1901	42	1919, Jan. 6	60
27.	William Howard Taft	Rep.	Ohio	1857, Sept. 15	1909	51	1930, March 8	72
28.	Woodrow Wilson	Dem.	Va.	1856, Dec. 28	1913	56	1924, Feb. 3	67
29.	Warren Gamaliel Harding	Rep.	Ohio	1865, Nov. 2	1921	55	1923, Aug. 2	57
30.	Calvin Coolidge	Rep.	Vt.	1872, July 4	1923	51	1933, Jan. 5	60
31.	Herbert Clark Hoover	Rep.	Iowa	1874, Aug. 10	1929	54	1964, Oct. 20	90
32.	Franklin Delano Roosevelt	Dem.	N. Y.	1882, Jan. 30	1933	51	1945, April 12	63
33.	Harry S. Truman	Dem.	Mo.	1884, May 8	1945	60		
34.	Dwight David Eisenhower	Rep.	Texas	1890, Oct. 14	1953	62		
35.	John F. Kennedy	Dem.	Mass.	1917, May 29	1961	43	1963, Nov. 22	46
36.	Lyndon Baines Johnson	Dem.	Texas	1908, Aug. 27	1963	55		

Andrew Johnson—a Democrat, nominated vice president by Republicans and elected with Lincoln.

ORIGINAL PATERNAL ANCESTRY

Dutch—Van Buren, Theodore Roosevelt, Franklin D. Roosevelt. German—Eisenhower. Swiss and Palatinate German—Hoover.

English—Washington, John Adams, Madison, John Quincy Adams, William Henry Harrison, Tyler, Taylor, Fillmore, Pierce, Lincoln, Andrew Johnson, Garfield, Cleveland, Benjamin Harri-

son, Taft, Harding, Coolidge. English-French-German—L. B. Johnson. English-Scotch-Irish—Truman.

Irish—Kennedy.

Scottish—Monroe, Grant, Hayes. Scotch-Irish—Jackson, Polk, Buchanan, Arthur, McKinley, Wilson. Welsh—Jefferson (a family tradition).

Wives and Children of the Presidents

Presidents*	Wife's Name	Nativity	Born	Mar'ed	Died	Sons	Dau's
Washington	Martha (Dandridge) Custis	Va.	1732	1759	1802		
John Adams	Abigail Smith	Mass.	1744	1764	1818	3	2
Jefferson	Mary (Wayles) Skelton	Va.	1748	1772	1782	1	5
Madison	Dorothea ("Dolley") (Payne) Todd	N. Car.	1768	1794	1849		
Monroe	Elizabeth Kortwright	N. Y.	1768	1786	1830		2
J. Q. Adams	Louisa Catherine Johnson ¹	Md.	1775	1797	1852	3	1
Jackson	Rachel (Donelson) Robards	Va.	1767	1791	1828		
Van Buren	Hannah Hoes	N. Y.	1783	1807	1819	4	
William H. Harrison	Anna Symmes	N. J.	1775	1795	1864	6	4
Tyler	Letitia Christian	Va.	1790	1813	1842	3	4
	Julia Gardiner	N. Y.	1820	1844	1849	5	2
Polk	Sarah Childress	Tenn.	1803	1824	1891		
Taylor	Margaret Smith	Md.	1788	1810	1852	1	
Fillmore	Abigail Powers	N. Y.	1798	1826	1853	1	5
	Caroline (Carmichael) McIntosh	N. J.	1813	1858	1881		
Pierce	Jane Means Appleton	N. H.	1806	1834	1863	3	
Lincoln	Mary Todd	Ky.	1818	1842	1882	4	2
Johnson, Andrew	Eliza McCordie	Tenn.	1810	1827	1876	3	2
Grant	Julia Dent	Mo.	1826	1848	1902	3	1
Hayes	Lucy Ware Webb	Ohio	1831	1852	1889	7	1
Garfield	Lucretia Rudolph	Ohio	1832	1858	1918	4	1
Arthur	Ellen Lewis Herndon	Va.	1837	1859	1880	2	1
Cleveland	Frances Polson	Ohio	1846	1868	1947	2	3
Benjamin Harrison	Caroline Lavinia Scott	Ohio	1832	1853	1892	1	1
	My Scott (Lord) Dimmock	Pa.	1858	1896	1948		
McKinley	Ida Saxton	Ohio	1847	1871	1907		2
Theodore Roosevelt	Alice Hathaway Lee	Mass.	1861	1880	1884		1
	Edith Kermit Carow	Conn.	1861	1886	1948	4	1
Taft	Helen Herron	Ohio	1861	1886	1943	2	1
Wilson	Ellen Louise Axson	Ga.	1860	1885	1914		3
	Edith (Boiling) Galt	Va.	1872	1915	1961		
Harding	Florence (Kling) De Wolfe	Ohio	1860	1891	1924		
Coolidge	Grace Anna Goodhue	Vt.	1879	1905	1957	2	
Hoover	Lou Henry	Iowa	1875	1899	1944	2	
F. D. Roosevelt	Anna Eleanor Roosevelt ²	N. Y.	1884	1905	1962	4	1
Truman	Bess Wallace	Mo.	1885	1919			1
Eisenhower	Mamie Geneva Doud ³	Iowa	1896	1916		1	
Kennedy	Jacqueline Lee Bouvier ³	N. Y.	1929	1953		1	
Johnson, Lyndon	Claudia Alta Taylor	Texas	1912	1934			2

*James Buchanan, 15th president, was unmarried. ¹Born London, father a Maryland citizen. ²Plus 2 infants, dec'd. ³Plus 1 infant, dec'd.

BIOGRAPHIES OF THE PRESIDENTS AND THEIR WIVES

George Washington

George Washington, first President, was born Friday, Feb. 22, 1732 (Feb. 11, Old Style), the son of Augustine Washington and Mary Ball, at Wakefield on Pope's creek, Westmoreland Co., Va. Col. John Washington, George's great-grandfather, came from Northamptonshire in 1657 or 1658; in 1665 he and an associate named Spencer bought 5,000 acres on the Potomac. George's father took the north 2,500 acres near Hunting creek in 1735 and built a house in which George lived from 3 to 6 years of age; when 6 the family moved to Ferry farm, near Fredericksburg. His father died in 1743 when he was 11. He studied mathematics and surveying and when 16 went to live with his half-brother Lawrence, who had inherited the Potomac farm and built Mount Vernon, the original house having burned. George surveyed the lands of William Fairfax on the Shenandoah, keeping a diary. He accompanied Lawrence to Barbados, West Indies, contracted smallpox and was deeply scarred. Lawrence died in 1752 and George acquired his property by inheritance and purchase and added the 2,500 acres held by the Spencers. He valued land and when he died owned 70,000 acres in Virginia and 40,000 acres on the Great Kanawa and environs.

Washington's military service began in 1753 when Gov. Dinwiddie of Virginia made him lieutenant of militia. He clashed with the French and had to surrender Fort Necessity July 3, 1754. He was an aide to Braddock and helped organize the retreat after the fatal ambush of July 9, 1755. He helped take Fort Duquesne from the French in 1758.

After his marriage to Martha Dandridge Custis, 1759, Washington lived at Mount Vernon, bred horses and cattle, raised fruit and practiced crop rotation. In 1773 he enlarged the house. During the stamp act agitation, 1765, he supported the protesting Virginians. Although not at first for independence, he stood out against British exactions and took charge of the Virginia troops before war broke out. He was made commander-in-chief by the Continental Congress June 15, 1775 and took command at Cambridge July 3.

The successful issue of a war filled with hardships was largely due to his leadership. He was resourceful, a stern disciplinarian, and the one strong, dependable force for unity. He favored a federal government and became chairman of the Constitutional convention of 1787. He helped get the Constitution ratified and was unanimously elected President and inaugurated, April 30, 1789, on the balcony of New York's Federal hall at Broad and Wall Sts., now marked by his statue. In New York his mansion, near Franklin Sq., was the scene of formal dinners and levees. His pew in St. Paul's chapel is preserved.

His birthplace, Wakefield, was burned in 1789. On Feb. 22, 1932, a new Wakefield, built by donations, was dedicated as the George Washington Birthplace Monument, administered by the National Parks Service. The older Washingtons are buried there. It is 34 miles from Fredericksburg, Va., on State road 3, and five miles from Stratford Hall, birthplace of Robert E. Lee.

Although a Federalist, Washington made Thomas Jefferson secretary of state (resigned 1793). He was reelected 1792, but refused to consider a third term and retired to Mount Vernon, 1797. He suffered acute laryngitis after a ride in snow and rain around his estate, was bled profusely, and died Dec. 14, 1799, aged 67. He was mourned here and abroad as one of the great men of his time. He was buried in a vault at Mount Vernon. (See article on Mount Vernon.) He willed Mount Vernon to his nephew, Bushrod Washington (1762-1829), associate justice, U. S. Supreme Court.

MARTHA WASHINGTON

Mrs. Martha Dandridge Custis Washington was born June 2, 1732, in New Kent Co., Va. In 1749 she married Daniel Parke Custis, wealthy planter, who died in 1757. She lived in the White House on the Pamunkey, site of McClellan's supply depot in 1862. (Her house had burned down and been replaced before the Civil War.) In 1758 Washington, hurrying to Williamsburg, was invited by the owner of Poplar Grove to meet "the prettiest and richest widow in Virginia." She was plump, small, had dark hair and hazel eyes. Washington fell, and on his return from taking Fort Duquesne they were

married, Jan. 6, 1759. Martha had two children living, two having died in infancy. Her daughter Martha died at 17. Her son, Col. John Parke Custis, bought the 1,100 acres of Arlington in 1778, but died 1781, from wounds received at Yorktown. Washington adopted John's son, George Washington Parke Custis, who inherited Arlington and built the present house; his daughter Mary married Robert E. Lee there in 1831. Martha Washington managed her husband's plantations in his absence and in winter visited him at Valley Forge, Newburgh and other camps. She presided gracefully at official levees as Lady Washington. She died in 1802 and was buried at Mount Vernon.

John Adams

John Adams, 2nd President, Federalist, was born in Braintree (Quincy), Mass., Oct. 30, 1735 (Oct. 19, O. S.), the son of John Adams, a farmer and Susanna Boylston of Brookline. He was a great-grandson of Henry Adams who came from England in 1636. He was graduated from Harvard, 1755, taught school, studied law. In 1785 he argued against taxation without representation before the royal governor. In 1776 he defended the British soldiers who fired on civilians in the "Boston Massacre." He took part in the Provincial Congress of Massachusetts and the Continental Congress, seconded the independence resolution presented by Richard Henry Lee and with his cousin, Samuel Adams, signed the Declaration of Independence. He was a commissioner to France, 1778, with Benjamin Franklin and Arthur Lee; won recognition of the United States by The Hague, 1782; was first American minister to England, 1785-1786, and elected vice president with Washington, 1789 and 1792.

In 1796 Adams was chosen President by the electors, 71 to 68 so that opponents called him "president by 3 votes." The candidate with the second highest number of votes became vice president; this was Thomas Jefferson, his opponent. Intense antagonism to America by France caused agitation for war, led by Alexander Hamilton. Adams, breaking with Hamilton, opposed war but put the Navy on a fighting basis. The U. S. S. Constitution, the United States, both 44 guns, and the Constellation, 36 guns, and armed merchantmen bagged 84 French ships in an undeclared war. To fight alien influence and muzzle criticism Adams supported the Alien and Sedition laws of 1798, which led to his defeat for reelection. He died July 4, 1826, on the same day as Jefferson, and was buried in the First Unitarian church in Quincy, Mass.

ABIGAIL ADAMS

Mrs. Abigail Smith Adams was born at Weymouth, Mass., Nov. 25, 1744 (Nov. 12, O. S.), daughter of a Congregational minister and descendant of the Puritan divine, Thomas Shepard of Cambridge, Mass. She died at Quincy, Oct. 28, 1818. She had two daughters and three sons, one of whom, John Quincy Adams, became the sixth President. Often separated from John Adams during the Revolution, she joined him in Paris in 1784, and from 1785 to 1788 endured social slights at the court of St. James's, where Adams was our first minister. When New York was the seat of Washington's administration she lived at Richmond Hill, a manor house located where Charlton crosses Varick St. She was known for her sharp criticism of Adams' opponents.

Thomas Jefferson

Thomas Jefferson, 3rd President, was born April 13, 1743 (Apr. 2, O. S.) at Shadwell, Va., the son of Peter Jefferson, a civil engineer of Welsh descent who raised tobacco, and Jane Randolph. Jefferson was an agrarian, an expansionist; because he opposed the Federalists and centralization he was called a Republican, now synonymous with Democrat. His father died when he was 14, leaving him 2,750 acres and his slaves. Jefferson attended the College of William and Mary, 1760-1762, read classics in Greek and Latin; studied law with George Wythe in Williamsburg; played the violin and rode horses. In 1769 he was elected to the House of Burgesses. In 1770 Shadwell burned and he began Monticello, near Charlottesville. In 1772 he married Martha Wayles Skelton. He was a member of the Virginia Committee of Correspondence and the Continental Congress and denied Britain's right to tax. Named a member of the committee to draw up a Declaration of Independence, he wrote the basic draft, 1776. He was a member of the Virginia House of Delegates, 1776-79, elected

governor to succeed Patrick Henry, 1779, re-elected 1780, resigned, June 1781, amid charges of ineffectual military preparation. During his term he wrote the statute on religious freedom. In the Continental Congress, 1783, he drew up an ordinance for the Northwest Territory, forbidding slavery after 1800; its terms were put into the Ordinance of 1787. He was sent to Paris with Benjamin Franklin and John Adams to negotiate treaties of commerce, 1784; made minister to France, 1785, he made treaties with France and Prussia, studied architecture, gardening and the French Revolution, whose leaders consulted him.

Washington appointed him secretary of state, 1789. Jefferson's strong faith in the consent of the governed, as opposed to executive control favored by Hamilton, secretary of the treasury, often led to conflict: Dec. 31, 1793, he resigned. He was the Republican candidate for President in 1796; beaten by John Adams, he became vice president. He opposed Adams' alien and sedition laws with the Kentucky and Virginia resolutions, reiterating the basic rights of states. In 1800 Jefferson and Aaron Burr received equal votes for President, so the House of Representatives, with Hamilton's help, elected Jefferson, the first President to be inaugurated in Washington. Adams left town before the ceremony, but when Jefferson was re-elected in 1804 he voted for him. Jefferson cancelled levees and titles and ignored diplomatic precedence. He turned Federalists out of office. He opposed a strong navy. By fighting those who feared to give power to the people he made democracy work. He considered John Marshall's Supreme Court reactionary. Big events of his administration were the Louisiana Purchase, 1803, and the Lewis and Clark Expedition. He established the University of Virginia and designed its buildings. After the Library of Congress was burned by the British he sold Congress 13,000 vols. for \$23,950. He was 6 ft. 2, temperate in debate, a deist in religion. He died July 4, 1826, on the same day as John Adams and was buried at Monticello, which, after various vicissitudes, passed to the Thomas Jefferson Memorial Foundation in 1923.

MRS. THOMAS JEFFERSON

Mrs. Martha Wayles Jefferson, daughter of John Wayles, was 23 and the widow of Bathurst Skelton when she married Jefferson Jan. 1, 1772. She bore Jefferson six children at Monticello, two of whom lived to maturity. Martha, 1772-1836, married Thomas Mann Randolph, Jr.; Mary (Marie) 1778-1804, married her cousin, J. W. Eppes. Mrs. Jefferson's father's large farm and slaves became part of the estate. She died Sept. 6, 1782.

James Madison

James Madison, 4th President, Republican, was born Mar. 16, 1751 (Mar. 5, O. S.) at Port Conway, King George Co., Va., the eldest of 12 children of James Madison and Eleanor Rose Conway. His great-grandfather, James Taylor (1674-1729), was also the great-grandfather of Zachary Taylor. Madison was graduated from Princeton, 1771, studied theology, 1772, sat in the Virginia Constitutional Convention, 1776, where his resolution on religious freedom was voted down; was a member of the Continental Congress and of the Annapolis convention, 1786, where he and Hamilton proposed the Constitutional Convention. He was chief recorder at that convention in 1787, and supported ratification in the Federalist papers, written with Hamilton and Jay. In 1785 he carried Jefferson's statute on religious liberty through the Virginia assembly. He was elected to the House of Representatives in 1789, helped adopt the Bill of Rights and fought John Adams' alien and sedition laws. He favored agrarian policies with Jefferson and in 1801 became Jefferson's secretary of state. In 1803, when the Louisiana Purchase was consummated, he insisted on free navigation of the Mississippi, which he had already urged on Jay in 1780.

Elected President in 1808, Madison was a "strict constructionist," opposed to the free interpretation of the Constitution by the Federalists; he vetoed federal funds for state improvements, but changed in his second term. Madison inherited the conflict with Britain over its orders in council and impressment of American seamen, which had led to Jefferson's embargo act and injured American commerce. He was reelected in 1812 by the votes of the agrarian South and recently admitted western states. Caught between British and French maritime restrictions, Madison drifted into war, declared June 18, 1812, unaware that Britain had cancelled the orders two days before. While the war was inconclusive, it opened the way to peaceful negotiations. Madison successfully advocated a

tariff to protect industry, a national system of roads and canals and a strong military organization. He retired in 1817 to his estate at Montpelier (now Montpelier), Va., built 1760, with a portico suggested by Jefferson. There he edited his famous papers on the Constitutional Convention. He became rector of the Univ. of Virginia, 1826. He died June 28, 1836, and was buried near his home.

DOLLEY MADISON

Mrs. Dorothea (Dolley) Payne Madison, was born May 12, 1768, in North Carolina, daughter of John Payne, a Virginia Quaker, who freed his slaves. She grew up in Hanover County, Va. Her first husband, John Todd, died in 1793. She married Madison Sept. 15, 1794, and when he became secretary of state in 1801, became hostess for Jefferson in the White House. She presided at the first inaugural ball in 1809. She is supposed to have rescued Gilbert Stuart's portrait of Washington from the White House when the British came Aug. 24, 1814. She helped edit Madison's records of the Constitutional Convention. From 1817 to 1837 she lived at Montpelier, Orange Co., Va. (now Montpelier, privately owned). She returned to Washington as a welcome, but impecunious, social leader, in 1837. Congress bought her husband's records in 1837 for \$30,000, and other papers in 1846, for \$25,000. She took part in the dedication of the Washington monument and sent the first personal message over S. F. B. Morse's telegraph wire. She was respected for her tact and intelligence by presidents from Washington to Polk. In old age she suffered from the wastefulness of a son. She died July 12, 1849, aged 81, and is buried beside Madison near Montpelier.

James Monroe

James Monroe, 5th President, Republican, was born April 28, 1758, in Westmoreland Co., Va., the son of Spence Monroe and Eliza Jones, who were of Scottish and Welsh descent, respectively. He attended the College of William and Mary, fought in the 3rd Virginia regiment at White Plains, Brandywine, Monmouth, and was wounded at Trenton. He studied law with Thomas Jefferson, 1780, was a member of the Governor of the Virginia House of delegates and of Congress, 1783-86. He opposed ratification of the Constitution because it lacked a bill of rights; was U. S. Senator, 1789; minister to France, 1794-96, during which he improved relations with France, Spain and Algiers; four times governor of Virginia, 1799-1802, and 1811. Jefferson sent him to France as minister, 1803, to join R. R. Livingston in buying the Isle of New Orleans from France and East and West Florida from Spain. Exceeding instructions, he signed a treaty for all of Louisiana. (Navigation of the Mississippi was one of his demands as early as 1783.) He was also sent to Madrid, 1804, and London, 1805, to settle disputes. He ran against Madison for President in 1808. He was chosen member of the Virginia Assembly, 1810-1811; secretary of state under Madison, 1811-1817; also secretary of war Sept. 1814-Mar., 1815.

In 1816 Monroe was elected President; in 1820 reelected with all but one vote, this being cast for John Quincy Adams by William Plumer, Sr., of New Hampshire. Although many historians have held that Plumer withheld his vote from Monroe so that only Washington would have been elected unanimously, Plumer himself said he voted for Adams because he had "discovered a want of foresight" in Monroe. Monroe's administration became the Era of Good Feeling. He obtained the Floridas from Spain and suppressed the Seminoles; settled boundaries with Canada and eliminated border forts; supported the anti-slavery position that led to the Missouri Compromise. (In 1801 he had proposed settling Negro slaves in Africa. Monrovia, Liberia, was named for him.) In July, 1823, the U. S. served notice on Russia that it would oppose any Russian colony on this continent, after Russia had prohibited fishing on the northwest coasts. On Dec. 2, 1823, Monroe announced the Doctrine that the U. S. would consider its safety endangered if European powers had authority on this hemisphere or attempted colonization. First half had been suggested by George Canning, British foreign minister, to curb Spain; U. S., rejecting proposal for joint declaration, issued it also as warning to Russia. Monroe owned Ash Lawn, 5 mi. from Charlottesville, Va., 1799-1835; inherited Oak Hill, Loudon Co., Va., from his uncle Jos. Jones, 1806. The mansion, replacing Jones' cottage, was designed by Jefferson and executed by Jas. Hoban, White House architect. He moved to New York, 1830, to be with his daughters, and died there July 4, 1831, and was buried in

Marble cemetery. In 1858 his remains were removed to Richmond.

MRS. JAMES MONROE

Mrs. Elizabeth Kortwright Monroe was born in New York, 1768, the daughter of Lawrence Kortwright, formerly British army officer. She married Monroe in 1786. They had two daughters, who married and lived in New York. She died 1830 at Oak Hill.

John Quincy Adams

John Quincy Adams, 6th President, independent Federalist, was born July 11, 1767, at Braintree (Quincy), Mass., the son of John and Abigail Adams. He was educated in Paris, Leyden, and Harvard, graduating in 1787. He served as American minister in the Netherlands, Berlin, St. Petersburg and London and helped draft the peace treaty of 1814. He had served as senator from 1803 to 1808 and his support of the Republican administration alienated the Federalists. President Monroe made him secretary of state, 1817, and he negotiated the cession of the Floridas from Spain, supported exclusion of slavery in the Missouri Compromise, and laid the base for the Monroe Doctrine, of which he, as much as Monroe, was the creator. In 1824 he was elected President by the House after he failed to win an Electoral College majority over Henry Clay and Andrew Jackson. His expansion of executive powers was strongly opposed and he was beaten in 1828 by Jackson. In 1831 he was sent to Congress as representative and served nine terms with distinction and independence. He fought slavery, opposed the annexation of Texas and the war with Mexico; was responsible for the Smithsonian Institution. He had a stroke in the House and died in the Speaker's room, Feb. 23, 1848.

MRS. JOHN QUINCY ADAMS

Mrs. Louisa Catherine Johnson Adams was born in London, Feb. 12, 1775, the daughter of Joshua Johnson, a Marylander who acted as American fiscal agent there. She married Adams July 26, 1797. Of their four children, George Washington Adams, John Q. Adams, Jr., Charles Francis Adams and Louisa Catherine Adams, Charles Francis became Free Soil candidate for vice president in 1848, member of Congress, minister to England during the Civil War and president of the Geneva Board of Arbitration. He was father of Charles Francis Adams, Henry Adams and Brooks Adams.

Andrew Jackson

Andrew Jackson, 7th President, originally Jeffersonian-Republican, later first Democrat, was born in the Waxhaws district, New Lancaster Co., S. C., Mar. 15, 1767, the posthumous son of Andrew Jackson, who came from County Antrim, Ireland, with his wife, Elizabeth Hutchinson, and two sons, in 1765. At 13 he joined the militia in the Revolution and when captured a British officer struck Andrew with his sword when the boy refused to shine his boots. He read law in Salisbury, N. C., moved to Nashville, Tenn., speculated in land, married and raised cotton at the Hermitage, originally a log house. In 1796 he helped draft the Constitution of Tennessee and for one year occupied its one seat in the national House. He was in the Senate in 1797, and again in 1823. He defeated the Creek Indians at Horseshoe Bend, Ala., 1814, and as major general, U. S. A., drove the British out of Pensacola. With 6,000 backwoods fighters he defeated Pakenham's 12,000 British troops at Chalmette, outside New Orleans, Jan. 8, 1815, losing only seven to the British loss of 2,000. In 1818 he fought so recklessly against the Seminoles in Florida that he endangered foreign relations. In 1824 he ran for President against John Quincy Adams and was voted down by the House, though he had the most votes; in 1828 he carried everything, the West rising to support "Old Hickory" and a liberal land policy. He was a noisy debater and duellist and introduced rotation in office or "spoils system." He was suspicious of privilege; ruined the Bank of the United States by depositing federal funds with state banks. Though "Let the people rule" was his slogan, he at times supported strict constructionist policies against the expansionist West. He killed the Congressional caucus for nominating presidential candidates and substituted the national convention, 1832, when he was reelected, with Martin Van Buren vice president. When South Carolina refused to collect imports under his protective tariff he ordered army and naval forces to Charleston. At the Jefferson Day dinner, 1830, he offered the toast: "Our Federal Union; it must be preserved." Vice

President John C. Calhoun, exponent of state sovereignty, gave in reply the toast: "The Union—next to our liberty, most dear." Jackson recognized the Republic of Texas, 1836. His party took the name of Democrat. He died at the Hermitage, June 8, 1845, and is buried there.

MRS. ANDREW JACKSON

Mrs. Rachel Jackson was the daughter of Col. John Donelson, a surveyor at Nashville, and first married Capt. Lewis Robards. Under the impression that Robards had obtained a divorce she married Jackson in Natchez in 1791. Robards did not get a divorce until 1793, when the Jacksons were remarried, but the ordeal affected her spirits. She died in 1828 after Jackson's election and never lived in the White House. Jackson adopted her sister's son, named him Andrew Jackson, Jr. White House hostesses were his wife's niece, Mrs. Emily Donelson, and the adopted son's wife, Mrs. Sarah York Jackson, a Philadelphia Quaker.

Martin Van Buren

Martin Van Buren, 8th President, Democrat, was born Dec. 5, 1782, at Kinderhook, N. Y., the son of Abraham Van Buren, a Dutch farmer, and Mary Hoes. He was surrogate of Columbia county, New York, state senator and attorney general and a law partner of Benj. F. Butler in Albany. He was U. S. senator, 1821, re-elected, 1827, elected governor of New York, 1828. He helped swing eastern support to Andrew Jackson in 1828 and was his secretary of state, 1829-31. In 1832 he was elected vice president. He was a consummate politician, known as "the little magician," and influenced Jackson's policies. In 1836 he defeated William Henry Harrison for President by 170 to 73 electoral votes. He inaugurated the independent treasury system, and was the first advocate of mutual insurance of deposits by banks. He advocated tariff for revenue only and opposed internal improvements at national expense. His refusal to spend land revenues led to his defeat by Harrison in 1840. He lost the Democratic nomination of 1844 to Polk because he opposed annexation of Texas. In 1848 he ran for President on the Free Soil ticket and lost. Thus he ran three times. He died July 24, 1862 at Kinderhook, N. Y.

MRS. MARTIN VAN BUREN

Mrs. Hannah Hoes Van Buren, born 1783, was a relative of Van Buren's mother and his classmate in school. She married in 1807, died 1819. Their son Abraham, 1807-1873, a West Pointer, was secretary to the President, an officer in the Mexican war and a New York resident. His wife, Angelica Singleton, cousin of Dolley Madison, was White House hostess during Van Buren's term. Another son, John Van Buren (1810-1866), was elected attorney general of New York, 1845.

-William Henry Harrison

William Henry Harrison, 9th President, Whig, who served only 31 days, was born in Berkeley, Charles City Co., Va., Feb. 9, 1773, the third son of Benjamin Harrison, signer of the Declaration of Independence. Educated at Hampden Sydney college, he later studied medicine under Dr. Benjamin Rush. Commissioned by Washington, he fought under Gen. Anthony Wayne at Fallen Timbers, 1794. He was secretary of Northwest Terr., 1798; its delegate in Congress, 1799; first governor of Indiana Terr., and supt. of Indian affairs. With 900 men he routed Tecumseh's Indians at Tippecanoe, Nov. 7, 1811. A major general, he defeated British and Indians at Battle of the Thames, Oct. 5, 1813. He served Ohio in Congress, 1816; as senator, 1824; was minister to Colombia. In 1840, when 68, he was elected President with John Tyler, 234 to 60, on a "log cabin and hard cider" slogan. He caught pneumonia during the inauguration and died April 4, 1841. He was buried in North Bend, O.

MRS. WILLIAM HENRY HARRISON

Mrs. Anna Symmes Harrison, daughter of Col. John Cleves Symmes, chief justice of the New Jersey Supreme Court and Revolutionary veteran, was born in Morristown, N. J., 1775 and died 1864. She did not leave her North Bend, O., home for Washington and Mrs. Jane Findlay Irwin Harrison, wife of her son, Col. W. H. Harrison, Jr., stayed in the White House during Harrison's illness. Another son, John Scott Harrison, 1804-1873, was member of Congress and father of Benjamin Harrison, 23rd President.

John Tyler

John Tyler, 10th President, independent Whig, was born Mar. 29, 1790, in Greenway, Charles City

Co., Va., son of John Tyler and Mary Armistead. His father was governor of Virginia, 1803-11. Tyler was graduated from William and Mary, 1807; member of the House of Delegates, 1811; in Congress, 1816-21; in Virginia legislature, 1823-25; governor of Virginia, 1825-26; U. S. senator, 1827-36. In 1836 he was defeated for vice president on a states' rights Whig ticket. In 1840 he was elected vice president on a Whig ticket with Harrison and succeeded him. He favored pre-emption, allowing settlers to get government land; rejected a new bank bill and thus alienated Whig supporters except Daniel Webster, his secretary of state; refused to honor the spoils system. He signed the resolution annexing Texas, Mar. 1, 1845. He accepted renomination, 1844, but withdrew before election. He condemned South Carolina's nullification and secession and as Virginia's commissioner to Buchanan tried to keep Fort Sumter neutralized. He was president of the peace congress called in Washington by Virginia, 1861. After its failure he supported secession, sat in the provisional Confederate congress, became a member of the Confederate House, but died, Jan. 18, 1862, before it met. He is buried in Richmond.

MARRIAGES OF JOHN TYLER

When 23 John Tyler married Letitia Christian of Cedar Grove, Va., born 1790, daughter of a planter. She was an invalid and died in the White House, 1842. She was an Episcopalian. Of her children Robert Tyler, 1816-1877, married Priscilla Cooper, daughter of a tragedian; presided in the White House. On June 26, 1844, in New York, Tyler married Julia Gardiner, born 1826, daughter of David Gardiner of Gardiner's Island, N. Y. She became a Catholic, 1872; died, 1889. Her son Lyon Gardiner Tyler became president of William and Mary, 1888; died 1935. Another, David Gardiner Tyler, judge, member of Congress and Confederate veteran, died 1927. A third son, Robert Fitzwalter Tyler, died 1927 at Richmond, aged 70.

James Knox Polk

James Knox Polk, 11th President, Democrat, was born in Meckenburg Co., N. C., Nov. 2, 1798, the son of Samuel Polk, farmer and surveyor of Scotch-Irish descent, and Jane Knox. He went to Maury Co., Tenn., 1806; was graduated from the University of North Carolina, 1818; member of the Tenn. state legislature, 1823-25, known as "Napoleon of the Stump." He served in Congress 1825-39 and as speaker 1835-39. He supported Jackson and Van Buren, but was always expansionist. He was governor of Tennessee, 1839-41, being defeated 1841, '43. In 1844, when both Clay and Van Buren announced opposition to annexing Texas, the Democrats made Polk the first dark horse nominee because he demanded control of all Oregon and annexation of Texas. He won 170 to 105. James Buchanan was his secretary of state. He re-established the independent treasury system originated by Van Buren. His expansionist policy was opposed by Clay, Webster, Calhoun; he sent Zachary Taylor and an army to the Mexican border and when Mexicans attacked declared war existed. Abraham Lincoln, a Whig in Congress, opposed his war policy. Polk approved the acquisition of California, Utah and New Mexico (522,568 square miles) as part of America's "manifest destiny," but opposed retaining Mexico by force. He compromised on the Oregon boundary ("54-40 or fight!") by accepting the 49th parallel and giving Vancouver to the British. The Wilmot Proviso, outlawing slavery in new states, was debated in his term. Polk died in Nashville, June 15, 1849, and is buried on the capitol grounds there.

MRS. JAMES K. POLK

Mrs. Sarah Childress Polk was born in 1803 and married Polk Jan. 1, 1824. Her father was a wealthy planter near Murfreesboro, Tenn. She was educated by the Moravians. The Polks were Methodists and Mrs. Polk prohibited liquor and dancing in the White House. They had no children.

Zachary Taylor

Zachary Taylor, 12th President, Whig, who served only 16 months, was born Nov. 24, 1784, in Orange Co., Va., the son of Richard Taylor, later collector of the port of Louisville. His grandfather and James Madison's paternal grandmother were brother and sister. Taylor enlisted 1806; was commissioned lieutenant by Jefferson, 1808; fought in the War of 1812, the Black Hawk War, 1832, and the Seminole war, 1837. He became known as Old Rough and Ready. He settled on a plantation near Baton Rouge, La. In 1845 Polk sent him to the Rio Grande; when the Mexicans attacked him, Polk declared war. Taylor was successful at Palo

Alto and Resaca de la Palma, May 8 and 9, 1846; occupied Monterey. Polk made him major general but gave many of his troops to Gen. Winfield Scott at Vera Cruz. Taylor, with 5,000 men, defeated Santa Anna's 20,000 at Buena Vista, Feb. 22, 1847. He defeated Scott at the Whig convention, 1848; was elected President over Martin Van Buren (Free Soil) with Millard Fillmore vice pres. He resumed the spoils system and though once a slave-holder worked to have California admitted as a free state. He died of typhus July 9, 1850, and was buried near Louisville.

MRS. ZACHARY TAYLOR

Mrs. Margaret Smith Taylor was born in 1788, the daughter of Walter Smith, Maryland planter. She married Taylor, 1810, died 1852. Of their daughters Elizabeth, Mrs. W. W. S. Bliss, was hostess of the White House; Ann married Dr. Robert Wood, asst. surgeon general, U. S. A.; Sarah Knox married Jefferson Davis, 1835, and died three months later. A son, Richard, 1826-79, served under Stonewall Jackson and became a Confederate general. He died in New York.

Millard Fillmore

Millard Fillmore, 13th President, Whig, was born Jan. 7, 1800, in a log cabin on a farm in Cayuga Co., N. Y., cleared in 1795 by his father, Nathaniel. He was apprenticed to a fuller and dyer; bought his freedom for \$50 to study and became a teacher and postmaster in Buffalo, N. Y. He was counselor of the state supreme court, 1829; in the state assembly, 1829-32; in Congress, 1833-35 and again 1837-43. He opposed the entrance of Texas as slave territory and voted for a protective tariff. He supported the appropriation of \$30,000 for Morse's telegraph. In 1844 he was defeated for governor of New York. In 1848 he was elected vice president and succeeded as President July 10, 1850. Daniel Webster was secretary of state until he died, 1852; then Edward Everett. Fillmore favored the compromise of 1850 and signed the Fugitive Slave Law. His policies pleased neither expansionists nor slave-holders and he was not renominated. In 1856 he was nominated by the American (Know-Nothing) party and accepted by the Whigs, but defeated by Buchanan. He was chancellor of the University of Buffalo. He died in Buffalo, Mar. 3, 1874.

FILLMORE'S TWO MARRIAGES

The first Mrs. Fillmore, 1798-1853, was Abigail Powers, the daughter of Lemuel Powers, a Baptist clergyman of Stillwater, N. Y., and taught school in Cayuga Co. Owing to her poor health her daughter, Mary Abigail (1832-54) was the White House hostess. Their other child was Millard Powers Fillmore (1828-89). The second Mrs. Fillmore was Mrs. Caroline Carmichael McIntosh, born in Morristown, N. J., and widow of an Albany merchant. They had no children.

Franklin Pierce

Franklin Pierce, 14th President, Democrat, was born in Hillsboro, N. H., Nov. 23, 1804, the son of Benjamin Pierce, veteran of the Revolution and governor of New Hampshire, 1827. He attended Exeter and was graduated from Bowdoin, 1824. A lawyer, he served in the New Hampshire House, 1829-32; in Congress, supporting Jackson, 1833; U. S. Senator, 1837-42. He enlisted in the Mexican war, became brigadier general of volunteers and was wounded at Contreras. In 1852 Pierce was nominated on the 49th ballot over Cass, Douglas and Buchanan, defeating Gen. Winfield Scott, Whig. Though against slavery, Pierce was influenced by southern pro-slavery men (Jefferson Davis was his secy. of war) but he ignored the Ostend Manifesto that the U. S. either buy or take Cuba. He approved the Kansas-Nebraska act, leaving slavery to popular vote ("squatter sovereignty"), 1854, and named a pro-slavery governor of Kansas. He signed a reciprocity treaty with Canada and approved the Gadsden Purchase from Mexico, 1853. He supported Commodore Matthew Perry's opening of Japan, 1854. Pierce died at Concord, N. H., Oct. 8, 1869.

MRS. FRANKLIN PIERCE

Mrs. Jane Means Appleton Pierce was born at Hampton, N. H., 1806, daughter of the Rev. Jesse A. Appleton, president of Bowdoin. The Pierces had three children: one died in infancy, one at 4 and one was killed in a railroad accident at 11. Mrs. Pierce died in 1863.

James Buchanan

James Buchanan, 15th President, Federalist, later Democrat, was born of Scottish descent near Mercersburg, Pa., Apr. 23, 1791. He was a volunteer in the War of 1812; graduated from Dickinson,

1809; member Pa. legislature, 1814-16, Congress, 1820-31; Jackson's minister to Russia, 1831-33; senator, 1834-45. As Polk's secy. of state, 1845-49, he ended Oregon dispute with Britain, supported Mexican war and annexation of Texas. As minister to Britain, 1853, he signed the Ostend Manifesto, 1854, urging U. S. to take Cuba. Nominated by Democrats over Pierce and Stephen A. Douglas, he was elected, 1856, over John C. Fremont (Republican) and Millard Fillmore (American Know-Nothing and Whig tickets). On slavery he favored popular sovereignty and choice by state constitutions; he accepted the pro-slavery Dred Scott decision as binding. His support of the pro-slavery Lecompton constitution for Kansas caused a break with Douglas Democrats. He denied the right of states to secede but wanted U. S. constitutional recognition of property rights in slaves and Federal action against fugitives. Buchanan refused demands of South Carolina for Federal property, but also refused to reinforce forts there until too late to help Fort Sumter. A strict constructionist, he desired to keep peace and found no authority for using force. He died at Wheatland, near Lancaster, Pa., June 1, 1868, aged 77.

Buchanan was a bachelor. The mistress of the White House was the daughter of Buchanan's sister Jane, Harriet Lane, whose parents had died when she was a child. The major social event was the visit in 1860 of the Prince of Wales, later Edward VII.

Abraham Lincoln

Abraham Lincoln, 16th President, Republican, was born Feb. 12, 1809, in a log cabin on a farm then in Hardin Co., Ky., now in Larue. He was the son of Thomas Lincoln (1778-1851), a descendant of Samuel Lincoln, who came with his wife Martha from Hingham, England, 1635, settled at Salem and Hingham, Mass., and had 11 children. Thomas, a carpenter, married Nancy Hanks, June 12, 1806. She was the natural daughter of Lucy Hanks, whose ancestor, Thomas Hanks, came from England to Virginia, 1644. Abe had a sister, Sarah, born 1807, died 1828, and a brother, Thomas, who died in infancy.

The Lincolns moved to Spencer Co., Ind., near Gentryville, when Abe was 7. His mother died Oct. 5, 1818, aged 35. His father married Mrs. Sarah Bush Johnston, 1819; she had a favorable influence on Abe. He was 6 ft., 3 in. tall. Abe made two trips on flatboats to New Orleans, one via the Ohio-Mississippi, 1828, and one via the Illinois-Mississippi, 1831. In 1830 the family moved to Macon County, Ill., where Abe and a cousin split 3,000 fence rails. In 1831 they moved to Coles County. In New Salem, 1831-1837, Lincoln lost election to the Illinois General Assembly, 1832, but won four times later, beginning in 1834. He enlisted in the militia for the Black Hawk War, 1832. In New Salem he ran a store, 1833, surveyed land, 1834-36, was postmaster, 1833-36. Ann Rutledge, whom he is said to have loved, died near New Salem, 1835, aged 19.

In 1837 Lincoln was admitted to the bar and became partner in a Springfield law office. He began practice on 8th Judicial Circuit, 1839. He was a presidential elector, 1839, 1844, 1852, 1856. He failed of nomination for representative, 1843, but was elected to the 30th Congress, 1847. He opposed the Mexican war. He stumped New England for Zachary Taylor, 1848. He refused offices of secretary and governor of Oregon Terr., 1849. He opposed the Kansas-Nebraska Act and extension of slavery, 1854. When elected to the Ill. legislature, 1854, he declined in order to try for the Senate, but failed of election, 1855. He was proposed but not chosen for vice president at the first Republican convention, 1856, and he made 50 speeches for John C. Fremont, presidential nominee.

In 1858 Lincoln had Republican support in the Ill. legislature for the Senate but was defeated by Stephen A. Douglas, Dem., who sponsored the Kansas-Nebraska Act. The issues were debated by Lincoln and Douglas Aug. 21-Oct. 15 at Ottawa, Freeport, Jonesboro, Charleston, Galesburg, Quincy and Alton, Ill.

Lincoln was nominated for President by the Republican party over Wm. H. Seward, on an anti-slavery platform, at Chicago, May 18, 1860. He ran against Stephen A. Douglas, northern Democrat; John C. Breckinridge, southern pro-slavery Democrat; John Bell, Constitutional Union party. Lincoln got only 40% of the votes, but 180 electoral votes to 123. South Carolina seceded from the Union Dec. 20, 1860, followed in 1861 by 10 southern states.

Lincoln was inaugurated Mar. 4, 1861. Fort

Sumter was attacked Apr. 12-14, and surrendered. Lincoln called for 75,000 volunteers Apr. 15, and 500,000 May 3. On Sept. 22, 1862, 5 days after the battle of Antietam, he announced that slaves in territory then in rebellion would be free Jan. 1, 1863, date of the Emancipation Proclamation. He reached the highest degree of eloquence at Gettysburg National Cemetery, Nov. 19, 1863.

Lincoln was re-elected, 1864, over Gen. Geo. B. McClellan, Democrat. Lee surrendered April 9, 1865. On April 14 (Good Friday) Lincoln was shot by John Wilkes Booth, actor, in Ford's Theater, Washington. He died the next day. His body lay in state in New York, Chicago and other cities before burial in Springfield, Ill. His estate reached \$110,974, most of it saved from his annual salary of \$25,000. His humanity, lofty concept of office and generous spirit made him the hero of the common man the world over.

MRS. LINCOLN AND FAMILY

Mrs. Mary Todd Lincoln was born in Lexington, Ky., 1818, daughter of a pioneer; moved to Springfield, Ill., 1837, where she married Lincoln Nov. 4, 1842. Her half-sister, Emily, became the wife of Brig. Gen. Ben Hardin Helm of the Confederate Army, who was killed at Chickamauga. Mrs. Lincoln was accused of undue extravagance while in the White House. In 1875 she was temporarily in a mental hospital in Batavia, Ill. She died 1882.

The Lincolns had four sons. Edward Baker died 1850; Wm. Wallace, 1862; Thomas ("Tad"), 1871. Robert Todd Lincoln, born Aug. 1, 1843, in Springfield, attended Ill. State Univ., Phillips Exeter Acad., A. B. Harvard, 1864, in Harvard Law School, 1864. Captain, USA, on staff of Grant, 1865. Secy. of War, 1881-85; minister to Great Britain, 1889-93; later pres. Pullman Co. Married Mary Harlan, dau. Sen. Jas. Harlan (Iowa) 1868; children, since deceased, were Abraham (d at 17), Mrs. Chas. Isham, Mrs. Robt. J. Randolph. Robert Todd Lincoln died July 26, 1926, at Manchester Vt., was buried at Arlington, Va. Gave Library of Congress 18,350 letters and documents of Lincoln's tenure, opened July 26, 1947. The Lincoln family Bible and Bible on which Lincoln took oath of office were given to library by Mrs. Robert Lincoln (d. 1937).

Andrew Johnson

Andrew Johnson, 17th President, Democrat, was born in Raleigh, N. C., Dec. 29, 1808, the son of Jacob Johnson, porter at an inn and church sexton, and Mary McDonough Johnson, who had been a maid at the inn. His father died when he was 5. At 10 he was apprenticed to a tailor. At 16 he ran off to Greenville, Tenn. He became an alderman, 1828; mayor, 1830; state representative and senator, 1835-43; member of Congress, 1843-53; governor of Tennessee, 1853-57; U. S. Senator, 1857-62. He supported John C. Breckinridge against Lincoln in 1860. He had held slaves, but opposed secession and refused to follow Tennessee out of the Union. In March, 1862, Lincoln appointed him military governor of occupied Tennessee. In 1864 he was nominated for vice president with Lincoln on the National Union ticket to win Democratic support. He succeeded Lincoln as President April 15, 1865. In a controversy with Congress over the president's power over the South, he proclaimed, May 26, 1865, an amnesty to all Confederates except certain leaders if they would abolish slavery and ratify the 13th amendment. States doing so added anti-Negro provisions that enraged Congress, which intended to enfranchise all Negroes and disenfranchise former Confederates. Congress restored military control over the South. When Johnson removed Edwin M. Stanton, secretary of war, without notifying the Senate, thus repudiating the Tenure of Office Act, the House impeached him for this and other reasons. He was tried by the Senate, which voted 35 for conviction, 19 for acquittal, lacking the two-thirds necessary to convict, May 26, 1868. He was a candidate before the next Democratic convention, but not nominated. He returned to the Senate in 1875, and in a strong speech defended his course. He supported the Lincoln policies, but his conciliatory attitude toward the South was fought by the radical Republicans. Johnson died July 31, 1875, and was buried at Greenville (now Greenville), where his log-cabin tailor shop and home are museums.

MRS. ANDREW JOHNSON

Mrs. Eliza McCauley Johnson was born in Leesburg, Tenn., in 1810, the only daughter of a widow in a mountain hamlet when Johnson married her. She helped him get an education. Their daughter Martha, born 1828, educated in Georgetown, D. C., was often a guest at the White House in Polk's

administration. In 1857 she married Judge D. T. Patterson. She was mistress of the White House in place of her invalid mother. Another daughter, Mary, married Daniel Stover of Carter Co., Tenn., and had three children; after Stover's death she married W. R. Bacon of Greenville. Mrs. Johnson died in 1876.

Ulysses S. Grant

Ulysses Simpson Grant, 18th President, Republican, was born at Point Pleasant, O., Apr. 27, 1822, son of Jesse E. Grant, a tanner. The next year the family moved to Georgetown, O. Grant's mother was Hannah Simpson. Grant was named Hiram Ulysses, but on entering West Point, 1839, his name was entered as Ulysses Simpson and he adopted it. He was graduated in 1843; was 1st lieutenant and captain under Gens. Taylor and Scott in the Mexican War; resigned, 1854, worked in St. Louis until 1860, then went to Galena, Ill., where his father sold leather and hardware. He became colonel of the 21st Illinois Vols., 1861, then brigadier general; took Forts Henry and Donelson; made maj. gen. of volunteers; fought at Shiloh. Took Vicksburg, became maj. gen. USA., and in Mar., 1864, lieutenant general. He accepted Lee's surrender at Appomattox. In 1866 he was named General of the Army. President Johnson appointed Grant secretary of war when he suspended Stanton in defiance of the Senate, but Grant was not confirmed. He was nominated on the first ballot, May 30, 1868, and elected over Horatio Seymour, Democrat, 214 vs. 80 electoral votes. The 15th amendment, amnesty bill and civil service reform were events of his administration. The Liberal Republicans opposed him with Horace Greeley, also Democratic nominee, 1872, but he was re-elected. He vetoed the inflation bill, 1874. An attempt by the Stalwarts (Old Guard) to nominate him in 1880 failed. In 1884 the collapse of Grant & Ward, investment house, left him penniless. He began his *Personal Memoirs*, writing while ill of cancer and completing them four days before his death at Mt. McGregor, N. Y., July 23, 1885. The book realized over \$450,000. Grant was buried in an imposing tomb on Riverside Drive, New York, where his wife also lies.

MRS. ULYSSES S. GRANT

Mrs. Julia Dent Grant (1826-1902) was the daughter of Judge Frederick Dent of St. Louis, son of a Revolutionary officer. She married Grant, Aug. 1848. Their children were Frederick Dent Grant (1850-1912), minister to Austria-Hungary, police commissioner of New York, major general, Spanish-American War; Ulysses, Jr. (1852-1929); Jesse R. (1858-1934); Nellie (1857-1922), who was married in the White House to Capt. Algernon Sartoris, 1874, and in 1912, a widow, married Frank H. Jones. Cleveland's assistant postmaster general.

Rutherford Birchard Hayes

Rutherford Birchard Hayes, 19th President, Republican, was born in Delaware, O., Oct. 4, 1822, the posthumous son of Rutherford Hayes, a farmer, and Sophia Birchard. He was descended from George Hayes, a Scot who reached Windsor, Conn., in 1680. He was raised by his uncle Sardis Birchard, educated in Norwalk, O., and Middletown, Conn., and graduated from Kenyon College, 1842, and Harvard Law school, 1845. He practiced law in Lower Sandusky, O., now Fremont; was city solicitor of Cincinnati, 1858-61. He was major of the 23d Ohio Vols., wounded at South Mountain; became brigadier general and major general by brevet, 1864. He served in Congress 1864-67, supporting Reconstruction and Johnson's impeachment. He was elected governor of Ohio, 1867 and 1869; beaten for Congress 1872; re-elected governor, 1875. He supported the merit principle in appointments, economy, prison reform and public libraries. In 1876 he was nominated for President over James G. Blaine and believed he had lost to Samuel J. Tilden, Democrat, 184 to 153 electoral votes. But Zachariah Chandler, chairman of the Republican National Committee, relying on Republican domination of the South, urged the validity of contesting 22 electoral returns from Florida, South Carolina, Louisiana; also Oregon. Frauds in Louisiana injuring Tilden were permitted to stand. Promises to withdraw troops from the South were reported used to suborn Democrats. The election was judged by an Electoral Commission, appointed by Congress, 8 Republicans and 7 Democrats, who refused to "go behind state returns" and by strict party vote elected Hayes by 185 over 184. Tilden's refusal to fight back was blamed by his party. The withdrawal of troops followed, but handi-

capped Republican rule, and as Hayes proceeded to reform civil service he alienated political spoils-men. He advocated repeal of the Tenth of Office Act that had led to Johnson's impeachment. He supported sound money and specie payments. Hayes died in Fremont, O., Jan. 17, 1893.

MRS. RUTHERFORD B. HAYES

Mrs. Lucy Webb Hayes, born 1831, was the daughter of Dr. James Webb of Chillicothe, O. She married Hayes Dec. 30, 1852. She was an advocate of temperance, as was Hayes, and did not permit alcoholic beverages in the White House. The Hayesses had eight children: Birchard A. (1853-1928); Webb C. (1856-1934); Rutherford P. (1858-1927); Joseph T. (1861-1883); George C. (1864-66); Frances (1867-1950); Scott R. (1871-1923); Manning F. (1873-74). Mrs. Hayes died June, 1889.

James Abram Garfield

James A. Garfield, 20th President, Republican, was born Nov. 19, 1831, in a log cabin at Orange, Cuyahoga Co., Ohio., the son of Abram and Eliza Ballou Garfield. His father, a canal contractor and farmer from New York, was descended from Edward Garfield, who reached Massachusetts Bay Colony in 1630 and helped found Watertown, Mass.; his mother was a descendant of an owner of Providence Plantation. James was the youngest of four children; his father died in 1833 and his mother supported them. He worked as canal bargeman, farmer and carpenter; got an education at Western Reserve Eclectic, later Hiram College, and was graduated from Williams in 1856. He became professor of ancient languages and literature at Hiram, then principal. He was in the Ohio senate in 1859. Anti-slavery and anti-secession, he volunteered for the war, became colonel of the 42nd Ohio Infantry and brigadier general in 1862. He fought at Shiloh, was chief of staff for Rosecrans and was made major general for gallantry at Chickamauga. He entered Congress as a radical Republican in 1863; supported specie payment as against paper money (greenbacks). He was elected to the electoral commission in 1876 he voted for Hayes against Tilden on strict party lines. He was senator-elect in 1880 when he became the Republican nominee for President. He was chosen on the 36th ballot as a compromise between Gen. Grant, James G. Blaine and John Sherman. This alienated the Grant following but Garfield was elected and Blaine became his secretary of state. On July 2, 1881, Garfield was shot by an unbalanced office-seeker, Charles J. Guiteau, while entering the old Baltimore & Potomac station in Washington. He died Sept. 19, 1881, at Elberon, N. J., and was buried in Cleveland, O. Guiteau was hanged June 30, 1882.

MRS. JAMES A. GARFIELD

Mrs. Lucretia Endolph Garfield was born in 1832, daughter of an Ohio farmer. Her mother was a descendant of Gen. Nathaniel Greene. She and Garfield were schoolmates and were married Nov. 11, 1858, when he was principal at Hiram, O. Cyrus W. Field and friends raised a trust fund of \$360,000 for the family. She died March 13, 1918. Five children survived. James R. became secretary of the interior, 1907-09; Harry A. was president of Williams College; Irvin M. became a Boston lawyer and Abram G. a Cleveland architect; a daughter, Mrs. Mary Stanley-Brown, died Dec. 30, 1947.

Chester Alan Arthur

Chester A. Arthur, 21st President, Republican, was born at Fairfield, Vt., Oct. 5, 1830, the son of the Rev. William Arthur, from County Antrim, Ireland, and Malvina Stone Arthur, member of a New Hampshire family. He was graduated at Union College, 1848, taught school at Fownall, Vt., studied law in New York. In 1853 he argued in a fugitive slave case that slaves transported through New York state were thereby freed; in 1855 he obtained a ruling that Negroes were to be treated the same as whites on street cars. He helped organize the New York State militia, 1861; was made quartermaster general and equipped troops for the front. He was made collector of the port of New York, 1871. In 1877 President Hayes, reforming the civil service, ordered Arthur's resignation; he refused because he was not personally culpable, but was removed, 1879. This made Senators Conkling, Platt and the New York machine stalwarts enemies of Hayes. Arthur and the stalwarts tried to nominate Grant for a third term, 1880; when Garfield was nominated, Arthur received second place in the interests of harmony. On Sept. 19, 1881, he succeeded Garfield as President. He supported civil service reform and the tariff

of 1883; arranged an unratified canal treaty with Nicaragua. He was defeated for renomination by James G. Blaine, 1884, but supported Blaine. He died Nov. 18, 1886, and was buried in Albany, N. Y.

MRS. CHESTER A. ARTHUR

Mrs. Ellen Lewis Herndon Arthur was born in Fredericksburg, Va., in 1837, the daughter of Commander William Lewis Herndon, U. S. N. She died in 1880. The Arthurs had three children, W. L. H. Arthur, who died in infancy; Chester Alan Arthur, Jr., (1865-1937) and Ella Herndon Arthur, born 1871 (Mrs. Charles Pinkerton). The mistress of the White House was Arthur's sister, Mary, Mrs. John E. McElroy of Albany, N. Y.

Grover Cleveland

According to a ruling of the State Dept. Grover Cleveland is both the 22nd and the 24th president, because his two terms were not consecutive. By individuals, he is only the 22nd.

Grover Cleveland, 22nd and 24th President, Democrat, was born in Caldwell, N. J., Mar. 18, 1837, the son of Richard F. Cleveland, a Presbyterian minister, and Ann Neale, daughter of a Baltimore merchant who had come from Ireland. He was named Stephen Grover, but dropped Stephen. He clerked in Clinton and Buffalo, N. Y., taught in the New York City Institution for the Blind; was admitted to the bar in Buffalo, 1859; ass't district attorney, 1863; sheriff, 1869; mayor, 1881; governor of New York, 1882. He was an independent, honest administrator who hated corruption. He was nominated for President over Tammany opposition, 1884, defeating James G. Blaine, 219 to 182. He enlarged the civil service, vetoed many pension raids on Treasury. In 1888 he was defeated by Benjamin Harrison, although his popular vote was larger. Re-elected over Harrison, 1892, by 277 to 145, he faced a money crisis brought about by lowering of the gold reserve, circulation of paper and exorbitant silver purchases under the Sherman act; he obtained repeal of the latter and a reduced tariff. An income tax was passed but declared unconstitutional by the Supreme Court, 1895. A severe depression and labor troubles racked his administration but he refused to interfere in business matters and rejected as crackpot theory, Jacob Coxey's demand for work relief of \$20,000,000 monthly. He broke the Pullman strike with troops to move the mails, 1894. He rejected the platform of W. J. Bryan's silver Democrats, 1896, and supported the gold Democrats, Falmer & Buckner. He had part in the reorganization of the Equitable Life Assurance Assn. He died in Princeton, N. J., June 24, 1908.

MRS. GROVER CLEVELAND

Mrs. Frances Folsom Cleveland was born in 1864, the daughter of Cleveland's law partner in Buffalo. Oscar Folsom and Emma C. Harmon. She married Cleveland in the White House, June 2, 1886. They had five children, Ruth, Esther, Marion, Richard Folsom and Francis Grover. Mrs. Cleveland married, Feb. 10, 1913, Thomas J. Preston, Jr., an archaeologist in Princeton, N. J. She died Oct. 29, 1947.

Benjamin Harrison

Benjamin Harrison, 23rd President, Republican, was born at North Bend, O., Aug. 20, 1833. His great-grandfather, Benjamin Harrison, was a signer of the Declaration of Independence; his grandfather, William Henry Harrison, was 9th President; his father John Scott Harrison was a Member of Congress, 1853-57. His mother was Elizabeth F. Irwin. He attended school in a log cabin on his father's farm; was graduated from Miami Univ. 1852; admitted to the bar, 1853 and practiced in Indianapolis, Ind. As 2nd lieutenant, he raised recruits and became colonel of the 70th Indiana Volunteer Infantry. He fought at Kenesaw Mountain, Peachtree Creek, Nashville, and in the Atlanta campaign. In 1865 he was made brigadier general by brevet. He failed to be elected governor of Indiana, 1876; but became Senator, 1881, and worked for the G. A. R. pensions vetoed by Cleveland. In 1888 he defeated Cleveland for president, 233 to 168. He expanded the pension list greatly; suppressed the Louisiana lottery; signed the McKinley high tariff bill and the Sherman silver purchase act. He helped the admission of North and South Dakota, Montana, Washington, Idaho and Wyoming, Republican states. He was defeated for reelection, 1892. He represented Venezuela in arbitration with Great Britain in Paris, 1899. He died at Indianapolis, Mar. 13, 1901, and was buried there.

HARRISON'S TWO MARRIAGES

Mrs. Caroline Lavinia Scott Harrison was born

in 1832 in Oxford, O., the daughter of Prof. John W. Scott of Miami Univ. She married Harrison Oct. 29, 1853. She was the first head of the Daughters of the American Revolution. She died in the White House, 1892. Her son Russell B. became a mining engineer. Her daughter Mary married an Indianapolis merchant, James R. McKee; Mary's child, "Baby McKee," was a White House favorite and became a New York businessman. Mary died in Greenwich in 1930. Harrison's second wife was Mrs. Harrison's niece, Mrs. Mary Scott Lord Dimock, whom he married in 1896. She was born in Honesdale, Pa., 1858, and died in New York, Jan. 5, 1948. She spent two years in the White House during her aunt's lifetime. She had one daughter, Elizabeth Harrison, born 1897, who married James Blaine Walker, Jr., great-nephew of Blaine.

William McKinley

William McKinley, 25th President, Republican, was born in Niles, O., Jan. 29, 1843, the son of William McKinley, an iron manufacturer, and Nancy Allison McKinley, and was the seventh of nine children. His father's family was Scotch-Irish from County Antrim; his great-grandfather fought in the American Revolution. McKinley attended school in Poland, O., and Allegheny College, Meadville, Pa., and enlisted for the Civil War at 18 in the 23rd Ohio in which R. B. Hayes was a major. He was a commissary sergeant at Antietam, where the state of Ohio honored him with the tallest monument. He rose to captain and in 1865 was made major by brevet. He studied law in the Albany, N. Y., law school; opened an office in Canton, O., in 1867, and campaigned for Grant and Hayes. From 1876 to 1890, excepting 1882, he served in the House of Representatives and led the fight for a high tariff to protect "infant industries" with reciprocal trade agreements (McKinley bill, enacted Oct. 1, 1890). Defeated on this issue in 1890, he was elected governor of Ohio, 1891 and 1893. He received 182 ballots for President in the Republican convention that nominated Benjamin Harrison in 1892. In 1896 he was elected President on a protective tariff, sound money (gold standard) platform over William J. Bryan, Democratic proponent of free silver. Chief factor was the astute vote-getting of Senator Marcus A. Hanna. McKinley was reluctant to intervene in Cuba on grounds of humanity, but the loss of the battleship Maine at Havana crystallized opinion. He demanded Spain's withdrawal from Cuba; Spain agreed to arbitration and armistice but Congress announced state of war as of Apr. 21. (Peace signed Dec. 10.) In the 1900 campaign he defeated Bryan's anti-imperialist arguments with the prestige of prosperity, "the full dinner pail" and the vigorous campaigning of Theodore Roosevelt, vice presidential nominee. McKinley was a Methodist, beloved for his conciliatory nature, but conservative (stand-pat) on business issues. He abhorred violence. The need to regulate the Philippines is believed to have inspired John Hay's Open Door Policy in Asia. On Sept. 6, 1901, while welcoming citizens at the Pan-American exposition, Buffalo, N. Y., he was shot by Leon Czolgosz, an anarchist terrorist. He died Sept. 14. His last words were: "It is God's way. His will, not ours, be done." McKinley, his wife and infant daughters rest in an imposing tomb in Canton. His favorite flower, the red carnation, was made the state flower.

MRS. WILLIAM MCKINLEY

Mrs. Ida Saxton McKinley, born 1847, was the daughter of James A. Saxton and Katherine DeWalt. She was cashier in her father's bank in Canton, O., when she married McKinley. Their two children died in childhood. Mrs. McKinley became an invalid through a nervous ailment, but presided in the White House and was with her husband when he was assassinated. She died in 1907.

Theodore Roosevelt

Theodore Roosevelt, 26th President, Republican, was born in New York City, Oct. 27, 1858, the son of Theodore Roosevelt, Collector of the Port, and Martha Bulloch, daughter of Maj. Jas. S. Bulloch. Roswell, Ga. He was descended from Claes Martenszen van Rosenvelt, and his wife Janette, who reached New Netherland from Holland about 1650. Theodore was a fifth cousin of Franklin D. Roosevelt and an uncle of Mrs. Eleanor Roosevelt. His mother was of Scotch-Irish, Huguenot stock and a Southern sympathizer. Roosevelt was graduated from Harvard, 1880, attended Columbia Law School briefly; sat in the New York State Assembly, 1882-84; ranched in North Dakota, 1884-86; failed

of election as mayor of New York, 1886; member of U. S. Civil Service Comm. 1889; president, New York Police Board, 1895, supporting the merit system; Asst. Secy. of the Navy under McKinley, Apr. 19, 1897—May 10, 1898, during which he instituted naval target practice and instructed Commodore George Dewey to take Manila in the event of war with Spain. He organized the 1st U. S. Volunteer Cavalry (Rough Riders) as Lieut. col., Leonard Wood, col.; led the charge up Kettle Hill at San Juan and was made colonel by brevet. Elected governor, New York, 1898-1900, he fought the spoils system and achieved taxation of corporation franchises. Drafted for vice president, 1900, he became nation's youngest President at 42 years, 10 mos., 18 days, when McKinley died at Buffalo, Sept. 14, 1901. As President he fought corruption of politics by big business; dissolved Northern Securities Co. and others for violating anti-trust laws; intervened in coal strike on behalf of the public, 1902; instituted Dept. of Commerce and Labor; obtained Elkins law forbidding rebates to favored corporations, 1903; Hepburn law regulating railroad rates, 1906; Pure Food and Drugs Act, 1906, Reclamation Act and employers' liability laws. He organized Conservation, mediated the peace between Japan and Russia, 1905; won the Nobel peace prize. He was the first to use the Hague Court of International Arbitration. By recognizing the new Republic of Panama he made Panama Canal possible, appointed Col. Geo. W. Goethals head commissioner and began canal. He was re-elected 1904, with 336 electoral votes vs. 140.

In 1908 he obtained the nomination of William H. Taft, who was elected; considering Taft inimical to liberal policies he organized the Progressive party, June 22, 1912, and ran for President against Taft and Woodrow Wilson, splitting the Republicans and causing Wilson's election. He was shot during the campaign but recovered. He advocated recall of elected officials, referendum on legislation and recall of judicial decisions, which alienated conservatives. In 1916 he left the Progressives and supported Charles A. Hughes, Republican. A strong friend of Britain, he fought American isolation. In 1917 President Wilson refused to let him organize a division. His four sons served in World War I; two were wounded, one killed. He wrote on many topics—his Winning of the West is best known—was a naturalist and hunter and traced the River of Doubt in Brazil, 1913, now Rio Roosevelt. He was looked upon as certain nominee of the Republicans in 1920. He died Jan. 6, 1919, at Sagamore Hill, Oyster Bay, Long Island, N. Y., now a national shrine, and was buried near the Roosevelt bird refuge there.

THEODORE ROOSEVELT'S FAMILY

Mrs. Alice Hathaway Lee Roosevelt, daughter of George Cabot Lee and Caroline Haskell Lee, of Boston, married Roosevelt Oct. 27, 1880, in Boston. She and Roosevelt's mother died in New York Feb. 14, 1884. She was the mother of Alice Lee Roosevelt, who married Nicholas Longworth, of Cincinnati. Member of Congress in the White House, 1906. Their daughter, Paulina, was born Feb. 14, 1925. Longworth, Republican Speaker of the House, died April 9, 1931.

Roosevelt's second wife, Edith Kermit Carow, married him Dec. 2, 1886, in London. She was born in Norwich, Conn., Aug. 16, 1861, daughter of Charles and Gertrude Tyler Carow, and survived her husband 29 years, dying Sept. 30, 1948, aged 87. Of their five children Theodore Roosevelt, Jr., was Lieut. col., governor of Puerto Rico and governor of the Navy, general of the Philippines. He failed of election as governor of New York. A brigadier general, he served in North Africa, Italy and in Normandy with the 1st Army, and died there July 12, 1944, aged 86. Kermit, major in World War II, died on active duty in Alaska, June 4, 1943, aged 53. Ethel Carow is Mrs. Richard Derby. Archibald Bulloch was a Lieut. colonel in World War II. Quentin, aviator in World War I, was killed in action and buried where he fell in France.

William Howard Taft

William Howard Taft, 27th President, Republican, was born in Cincinnati, O., Sept. 15, 1857, the son of Alphonso Taft and Louisa Maria Torrey. His father was secretary of war and attorney general in Grant's cabinet; minister to Austria and Russia under Arthur. Taft was graduated from Yale, 1878, Cincinnati Law School, 1880, became law reporter for Cincinnati newspapers; was ass't prosecuting attorney, 1881-83; ass't county solicitor, 1885; judge, Superior Court, 1887; U. S. solicitor-general,

1890; federal circuit judge, 1892. In 1900 he became head of the U. S. Philippine Comm. and was first civil governor of the Philippines, 1901-04. Secretary of war, 1904; provisional governor of Cuba, 1906. He was groomed for President by Theodore Roosevelt as an exemplary public servant and elected over W. J. Bryan, 1908. His administration dissolved Standard Oil and tobacco trusts; instituted Department of Labor; drafted direct election of senators and income tax amendments. His tariff and conservation policies angered progressives; though renominated he was fought by Theodore Roosevelt; the result was Wilson's election. Taft was president League to Enforce Peace, supporting the League of Nations. He was professor of constitutional law, Yale, 1913-21; Chief Justice of the United States, 1921-30, when illness forced him to resign. He died in Washington, Mar. 8, 1930, and was buried in Arlington National cemetery.

MRS. WILLIAM H. TAFT

Mrs. Helen Herron Taft (1861-1943) was born in Cincinnati, daughter of John W. Herron and Harriet Collins. She was a musician and a founder of the Cincinnati orchestra. The Taft children are Helen (Mrs. Frederick J. Manning), born 1891, prof. of history and former dean and acting president at Bryn Mawr; Robert Alphonso Taft, born 1889, U. S. Senator from Ohio 1938-1953, died July 31, 1953, and Charles Phelps Taft, born 1897, lawyer, former mayor of Cincinnati. Mrs. Taft introduced musicales at White House dinners and instigated planting cherry trees along the Tidewater basin.

Woodrow Wilson

Woodrow Wilson, 28th President, Democrat, was born at Staunton, Va., Dec. 28, 1856, as Thomas Woodrow Wilson, son of a Presbyterian minister, the Rev. Joseph Ruggles and Janet (Jessie) Woodrow, daughter of a Scotch Presbyterian minister. He was a grandson of James Wilson, a Presbyterian of Ulster who reached Philadelphia in 1807, became a printer and in 1808 married an Ulster Presbyterian girl, a shipmate. In his youth Wilson lived in Augusta, Ga., Columbia, S. C., and Wilmington, N. C. He attended Davidson College, 1873-74; was graduated from Princeton, A.B., 1879; A.M., 1882; read law at the Univ. of Virginia, 1881; practiced law, Atlanta, 1882-83; Ph.D., Johns Hopkins, 1886 with "Congressional Government." He taught history and political economy at Bryn Mawr, 1885-88; at Wesleyan, 1888-90; was professor of jurisprudence and political economy at Princeton, 1890-1910; president of Princeton, 1902-1910, during which he tried to introduce innovations of organization that were fought by the graduate dean and alumni; governor of New Jersey, 1911-13, during which he obtained a primary election law, an employers' liability law and other reforms. In 1912 he was nominated for President by the strategy of Wm. J. Bryan, who was out to defeat Champ Clark and Tammany. He won because the Republican vote for Taft was split by the Progressives under Theodore Roosevelt.

Wilson protected American interests in revolutionary Mexico and fought for American rights on the high seas as the first World War opened. His sharp warnings to Germany led to the resignation of his secretary of state, Wm. J. Bryan, pacifist, while his protests against British interference with American ships disturbed the Allies. In 1916 he was re-elected by a slim margin with the slogan, "He kept us out of war," over Charles Evans Hughes, who was strongly supported by Theodore Roosevelt. Wilson's offer to mediate in the war (Dec. 18, 1916) was rejected. When the Germans started unrestricted submarine warfare, contrary to pledges, he broke diplomatic relations. After four American ships had been sunk he asked a declaration of war: it was voted April 6, 1917.

Wilson kept tight personal control over all phases of diplomatic and military activity. He relied more on reports of his confidential agent in Europe, Col. E. M. House, than on Secretary of State Robert Lansing and the U. S. ambassadors. However, he backed Gen. John J. Pershing, U. S. commander in chief, Herbert Hoover, food administrator, and others who had his confidence.

Wilson proposed peace Jan. 8, 1918, on the basis of the Fourteen Points, a state paper with worldwide influence. Basic was his doctrine of self-determination, or consent of the governed, in which he opposed handing peoples from one sovereignty to another. He also demanded a league to enforce peace. The Germans overturned the monarchy and a new republic accepted his terms and

an armistice, Nov. 11. At the November elections the Democrats lost control of Congress.

Wilson went to Paris to help negotiate the peace treaty, the crux of which he considered the League of Nations, also urged by Gen. J. C. Smuts, Lord Robert Cecil, Lord Phillimore, William H. Taft and Elihu Root. In the U. S. Senate Henry Cabot Lodge, William E. Borah and Hiram Johnson demanded reservations that would not make the United States subordinate to the votes of other nations in case of war. Wilson refused to consider any reservations and toured the country to get support. At Pueblo, Colo., Sept. 25, 1919, he broke down and several days later suffered a stroke that made him an invalid. The treaty was rejected, Mar. 1920, by 49 to 35 (29 being sufficient to kill it). He made a public appearance on the day of Harding's inauguration, and formed a law partnership with Bainbridge Colby, but did not practice. He won the Nobel peace prize, 1919. During invalidism of 17 months he was confined to his home, seeing few members of his administration, but holding on to the executive powers. He died Feb. 3, 1924, and was buried in Washington Cathedral.

WILSON'S TWO MARRIAGES

Mrs. Ellen Louise Axson Wilson was born in Rome, Ga., in 1860, the daughter of the Rev. S. E. Axson and Margaret Hoyt. She married Wilson June 28, 1885, and died in the White House Aug. 6, 1914. They had three daughters: Margaret W., born 1886, member of a religious colony in Pondicherry, India, when she died in 1944; Eleanor B., second wife of William G. McAdoo, Wilson's secretary of the treasury, later divorced; Jessie W., who married Francis B. Sayre in the White House Nov. 25, 1913 and died Jan. 15, 1933.

Mrs. Edith Bolling Wilson was born in Wytheville, Va., 1872, and was the widow of Norman Galt, a Washington jeweler, when she married Wilson, Dec. 18, 1915. She died in Washington Dec. 28, 1961. During the President's illness Mrs. Wilson conveyed his wishes to members of the government and instituted what she called "a workable system of handling matters of state." She was a director of the Woodrow Wilson Foundation and bequeathed her house to the National Trust for Historic Preservation.

Warren Gamaliel Harding

Warren Gamaliel Harding, 29th President, Republican, was born near Blooming Grove, now Corsica, O., Nov. 2, 1865, the son of Dr. Geo. Tyron Harding, a country doctor, and Phoebe Elizabeth Dickerson. He attended Ohio Central College, Iberia, O., 1879-82; worked on the Star, Marion, O., 1884, and a few years later bought the paper with a friend's help for a reported sum of \$300. He was state senator, 1900-04; lieutenant governor, 1904-06; defeated for governor, 1910; chosen U. S. Senator, 1915. He was a regular, Old Guard Republican; supported Taft, opposed Federal control of food and fuel, voted for anti-strike legislation, woman's suffrage, Volstead prohibition enforcement act over President Wilson's veto and opposed the League of Nations. In 1920 he was nominated for President on the tenth ballot with Calvin Coolidge. The Republicans capitalized war weariness and fear that Wilson's League of Nations would curtail U. S. sovereignty. They defeated the Democrats, James M. Cox and Franklin D. Roosevelt, 16,152,000 to 9,147,000. Harding stressed a return to "normalcy"; worked for repeal of excess profits and high income taxes and a revision of tariff. On announcing ratification of treaties with Germany, Austro-Hungary, Nov. 14, 1921, he declared war officially ended July 2, 1921. His cabinet included Charles Evans Hughes (State); Herbert Hoover (Commerce); Andrew S. Mellon (Treasury). Two appointees, Albert B. Fall (Interior) and Harry Daugherty (Atty. General), became involved in the Teapot Dome scandal that embittered Harding's last days. He called the International Conference on Limitation of Armaments, Nov. 11, 1921-Feb. 1, 1922, and dedicated the Lincoln Memorial. He left for Alaska June 20, 1923; became ill on his return and died in San Francisco, Aug. 2, 1923. He was buried in Marion, Ohio.

MRS. WARREN GAMALIEL HARDING

Mrs. Florence Kling Harding was born Aug. 15, 1860, the daughter of Amos O. Kling, a Marion, O., hardware merchant and later banker. She married, first, Henry De Wolfe, and had a son, Marshall Eugene De Wolfe. She divorced De Wolfe and in

1891 married Harding. For 14 years she was his associate in managing the Star. She died in Marion, Nov. 21, 1924. The Hardings had no children.

Calvin Coolidge

Calvin Coolidge, 30th President, Republican, was born in Plymouth, Vt., July 4, 1872, the son of John Calvin Coolidge, a storekeeper, and Victoria J. Moor, and named John Calvin Coolidge. His paternal ancestors came from England to Watertown, later Cambridge, Massachusetts Bay Colony, in 1630. Coolidge was graduated at Amherst, 1895; admitted to the bar in Northampton, 1897; city councilman, 1899; city solicitor, 1900-01; clerk of the courts, 1904; member of the lower Massachusetts house, 1907-08; mayor of Northampton, 1910-11; State Senator, 1912-15; and president of Senate, 1914-15; lieutenant governor, 1916-18; governor, 1919; re-elected, 1920. In Sept., 1919, Coolidge attained national prominence by his action in the Boston police strike, during which he wired Samuel Gompers of the A. F. of L.: "There is no right to strike against the public safety by anybody, anywhere, anytime." This brought his name before the Republican convention of 1920, where he received 34 votes for President and was nominated for vice president by 674½ votes. He succeeded to the presidency on Harding's death, Aug. 2, 1923, the oath being administered by his father, a justice of the peace, in his home in Plymouth, Aug. 3, and again Aug. 17 before Justice A. A. Hoehling of the Supreme Court of the District of Columbia. He opposed the League of Nations; approved the World Court; vetoed the soldiers' bonus bill, which was passed over his veto. In 1924 he was re-elected by a huge majority with 15,725,016 over John W. Davis, Dem., 8,385,538, and Robert M. LaFollette, Prog., 4,822,856. He reduced the national debt by \$2,000,000,000 in three years. He opposed the McNary-Haugen farm bill and price fixing, and supported his secretary of state, Frank B. Kellogg, in the Kellogg-Briand treaties outlawing war. His dry, laconic remarks are often quoted: opposing reduction of Europe's war debt. "They hired the money, didn't they?" With Republicans eager to renominate him he announced, Aug. 2, 1927: "I do not choose to run for President in 1928." He became a life insurance director, wrote syndicated articles and died of a heart attack in Northampton, Jan. 5, 1933. He was buried on a Plymouth hillside.

MRS. CALVIN COOLIDGE

Mrs. Grace Anne Goodhue Coolidge was born in Burlington, Vt., Jan. 3, 1879, the daughter of Andrew I. Goodhue, a steamboat inspector under Cleveland. She was graduated from the Univ. of Vermont, 1902; taught in the Clarke School for the Deaf, 1902-1905, and became president of its board. She married Coolidge Oct. 4, 1905. She died July 8, 1957, in Northampton, Mass.; aged 78. The Coolidges had two sons: John, born 1906, and Calvin (1908-1924).

Herbert Hoover

Herbert Clark Hoover, 31st President, Republican, was born at West Branch, Iowa, Aug. 10, 1874, son of Jesse Clark Hoover, a blacksmith (1847-1880) and Hulda Randall Minthorn (1848-83). Ancestor Andrew Hoover came to Penn. from Palatinate, 1738; great-grandfather reached West Branch, 1854. Hoover grew up in Indian Terr. and Oregon, won A.B. in engineering, Stanford, 1891. Briefly with U. S. Geological Survey and western mines; then mining engineer in western Australia, Asia, Europe, Africa, America. While chief engineer, imperial mines, China, he directed food relief for victims of Boxer Rebellion, 1900. He became a world figure in relief work, distributing over \$5 billion worth during 1914-1923. He directed American Relief Committee, London, 1914-15; U. S. Comm. for Relief in Belgium, 1915-1919; U. S. Food Administrator, 1917-1919; American Relief Admin., 1918-1923, feeding children in defeated nations; Russian Relief, 1918-1923; Interallied Food Council; Supreme Economic Council; Comm. on Industrial Relations. As Secy. of Commerce, 1921-28, he began regulation of radio and aviation, pushed research program for Natl. Academy of Science; organized 7-state pact for Colorado River irrigation and Hoover (Boulder) Dam. Elected President over Alfred E. Smith, 1928, he started White House conferences on child health and protection, and housing; supported conservation of forests, oil, resources; initiated Naval Conference, 1930; organized RFC, Home Loan Banks, expanded Farm Loan Banks; called WEO.

He gave his official salary to charities and underpaid help. President Truman made him coordinator of European Food Program, 1947, and ch. of Comm. for Reorganization of the Executive Branch, 1947-49, and ch. of the 2nd Comm. on Reorganization, 1953-55. He founded the Hoover Institution on War, Revolution & Peace at Stanford Univ., Calif. In his final years he lived at Waldorf Towers, New York, N. Y. He died there Oct. 20, 1964, and was buried at West Branch, Iowa, where his birthplace is now a memorial.

MRS. HERBERT HOOVER

Mrs. Lou Henry Hoover was born in Waterloo, Ia., Mar. 29, 1875, daughter of Charles D. Henry, a banker. The family moved to Monterey, Calif. She was graduated from Stanford University 1898 and married Hoover in 1899. She died Jan. 7, 1944.

Sons: Herbert Hoover, Jr., b. 1903; Allan Henry Hoover, b. 1907.

Franklin D. Roosevelt

Franklin Delano Roosevelt, 32nd President, Democrat, was born near Hyde Park, N. Y., Jan. 30, 1882, the son of James Roosevelt (died 1900) and Sara Delano (died 1941). His ancestor, Claes Martenszen van Rosenvelt, came to New Amsterdam from Holland in 1649. Claes' son Nicholas, a New York alderman in 1700 and 1715, had a son Johannes, from whom Theodore Roosevelt was descended, and a son Jacobus, from whom Franklin D. Roosevelt was descended. Roosevelt was graduated at Harvard, 1904; attended Columbia Law school, was admitted to the bar. He went to the New York Senate from his Dutchess county district 1910 and 1913. He voted for Woodrow Wilson at the 1912 Democratic convention; in 1913 Wilson made him assistant secretary of the Navy.

Roosevelt ran for vice president, 1920, with Jas. M. Cox and was defeated. From 1920 to 1928 he was a New York lawyer and v.p. of Fidelity & Deposit Co. In Aug., 1921, infantile paralysis paralyzed his legs. He learned to walk with leg braces and a cane and established the Warm Springs, Ga., Foundation, for helping those so afflicted.

Roosevelt presented the name of Alfred E. Smith to the Democratic convention of 1924 in New York, and 1928 in Houston, Texas, calling Smith the Happy Warrior. Smith was nominated in 1928 and defeated. Roosevelt was elected governor of New York, 1928 and 1930. In 1932 at Chicago W. G. McAdoo, pledged to John N. Garner, threw his votes to Roosevelt, who was chosen, alienating Smith. The financial crash, unemployment and the Democratic promise to repeal prohibition made his victory inevitable. He asked emergency powers, proclaimed the New Deal, and put into effect a vast number of administrative changes. Foremost was "pump priming," or use of public funds for relief and public works, resulting in deficit financing. He greatly expanded the controls of the central government over business and by an excess profits tax and pyramiding income taxes produced a redistribution of earnings on an unprecedented scale. The Wagner act gave labor many advantages in organizing and collective bargaining, at the same time denying equal privileges to employers. He was the last President inaugurated on Mar. 4 (1933) and the first inaugurated on Jan. 20 (1937).

Roosevelt was a tremendous worker and traveler despite physical handicaps. He was the first President to use radio for "fireside chats." When the Supreme Court voided his measures he demanded additional judges of Congress. It refused, but resignations soon enabled him to replace conservatives who had opposed him. He was the first President to break the third term tradition and was elected to a fourth term, 1944, despite failing health. The culminating event of his career was World War II. He was openly hostile to fascist governments before the war and gave Britain substantial support, such as exchanging 50 destroyers for air bases, before Pearl Harbor made the United States a belligerent. He wrote the principles of fair dealing into the Atlantic Charter, Aug. 14, 1941 (with Winston Churchill) and in the Four Freedoms (Freedom of speech, of worship, from want, from fear) Jan. 6, 1941. He conferred with the heads of state at Casablanca, Jan., 1943; Quebec, Aug., 1943; Teheran, Nov.-Dec., 1943; Cairo, Dec., 1943; Yalta, Feb., 1945. He died at Warm Springs, Ga., April 12, 1945, aged 63, and was buried on his Hyde Park estate, where his house and library are in the national care.

ELEANOR ROOSEVELT

Mrs. Anna Eleanor Roosevelt was born Oct. 11, 1884, the daughter of Elliott Roosevelt, a younger brother of Theodore Roosevelt, and Anna Hall.

She was educated in private schools. She married Franklin D. Roosevelt Mar. 17, 1905. In 1924-28 she was finance chairman of the New York Democratic State committee. She was asst. director, Office of Civilian Defense, 1941-42; U. S. representative, General Assembly, U. N., 1945-53 and ch. of its Human Rights Commission. In 1961 President Kennedy appointed her to General Assembly, U. N. Mrs. Roosevelt died Nov. 7, 1962, in New York, N. Y., and was buried beside her husband at Hyde Park, N. Y. President Kennedy and former Presidents Eisenhower and Truman were present. The Roosevelts had 6 children, one dying in infancy. The others: Anna Eleanor (Mrs. James H. Halsted), b. 1906; James, b. Dec. 23, 1907; Elliott, b. Sept. 23, 1910; Franklin Delano, Jr., b. Aug. 17, 1914; John A., b. Mar. 13, 1916.

Harry S. Truman

Harry S. Truman, 33rd President, Democrat, was born at Lamar, Mo., May 8, 1884, the son of John Anderson Truman and Martha Ellen Young. Four grandparents were born in Kentucky and moved to Missouri in the 1840s. The Trumans came from England and the President's mother's grandmother from Northern Ireland, while an ancestor of his maternal grandfather, Solomon Young came from Germany. A family disagreement on whether Harry Truman's middle name was Shippe or Solomon, after names of two grandfathers, resulted in his using only S. for his middle initial. He is a Baptist.

He attended public schools in Independence, Mo., worked for the Kansas City Star, 1901, and as railroad timekeeper, and helper in Kansas City banks up to 1905. He joined the Missouri National Guard, 1905, and was rejected by West Point for defective eyesight. He ran his family's farm, 1906-17. He entered the Field Artillery school at Fort Sill, Okla., 1917; became 1st lieutenant, Battery F and capt., Battery D, 129th Field Artillery, 35th Div., A. E. F. He served in the Vosges, Meuse-Argonne and St. Mihiel actions and was discharged as major, 1919. He is a colonel in the Field Artillery Reserve. After the war he ran a haberdashery, became judge of Jackson Co. Court, 1922-24; attended Kansas City School of Law, 1923-25. He was defeated, then elected presiding judge.

Truman was chosen senator Nov. 6, 1934; reelected Nov. 5, 1940. In 1944 with President Roosevelt's approval he was nominated for vice president, and elected. On Roosevelt's death Apr. 12, 1945, Truman was sworn in as President by Chief Justice Harlan F. Stone. In 1948 he was elected President as polls predicted his defeat.

Truman supported the Marshall Plan, ECA, the rehabilitation of Greece and arming of Turkey, and NATO, naming Gen. of the Army Eisenhower to the supreme command in Europe. He opened the United Nations conference by radio and participated with Stalin and Attlee in the Potsdam Agreement. He authorized the first use of an atomic bomb at Hiroshima, Aug. 6; Nagasaki, Aug. 9, 1945). He supported a policy of compromise between Chiang Kai-shek and the Chinese Communists. When the Communists attacked in Korea, June, 1950, and the UN asked for armed aid he ordered, J. Edgar Hoover, the Army MacArthur to give it, but when MacArthur opposed his policy of limited objectives he removed him.

Truman established the Office of Defense Mobilization in 1950, instituted controls of materials and prices. He won a higher minimum wage, increased social security and aid for housing. In 1952 he ordered seizure of steel companies, which had refused demands of CIO and WSB, and when overruled by the U. S. Supreme Court refused to use the Taft-Hartley law. He rebuilt the White House. He retired to Independence, Mo., and wrote his memoirs. The Harry S. Truman Library, containing his letters and documents, was given by the city of Independence and friends to National Archives, 1957. It has offices for Mr. Truman.

MRS. HARRY S. TRUMAN

Mrs. Elizabeth Virginia Wallace Truman was born Feb. 13, 1885, in Independence, Mo., the eldest of four children and the only daughter of David Willock Wallace. She and Mr. Truman attended the same grade and high schools in Independence, both being graduated in 1901. She attended Barstow, a girls' preparatory school in Kansas City, Mo., and is an Episcopalian. She married Mr. Truman, June 28, 1919. They have one daughter, Margaret, born 1924, a concert and radio artist, who married Clifton Daniel, a New York newspaper editor, April 21, 1956. The Daniels have 4 sons: Clifton Truman, William Wallace, Harrison Gates, and Thomas Washington.

Dwight David Eisenhower

Dwight David Eisenhower, 34th President, Republican, was born Oct. 14, 1890, at Denison, Tex., the son of David Jacob Eisenhower and Ida Elizabeth Stover Eisenhower. His paternal grandfather descended from German Mennonites who left the Rhineland for Pennsylvania in the 1730s, moved to Kansas in 1878. His father met his mother at Lane University, a United Brethren college at Leocompton, Kan. When Dwight was 1 year old his parents moved to Abilene, Kan. He attended high school and in 1915 was graduated at West Point. He became 2nd lieutenant, 19th U. S. Infantry, at Fort Sam Houston, Tex. He was a lieutenant colonel in charge of a tank corps at Camp Colt, Gettysburg, Pa., in 1918. He was graduated from Infantry Tank School, 1922; Command and General Staff Sch., 1926; Army War College, 1928; Army Industrial College, 1933. He was asst. executive officer of the Asst. Secy. of War, 1929-1933, and in the office of the Chief of Staff, 1933-35. He was on the American Military Mission to the Philippines, 1935-39 and during 4 of those years on the staff of Gen. MacArthur. He was chief of staff, 3rd Div., later 9th Corps, 1940-41, and of the 3rd Army, 1941 as brigadier general. After the Louisiana maneuvers he was made chief of the War Plans Div., War Dept. General Staff, and then became asst. chief of staff, Operations Div. and in June, 1942, lieutenant general. He was made Commander of Allied forces landing in North Africa Nov. 8, 1942, and advanced to full general in Feb., 1943, and Commander in Chief of Allied Forces in North Africa. He became Supreme Commander, Allied Expeditionary Forces Dec. 31, 1943, and as such led the Normandy invasion June 6, 1944. He was given the temporary rank of General of the Army Dec. 19, 1944, which was made permanent in 1946. On May 7, 1945, he received the surrender of the Germans at Rheims. He was in command of the U. S. Occupation Force in Germany in 1945, and returned to serve as Chief of Staff, Nov. 19, 1945, to Feb. 7, 1948. From June 7, 1948, to Jan. 19, 1953, he was president of Columbia Univ., but he took leave of absence Dec. 16, 1950, to serve as Supreme Allied Commander in Europe to organize NATO forces.

Eisenhower resigned from the Army in June, 1952, and was nominated for President by the Republicans at Chicago July 11, 1952. He defeated Adlai E. Stevenson by 442 to 89 electoral votes, was inaugurated Jan. 20, 1953. He was renominated unanimously in San Francisco Aug. 22, 1956, and defeated Stevenson 457 to 74. He called himself a moderate, favored "free market system" vs. government price and wage controls; kept government out of labor disputes; reorganized defense establishment; promoted missile programs, including Polaris. With strong aid of John Foster Dulles, his Secy. of State, he continued foreign aid; demanded unification of Germany by free elections; sped end of Korean fighting; supplied planes to anti-communist Guatemalan govt.; endorsed Formosa and SE Asia defense treaties; backed U.N. in condemning Anglo-French raid on Egypt; advocated "open skies" policy of mutual inspection to USSR. He sent U. S. troops into Little Rock, Ark., Sept., 1957, during the segregation crisis and ordered Marines into Lebanon July-Aug., 1958. Eisenhower's rank as General of the Army was restored by Congress and signed by President Kennedy Mar. 22, 1961. He farms near Gettysburg, Pa.

MRS. DWIGHT D. EISENHOWER

Mrs. Dwight D. Eisenhower was born Mamie Geneva Doud in Boone, Ia., Nov. 14, 1896. Her home was in Denver when Eisenhower, then a 1st lieutenant of infantry at Fort Sam Houston, met her. They were married July 1, 1916. Their first son, Dwight Doud, died in infancy; their second is John Sheldon Doud Eisenhower, lt. colonel, USA, ret., left the Army 1963. He is married to Barbara Jean Thompson, and they have four children.

John F. Kennedy

John Fitzgerald Kennedy, 35th President, Democrat, was born May 29, 1917, in Brookline, Mass., the second of 9 children of Joseph P. Kennedy, financier who later became ambassador to Great Britain, and Rose Fitzgerald Kennedy. He entered Harvard, attended the London School of Economics briefly in 1935, received a B.S. *cum laude* from Harvard in 1940. He served in the U. S. Navy, 1941-1945, commanded a PT boat in the Solomons and won Navy and Marine Corps medals and the Purple Heart. He covered the Potsdam Conference

and the start of the U. N. at San Francisco for International News Service. He served as Representative in Congress from Massachusetts, 1947-1953, defeated Henry Cabot Lodge for the Senate in 1952, was re-elected 1958. He nearly won the vice presidential nomination in 1956.

Kennedy won the Democratic nomination for President at Los Angeles, July 14, 1960. Sen. Lyndon B. Johnson (Tex.), was named for vice president. Kennedy defeated Richard M. Nixon, Republican, by the slim margin of 118,550 popular votes and an electoral vote of 303 to 219. He was the first Roman Catholic to be elected President.

President Kennedy's most important act was his successful demand Oct. 22, 1962, that the Soviet Union dismantle all missile bases in Cuba. He established a quarantine of arms shipments to Cuba and continued surveillance by air. He defied Soviet attempts to force the Allies out of Berlin. He made the steel industry rescind its price rise. He backed civil rights, a mental health program, arbitration of railroad disputes and larger medical care for the aged. Astronaut flights and satellite orbiting were greatly developed during his less than 3-yrs. tenure. Cape Canaveral was renamed Cape Kennedy later. He wrote *Profiles in Courage*, which won a Pulitzer prize, and *Why England Slept*. He turned the White House spotlight on the cultural arts.

On Nov. 22, 1963, Kennedy was assassinated in Dallas, Texas. On Nov. 25, a national day of mourning, he was buried in Arlington National Cemetery, Va.

MRS. JOHN F. KENNEDY

Mrs. Jacqueline Bouvier Kennedy was born July 28, 1929, in Southampton, N. Y., daughter of John Vernon Bouvier, a New York Banker, and Janet Lee Bouvier (Mrs. Hugh D. Auchincloss). She attended private schools for girls and Vassar, and studied the history of art at the Sorbonne, Paris, during one year. She was graduated from George Washington Univ., 1951, afterward studying American history there. She was on the reporting staff of Washington Times-Herald, 1952. She married John F. Kennedy at Newport, Sept. 12, 1953, when she was 24 and Sen. Kennedy 36. They had three children: Caroline, born Nov. 27, 1957; John F., Jr., Nov. 25, 1960 and Patrick Bouvier, Aug. 7, 1963 (deceased). Mrs. Kennedy supervised the complete refurbishing of the White House. She moved to New York City in 1964.

Lyndon Baines Johnson

Lyndon Baines Johnson, 36th President, Democrat, was born on a farm near Stonewall, Tex., Aug. 27, 1908, son of Sam Ealy and Rebekah Baines Johnson. His father and grandfather had served in the Texas legislature. His family moved to Johnson City in 1913, where he was graduated from the high school in 1924. He received a B.S. degree at Southwest Texas State Teachers College, 1930, attended Georgetown Univ., Law School, Washington, 1935. He taught public speaking in Houston high school, 1930-32; served as secretary to Rep. R. M. Kleberg, 1932-35. In 1935 President Roosevelt appointed Johnson Texas state administrator of the National Youth Admin. In 1937 Johnson won a contest to fill the vacancy caused by the death of a Representative, and in 1938 was elected to the full term, after which he returned for four terms. A member of the Naval Reserve, he was lieutenant commander, U. S. Navy, 1941-42, winning the Silver Star for a flight over Japanese positions at New Guinea. He was elected Senator 1948 by only 87 votes margin over Gov. Coke Stevenson of Texas; in 1954 he was reelected by a large majority. He became Democratic whip, 1951, and leader, 1953, at 44. Johnson was Texas' favorite son for the Democratic presidential nomination in 1956 and had strong support in the 1960 convention, when the nominee, John F. Kennedy, asked him to run for Vice President. His campaigning helped overcome religious bias against Kennedy in the South. As Vice President he proved to be a tireless worker. He represented Kennedy abroad, was ch. of the President's Committee on Equal Employment Opportunity and member of advisory bodies dealing with security, space and the Peace Corps. Johnson took the oath of office as President at 2:30 p.m., CST, on November 22, 1963, 99 min. after the death of President Kennedy. In filling out the Kennedy term Johnson worked hard for welfare legislation and signed acts for civil rights, anti-poverty and tax reduction and averted strikes on railroads. He was nominated for President and elected Nov. 3, 1964, by 486 electoral votes to 52. Overshadowing

other developments during Johnson's first full term in the White House were the expansion of the war in Vietnam, the committing of more than 500,000 American servicemen to the conflict, intensive bombing by U. S. planes, mounting U. S. casualties, and attempts to achieve peace.

In a nationally televised speech Mar. 31, 1968, Johnson announced that he had ordered a halt to all and naval bombardment of most of North Vietnam. In a surprise statement at the close of the speech he said: "I shall not seek, and I will not accept, the nomination of my party for another term as your President." Johnson withdrew in the name of national unity after acknowledging that there was "division in the American house."

MRS. LYNDON B. JOHNSON

Mrs. Claudia Alta Taylor Johnson, affectionately called Lady Bird by family and friends, is the daughter of a Marshall, Texas, rancher and was

born Dec. 22, 1912. Her mother, dying when Claudia was a little girl, left her \$87,000, which she multiplied by careful investment. She was graduated from the Univ. of Texas, 1933, and married Johnson Nov. 17, 1934. An able business woman, she became owner of radio-television station KTBC in Austin, Tex., since placed in a trust. The Johnsons have two daughters, Lynda Bird, born Mar. 19, 1944 and Luci Baines, born July 2, 1947. The Johnson ranch of 400 acres is near Johnson City, Texas. President Johnson is a member of the Christian Church (Disciples of Christ). Mrs. Johnson and Lynda are Episcopalians; Luci became a Roman Catholic July 2, 1965. Luci was married to Patrick Nugent Aug. 6, 1966. She gave birth in Austin, Tex., June 21, 1967, to the President's first grandchild, Patrick Lyndon Nugent. On Dec. 9, 1967, Lynda was married to Marine Capt. Charles S. Robb in the first White House marriage of a President's daughter in 53 years.

Religious Background of Presidents

Baptist—Harding, Truman.
Christian Church (Disciples of Christ)—Garfield, Lyndon B. Johnson.
Congregationalist—Coolidge.
Episcopalian—Washington, Madison, Monroe, William Henry Harrison, Tyler, Taylor, Pierce, Arthur, and Franklin D. Roosevelt.
Jefferson, an Episcopal Church member, later became a deist, said he was a "disciple of the doctrines of Jesus," and commended Unitarianism.
Friends (Quakers)—Hoover.

Methodist—Polk, Andrew Johnson, Grant, McKinley.
Presbyterian—Jackson, Buchanan, Cleveland, Benjamin Harrison, Wilson, Eisenhower.
Lincoln attended Presbyterian services in Washington but was not a member. Hayes attended the Methodist Church, but never joined.
Reformed Dutch—Van Buren, Theodore Roosevelt.
Roman Catholic—Kennedy.
Unitarian—John Adams, John Quincy Adams, Fillmore, Taft.

Law on Succession to the Presidency

If by reason of death, resignation, removal from office, inability, or failure to qualify there is neither a President nor Vice President to discharge the powers and duties of the office of President, then the Speaker of the House of Representatives shall upon his resignation as Speaker and as Representative, act as President. The same rule shall apply in the case of the death, resignation, removal from office, or inability of an individual acting as President.

If at the time when a Speaker is to begin the discharge of the powers and duties of the office of President there is no Speaker, or the Speaker fails to qualify as Acting President, then the President pro tempore of the Senate, upon his resignation as President pro tempore and as Senator, shall act as President.

An individual acting as President shall continue to act until the expiration of the then current Presidential term, except that (1) if his discharge of the powers and duties of the office is founded in

whole or in part in the failure of both the President-elect and the Vice President-elect to qualify, then he shall act only until a President or Vice President qualifies, and (2) if his discharge of the powers and duties of the office is founded in whole or in part on the inability of the President or Vice President, then he shall act only until the removal of the disability of one of such individuals.

If, by reason of death, resignation, removal from office, or failure to qualify, there is no President pro tempore to act as President, then the officer of the United States who is highest on the following list, and who is not under disability to discharge the powers and duties of President, shall act as President: Secy. of State, Secy. of the Treasury, Secy. of Defense, Attorney General, Postmaster General, Secy. of the Interior, Secy. of Agriculture, Secy. of Commerce, Secy. of Labor, Secy. of Health, Education and Welfare, Secy. of Housing and Urban Development and Secy. of Transportation. Approved July 18, 1947; amended Sept. 9, 1965, and Oct. 15, 1966.

Presidents Who Wore Military Uniforms

Washington—French and Indian War; Revolution.
Monroe—Revolution.
Jackson—Revolution, Creek, 1812, and Seminole wars.
Harrison, W. H.—Indian wars, Ohio and Indiana, 1812.
Tyler—1812.

Taylor—1812, Black Hawk, Seminole and Mexican.
Pierce—Mexican.
Buchanan—1812.
Lincoln—Black Hawk.
Johnson, Andrew—Military Gov. Tennessee, Civil War.
Grant—Mexican, Civil War.
Hayes—Civil War.
Garfield—Civil War.
Arthur—Q. M. Gen., N. Y. State.
Harrison, B.—Civil War.
McKinley—Civil War.
Roosevelt, T.—Spanish War.
Truman—World War I.
Eisenhower—World War I and II.
Kennedy—World War II.
Johnson, Lyndon—World War II.

Burial Places of the Presidents

G. Washington... 1732-1799 Mt. Vernon, Va.
John Adams... 1735-1826 Quincy, Mass.
T. Jefferson... 1743-1826 Charlottesville, Va.
James Madison... 1751-1836 Montpelier, Va.
James Monroe... 1758-1831 Richmond, Va.
John Q. Adams... 1767-1848 Quincy, Mass.
Andrew Jackson... 1767-1845 Nashville, Tenn.
M. Van Buren... 1782-1862 Kinderhook, N. Y.
W. H. Harrison... 1773-1841 North Bend, Ohio
John Tyler... 1790-1862 Richmond, Va.
James Knox Polk... 1795-1849 Nashville, Tenn.
Zachary Taylor... 1784-1850 Louisville, Ky.
Millard Fillmore... 1800-1874 Buffalo, N. Y.
Franklin Pierce... 1804-1869 Concord, N. H.
James Buchanan... 1791-1868 Lancaster, Pa.
A. Lincoln... 1809-1865 Springfield, Ill.

Andrew Johnson 1808-1875 Greeneville, Tenn.
Ulysses S. Grant 1822-1885 New York City
R. B. Hayes... 1822-1893 Fremont, Ohio
J. A. Garfield... 1831-1881 Cleveland, Ohio
G. A. Arthur... 1830-1886 Albany, N. Y.
Grover Cleveland 1837-1908 Princeton, N. J.
B. Harrison... 1833-1901 Indianapolis, Ind.
W. McKinley... 1843-1901 Canton, Ohio
T. Roosevelt... 1858-1919 Oyster Bay, N. Y.
William H. Taft 1857-1930 Arlington Nat'l Cem'y
Woodrow Wilson 1856-1924 Washington Cathedral
W. G. Harding... 1865-1923 Marion, Ohio
Calvin Coolidge... 1872-1933 Plymouth, Vt.
Herbert Hoover... 1874-1964 West Branch, Iowa
F. D. Roosevelt... 1882-1945 Hyde Park, N. Y.
J. F. Kennedy... 1917-1963 Arlington Nat'l Cem'y

Origin of the United States National Motto

In God We Trust, designated as the U. S. National Motto by Congress in 1956, originated during the Civil War as an inscription for U. S. coins, although it was used by Francis Scott Key in a slightly different form when he wrote The Star-Spangled Banner in 1814. On Nov. 13, 1861, when Union morale had been shaken by battlefield defeats, the Rev. M. R. Watkinson, of Ridleyville, Pa., wrote to Secy. of the Treasury Salmon P. Chase. "From my heart I have felt our national shame in disowning God as not the least of our present national disasters," the minister wrote, suggesting "recognition of the Almighty God in some form on our coins." Secy. Chase ordered designs prepared with the inscription *In God We Trust* and backed coinage legislation which authorized use of this slogan. It first appeared on some U. S. coins in 1864, disappeared and reappeared on various coins until 1955, when Congress ordered it placed on all paper money and all coins.

LAWS AND DOCUMENTS

DECLARATION OF INDEPENDENCE

The Declaration of Independence was adopted by the Continental Congress, in Philadelphia, on July 4, 1776. John Hancock was president of the Congress and Charles Thomson was secretary. A copy of the Declaration, engrossed on parchment, was signed by Members of Congress on and after August 2, 1776. On January 18, 1777, Congress ordered that "authenticated copies, with the names of the Members of Congress subscribed the same, be sent to each of the United States, and that they be desired to have same put upon record." Authenticated copies were printed in broadside form in Baltimore, where the Continental Congress was then in session. The following text is that of the original printed by John Dunlap at Philadelphia for the Continental Congress.

In CONGRESS, July 4, 1776.

A DECLARATION

**By the REPRESENTATIVES of the
UNITED STATES OF AMERICA,
In GENERAL CONGRESS assembled**

WHEN in the Course of human Events, it becomes necessary for one People to dissolve the Political Bands which have connected them with another, and to assume among the Powers of the Earth, the separate and equal Station to which the Laws of Nature and of Nature's God entitle them, a decent Respect to the Opinions of Mankind requires that they should declare the causes which impel them to the Separation.

We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness—That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed, that whenever any Form of Government becomes destructive of these Ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its Foundation on such Principles, and organizing its Powers in such Form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient Causes; and accordingly all Experience hath shewn, that Mankind are more disposed to suffer, while Evils are sufferable, than to right themselves by abolishing the Forms to which they are accustomed. But when a long Train of Abuses and Usurpations, pursuing invariably the same Object, evinces a Design to reduce them under absolute Despotism, it is their Right, it is their Duty, to throw off such Government, and to provide new Guards for their future Security. Such has been the patient Sufferance of these Colonies; and such is now the Necessity which constrains them to alter their former Systems of Government. The History of the present King of Great-Britain is a History of repeated Injuries and Usurpations, all having in direct Object the Establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid World.

He has refused his Assent to Laws, the most wholesome and necessary for the public Good.

He has forbidden his Governors to pass Laws of immediate and pressing Importance, unless suspended in their Operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other Laws for the Accommodation of large Districts of People, unless those People would relinquish the Right of Representation in the Legislature, a Right inestimable to them, and formidable to Tyrants only.

He has called together Legislative Bodies at Places unusual, uncomfortable, and distant from the Depository of their public Records, for the sole Purpose of fatiguing them into Compliance with his Measures.

He has dissolved Representative Houses repeatedly, for opposing with manly Firmness his Invasions on the Rights of the People.

He has refused for a long Time, after such Dissolutions, to cause others to be elected; whereby the Legislative Powers, incapable of Annihilation, have returned to the People at large for their exercise; the State remaining in the mean time exposed to all the Dangers of Invasion from without, and Convulsions within.

He has endeavoured to prevent the Population of these States; for that Purpose obstructing the

Laws for Naturalization of Foreigners; refusing to pass others to encourage their Migrations hither, and raising the Conditions of new Appropriations of Lands.

He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary Powers.

He has made Judges dependent on his Will alone, for the Tenure of their Offices, and the Amount and Payment of their Salaries.

He has erected a Multitude of new Offices, and sent hither Swarms of Officers to harrass our People, and eat out their Substance.

He has kept among us, in Times of Peace, Standing Armies, without the consent of our Legislatures.

He has affected to render the Military Independent of and superior to the Civil Power.

He has combined with others to subject us to a Jurisdiction foreign to our Constitution, and unacknowledged by our Laws; giving his Assent to their Acts of pretended Legislation:

For quartering large Bodies of Armed Troops among us:

For protecting them, by a mock Trial, from Punishment for any Murders which they should commit on the Inhabitants of these States:

For cutting off our Trade with all Parts of the World:

For imposing Taxes on us without our Consent: For depriving us, in many Cases, of the Benefits of Trial by Jury:

For transporting us beyond Seas to be tried for pretended Offences:

For abolishing the free System of English Laws in a neighbouring Province, establishing therein an arbitrary Government, and enlarging its Boundaries, so as to render it at once an Example and fit Instrument for introducing the same absolute Rule into these Colonies:

For taking away our Charters, abolishing our most valuable Laws, and altering fundamentally the Forms of our Governments:

For suspending our own Legislatures, and declaring themselves invested with Power to legislate for us in all Cases whatsoever.

He has abdicated Government here, by declaring us out of his Protection and waging War against us.

He has plundered our Seas, ravaged our Coasts, burnt our Towns, and destroyed the Lives of our People.

He is, at this Time, transporting large Armies of foreign Mercenaries to compleat the Works of Death, Desolation, and Tyranny, already begun with circumstances of Cruelty and Perfidy, scarcely paralleled in the most barbarous Ages, and totally unworthy the Head of a civilized Nation.

He has constrained our fellow Citizens taken Captive on the high Seas to bear Arms against their Country, to become the Executioners of their Friends and Brethren, or to fall themselves by their Hands.

He has excited domestic Insurrections amongst us, and has endeavoured to bring on the Inhabitants of our Frontiers, the merciless Indian Savages, whose known Rule of Warfare, is an undistinguished Destruction, of all Ages, Sexes and Conditions.

In every stage of these Oppressions we have Petitioned for Redress in the most humble Terms: Our repeated Petitions have been answered only by repeated Injury. A Prince, whose Character is thus marked by every act which may define a Tyrant, is unfit to be the Ruler of a free People.

Nor have we been wanting in Attention to our British Brethren. We have warned them from Time to Time of Attempts by their Legislature to extend an unwarrantable Jurisdiction over us. We have reminded them of the Circumstances of our

Emigration and Settlement here. We have appealed to their native Justice and Magnanimity, and we have conjured them by the Ties of our common Kindred to disavow these Usurpations, which, would inevitably interrupt our Connections and Correspondence. They too have been deaf to the Voice of Justice and of Consanguinity. We must, therefore, acquiesce in the Necessity, which denounces our Separation, and hold them, as we hold the rest of Mankind, Enemies in War, in Peace, Friends.

We, therefore, the Representatives of the UNITED STATES OF AMERICA, in GENERAL CONGRESS, Assembled, appealing to the Supreme Judge of the World for the Rectitude of our Intentions, do, in the Name, and by Authority of the good People of these Colonies, solemnly Publish and Declare, That these United Colonies are, and

of Right ought to be, FREE AND INDEPENDENT STATES; that they are absolved from all Allegiance to the British Crown, and that all political Connection between them and the State of Great-Britain, is and ought to be totally dissolved; and that as FREE AND INDEPENDENT STATES, they have full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which INDEPENDENT STATES may of right do. And for the support of this Declaration, with a firm Reliance on the Protection of divine Providence, we mutually pledge to each other our Lives, our Fortunes, and our sacred Honor.

Signed by ORDER and in BEHALF of the CONGRESS,
JOHN HANCOCK, President.

ATTEST.

CHARLES THOMSON, Secretary.

World Almanac Guilty of the Crime of Sedition*

(Excerpts from an editorial in the New York World, former publisher of the World Almanac, dated Jan. 13, 1920, and reprinted in the American Heritage of June, 1963.)

The World Almanac for 1920 has already been printed and tens of thousands of copies have been distributed and cannot be recalled; but the Almanac once again contains the Declaration of Independence, and the new Sedition Bill as agreed to by the House Judiciary Committee provides that any person shall be deemed guilty of a felony "who either orally or by writing, printing or . . . shall otherwise teach, incite, advocate, propose or advise, or aid, abet or encourage forcible resistance to, or destruction of the Government of the United States. . . ."

Now, unfortunately, the second paragraph of the Declaration of Independence is defiantly seditious . . . The World can easily suppress the Declaration of Independence in all future editions of the Almanac, but in the mean time the mischief has been done for 1920 and the seditious utterances of Thomas Jefferson have been scattered to the four corners of the country.

For any evil consequences that may ensue . . . we can only beg for mercy and for such consideration as the Department of Justice may graciously grant. . . .

*Sedition is conduct which tends to treason, but which falls short of it for want of an overt act.

Signers of the Declaration of Independence

Delegate and State	Vocation	Birthplace	Born	Died
Adams, John (Mass.)	Lawyer	Brintree (Quincy), Mass.	1735, Oct.	30 1826, July 4
Adams, Samuel (Mass.)	Politician	Boston, Mass.	1722, Sept.	27 1803, Oct. 2
Bartlett, Josiah (N. H.)	Phys., Law	Amesbury, Mass.	1729, Nov.	21 1795, May 19
Braxton, Carter (Va.)	Farmer	King & Queen C. H., Va.	1736, Sept.	10 1797, Oct. 10
Carroll, Chas. of Carrollton (Md.)	Lawyer	Annapolis, Md.	1737, Sept.	19 1832, Nov. 14
Chase, Samuel (Md.)	Jurist	Princess Anne, Md.	1741, April	17 1811, June 19
Clark, Abram (N. J.)	Law, Fla.	Elizabeth, N. J.	1726, Feb.	15 1794, Sept. 15
Clymer, George (Pa.)	Merchant	Philadelphia, Pa.	1739, March	16 1813, Jan. 23
Ellery, William (R. I.)	Jurist	Newport, R. I.	1727, Dec.	22 1820, Feb. 15
Floyd, William (N. Y.)	Soldier	Brookhaven, N. Y.	1734, Dec.	17 1821, Aug. 4
Franklin, Benjamin (Pa.)	Print., Pub.	Boston, Mass.	1706, Jan.	17 1790, April 17
Gerry, Elbridge (Mass.)	Merchant	Marblehead, Mass.	1744, July	17 1814, Nov. 23
Gwinnett, Button (Ga.)	Merchant	Down Hatherly, Eng.	1732	1777, May 19
Hall, Lyman (Ga.)	Phys., Jurist	Wallingford, Conn.	1724, April	12 1790, Oct. 19
Hancock, John (Mass.)	Merchant	Brintree (Quincy), Mass.	1737, Jan.	12 1793, Oct. 8
Harrison, Benjamin (Va.)	Farmer	Berkeley, Va.	1726, April	5 1791, April 24
Hart, John (N. J.)	Farmer	Stonington, Conn.	(1707-1717?)	1779, May 11
Hewes, Joseph (N. C.)	Merchant	Kinston, N. J.	1730, Jan.	23 1779, Nov. 10
Heyward, Thos. Jr. (S. C.)	Law, Farm.	St. Luke's Parish, S. C.	1746, July	28 1809, March 6
Hooper, William (N. C.)	Lawyer	Boston, Mass.	1742, June	28 1790, Oct. 14
Hopkins, Stephen (R. I.)	Mer., Judge	Providence, R. I.	1707, March	7 1785, July 13
Hopkinson, Francis (N. J.)	Jur., Music	Philadelphia, Pa.	1737, Sept.	21 1791, Jan. 9
Huntington, Samuel (Conn.)	Jurist	Windham County, Conn.	1731, July	3 1796, Jan. 5
Jefferson, Thomas (Va.)	Lawyer	Old Shadwell, Va.	1743, April	13 1826, July 4
Lee, Richard Henry (Va.)	Farmer	Stratford, Va.	1732, Jan.	20 1794, June 19
Lee, Francis Lightfoot (Va.)	Farmer	Stratford, Va.	1734, Oct.	14 1797, Jan. 11
Lewis, Francis (N. Y.)	Merchant	Landaff, Wales	1713, March	1783, Dec. 30
Livingston, Philip (N. Y.)	Merchant	Albany, N. Y.	1716, Jan.	15 1778, June 12
Lynch, Thomas, Jr. (S. C.)	Farmer	Winyah, S. C.	1749, Aug.	5 1779, (at sea)
McKean, Thomas (Del.)	Lawyer	New London, Pa.	1734, March	19 1817, June 24
Middleton, Arthur (S. C.)	Farmer	Charleston, S. C.	1742, June	26 1787, Jan. 1
Morris, Lewis (N. Y.)	Farmer	Morrisania, N. Y. (N.Y.C.)	1726, April	8 1798, Jan. 22
Morris, Robert (Pa.)	Merchant	Liverpool, Eng.	1734, Jan.	20 1806, May 8
Morton, John (Pa.)	Jurist	Ridley, Pa.	1724	1777, April
Nelson, Thos., Jr. (Va.)	Soldier	Yorktown, Va.	1738, Dec.	26 1789, Jan. 4
Paca, William (Md.)	Jurist	Abingdon, Md.	1740, Oct.	31 1799, Oct. 23
Paine, Robert Treat (Mass.)	Rev., Jurist	Boston, Mass.	1731, March	11 1814, May 12
Penn, John (N. C.)	Lawyer	Near Port Royal, Va.	1741, May	17 1788, Sept. 14
Read, George (Del.)	Jurist	Near North East, Md.	1733, Sept.	18 1798, Sept. 21
Rodney, Caesar (Del.)	Jurist	Dover, Del.	1728, Oct.	7 1784, June 29
Ross, George (Pa.)	Jurist	New Castle, Del.	1730, May	10 1779, July 14
Rush, Benjamin (Pa.)	Physician	Byberry, Pa. (Philadelphia)	1745, Dec.	24 1813, April 19
Rutledge, Edward (S. C.)	Lawyer	Charleston, S. C.	1749, Nov.	23 1800, Jan. 23
Sherman, Roger (Conn.)	Lawyer	Newton, Mass.	1721, April	19 1793, July 23
Smith, James (Pa.)	Lawyer	Dublin, Ireland	1713	1806, July 11
Stockton, Richard (N. J.)	Lawyer	Near Princeton, N. J.	1730, Oct.	1 1781, Feb. 28
Swaine, Thomas (Md.)	Lawyer	Charles County, Md.	1744	1787, Oct. 5
Taylor, George (Pa.)	Ironmonger	Ireland	1716	1781, Feb. 23
Thornton, Matthew (N. H.)	Phys., Jurist	Ireland	1714	1803, June 24
Walton, George (Ga.)	Jurist	Prince Edward County, Va.	1741	1804, Feb. 2
Whipple, William (N. H.)	Mer., Jurist	Kittery, Maine	1730, Jan.	14 1785, Nov. 28
Williams, William (Conn.)	Mer., Jurist	Lebanon, Conn.	1731, April	23 1811, Aug. 2
Wilson, James (Pa.)	Jurist	Carskerdo, Scotland	1742, Sept.	14 1798, Aug. 28
Witherspoon, John (N. J.)	Educator	Gifford, Scotland	1723, Feb.	5 1794, Nov. 15
Wolcott, Oliver (Conn.)	Jurist	Windsor, Conn.	1726, Dec.	1 1797, Dec. 1
Wythe, George (Va.)	Lawyer	Elizabeth City, Va.	1726	1806, June 8

How the Declaration of Independence Was Adopted

On June 7, 1776, Richard Henry Lee, who had issued the first call for a congress of the colonies, introduced in the Continental Congress at Philadelphia a resolution declaring "that these United Colonies are, and of right ought to be, free and independent states, that they are absolved from all allegiance to the British Crown, and that all political connection between them and the state of Great Britain is, and ought to be, totally dissolved."

The resolution, seconded by John Adams on behalf of the Massachusetts delegation, came up again June 10 when a committee of five, headed by Thomas Jefferson, was appointed to express the purpose of the resolution in a declaration of independence. The others on the committee were John Adams, Benjamin Franklin, Robert R. Livingston, and Roger Sherman.

Drafting the Declaration was assigned to Jefferson, who worked on a portable desk of his own construction in a room at Market and 7th Sts. The committee reported the result June 28, 1776. The members of the Congress suggested a number of changes, which Jefferson called "deplorable." They didn't approve Jefferson's arraignment of the British people and King George III for encouraging and fostering the slave trade, which Jefferson called "an execrable commerce." They made 86 changes, eliminating 480 words and leaving 1,337. In the final form capitalization was erratic. Jefferson had written that men were endowed with "inalienable" rights; in the final copy it came out as "unalienable" and has been thus ever since.

The Lee-Adams resolution of independence was adopted by 12 yeas July 2—the actual date of the act of independence. The Declaration, which explains the act, was adopted the evening of July 4. After the Declaration was adopted, July 4, 1776, it was turned over to John Dunlap, printer, to be printed on broadsides. The original copy was lost

and one of his broadsides was attached to a page in the journal of the Congress. It was read aloud July 8 in Philadelphia, Easton, Pa. and Trenton, N. J. On July 9 at 6 p.m. it was read by order of Gen. George Washington to the troops assembled on the Common in New York City (City Hall Park).

The Continental Congress on July 19, 1776, adopted the following resolution:

"Resolved, That the Declaration passed on the 4th, be fairly engrossed on parchment with the title and stile of 'The unanimous Declaration of the thirteen united States of America' and that the same, when engrossed, be signed by every member of Congress."

Not all delegates who signed the engrossed Declaration were present on July 4. Robert Morris (Pa.), William Williams (Conn.) and Samuel Chase (Md.) signed on Aug. 2. Oliver Wolcott (Conn.), George Wythe (Va.), Richard Henry Lee (Va.) and Elbridge Gerry (Mass.) signed in August and September. Matthew Thornton (N.H.) joined the Congress Nov. 4 and signed later. Thomas McKean (Del.) rejoined Washington's Army before signing and said later that he signed in 1781.

Charles Carroll of Carrollton was appointed a delegate by Maryland on July 4, 1776, presented his credentials July 18, and signed the engrossed Declaration Aug. 2. Born Sept. 19, 1737, he was 95 years old and the last surviving signer when he died Nov. 14, 1832.

Two Pennsylvania delegates who did not support the Declaration on July 4 were replaced.

The four New York delegates did not have authority from their state to vote on July 4. On July 9 the New York state convention authorized its delegates to approve the Declaration and the Congress was so notified on July 15, 1776. The four signed the engrossed Declaration on Aug. 2.

The original engrossed Declaration is preserved in the National Archives Building in Washington.

The Liberty Bell; Its History and Significance

The Liberty Bell, in Independence Hall, Philadelphia, is an object of great reverence to Americans because of its association with the historic events of the War of Independence.

The original Province bell, ordered to commemorate the 50th anniversary of the Commonwealth of Pennsylvania, was cast by Thomas Lister, Whitechapel, London, and reached Philadelphia in August, 1752. It bore an inscription from Leviticus XXV, 10: "Proclaim liberty throughout all the land unto all the inhabitants thereof."

The bell was cracked by a stroke of its clapper in September, 1752, while it hung on a truss in the State House yard for testing. Pass & Stow, Philadelphia founders, recast the bell, adding 1½ ounces of copper to a pound of the original metal to reduce brittleness. It was found that the bell contained too much copper, injuring its tone, so Pass & Stow recast it again, this time successfully.

In June, 1753, the bell was hung in the wooden steeple of the State House, erected on top of the brick tower. In use while the Continental Congress was in session in the State House, it rang out in defiance of British tax and trade restrictions, and proclaimed the Boston Tea Party and the first public reading of the Declaration of Independence.

On Sept. 18, 1777, when the British Army was about to occupy Philadelphia, the bell was moved

in a baggage train of the American Army to Allentown, Pa., where it was hidden in Zion's Church until June 27, 1778. It was moved back to Philadelphia after the British left.

In July, 1781, the wooden steeple became insecure and had to be taken down. The bell was lowered into the brick section of the tower. Here it was hanging in July, 1835, when it cracked while tolling for the funeral of John Marshall, Chief Justice of the United States. Because of its association with the War of Independence it was not recast but remained mute in this location until 1846, the year of the Mexican War, when it was placed on exhibition in the Declaration Chamber of Independence Hall.

In 1876, when many thousands of Americans visited Philadelphia for the Centennial Exposition, it was placed in its old walnut frame in the tower hallway. In 1877 it was hung from the ceiling of the tower by a chain of 13 links. It was returned again to the Declaration Chamber and in 1896 taken back to the tower hall, where it occupied a glass case. In 1915 the case was removed so that the public might touch it. It remains there today.

The measurements of the bell follow: Circumference around the lip, 12 ft.; circumference around the crown, 7 ft. 6 in.; lip to the crown, 3 ft.; height over the crown, 2 ft. 3 in.; thickness at lip, 3 in.; thickness at crown, 1½ in.; weight, 2080 lbs.; length of clapper, 3 ft. 2 in.; cost, \$60 14s 5d.

Independence Hall, American Patriotic Shrine

Independence Hall is the central and main building of a group in Philadelphia, located in Independence Square and facing Chestnut St. It is connected by arcades with two 2-story buildings, the East and West Wings, and two separate corner buildings. Of the latter Congress Hall is at Sixth St., and Old City Hall at Fifth St.

Independence Hall originally was the State House. It was begun in 1732, and completed in 1759. The East and West Wings were intended to house offices. Tower and spire were completed by June 1753.

The Pennsylvania Assembly occupied Assembly Hall in 1735, before the whole structure was completed. In 1775 it gave the use of the room to the Second Continental Congress. Here, on June 16, 1775, George Washington accepted command of the Continental Army. Here the Declaration of

Independence was adopted on July 4, 1776; the Articles of Confederation and Perpetual Union were signed beginning on July 9, 1778, and the Constitution of the United States was framed by the Constitutional Convention in 1787.

Congress Hall, at the west end of the group, was erected in 1787 and was the seat of the United States Congress from 1790 to 1800, when the Congress moved to Washington, D. C. The Court House, or Old City Hall, at the east end, was built in 1790 for the municipal courts, and was the first seat of the United States Supreme Court.

Independence Hall and the other buildings in Independence Square form the nucleus around which has been developed the Independence National Historical Park, established in 1956. Much restoration work has been done on the buildings.

CONSTITUTION OF THE UNITED STATES

The Original Seven Articles

PREAMBLE

We, the people of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.

ARTICLE I.

Section 1—Legislative powers; in whom vested:

All legislative powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2—House of Representatives, how and by whom chosen. Qualifications of a Representative. Representatives and direct taxes, how apportioned. Enumeration. Vacancies to be filled. Power of choosing officers, and of impeachment.

1. The House of Representatives shall be composed of members chosen every second year by the people of the several States, and the electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State Legislature.

2. No person shall be a Representative who shall not have attained to the age of twenty-five years and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State in which he shall be chosen.

3. Representatives and direct taxes shall be apportioned among the several States which may be included within this Union according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be

made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of Representatives shall not exceed one for every thirty thousand, but each State shall have at least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to choose 3; Massachusetts, 8; Rhode Island and Providence Plantations, 1; Connecticut, 5; New York, 6; New Jersey, 4; Pennsylvania, 8; Delaware, 1; Maryland, 6; Virginia, 10; North Carolina, 5; South Carolina, 5; and Georgia, 3.

4. When vacancies happen in the representation from any State, the Executive Authority thereof shall issue writs of election to fill such vacancies.

5. The House of Representatives shall choose their Speaker and other officers, and shall have the sole power of impeachment.

Section 3—Senators, how and by whom chosen. How classified. State Executive, when to make temporary appointments, in case, etc. Qualifications of a Senator. President of the Senate, his right to vote. President pro tem., and other officers of the Senate, how chosen. Power to try impeachments. When President is tried, Chief Justice to preside. Sentence.

1. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six years; and each Senator shall have one vote.

2. Immediately after they shall be assembled in consequence of the first election, they shall be divided as equally as may be into three classes. The seats of the Senators of the first class shall be vacated at the expiration of the second year, of the second class at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one-third may be chosen every second year; and if vacancies happen by resignation or otherwise during the recess of the

Origin of the Constitution

The War of Independence was conducted by delegates from the original 13 states, called the Congress of the United States of America and generally known as the Continental Congress. In 1777 the Congress submitted to the legislatures of the states the Articles of Confederation and Perpetual Union, which were ratified by New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Virginia, North Carolina, South Carolina and Georgia, and finally, in 1781, by Maryland.

The first article of the instrument read: "The stile of this confederacy shall be the United States of America." This did not signify a sovereign nation, because the states delegated only those powers they could not handle individually, such as power to wage war, establish a uniform currency, make treaties with foreign nations and contract debts for general expenses, such as paying the army. Taxes for the payment of such debts were levied by the individual states. The president under the Articles signed himself "President of the United States in Congress assembled," but here the United States were considered in the plural, a cooperating group. Canada was invited to join the union on equal terms but did not act.

When the war was won it became evident that a stronger federal union was needed to protect the mutual interests of the states. The Congress left the initiative to the legislatures. Virginia in January, 1786, appointed commissioners to meet with representatives of other states, with the result that delegates from Virginia, Delaware, New York, New Jersey and Pennsylvania met at Annapolis. Alexander Hamilton prepared their call asking delegates from all states to meet in Phila-

delphia in May, 1787, "to render the Constitution of the Federal government adequate to the exigencies of the union." Congress endorsed the plan Feb. 21, 1787. Delegates were appointed by all states except Rhode Island.

The convention met May 14, 1787. George Washington was chosen president (presiding officer). The states certified 65 delegates, but 10 did not attend. The work was done by 55, not all of whom were present at all sessions. Of the 65 qualified delegates, 16 failed to sign, and 39 actually signed Sept. 17, 1787, some with reservations. Some historians have said 74 delegates were named and 19 failed to attend. These 9 additional persons refused the appointment, were never delegates and never counted as absentees. Washington sent the Constitution to Congress with a covering letter and that body, Sept. 28, 1787, ordered it sent to the legislatures, "in order to be submitted to a convention of delegates chosen in each state by the people thereof."

The Constitution was ratified by votes of state conventions as follows: Delaware, Dec. 7, 1787, unanimous; Pennsylvania, Dec. 12, 1787, 43 to 23; New Jersey, Dec. 18, 1787, unanimous; Georgia, Jan. 2, 1788, unanimous; Connecticut, Jan. 9, 1788, 123 to 40; Massachusetts, Feb. 6, 1788, 187 to 168; Maryland, April 28, 1788, 63 to 11; South Carolina, May 23, 1788, 149 to 73; New Hampshire, June 21, 1788, 57 to 46; Virginia, June 26, 1788, 89 to 79; New York, July 26, 1788, 30 to 27. Nine states were needed to establish the operation of the Constitution "between the states so ratifying the same" and New Hampshire was the ninth state. The government did not declare the Constitution in effect until the first Wednesday in March, 1789, which was March 4. After that North Carolina ratified it Nov. 21, 1789, 197 to 77; and Rhode Island May 29, 1790, 34 to 32. Vermont in convention ratified it Jan. 10, 1791, and by act of Congress approved Feb. 19, 1791, was admitted into the Union as the 14th state, Mar. 4, 1791.

Legislature of any State, the Executive thereof may make temporary appointment until the next meeting of the Legislature which shall then fill such vacancies.

3. No person shall be a Senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State for which he shall be chosen.

4. The Vice-President of the United States shall be President of the Senate, but shall have no vote unless they be equally divided.

5. The Senate shall choose their other officers, and also a President pro tempore, in the absence of the Vice-President, or when he shall exercise the office of the President of the United States.

6. The Senate shall have the sole power to try all impeachments. When sitting for that purpose, they shall be on oath or affirmation. When the President of the United States is tried, the Chief Justice shall preside; and no person shall be convicted without the concurrence of two-thirds of the members present.

7. Judgment in cases of impeachment shall not extend further than to removal from office, and disqualification to hold and enjoy any office of honor, trust, or profit under the United States; but the party convicted shall nevertheless be liable and subject to indictment, trial, judgment, and punishment, according to law.

Section 4—Times, etc., of holding elections, how prescribed. One session in each year.

1. The times, places and manner of holding elections for Senators and Representatives shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by law make or alter such regulations, except as to places of choosing Senators.

2. The Congress shall assemble at least once in every year, and such meetings shall be on the first Monday in December, unless they shall by law appoint a different day.

Section 5—Membership, Quorum, Adjournments, Rules, Power to punish or expel. Journal. Time of adjournments, how limited, etc.

1. Each House shall be the judge of the elections, returns, and qualifications of its own members, and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent members in such manner and under such penalties as each House may provide.

2. Each House may determine the rules of its proceedings, punish its members for disorderly behavior, and with the concurrence of two-thirds expel a member.

3. Each House shall keep a journal of its proceedings, and from time to time publish the same, excepting such parts as may in their judgment require secrecy; and the yeas and nays of the members of either House on any question shall, at the desire of one-fifth of those present, be entered on the journal.

4. Neither House, during the session on Congress shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two Houses shall be sitting.

Section 6—Compensation, Privileges, Disqualifications in certain cases.

1. The Senators and Representatives shall receive a compensation for their services to be ascertained by law, and paid out of the Treasury of the United States. They shall in all cases, except treason, felony, and breach of the peace, be privileged from arrest during their attendance at the session of their respective Houses, and in going to and returning from the same; and for any speech or debate in either House they shall not be questioned in any other place.

2. No Senator or Representative shall, during the time for which he was elected, be appointed to any civil office under the authority of the United States which shall have been created, or the emoluments whereof shall have been increased during such time; and no person holding any office under the United States shall be a member of either House during his continuance in office.

Section 7—House to originate all revenue bills. Veto. Bill may be passed by two-thirds of each House, notwithstanding, etc. Bill, not returned in ten days, to become a law. Provisions as to orders, concurrent resolutions, etc.

1. All bills for raising revenue shall originate in the House of Representatives, but the Senate may propose or concur with amendments, as on other bills.

2. Every bill which shall have passed the House of Representatives and the Senate shall, before it becomes a law, be presented to the President of the United States; if he approve, he shall sign it, but if not, he shall return it, with his objections, to that House in which it shall have originated, who shall enter the objections at large on their journal, and proceed to reconsider it. If after such reconsideration two-thirds of that House shall agree to pass the bill, it shall be sent, together with the objections, to the other House, by which it shall likewise

be reconsidered; and if approved by two-thirds of that House it shall become a law. But in all such cases the votes of both Houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the journal of each House respectively. If any bill shall not be returned by the President within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law in like manner as if he had signed it, unless the Congress by their adjournment prevent its return; in which case it shall not be a law.

3. Every order, resolution, or vote to which the concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States, and before the same shall take effect shall be approved by him, or being disapproved by him, shall be repassed by two-thirds of the Senate and the House of Representatives, according to the rules and limitations prescribed in the case of a bill.

Section 8—Powers of Congress.

1. The Congress shall have power To lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defense and general welfare of the United States; but all duties, imposts, and excises shall be uniform throughout the United States;

2. To borrow money on the credit of the United States.

3. To regulate commerce with foreign nations, and among the several States and with the Indian tribes.

4. To establish a uniform rule of naturalization and uniform laws on the subject of bankruptcies throughout the United States.

5. To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures.

6. To provide for the punishment of counterfeiting the securities and current coin of the United States.

7. To establish post-offices and post-roads.

8. To promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive rights to their respective writings and discoveries.

9. To constitute tribunals inferior to the Supreme Court.

10. To define and punish piracies and felonies committed on the high seas, and offenses against the law of nations.

11. To declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water.

12. To raise and support armies, but no appropriation of money to that use shall be for a longer term than two years.

13. To provide and maintain a navy.

14. To make rules for the government and regulation of the land and naval forces.

15. To provide for calling forth the militia to execute the laws of the Union, suppress insurrections, and repel invasions.

16. To provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States, reserving to the States respectively the appointment of the officers, and the authority of training the militia according to the discipline prescribed by Congress.

17. To exercise exclusive legislation in all cases whatsoever over such district (not exceeding ten miles square) as may, by cession of particular States and the acceptance of Congress, become the seat of Government of the United States, and to exercise like authority over all places purchased by the consent of the Legislature of the State in which the same shall be, for the erection of forts, magazines, arsenals, dockyards, and other needful buildings;—And

18. To make all laws which shall be necessary and proper for carrying into execution the foregoing powers and all other powers vested by this Constitution in the Government of the United States, or in any department or officer thereof.

Section 9—Provision as to migration or importation of certain persons. Habeas Corpus. Bills of attainder, etc. Taxes, how apportioned. No export duty. No commercial preference. Money, how drawn from Treasury, etc. No titular nobility. Officers not to receive presents, etc.

1. The migration or importation of such persons as any of the States now existing shall think proper to admit shall not be prohibited by the Congress prior to the year one thousand eight hundred and eight, but a tax or duty may be imposed on such importation, not exceeding ten dollars for each person.

2. The privilege of the writ of habeas corpus shall not be suspended, unless when in cases of rebellion or invasion the public safety may require it.

3. No bill of attainder or ex post facto law shall be passed.

4. No capitation or other direct tax shall be laid

unless in proportion to the census or enumeration herebefore directed to be taken.

5. No tax or duty shall be laid on articles exported from any State.

6. No preference shall be given by any regulation of commerce or revenue to the ports of one State over those of another, nor shall vessels bound to or from one State be obliged to enter, clear, or pay duties to another.

7. No money shall be drawn from the Treasury but in consequence of appropriations made by law; and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.

8. No title of nobility shall be granted by the United States. And no person holding any office of profit or trust under them shall, without the consent of the Congress, accept any present, emolument, office, or title of any kind whatever from any king, prince, or foreign state.

Section 10—(States prohibited from the exercise of certain powers.)

1. No State shall enter into any treaty, alliance, or confederation, grant letters of marque and reprisal, coin money, emit bills of credit, make anything but gold and silver coin a tender in payment of debts, pass any bill of attainder, ex post facto law or law impairing the obligation of contracts, or grant any title of nobility.

2. No State shall, without the consent of the Congress, lay any impost or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws, and the net produce of all duties and imposts, laid by any State on imports or exports, shall be for the use of the Treasury of the United States; and all such laws shall be subject to the revision and control of the Congress.

3. No State shall, without the consent of Congress, lay any duty of tonnage, keep troops or ships of war in time of peace, enter into agreement or compact with another State, or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ARTICLE II.

Section 1—President; his term of office. Electors of President; number and how appointed. Electors to vote on same day. Qualification of Electors. On them the duties devolve in case of his removal, death, etc. President's compensation. His oath of office.

1. The Executive power shall be vested in a President of the United States of America. He shall hold his office during the term of four years, and together with the Vice President, chosen for the same term, be elected as follows:

2. Each State shall appoint, in such manner as the Legislature thereof may direct, a number of electors equal to the whole number of Senators and Representatives to which the State may be entitled in the Congress; but no Senator or Representative or person holding an office of trust or profit under the United States shall be appointed an elector.

(The electors shall meet in their respective States and vote by ballot for two persons, of whom one at least shall not be an inhabitant of the same State with themselves. And they shall make a list of all the persons voted for, and of the number of votes for each, which list they shall sign, certify, and transmit, sealed, to the seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted. The person having the greatest number of votes shall be the President. If such number be a majority of the whole number of electors appointed, and if there be more than one who have such a majority, and have an equal number of votes, then the House of Representatives shall immediately choose by ballot one of them for President; and if no person have a majority, then from the five highest on the list the said House shall in like manner choose the President. But in choosing the President, the vote shall be taken by States, the representation from each State having one vote. A quorum, for this purpose, shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. In every case, after the choice of the President, the person having the greatest number of votes if the electors shall be the Vice President. But if there should remain two or more who have equal votes, the Senate shall choose from them by ballot the Vice President.)

(*This clause has been superseded by the 12th amendment.)

3. The Congress may determine the time of choosing the electors and the day on which they shall give their votes, which day shall be the same throughout the United States.

4. No person except a natural born citizen, or a citizen of the United States at the time of the adoption of this Constitution, shall be eligible to the office of President; neither shall any person be eligible to that office who shall not have attained

to the age of thirty-five years and been fourteen years a resident within the United States.

(For qualification of the Vice President, see Article XII of the amendments.)

5. In case of the removal of the President from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the Vice President, and the Congress may by law provide for the case of removal, death, resignation, or inability, both of the President and Vice President, declaring what officer shall then act as President, and such officer shall act accordingly until the disability be removed or a President shall be elected.

(This clause has been amended by Article XX, sections 3 and 4, of the amendments.)

6. The President shall, at stated times, receive for his services a compensation which shall neither be increased nor diminished during the period for which he shall have been elected, and he shall not receive within that period any other emolument from the United States or any of them.

7. Before he enter on the execution of his office he shall take the following oath or affirmation: "I do solemnly swear (or affirm) that I will faithfully execute the office of President of the United States, and will, to the best of my ability, preserve, protect, and defend the Constitution of the United States."

Section 2—President to be Commander-in-Chief. He may require opinions of Cabinet Officers, etc., may pardon. Treaty-making power. Nomination of certain officers. When President may fill vacancies.

1. The President shall be Commander-in-Chief of the Army and Navy of the United States, and of the militia of the several States when called into the actual service of the United States; he may require the opinion, in writing, of the principal officer in each of the executive departments upon any subject relating to the duties of their respective offices, and he shall have power to grant reprieves and pardons for offenses against the United States except in cases of impeachment.

2. He shall have power by and with the advice and consent of the Senate to make treaties, provided two-thirds of the Senators present concur; and he shall nominate and by and with the advice and consent of the Senate shall appoint ambassadors, other public ministers and consuls, judges of the Supreme Court, and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law; but the Congress may by law vest the appointment of such inferior officers as they think proper in the President alone, in the courts of law, or in the heads of departments.

3. The President shall have power to fill up all vacancies that may happen during the recess of the Senate by granting commissions, which shall expire at the end of their next session.

Section 3—(President shall communicate to Congress. He may convene and adjourn Congress, in case of disagreement, etc. Shall receive Ambassadors, execute laws, and commission officers.)

He shall from time to time give to the Congress information of the state of the Union, and recommend to their consideration such measures as he shall judge necessary and expedient; he may on extraordinary occasions, convene both Houses, or either of them, and in case of disagreement between them with respect to the time of adjournment, he may adjourn them to such time as he shall think proper; he shall receive ambassadors and other public ministers; he shall take care that the laws be faithfully executed, and shall commission all the officers of the United States.

Section 4—(All civil officers forfeited for certain crimes.)

The President, Vice President, and all civil officers of the United States shall be removed from office on impeachment for and conviction of treason, bribery or other high crimes and misdemeanors.

ARTICLE III

Section 1—Judicial powers. Tenure. Compensation.

The judicial power of the United States shall be vested in one Supreme Court, and in such inferior courts as the Congress may from time to time ordain and establish. The judges, both of the Supreme and inferior courts, shall hold their offices during good behavior, and shall at stated times receive for their services a compensation which shall not be diminished during their continuance in office.

Section 2—Judicial power; to what cases it extends. Original jurisdiction of Supreme Court Appellate. Trial by jury, etc. Trial, where.

1. The judicial power shall extend to all cases in law and equity arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority; to all cases affecting ambassadors, other public ministers and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United

States shall be a party; to controversies between two or more States, between a State and citizens of another State, between citizens of different States, between citizens of the same State claiming lands under grants of different States, and between a State, or the citizens thereof, and foreign states, citizens, or subjects.

(This section is abridged by Article XI of the amendments.)

3. In all cases affecting ambassadors, other public ministers, and consuls, and those in which a State shall be party, the Supreme Court shall have original jurisdiction. In all the other cases before mentioned the Supreme Court shall have appellate jurisdiction both as to law and fact, with such exceptions and under such regulations as the Congress shall make.

3. The trial of all crimes, except in cases of impeachment, shall be by jury, and such trial shall be held in the State where the said crimes shall have been committed; but when not committed within any State the trial shall be at such place or places as the Congress may by law have directed.

Section 3—Treason defined. Proof of Punishment of.

1. Treason against the United States shall consist only in levying war against them, or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

2. The Congress shall have power to declare the punishment of treason, but no attainder of treason shall work corruption of blood or forfeiture except during the life of the person attainted.

ARTICLE IV.

Section 1—Each State to give credit to the public acts, etc., of every other State.

Full faith and credit shall be given in each State to the public acts, records, and judicial proceedings of every other State. And the Congress may by general laws prescribe the manner in which such acts, records, and proceedings shall be proved, and the effect thereof.

Section 2—Privileges of citizens of each State. Fugitives from justice to be delivered up. Persons held to service having escaped, to be delivered up.

1. The citizens of each State shall be entitled to all privileges and immunities of citizens in the several States.

2. A person charged in any State with treason, felony, or other crime, who shall flee from justice, and be found in another State, shall, on demand of the Executive authority of the State from which he fled, be delivered up, to be removed to the State having jurisdiction of the crime.

3. No person held to service or labor in one State, under the laws thereof, escaping into another shall in consequence of any law or regulation therein, be discharged from such service or labor, but shall be delivered up on claim of the party to whom such service or labor may be due. (See 13th amendment.)

Section 3—Admission of new States. Power of Congress over territory and other property.

1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the jurisdiction of any other State, nor any State be formed by the junction of two or more States or parts of States, without the consent of the Legislatures of the States concerned, as well as of the Congress.

2. The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this Constitution shall be so construed as to prejudice any claims of the United States, or of any particular State.

Section 4—Republican form of government guaranteed. Each State to be protected.

The United States shall guarantee to every State in this Union a Republican form of government, and shall protect each of them against invasion, and, on application of the Legislature, or of the

Executive (when the Legislature cannot be convened) against domestic violence.

ARTICLE V.

Constitution: how amended. Proviso.

The Congress, whenever two-thirds of both Houses shall deem it necessary, shall propose amendments to this Constitution, or, on the application of the Legislatures of two-thirds of the several States, shall call a convention for proposing amendments, which in either case, shall be valid to all intents and purposes, as part of this Constitution, when ratified by the Legislatures of three-fourths of the several States, or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the Congress, provided that no amendment which may be made prior to the year one thousand eight hundred and eight shall in any manner affect the first and fourth clauses in the Ninth Section of the First Article; and that no State, without its consent, shall be deprived of its equal suffrage in the Senate.

ARTICLE VI.

Certain debts, etc., declared valid, Supremacy of Constitution, treaties, and laws of the United States. Oath to support Constitution, by whom taken. No religious test.

1. All debts contracted and engagements entered into before the adoption of this Constitution shall be as valid against the United States under this Constitution as under the Confederation.

2. This Constitution and the laws of the United States which shall be made in pursuance thereof, and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land, and the judges in every State shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.

3. The Senators and Representatives before mentioned and the members of the several State Legislatures, and all executive and judicial officers, both of the United States and of the several States, shall be bound by oath or affirmation to support this Constitution; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ARTICLE VII.

What ratification shall establish Constitution.

The ratification of the Conventions of nine States shall be sufficient for the establishment of this Constitution between the States so ratifying the same.

Done in convention by the unanimous consent of the States present the 17th day of September in the year of our Lord 1787, and of the independence of the United States of America the 12th. In witness whereof we have hereunto subscribed our names.

George Washington, President and deputy from Virginia.

New Hampshire—John Langdon, Nicholas Gilman.

Massachusetts—Nathaniel Gorham, Rufus King.

Connecticut—Wm. Saml. Johnson, Roger Sherman.

New York—Alexander Hamilton.

New Jersey—Wil: Livingston, David Brearley, Wm. Paterson, Jona: Dayton.

Pennsylvania—B: Franklin, Thomas Mifflin, Robt. Morris, Geo. Clymer, Thos. Fitzsimons, Jarr: Ingersoll, James Wilson, Gouv. Morris.

Delaware—Geo: Read, Gunning Bedford, Jun., John Dickinson, Richard Bassett; Jaco: Broom.

Maryland—James McHenry, Daniel of Saint Thomas Jenifer, Danl. Carroll.

Virginia—John Blair, James Madison, Jr.

North Carolina—Wm. Blount, Rich'd Dobbs Speight, Hugh Williamson.

South Carolina—J. Rutledge, Charles Cotesworth Pinckney, Charles Pinckney, Pierce Butler.

Georgia—William Few, Abr. Baldwin.

Attest: William Jackson, Secretary.

Ten Original Amendments—The Bill of Rights

In force December 15, 1791.

The First Congress, at its first session in the City of New York, Sept. 25, 1789, submitted to the states 12 amendments to clarify certain individual and state rights not named in the Constitution. They are generally called the Bill of Rights.

Influential in framing these amendments was the Declaration of Rights of Virginia, written by George Mason (1725-1792) in 1776. Mason, a Virginia delegate to the Constitutional Convention, did not sign the Constitution and opposed its ratification on the ground that it did not sufficiently oppose slavery or safeguard individual rights.

In the preamble to the resolution offering the proposed amendments, Congress said: "The conventions of a number of the States having at the time of their adopting the Constitution, expressed a desire, in order to prevent misconstruction or abuse of its powers, that further declaratory and restrictive clauses should be added, and as extending the ground of public confidence in the government will best insure the beneficent ends of its institution, be it resolved," etc.

Ten of these amendments now commonly known as one to 10 inclusive, but in reality three to 12 inclusive were ratified by the states as follows: New Jersey, Nov. 20, 1789; Maryland, December 19, 1789; North Carolina, Dec. 22, 1789; South Carolina, Jan. 19, 1790; New Hampshire, Jan. 25, 1790; Delaware, Jan. 28, 1790; New York, Feb. 24, 1790; Pennsylvania, March 10, 1790; Rhode Island, June 11, 1790; Vermont, Nov. 3, 1791; Virginia, Dec. 15, 1791; Massachusetts, March 2, 1820; Georgia, March 18, 1820; Connecticut, April 19, 1820. These original 10 ratified amendments appear in order on the next page as Article I to X inclusive.

The two of the original proposed amendments which were not ratified by the necessary number of States related, the first to apportionment of Representatives; the second, to compensation of members.

ARTICLE I.

Religious Establishment Prohibited. Freedom of Speech, of the Press, and Right to Petition.

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech or of the press; or the right of the people peaceably to assemble and to petition the Government for a redress of grievances.

ARTICLE II.

Right to Keep and Bear Arms.

A well-regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed.

ARTICLE III.

Conditions for Quarters for Soldiers.

No soldier shall, in time of peace, be quartered in any house without the consent of the owner, nor in time of war but in a manner to be prescribed by law.

ARTICLE IV.

Right of Search and Seizure Regulated.

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V.

Provisions Concerning Prosecution, Trial and Punishment—Private Property Not to Be Taken for Public Use Without Compensation.

No person shall be held to answer for a capital or other infamous crime unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the militia, when in actual service, in time of war or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a wit-

ness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use without just compensation.

ARTICLE VI.

Right to Speedy Trial, Witnesses, etc.

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which districts shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.

ARTICLE VII.

Right of Trial by Jury.

In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury shall be otherwise re-examined in any court of the United States than according to the rules of the common law.

ARTICLE VIII.

Excessive Bail or Fines and Cruel Punishment Prohibited.

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

ARTICLE IX.

Rule of Construction of Constitution.

The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.

ARTICLE X.

Rights of States Under Constitution.

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

Amendments Since the Bill of Rights

ARTICLE XI.

Judicial Powers Construed.

The following amendment was proposed to the Legislature of the several States by the Third Congress on the 5th of March 1794, and was declared to have been ratified in a message from the President to Congress, dated Jan. 8, 1798.

The judicial power of the United States shall not be construed to extend to any suit in law or equity commenced or prosecuted against one of the United States, by citizens of another State, or by citizens or subjects of any foreign state.

(It was on Jan. 5, 1798, that Secretary of State Pickens received from 12 of the States authenticated ratifications, and informed President John Adams of that fact.)

As a result of recent research in the Department of State, it is now established that the Eleventh Amendment became part of the Constitution on Feb. 7, 1796, for on that date it had been ratified by twelve States as follows:

(1) New York, (March 27, 1794); (2) Rhode Island, (March 31, 1794); (3) Connecticut, (May 8, 1794); (4) New Hampshire, (June 16, 1794); (5) Massachusetts, (June 25, 1794); (6) Vermont, (between Oct. 9, 1794 and Nov. 9, 1794); (7) Virginia, (Nov. 18, 1794); (8) Georgia, (Nov. 29, 1794); (9) Kentucky, (Dec. 7, 1794); (10) Maryland, (Dec. 26, 1794); (11) Delaware, (Jan. 23, 1795); (12) North Carolina, (Feb. 7, 1795).

On June 1, 1796, more than a year after the Eleventh Amendment had become part of the Constitution (but before anyone was officially aware of this), Tennessee had been admitted as a State; but not until Oct. 16, 1797, was a certified copy of the resolution of Congress proposing the amendment sent to the Governor of Tennessee (John Sevier) by Secretary of State Pickens, whose office was then at Trenton, New Jersey, because of the epidemic of yellow fever at Philadelphia; it seems, however, that the Legislature of Tennessee took no action on the Eleventh Amendment, owing doubtless to the fact that public announcement of its adoption was made soon thereafter.

Besides the necessary twelve States, one other, South Carolina, ratified the Eleventh Amendment, but this action was not taken until Dec. 4, 1797; the two remaining States, New Jersey and Pennsylvania, failed to ratify.

ARTICLE XII.

Manner of Choosing President and Vice-President.

The following amendment was proposed to the Legislatures of the several States by the Eighth Congress Dec. 12, 1803, and was declared to have been ratified in a proclamation by the Secretary of State September 25, 1804.

The Electors shall meet in their respective States,

and vote by ballot for President and Vice-President one of whom at least shall not be an inhabitant of the same State with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President; and they shall make distinct lists of all persons voted for as President and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit, sealed, to the seat of the Government of the United States, directed to the President of the Senate; the President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates and the votes shall then be counted—The person having the greatest number of votes for President shall be the President, if such number be a majority of the whole number of Electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three, on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot the President. But in choosing the President, the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the States and a majority of all the States shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in case of the death or other constitutional disability of the President. The person having the greatest number of votes as Vice-President shall be the Vice-President if such number be a majority of the whole number of Electors appointed, and if no person have a majority, then from the two highest numbers on the list the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

TITLES OF NOBILITY—Not Ratified

Congress, May 1, 1810, proposed to the States the following Amendment to the Constitution:

"If any citizen of the United States shall accept, claim, receive, or retain any title of nobility or honor, or shall, without the consent of Congress, accept and retain any present, pension, office, or emolument of any kind whatever, from any emperor, king, prince or foreign power, such person shall cease to be a citizen of the United States and shall be incapable of holding any office of trust or profit under them or either of them."

It was ratified by Maryland, (Dec. 23, 1810); Kentucky, (Jan. 31, 1811); Ohio, (Jan. 31, 1811); Delaware, (Feb. 2, 1811); Pennsylvania, (Feb. 6, 1811); New Jersey, (Feb. 13, 1811); Vermont, (Oct. 24, 1811); Tennessee, (Nov. 21, 1811); Georgia, (Dec. 13, 1811); North Carolina, (Dec. 23, 1811); Massachusetts, (Feb. 27, 1812); New Hampshire, (Dec. 10, 1812).

Rejected by New York (Senate), (March 12, 1811); Connecticut, (May session, 1813); South Carolina approved by Senate Nov. 28, 1811, reported unfavorably in House and not further considered Dec. 7, 1813; Rhode Island (Sept. 15, 1814). The amendment failed, not having sufficient ratifications.

THE CORWIN AMENDMENT—Not Ratified

Congress March 2, 1861, in a joint resolution signed by President James Buchanan, proposed to the States the following Amendments to the Constitution:

"No amendment shall be made to the Constitution which will authorize or give to Congress the power to abolish or interfere, within any State, with the domestic institutions thereof, including that of persons held to labor or service by the laws of said State."

Ratified by Ohio, (March 13, 1861); Maryland, (Jan. 10, 1862); Illinois (convention), (Feb. 14, 1862). The amendment failed, for lack of a sufficient number of ratifications.

THE RECONSTRUCTION AMENDMENTS

The 13th, 14th and 15th Amendments to the Constitution are commonly known as the Reconstruction Amendments, inasmuch as they followed the Civil War, and were drafted by Republicans who were bent on imposing their own policy of reconstruction on the South. Post-bellum legislatures there—Mississippi, South Carolina, Georgia, for example—had set up laws which, it was charged, were contrived to perpetuate Negro slavery under other names.

ARTICLE XIII. Slavery Abolished.

The following amendment was proposed to the Legislatures of the several States by the Thirty-eighth Congress (Feb. 4, 1865), and was declared to have been ratified in a proclamation by the Secretary of State (Dec. 18, 1865).

The Amendment when first proposed by a resolution in Congress, was passed by the Senate, 38 to 6, on April 8, 1864, but was defeated in the House, 95 to 66 on June 15, 1864. On reconsideration by the House, on Jan. 31, 1865, the resolution passed, 119 to 56. It was approved by President Lincoln on Feb. 1, 1865, although the Supreme Court had decided, in 1798, that the President has nothing to do with the proposing of amendments to the Constitution, or their adoption.

1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

2. Congress shall have power by appropriate legislation, to enforce the provisions of this article.

ARTICLE XIV Citizenship Rights Not to Be Abridged.

The following amendment was proposed to the Legislatures of the several States by the Thirty-ninth Congress (June 16, 1866), and was declared to have been ratified in a proclamation by the Secretary of State (July 28, 1868).

The 14th amendment was adopted only by virtue of ratification subsequent to earlier rejections. Newly constituted legislatures in both North Carolina and South Carolina, respectively (July 4 and 9, 1868), ratified the proposed amendment, although earlier legislatures had rejected the proposal. The Secretary of State issued a proclamation, which, though doubtful as to the effect of attempted withdrawals by Ohio and New Jersey, entertained no doubt as to the validity of the ratification by North and South Carolina. The following day (July 21, 1868), Congress passed a resolution which declared the 14th Amendment to be a part of the Constitution and directed the Secretary of State so to promulgate it. The Secretary waited, however, until the newly constituted legislature of Georgia had ratified the amendment, subsequent to an earlier rejection, before the promulgation of the ratification of the new amendment.

1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor shall any State deprive any person of life, liberty, or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.

Apportionment of Representatives in Congress, 2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State excluding Indians not taxed. But when the right to Vote at any election for the choice of Electors for President and Vice-President of the United States, Representatives in Congress, the executive and judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Power of Congress to Remove Disabilities of United States Officials for Rebellion.

3. No person shall be a Senator or Representative in Congress, or Elector of President and Vice-President or hold any office, civil or military, under the United States, or under any State, who having previously taken an oath, as a member of Congress, or as an officer of the United States, executive or judicial officer of any State, to support or as a member of any State Legislature or as an the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may, by a vote of two-thirds of each House, remove such disability.

What Public Debts Are Valid.

4. The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection and rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations, and claims shall be held illegal and void.

5. The Congress shall have power to enforce by appropriate legislation the provisions of this article.

ARTICLE XV.

Equal Rights for White and Colored Citizens.

The following amendment was proposed to the Legislatures of the several States by the Fortieth Congress (Feb. 26, 1869), and was declared to have been ratified in a proclamation by the Secretary of State (March 30, 1870).

1. The right of the citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

2. The Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XVI.

Income Taxes Authorized.

The following amendment was proposed to the Legislatures of the several States by the Sixty-first Congress (July 12, 1909) and was declared to have been ratified in a proclamation by the Secretary of State (Feb. 25, 1913).

The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration.

ARTICLE XVII.

United States Senators to Be Elected by Direct Popular Vote.

The following amendment was proposed to the Legislatures of the several States by the Sixty-second Congress (May 16, 1912), and was declared to have been ratified in a proclamation by the Secretary of State (May 31, 1913).

1. The Senate of the United States shall be composed of two Senators from each State, elected by the people thereof, for six years and each Senator shall have one vote. The electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State Legislatures.

2. When vacancies happen in the representation of any State in the Senate, the executive authority of such State shall issue writs of election to fill such vacancies: Provided, That the Legislature of any State may empower the Executive thereof to make temporary appointment until the people fill the vacancies by election as the Legislature may direct.

3. This amendment shall not be so construed as to affect the election or term of any Senator chosen before it becomes valid as part of the Constitution.

ARTICLE XVIII.

Liquor Prohibition Amendment.

The following amendment was proposed to the

Legislatures of the several States by the Sixty-fifth Congress (Dec. 18, 1917), and (Jan. 29, 1919) the United States Secretary of State proclaimed its adoption by 36 States, and declared it in effect (Jan. 16, 1920).

1. After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

2. The Congress and the several States shall have concurrent power to enforce this article by appropriate legislation.

3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the Legislatures of the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress.

The total vote in the Senates of the various States was 1,310 for, 237 against—84.6% dry. In the lower houses of the States the vote was, 3,782 for, 1,035 against—78.5% dry.

The amendment ultimately was adopted by all the States except Connecticut and Rhode Island.

Repealed by Article XXI effective Dec. 5, 1933.

ARTICLE XIX.

Giving Nation-Wide Suffrage to Women.

The following amendment was presented to the Legislatures of the several States by the Sixty-sixth Congress, having been adopted by the House of Representatives (May 21, 1919) and by the Senate (June 4, 1919). The Secretary of State (Aug. 26, 1920) proclaimed it in effect, having been adopted (June 10, 1919-August 18, 1920) by three-quarters of the States.

1. The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex.

2. Congress shall have power to enforce this Article by appropriate legislation.

CHILD LABOR—Not Ratified

Congress, in a joint resolution passed by the House of Representatives Apr. 26, 1924, and by the Senate June 2, 1924, submitted to the states the following proposed amendment:

1. The Congress shall have power to limit, regulate and prohibit the labor of persons under 18 years of age.

2. The power of the several States is unimpaired by this article except that the operation of State laws shall be suspended to the extent necessary to give effect to legislation enacted by the Congress.

It was ratified by Arizona (1925), Arkansas (1924), California (1925), Colorado (1931), Idaho (1935), Illinois (1933), Indiana (1935), Iowa (1933), Kansas (1937), Kentucky (1937), Maine (1933), Michigan (1933), Minnesota (1933), Montana (1927), Nevada (1937), New Hampshire (1933), New Jersey (1933), New Mexico (1937), North Dakota (1933), Ohio (1933), Oklahoma (1933), Oregon (1933), Pennsylvania (1933), Utah (1935), Washington (1933), West Virginia (1933), Wisconsin (1925), Wyoming (1925). With ratification by 36 states necessary, only these 28 had ratified it by 1938, when Congress passed the Fair Labor Standards Act, prohibiting labor of children under 16 in industries whose products entered interstate commerce. When the constitutionality of this act was upheld the proposed child labor amendment became virtually a dead issue.

ARTICLE XX.

Terms of President and Vice-President to Begin on Jan. 20; Those of Senators and Representatives, on Jan. 3.

The following amendment was proposed to the Legislatures of the several States by the Seventy-second Congress (March, 1932), a joint resolution to that effect having been adopted, first by the House, and then (March 2) by the Senate. The Secretary of State (Feb. 6, 1933) proclaimed it in effect, 39 of the 48 States having ratified. By Oct. 15, 1933, it had been ratified by all of the 48 States.

1. The terms of the President and Vice-President shall end at noon on the 20th day of January, and the terms of Senators and Representatives at noon on the 3rd day of January, of the years in which such terms would have ended if this article had not been ratified; and the terms of their successors shall then begin.

2. The Congress shall assemble at least once in every year, and such meeting shall begin at noon on the 3rd day of January, unless they shall by law appoint a different day.

3. If, at the time fixed for the beginning of the term of the President, the President elect shall have died, the Vice-President elect shall become President. If a President shall not have been chosen before the time fixed for the beginning of his term, or if the President elect shall have failed to qualify, then the Vice-President elect shall act as President until a President shall have qualified; and the Congress may by law provide for the case wherein neither a President elect nor a Vice-President shall have qualified, declaring who shall then act as President, or the manner in which one who is to act shall be selected, and such person shall act accordingly until a President or Vice-President shall have qualified.

4. The Congress may by law provide for the case of the death of any of the persons from whom the House of Representatives may choose a President whenever the right of choice shall have devolved upon them, and for the case of the death of any of the persons from whom the Senate may choose a Vice-President whenever the right of choice shall have devolved upon them.

5. Sections 1 and 2 shall take effect on the 15th day of October following the ratification of this article (Oct., 1933).

6. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the Legislatures of three-fourths of the several States within seven years from the date of its submission.

ARTICLE XXI.

Repeal of the Eighteenth (Prohibition) Amendment by Conventions in the States.

The following proposed amendment in the Constitution, embodied in a joint resolution of the 72nd Congress (Senate, Feb. 16, 1933, by 63 to 23; House, Feb. 20, 1933, by 289 to 121), was transmitted to the Secretary of State on Feb. 21 and he at once sent to the governors of the States copies of the resolution. The amendment went into effect on Dec. 5, 1933, having been adopted by 36 of the 48 States—Utah was the 36th State to ratify.

1. The eighteenth article of amendment to the Constitution of the United States is hereby repealed.

2. The transportation or importation into any State, Territory, or Possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.

3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by convention in the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress.

ARTICLE XXII.

Limiting Presidential Terms of Office.

The following proposed amendment in the Constitution, embodied in a joint resolution of the 80th Congress (House, Feb. 25, 1947, by 385 to 121; Senate, March 12, 1947, by 59 to 23), Signed by the Speaker of the House, Mar. 24, 1947, and by the President pro tempore of the Senate, Mar. 24, 1947. Presented to the Secretary of State, Mar. 24, 1947. Went into effect Feb. 26, 1951, when Nevada became the 36th State to ratify. Utah had ratified earlier the same day, and Minnesota, Feb. 27th.

1. No person shall be elected to the office of the President more than twice, and no person who has held the office of President, or acted as President, for more than two years of a term to which some other person was elected President shall be elected to the office of the President more than once. But this Article shall not apply to any person holding the office of President when this Article was proposed by the Congress, and shall not prevent any person who may be holding the office of President, or acting as President, during the term within which this Article becomes operative from holding the office of President or acting as President during the remainder of such term.

2. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the Legislatures of three-fourths of the several States within seven years from the date of its submission to the States by the Congress.

ARTICLE XXIII

Presidential Vote for District of Columbia.

The following amendment was submitted to the Legislatures of the 50 states following approval by voice votes in both houses of the 87th Congress (House June 14, 1960; Senate June 16, 1960). Ratification by the required three-fourths majority of the states was completed Mar. 29, 1961, when Kansas became the 38th state to ratify, 42 minutes before approval by the Ohio Legislature. Arkansas was the only state to reject the amendment. The amendment was formally declared a part of the Constitution Apr. 3, 1961.

1. The District constituting the seat of Government of the United States shall appoint in such manner as the Congress may direct:

A number of electors of President and Vice President equal to the whole number of Senators and Representatives in Congress to which the District would be entitled if it were a State, but in no event more than the least populous State; they shall be in addition to those appointed by the States, but they shall be considered, for the purposes of the election of President and Vice President, to be electors appointed by a State; and they shall meet in the District and perform such duties as provided by the twelfth article of amendment.

2. The Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XXIV

Barring Poll Tax in Federal Elections

The following amendment was submitted to the Legislatures of the 50 states Sept. 14, 1962, after approval by both houses of the 87th Congress. It became a part of the Constitution after ratification by the required 38 states was completed Jan. 23, 1964; South Dakota was the 38th state to ratify.

1. The right of citizens of the United States to vote in any primary or other election for President or Vice President, for electors for President or Vice President, or for Senator or Representative in Congress, shall not be denied or abridged by the United States or any State by reason of failure to pay any poll tax or other tax.

2. The Congress shall have the power to enforce this article by appropriate legislation.

ARTICLE XXV

Presidential Disability and Succession

The following amendment was submitted to the Legislatures of the 50 states July 6, 1965, after approval by both houses of the 89th Congress. It became a part of the Constitution Feb. 10, 1967, after ratification by the required 38 states, Nevada was the 38th state to ratify.

1. In case of the removal of the President from office or his death or resignation, the Vice Presi-

dent shall become President.

2. Whenever there is a vacancy in the office of the Vice President, the President shall nominate a Vice President who shall take the office upon confirmation by a majority vote of both houses of Congress.

3. Whenever the President transmits to the President pro tempore of the Senate and the Speaker of the House of Representatives his written declaration that he is unable to discharge the powers and duties of his office, and until he transmits to them a written declaration to the contrary, such powers and duties shall be discharged by the Vice President as Acting President.

4. Whenever the Vice President and a majority of either the principal officers of the executive departments or of such other body as Congress may by law provide, transmit to the President pro tempore of the Senate and the Speaker of the House of Representatives their written declaration that the President is unable to discharge the powers and duties of his office, the Vice President shall immediately assume the powers and duties of the office as Acting President.

Thereafter, when the President transmits to the President pro tempore of the Senate and the Speaker of the House of Representatives his written declaration that no inability exists, he shall resume the powers and duties of his office unless the Vice President and a majority of either the principal officers of the executive department or of such other body as Congress may by law provide, transmit within four days to the President pro tempore of the Senate and the Speaker of the House of Representatives their written declaration that the President is unable to discharge the powers and duties of his office. Thereupon Congress shall decide the issue, assembling within 48 hours for that purpose if not in session. If the Congress, within 21 days after receipt of the latter written declaration, or, if Congress is not in session, within 21 days after Congress is required to assemble, determines by two-thirds vote of both houses that the President is unable to discharge the powers and duties of his office, the Vice President shall continue to discharge the same as Acting President; otherwise, the President shall resume the powers and duties of his office.

Lincoln's Address at Gettysburg, 1863

Fourscore and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal.

Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated can long endure. We are met on a great battle field of that war. We have come to dedicate a portion of that field, as a final resting-place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.

But, in a larger sense, we can not dedicate—we can not consecrate—we can not hallow—this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people, for the people, shall not perish from the earth.

President Lincoln delivered his address at the dedication of the military cemetery at Gettysburg, Pa., Nov. 19, 1863. The battle had been fought July 1-3, 1863. He was preceded by Edward Everett, former president of Harvard, secretary of state and senator from Massachusetts, then 69 and one of the nation's great orators. Everett gave a full resume of the battle. Lincoln's speech was so short that the photographer did not get his camera adjusted in time. The report that newspapers ignored Lincoln's address is not entirely accurate; Everett's address swamped their columns, but the greatness of Lincoln's speech was immediately recognized. Everett wrote him: "I should be glad if I could flatter myself that I came as near the central idea of the occasion in two hours as you did in two minutes."

Five copies of the Gettysburg address in Lincoln's hand are extant. The first and second draft, prepared in Washington and Gettysburg just before delivery, are in the Library of Congress. The third draft, written at the request of Everett to be sold at a fair in New York for the benefit of soldiers, was given the Illinois State Historical Library by popular subscription.

The fourth copy was written out by Lincoln for George Bancroft, the historian, and remained in custody of the Bancroft family until 1929, when it was acquired by Mrs. Nicholas H. Noyes, of Indian-

apolis, Ind. In 1949 Mrs. Noyes presented this copy to the Cornell University Library, Ithaca, N.Y. The fifth copy, usually described as the clearest and best, was also written by Lincoln for George Bancroft, for facsimile reproduction in a volume to be sold for the benefit of soldiers and sailors in Baltimore, where Bancroft lived. It is the second Bancroft copy. It passed to Bancroft's stepchildren, named Bliss, and was sold for \$54,000 by the estate of Dr. William J. A. Bliss in New York April 27, 1949, to Oscar B. Cintas, former Cuban ambassador to the United States. He died in May, 1957, and willed it to the Lincoln room of the White House, where it was placed in March, 1959. Lincoln's spelling of battle field and can not as separated words in that version is reproduced above.

Sen. John Sherman Cooper (R.-Ky.) president of the Lincoln Sesquicentennial Commission, on June 17, 1959 presented a Latin translation of Lincoln's Gettysburg Address to the Apostolic Delegation of the Roman Catholic Church, in Washington, D. C. It was engrossed on vellum and was to be sent to Pope John XXIII for deposit in the Vatican Library. The presentation took place in the presence of Government officials and members of the Diplomatic Corps. The translation was made by the Rt. Rev. Edwin Ryan of White Plains, N. Y. The Latin Version was ordered printed in the Congressional Record.

Copyright Law of the United States

Source: Copyright Office, Library of Congress

An author or proprietor may obtain statutory copyright protection by complying with the provisions of Title 17 of the United States Code. Applications for registration of claims to copyright are filed with the Register of Copyrights, Library of Congress, Washington, D. C. 20540. Application forms as well as information circulars covering various subjects are furnished free upon request to the Register of Copyrights.

A bill providing the first major revision of the copyright law in 58 years was passed by the House of Representatives in 1967 and sent to the Senate. *Any Senate action on the bill will be found in the Work of Congress, for which see Index.*

CATEGORIES OF WORKS

The copyright law provides that the application for registration of any work shall specify to which of the following classes the work in which copyright is claimed belongs:

(a) Books, including composite and cyclopaedic works, directories, gazettes and other compilations; (b) periodicals, including newspapers; (c) lectures, sermons, addresses, prepared for oral delivery; (d) dramatic or dramatico-musical compositions; (e) musical compositions; (f) maps; (g) works of art, models or designs for works of art; (h) reproductions of a work of art; (i) drawings or plastic works of a scientific or technical character; (j) photographs; (k) prints and pictorial illustrations including prints or labels used for articles of merchandise; (l) motion-picture photoplays; (m) motion pictures other than photoplays.

Works reproduced in copies for sale or public distribution. 1. The notice of copyright should appear on all copies of the work at the time of printing and shall consist either of the word "Copyright" or the abbreviation "Copr.," or the symbol "©" accompanied by the name of the copyright proprietor, and if the work be a printed literary, musical, or dramatic work, the notice shall include also the year in which the copyright was secured by publication. For example: "© John Doe 19—." In the case, however, of copies of works specified above—(f) to (k)—the notice may consist of the letter C inclosed in a circle © accompanied by the initials, monogram, mark or symbol of the proprietor—provided that his name shall appear on some accessible part of the copies. 2. Promptly after publication send to the Copyright Office, Library of Congress, Washington, D. C. 20540, two copies (or if the work is by a foreign citizen and is first published in a foreign country, one copy only) of the best edition of the work, with an application for registration and \$6 fee.

The notice of copyright shall be applied in the case of a book or other printed publication, upon its title page or the page immediately following, or if a periodical, either upon the title page, or upon the first page of text of each separate number or under the title heading, or if a musical work either upon its title page or the first page of music.

Books by American authors, or alien authors domiciled within the United States at the time of first publication of the work. The copies deposited must be accompanied by an affidavit, under the official seal of an officer authorized to administer oaths, stating that the typesetting, printing and binding of the book have been performed within the United States. Affidavit and application forms will be supplied on request.

Works published outside of the United States. Foreign authors have an alternative to the requirements of the deposit of one copy of the work, an application for registration and a \$6 fee. The alternative is the deposit of two copies of the book, musical composition or other work, an application and a catalog card, but no fee. The alternative can be availed of only if the required items reach the Copyright Office in acceptable form within 6 months after first publication. A book or periodical in the English language must be registered within six months from first publication abroad if an ad interim copyright, which lasts for five years, is sought. An author who obtains an ad interim registration is permitted the importation into the United States of 1500 copies,

in one or more shipments, of a book or periodical in the English language during the 5 years after first publication abroad. Books or periodicals so imported must bear a U.S. copyright notice.

Works not reproduced in copies for sale. Copyright may also be had of certain classes of works of which copies are not reproduced for sale, by filing in the Copyright Office an application for registration, with the statutory fee of \$6, sending therewith: (1) In the case of lectures or other oral addresses or of dramatic or musical compositions, one complete copy of the work. (2) In the case of photographs, one photographic print. (3) In the case of works of art (paintings, drawings, sculptures), or of drawings or plastic works of a scientific or technical character, one photograph or other identifying reproduction of the work. (4) In the case of motion-picture photoplays, a title and description, with one print taken from each scene or act. (5) In the case of motion pictures other than photoplays, a title and description, with not less than two prints taken from different sections of a complete motion picture.

FEEES

A new fee schedule, reflecting the first increase since 1948, became effective Nov. 26, 1965. The fee schedule follows:

Registration of copyright claims (including a certificate bearing the Copyright Office seal) for all classes of works, \$6.

For registration of a claim to renewal, during the 28th year of the first term of copyright, \$4.

Each additional certificate; typewritten, certified copy of the record of registration, \$2.

Other certifications, including certifications of photocopies of Copyright Office records, \$3.

For recording each assignment, agreement or other document of 6 pages or less, listing no more than one title, \$5. For each page over 6 and each title over one, 50 cents.

For recording a notice of use of copyrighted music on mechanical instruments such as phonograph records, where the notice contains 5 titles or less, \$3. For each title over 5 in a single notice, 50 cents.

For recording a notice of intention to use copyrighted music on mechanical instruments such as phonograph records, where the notice contains 5 titles or less, \$3. For each title over 5 in a single notice of intention to use, 50 cents.

Searches: for each hour or fraction thereof spent by the Copyright Office staff in searching the official records, \$5.

Terms of Copyright. The original term of copyright runs for 28 years. Within one year prior to the expiration of the original term, the author or, if he is not living, certain specified representatives, may secure a renewal for a further term of protection. In case of composite works, posthumous work or works made for hire, the proprietor may secure the renewal.

UNIVERSAL COPYRIGHT

The United States is a party to the Universal Copyright Convention which became effective on Sept. 16, 1955.

Under terms of the convention each state will provide for protection of the rights of authors and other copyright owners in literary, scientific and artistic works, including writings, music, drama, cinematographic works, paintings, engravings and sculpture. Works first published in any member nation will generally get the same protection in other member nations as they afford their own nationals. The letter "c" in a circle accompanied by name of copyright owner and date of publication in a reasonable location on a work at first publication will obtain protection for the work in any member country.

One of the amendments to U. S. law was modification of the clause requiring books in English by foreign authors to be manufactured here in order to get copyright protection. Foreign works need not be subject to the U. S. requirement of deposit and registration, if they are first published in a Universal Convention country or are written by nationals of any contracting state.

Trademarks: How to Obtain and Protect Them

U. S. Government bureaus have adopted trademark as a single word compounded from the former trade mark.

A trademark, as defined by Act of Congress, "Includes any word, name, symbol, or device, or any combination thereof, adopted and used by a manufacturer or merchant to identify his goods and distinguish them from those manufactured or sold by others." Rights in trademarks are acquired only by use, which must continue if those rights are to be preserved. In order to be eligible for registration a mark must be in use in commerce which may be lawfully regulated by Congress.

Trademarks are registered on the Principal Register and the Supplemental Register of the U. S. Patent Office. "Coined, arbitrary, fanciful or suggestive marks, usually called technical marks, if otherwise qualified," may be registered on the Principal Register. A trademark that is merely descriptive of goods, or their regional origin, or is primarily a surname, is placed on the Supplemental Register.

The Trademark Act of 1946 provides that "For the purposes of registration on the supplemental register, a mark may consist of any trademark, symbol, label package, configuration of goods, name, word, slogan, phrase, surname, geographical name, numeral, or device, or any combination of any of the foregoing, but such mark must be capable of distinguishing the applicant's goods or services."

A trademark cannot be registered if it comprises immoral, deceptive or scandalous matter, or matter that may disparage or falsely suggest a connection with persons living or dead, institutions, beliefs, or national symbols. It cannot use the flag or coat of arms or other insignia of the United States, any state, municipality or foreign nation. It cannot use a portrait, signature or name of a living individual without his consent, or those of a deceased President of the United States without consent of his widow.

An application for registration must be filed in the name of the owner of the mark, who may submit his case or be represented by an attorney at law, or other person authorized to practice in trademark matters. A complete application comprises a written application, a drawing of the

mark, five specimens or facsimiles and the required filing fee.

The Patent Office publishes a pamphlet, General Information Concerning Trademarks, which describes the way applications and drawings are to be prepared and gives sample forms for applications. The Patent Office, upon request, will supply forms for the registration of a trademark in the name of (1) an individual; (2) a firm, and (3) a corporation. If facilities permit, the Office will make drawings from the applicant's direction and at his expense. If the application is allowed, the trademark will be published in the Official Gazette so that anyone who considers that he will be damaged by the new mark may file his opposition in 30 days.

The Trademark Act of 1946 also provides for the registration of service marks, certification marks and collective marks. A service mark is a title, symbol or name used in sale or advertising of services to identify them. A certification mark is used by others than the owner to certify origin or quality, such as work by a union. A collective mark is used by members of a cooperative, an association or other group and indicates membership in a union or other organization. A digest of registered trademarks may be inspected at the Patent Office.

A trademark is registered for 20 years and may be renewed for periods of 20 years if still in use in commerce regulated by Congress, or if nonuse is due to special circumstances which excuse nonuse and is not due to any intention to abandon the mark. The fee for the original application is \$35, and for the renewal is \$25, with lesser fees for corrections, amendments, abstracts of title and other services.

The pamphlet, General Information Concerning Trademarks, is a general guide. Pamphlet copies of the Trademark Laws and the Trademark Rules of Practice of the Patent Office also are published. The Official Gazette, issued weekly, contains information concerning trademarks published for opposition, registered, and renewed. The first pamphlet is available at the U. S. Patent Office, Washington, D. C. For the others inquiries may be addressed to the Supt. of Documents, Government Printing Office, Washington, D. C.

Patents and How to Apply for Them

A patent for an invention is granted by the United States Patent Office to the inventor of any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvements in these categories. The grant to the patentee is of "the right to exclude others from making, using or selling the invention throughout the United States" for the term of 17 years. A patent is also granted for certain distinct and new varieties of plants, also for 17 years.

Patents for new, original and ornamental designs for articles of manufacture may be obtained for 3½, 7 and 14 years, as requested by the inventor. The filing fee on each design application is \$20; the issue fee is \$10 for a 3½-yr. term, \$20 for 7 years and \$30 for 14 years.

Except in special circumstances, an application must be made by the inventor. If two are associated in the invention both must apply; if the inventor is mentally ill or dead, application may be made by the guardian or administrator of the estate. The specification must include a written description of the invention and of the manner and process of making and using it, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art to which the invention pertains, or with which it is most nearly connected, to make and use the same. The claims are full descriptions of the subject matter of the invention reciting all essential features necessary to distinguish the invention. A drawing is required by the statute in all cases which admit of drawings. The filing fee is \$65, with \$2 additional for each claim in excess of 10, and \$10 additional for each claim in independent form in excess of one.

The Patent Office examines the application to determine whether the invention is new and useful and whether the application otherwise complies with the law. If the application is allowed, a notice is sent the applicant and the final fee of \$100, plus \$10 for each page or portion thereof of specification as printed and \$2 for each sheet of drawing, is due within 3 months. The patent is in force on the date it is granted. The terms "patent applied for" and "patent pending" have no legal significance but serve notice that a patent

is being sought. Falsely using this marking is punishable by a fine.

If the Patent Office rejects an application, the applicant may ask for reconsideration, giving reason; if rejected again he may appeal to the Board of Appeals of the Patent Office, and if rejected there, may go to the Court of Customs and Patent Appeals or file a civil action in the U. S. District Court for the District of Columbia.

A patent will not be granted for a mere idea or suggestion, or a machine that will not operate, or an invention that lacks utility, or printed matter, or methods of doing business, or medicines that are merely mixtures of known ingredients, like physicians' prescriptions. So-called patent medicines are not protected by patents. So-called perpetual motion machines cannot be patented.

A patent cannot be obtained if the invention has been described in a printed publication or has been in public use or on sale before the date the invention was made or more than one year prior to the filing of the application. When two or more applications for patenting identical inventions are received, or when the applicant claims the invention for which a patent has been issued, the Patent Office begins "interference proceedings" to determine prior rights. The decision of the Patent Office may be reviewed by the courts.

Under certain conditions a license must be obtained before an application for a patent can be filed in a foreign country. The Commissioner of Patents may order an invention kept secret if publication would hurt the national safety or defense. Pamphlet copies of the Patent Laws, the Rules of Practice of the U. S. Patent Office in Patent Cases, and General Information Concerning Patents, can be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C.

The final report of the President's Commission on the Patent System was released by President Johnson Dec. 2, 1966. Bills based upon and incorporating many of the recommendations have been introduced in Congress and were under consideration in 1968.

TAXATION

Federal Individual Income Tax

Source: Internal Revenue Service, Treasury Dept.: Tax Foundation

WHO MUST FILE

Every individual under 65 years of age who resided in the United States and had a gross income of \$600 or more during the year, must file a Federal income tax return. Anyone 65 or older on the last day of the tax year is not required to file a return unless he had gross income of \$1,200 or more during the year.

A taxpayer with gross income of less than \$600 (or less than \$1,200 if 65 or older) should file a return to claim the refund of any taxes withheld, even if he is listed as a dependent by another taxpayer.

FORMS TO USE

Form 1040A may be filed by the taxpayer if his income is less than \$10,000 and consisted entirely of wages reported on withholding statements, or such wages and not more than \$200 income from other wages, dividends and interest. His accounting must be for the calendar year.

On this form the taxpayer does not itemize his deductions but takes the standard deduction. If his total income is \$5,000 or more, he can take the higher of the standard deduction of 10% or the minimum standard deduction. Both are limited to \$1,000 for all except a married taxpayer filing a separate return, who is limited to \$500.

If the adjusted gross income is under \$5,000, the taxpayer may not deduct the standard deductions, but must compute his tax from the tax table, which makes allowances for exemptions and standard deductions. If he wishes to itemize, he must use Form 1040.

Taxpayers are entitled to a minimum standard deduction of \$200 for a single individual, \$200 for a married couple filing jointly, plus \$100 for each exemption up to a total of \$1,000.

Form 1040 may be filed by an individual regardless of the source or amount of his income.

DATES FOR FILING RETURNS

For individuals using the calendar year, Apr. 15 is final date for filing income tax returns and for payment of any tax due, and the first quarterly installment of the estimated tax. Other installments of estimated tax to be paid June 15, Sept. 15 and Jan. 15.

Apr. 15 is final date for filing declaration of estimated tax. Amended declarations may be filed June 16, Sept. 15, and Jan. 15.

Instead of paying the 4th installment a final income return may be filed Feb. 2. Farmers may file a final return Feb. 16 to satisfy estimated tax requirements.

JOINT RETURN

A husband and wife may make a return jointly, even if one has no income personally. Their tax will be twice the tax imposed if the income were cut in half and taxed at the single rate.

One provision stipulates that if one spouse dies, the survivor may compute his tax using joint return rates for the first two taxable years following, provided he or she also was entitled to file a joint return the year of the death, and maintains in the household a home for a dependent child or stepchild. If the taxpayer remarries before the end of the taxable year these privileges are lost but he is permitted to file a joint return with his new spouse. An individual legally separated or divorced from spouse is not considered married. The survivor may file a joint return with the decedent for the year of death, if he does not remarry by the end of the tax year.

ESTIMATED TAX

If total estimated tax exceeds withheld tax by at least \$40, declarations of estimated income are required from (1) every single individual not head of a household or married individual not eligible to file a joint return with his spouse who expects over \$5,000 gross income; (2) every head of a household or surviving spouse who expects a gross income over \$10,000; (3) every married individual with over \$5,000 who is entitled to file a joint declaration with his spouse and their aggregate gross income can reasonably be expected to exceed \$10,000; and (4) every individual whose gross income can reasonably be expected to include more than \$200 from sources other than wages subject to withholding.

EXEMPTIONS

Personal exemption is \$600.

Every individual has an exemption of \$600, to be deducted from gross income. A husband and a wife are each entitled to a \$600 exemption. A taxpayer 65 or over gets another exemption of \$600. A blind person gets another exemption of \$600.

Exemption for dependents, over one-half of whose support comes from the taxpayer, is \$600. This applies to a child, stepchild or adopted child as well as certain other relatives with less than \$600 gross income; also to a child, stepchild, or adopted child of the taxpayer who is under 19 or full-time student even if he makes \$600 or more. A dependent can be a non-relative if a member of the taxpayer's household and living there all year.

Taxpayer gets the exemption for his child a student regardless of the student's age or earnings, provided the taxpayer provides over half of the student's total support. If the student gets a scholarship, this is not counted as support.

CHILD AND DISABLED DEPENDENT CARE

A woman, a widower, a man whose wife is in an institution or unable to care for herself, or a man legally separated or divorced who has the care of a dependent child under 13 or a disabled dependent regardless of age, may deduct not more than \$600 for one child or dependent and \$900 for two or more children or dependents for expenses incurred for care of dependent if taxpayer has to work. No deduction is allowed for payments to another dependent.

If a wife is working, the deduction is allowed only if she and her husband file a joint return. If their total income exceeds \$6,000, the allowance will be reduced by the amount above \$6,000. If the husband is incapable of self-support because handicapped, limitation and joint return requirement do not apply.

LIFE INSURANCE

Life insurance paid to survivors is not taxed as income. Interest on life insurance left with the insurance company and paid to survivors at intervals is taxable when available. Surviving spouse (husband or wife) has an exclusion of the pro-rata amount of principal payable at death plus up to \$1,000 per year of interest earned where life insurance proceeds are payable in installments.

Payments received as social security, and under the Railroad Retirement Act, are exempt.

DIVIDENDS

The first \$100 in dividends can be excluded from income. If husband and wife both receive \$100 on their joint return they can exclude \$200.

The exclusion does not apply to dividends from tax-exempt corporations, mutual savings banks, building and loan associations and several others.

Dividends paid in stock or in stock rights are generally exempt from tax, except when paid in place of preferred stock dividends of the current or preceding year, or when the stockholder has an option to take stock or property.

1968 Income Tax Rate Schedules*

I. (A) SINGLE TAXPAYERS WHO DO NOT QUALIFY IN TABLES II AND III, AND (B) MARRIED PERSONS FILING SEPARATE RETURNS.

If taxable income is:—The tax is:

Not over \$500	But not over	14% of taxable income	Of excess over	\$500
\$500	\$1,000	\$70	plus 15%	\$1,000
\$1,000	\$1,500	\$145	plus 16%	\$1,500
\$1,500	\$2,000	\$225	plus 17%	\$2,000
\$2,000	\$4,000	\$310	plus 19%	\$4,000
\$4,000	\$6,000	\$690	plus 22%	\$6,000
\$6,000	\$8,000	\$1,130	plus 25%	\$8,000
\$8,000	\$10,000	\$1,630	plus 28%	\$10,000
\$10,000	\$12,000	\$2,190	plus 32%	\$12,000
\$12,000	\$14,000	\$2,830	plus 36%	\$14,000
\$14,000	\$16,000	\$3,550	plus 39%	\$16,000
\$16,000	\$18,000	\$4,330	plus 42%	\$18,000
\$18,000	\$20,000	\$5,170	plus 45%	\$20,000
\$20,000	\$22,000	\$6,070	plus 48%	\$22,000
\$22,000	\$26,000	\$7,030	plus 50%	\$26,000
\$26,000	\$32,000	\$9,030	plus 53%	\$32,000
\$32,000	\$38,000	\$12,210	plus 55%	\$38,000
\$38,000	\$44,000	\$15,510	plus 58%	\$44,000
\$44,000	\$50,000	\$18,990	plus 60%	\$50,000
\$50,000	\$60,000	\$22,590	plus 62%	\$60,000
\$60,000	\$70,000	\$28,700	plus 64%	\$70,000
\$70,000	\$80,000	\$35,190	plus 66%	\$80,000
\$80,000	\$90,000	\$41,790	plus 68%	\$90,000
\$90,000	\$100,000	\$48,590	plus 69%	\$100,000
\$100,000		\$55,490	plus 70%	\$100,000

II. (A) MARRIED TAXPAYERS FILING JOINT RETURNS, AND (B) CERTAIN WIDOWS AND WIDOWERS.

If taxable income is:—The tax is:

Not over \$1,000	But not over	14% of taxable income	Of excess over	\$1,000
\$1,000	\$2,000	\$140	plus 15%	\$2,000
\$2,000	\$3,000	\$290	plus 16%	\$3,000
\$3,000	\$4,000	\$450	plus 17%	\$4,000
\$4,000	\$8,000	\$620	plus 19%	\$8,000
\$8,000	\$12,000	\$1,380	plus 22%	\$12,000
\$12,000	\$16,000	\$2,260	plus 25%	\$16,000
\$16,000	\$20,000	\$3,260	plus 28%	\$20,000
\$20,000	\$24,000	\$4,380	plus 32%	\$24,000
\$24,000	\$28,000	\$5,620	plus 36%	\$28,000
\$28,000	\$32,000	\$7,100	plus 39%	\$32,000
\$32,000	\$36,000	\$8,660	plus 42%	\$36,000
\$36,000	\$40,000	\$10,340	plus 45%	\$40,000
\$40,000	\$44,000	\$12,140	plus 48%	\$44,000
\$44,000	\$52,000	\$14,060	plus 50%	\$52,000
\$52,000	\$64,000	\$18,060	plus 53%	\$64,000
\$64,000	\$76,000	\$24,420	plus 55%	\$76,000
\$76,000	\$88,000	\$31,020	plus 58%	\$88,000
\$88,000	\$100,000	\$37,980	plus 60%	\$100,000
\$100,000	\$120,000	\$45,180	plus 62%	\$120,000
\$120,000	\$140,000	\$57,580	plus 64%	\$140,000
\$140,000	\$160,000	\$70,380	plus 66%	\$160,000
\$160,000	\$180,000	\$83,580	plus 68%	\$180,000
\$180,000	\$200,000	\$97,180	plus 69%	\$200,000
\$200,000		\$110,980	plus 70%	\$200,000

III. UNMARRIED (OR LEGALLY SEPARATED) TAXPAYERS WHO QUALIFY AS HEAD OF HOUSEHOLD.

If taxable income is:—The tax is:

Not over \$1,000	But not over	14% of taxable income	Of excess over	\$1,000
\$1,000	\$2,000	\$140	plus 16%	\$2,000
\$2,000	\$4,000	\$380	plus 18%	\$4,000
\$4,000	\$6,000	\$660	plus 20%	\$6,000
\$6,000	\$8,000	\$1,060	plus 22%	\$8,000
\$8,000	\$10,000	\$1,500	plus 25%	\$10,000
\$10,000	\$12,000	\$2,000	plus 27%	\$12,000
\$12,000	\$14,000	\$2,540	plus 31%	\$14,000
\$14,000	\$16,000	\$3,160	plus 32%	\$16,000
\$16,000	\$18,000	\$3,800	plus 35%	\$18,000
\$18,000	\$20,000	\$4,500	plus 36%	\$20,000
\$20,000	\$22,000	\$5,220	plus 40%	\$22,000
\$22,000	\$24,000	\$6,020	plus 41%	\$24,000
\$24,000	\$26,000	\$6,840	plus 43%	\$26,000
\$26,000	\$28,000	\$7,700	plus 45%	\$28,000
\$28,000	\$32,000	\$9,600	plus 46%	\$32,000
\$32,000	\$36,000	\$10,440	plus 48%	\$36,000
\$36,000	\$38,000	\$12,360	plus 50%	\$38,000
\$38,000	\$40,000	\$13,360	plus 52%	\$40,000
\$40,000	\$44,000	\$14,400	plus 53%	\$44,000
\$44,000	\$50,000	\$16,520	plus 55%	\$50,000
\$50,000	\$52,000	\$19,820	plus 56%	\$52,000
\$52,000	\$64,000	\$20,940	plus 58%	\$64,000
\$64,000	\$70,000	\$27,900	plus 59%	\$70,000
\$70,000	\$76,000	\$31,440	plus 61%	\$76,000
\$76,000	\$80,000	\$35,100	plus 62%	\$80,000
\$80,000	\$88,000	\$37,580	plus 63%	\$88,000
\$88,000	\$100,000	\$42,620	plus 64%	\$100,000
\$100,000	\$120,000	\$50,360	plus 66%	\$120,000
\$120,000	\$140,000	\$63,560	plus 67%	\$140,000
\$140,000	\$160,000	\$76,900	plus 68%	\$160,000
\$160,000	\$180,000	\$90,500	plus 69%	\$180,000
\$180,000		\$104,300	plus 70%	\$180,000

*Beginning Apr. 1, 1968 individual taxpayers were subject to a surcharge on income tax. For additional tax due see Surcharge Table.

DEDUCTIBLE MEDICAL EXPENSES

Expenses for medical care, not compensated for by insurance or other payment for taxpayer, spouse, and dependents, in excess of 3% of total income are deductible. This rule also applies to taxpayers 65 or over and dependent parents 65 or over. Previously these persons were not subject to the percentage limitations. There is no limit to the maximum amount of medical expense that can be deducted.

Medical care includes diagnosis, treatment and prevention of disease or for the purpose of affecting any structure or function of the body, and amounts paid for insurance to reimburse for hospitalization, surgical fees and other medical expenses.

Only medicine and drugs in excess of 1% of total income may be included with other medical expenses.

One-half the cost of medical care insurance premiums up to \$150 can be deducted without regard to the 3% limitation. The other half plus any excess over \$150 is included with other medical expenses subject to the 3% limitation.

Medical expenses for a decedent paid by his estate within one year after his death may be treated as expenses of the decedent taxpayer.

Medical and hospital benefits provided by the employer may be exempt from individual income tax. Wages paid as "sick pay" are exempt up to \$100 a week after a certain waiting period.

Surcharge Table
Calendar Year 1968

Single ¹			Head of Household			Married ²		
If the adjusted tax is:			At least			At least		
At least	less than	tax is—	At least	less than	tax is—	At least	less than	tax is—
0	\$148	0	0	\$223	0	0	\$293	0
\$148	155	1	\$223	230	1	\$293	300	\$1
155	162	2	230	237	2	300	307	2
162	168	3	237	243	3	307	313	3
168	175	4	243	250	4	313	320	4
175	182	5	250	257	5	320	327	5
182	188	6	257	263	6	327	333	6
188	195	7	263	270	7	333	340	7
195	202	8	270	277	8	340	347	8
202	208	9	277	283	9	347	353	9
208	215	10	283	290	10	353	360	10
215	222	11	290	297	11	360	367	11
222	228	12	297	303	12	367	373	12
228	235	13	303	310	13	373	380	13
235	242	14	310	317	14	380	387	14
242	248	15	317	323	15	387	393	15
248	255	16	323	330	16	393	400	16
255	262	17	330	337	17	400	407	17
262	268	18	337	343	18	407	413	18
268	275	19	343	350	19	413	420	19
275	282	20	350	357	20	420	427	20
282	288	21	357	363	21	427	433	21
288	298	22	363	370	22	433	440	22
298	313	23	370	377	23	440	447	23
313	327	24	377	383	24	447	453	24
327	340	25	383	390	25	453	460	25
340	353	26	390	397	26	460	467	26
353	367	27	397	403	27	467	473	27
367	380	28	403	410	28	473	480	28
380	393	29	410	417	29	480	487	29
393	407	30	417	423	30	487	493	30
407	420	31	423	430	31	493	500	31
420	433	32	430	437	32	500	507	32
433	447	33	437	447	33	507	513	33
447	460	34	447	460	34	513	520	34
460	473	35	460	473	35	520	527	35
473	487	36	473	487	36	527	533	36
487	500	37	487	500	37	533	540	37
500	513	38	500	513	38	540	547	38
513	527	39	513	527	39	547	553	39
527	540	40	527	540	40	553	560	40
540	553	41	540	553	41	560	567	41
553	567	42	553	567	42	567	573	42
567	580	43	567	580	43	573	580	43
580	593	44	580	593	44	580	593	44
593	607	45	593	607	45	593	607	45
607	620	46	607	620	46	607	620	46
620	633	47	620	633	47	620	633	47
633	647	48	633	647	48	633	647	48
647	660	49	647	660	49	647	660	49
660	673	50	660	673	50	660	673	50
673	687	51	673	687	51	673	687	51
687	700	52	687	700	52	687	700	52
700	713	53	700	713	53	700	713	53
713	727	54	713	727	54	713	727	54
727	734	55	727	734	55	727	734	55

\$134 and over 7.5% of the adjusted tax.

¹Single person (other than Head of household)

and married person filing separate return

²Married persons or surviving spouse filing joint return.

DEDUCTIONS FOR CONTRIBUTIONS

Deductions up to 30% of taxpayers total income may be taken for contribution to most publicly supported charitable organizations, including churches or associations of churches, tax-exempt educational institutions, tax-exempt hospitals, and medical research organizations associated with a hospital, and nonprofit cemeteries. The deduction is limited to 20% for such organizations as private foundations.

Taxpayers also are permitted to carry over for five years certain contributions, generally to publicly supported organizations, which exceed the 30% allowable deduction the year the contribution was made.

Also permissible is the deduction as a charitable contribution of unreimbursed amounts up to \$50 a month spent to maintain an elementary or high school student, other than a dependent or relative, in taxpayer's home. The arrangement must be covered by a written agreement with an organization to which contributions are deductible.

DEDUCTION FOR INTEREST PAID

Interest paid by the taxpayer is deductible.

If personal property is bought under a contract providing for payment by installments, and in which carrying charges are stated but interest is not ascertainable, then subject to limitation payments are held to include interest equal to 6% on average unpaid balance.

PRIZES AND AWARDS

All prizes and awards must be reported in gross income, except when received without action by the recipient. To be exempt, awards must be received primarily in recognition of religious, charitable, scientific, educational, artistic, literary, or civic achievement. (Nobel and Pulitzer prizes exempt.)

Also excluded from gross income is any amount received as a scholarship at an educational institution, or a fellowship grant with money for research and clerical expense. The exclusion for those not candidates for a degree is limited to \$300 per month for 36 months.

DEDUCTIONS FOR EMPLOYEES

An employee may take the standard deduction and deduct as well the following if in connection with his employment: transportation, except commuting; automobile expense, including gas, oil and depreciation; however, meals and lodging are deductible as traveling expense only if the employee is away from home overnight.

An outside salesman—a salesman who works full-time outside the office, using the latter only

for incidentals—may deduct both the standard deduction and all his business expenses.

An employee who is reimbursed and is required to account to his employer for his business expenses will not be required to report either the reimbursed or the expenses on his tax return. Any allowance to the employee in excess of his expenses must be included in gross income. If he claims a deduction for an excess of expenses over reimbursement he will have to report the reimbursement and claim actual expenses.

An employee who is not required to account to his employer must report on his return the total amounts of reimbursements and expenses for travel, transportation, entertainment, etc., that he incurs under a reimbursement arrangement with his employer.

The expense of moving to a new place of employment may be deducted under certain circumstances regardless of whether the taxpayer is a new or continuing employee, or whether he pays his own expenses or is reimbursed by his employer if he reports the reimbursement as income.

RETIREMENT INCOME CREDIT

A credit against the tax, otherwise due of 15% of retirement income up to \$1,524 included in gross income is allowed to persons 65 and over. Persons under 65 and retired under a public retirement system (firemen, policemen, teachers, Federal employees) are allowed the same credit on income from pensions and annuities paid under the system, but not on dividends, interest and rent. Included in public systems are funds for members of the Armed Forces for 1955 and subsequent years. Any pension or annuity received under the Social Security Act or the Railroad Retirement Act reduces the \$1,524. Compensation in excess of \$900 received by an individual under 62 and compensation in excess of \$1,200 for one 62 or over but under 72 will reduce the \$1,524 by varying amounts.

NET CAPITAL LOSSES

An individual taxpayer may deduct up to \$1,000 against his ordinary income if his capital losses exceed his capital gains in the year of the loss. He may carry the rest over to subsequent years at the same rate. The law places no limit on the number of years.

INCOME AVERAGING

Individuals with large fluctuations in their annual income may be able to take advantage of averaging provisions available to taxpayers whose income for a particular year exceeds 133⅓% of their average income for the prior 4 years, if the excess is more than \$3,000.

WITHHOLDING

Every employer paying wages is required to withhold a tax based on a graduated scale which allows deductions for exemptions.

Employers may use either the percentage method or wage-bracket tables to determine the amount of tax to be withheld. The percentage method usually gives a result closer to actual tax liability.

Under the percentage method, a sum related to the taxpayers' exemptions is subtracted from his wage, and the tax is computed on the remainder, using tables with rates for married and single persons.

For example, the employer subtracts from a weekly wage \$13.50 times the number of exemptions claimed (i.e., \$13.50 for the taxpayer alone; \$27.00 for a married couple, \$54.00 for a couple with two children, etc.) to obtain the amount of taxable wages, and then uses the table shown below:

TABLE FOR PERCENTAGE METHOD OF WITHHOLDING**Weekly Payroll Period**

(a) Single person		
Wages after exemption		Tax to be
allowance:		withheld:
Not over \$4.....0		
Over—But not over	of excess over	
\$4 —\$13.....14%	\$4	
\$13 —\$23.....	\$ 1.26, plus 15%—\$13	
\$23 —\$85.....	\$ 2.76, plus 19%—\$23	
\$85 —\$169.....	\$14.54, plus 22%—\$85	
\$169 —\$212.....	\$33.02, plus 28%—\$169	
\$212.....	\$45.06, plus 33%—\$212	

(b) Married person		
Not over \$4.....0		
Over—But not over	of excess over	
\$4 —\$23.....14%	\$4	
\$23 —\$58.....	\$ 2.66, plus 15%—\$23	
\$58 —\$169.....	\$ 7.91, plus 19%—\$58	
\$169 —\$340.....	\$29.00, plus 22%—\$169	
\$340 —\$423.....	\$66.62, plus 28%—\$340	
\$423.....	\$89.86, plus 33%—\$423	

Semimonthly Payroll Period

(a) Single person		
Wages after exemption		Tax to be
allowance:		withheld:
Not over \$8.....0		
Over—But not over	of excess over	
\$8 —\$29.....14%	\$8	
\$29 —\$50.....	\$ 2.94, plus 15%—\$29	
\$50 —\$183.....	\$ 6.09, plus 19%—\$50	
\$183 —\$367.....	\$31.36, plus 22%—\$183	
\$367 —\$458.....	\$71.84, plus 28%—\$367	
\$458.....	\$97.32, plus 33%—\$458	

(b) Married person		
Not over \$8.....0		
Over—But not over	of excess over	
\$8 —\$50.....14%	\$8	
\$50 —\$125.....	\$ 5.88, plus 15%—\$50	
\$125 —\$367.....	\$ 17.13, plus 19%—\$125	
\$367 —\$738.....	\$63.11, plus 22%—\$367	
\$738 —\$917.....	\$144.73, plus 28%—\$738	
\$917.....	\$194.85, plus 33%—\$917	

Federal Estate Tax

Source: Tax Foundation
An estate tax return must be filed for every citizen or resident of the United States whose gross estate exceeds \$60,000 in value at the time of his death. In general, the tax must be paid within 15 mos. from the date of death. Extensions may be granted in hardship cases. A return must be filed for a non-resident, not a citizen, if his gross estate in the U. S. exceeds \$2,000 in value.

An estate gets credit for state death taxes, according to a graduated table; also deductions for funeral expenses, administration, claims, and bequests to religious, charitable and fraternal organizations or government welfare agencies.

Life insurance payable to named beneficiaries is not to be included in the gross estate if the insured retained no incidents of ownership in the policy. A reversionary interest which exceeds 5

per cent of the value of the policy is considered an incident of ownership in the policy.

The marital deduction provides that the value of the taxable estate "shall be determined by deducting from the value of the gross estate an amount equal to the value of any interest in property which passes or has passed from the decedent to his surviving spouse." Thus the deduction applies when the surviving spouse has a right to the income for life from all or only a part of the property, as well as power to appoint all, or the part in which the survivor has income rights, whether or not the property is held in trust. If the spouse has control only over part, the deduction is limited proportionately. The deduction is limited, however, to the value of one-half of the adjusted gross estate.

ESTATE TAX RATE

The tax is computed under the rates listed below on the net taxable estate of the decedent, citizen or resident of the United States after allowing for the specific exemption of \$60,000 and deduction for debts, expenses, charitable, marital deductions. There is a credit allowance for state death taxes.

If the taxable estate is:		The tax shall be:	
Not over \$5,000.....		3% of the taxable estate	
Over \$5,000 but not over \$10,000.....	\$10,000.....	\$150, plus 7% of excess over \$5,000, plus 11% of excess over \$10,000.....	\$5,000
Over \$10,000 but not over \$20,000.....	\$20,000.....	\$1,600, plus 14% of excess over \$10,000.....	\$20,000
Over \$20,000 but not over \$30,000.....	\$30,000.....	\$3,000, plus 18% of excess over \$20,000.....	\$30,000
Over \$30,000 but not over \$40,000.....	\$40,000.....	\$4,800, plus 22% of excess over \$30,000.....	\$40,000
Over \$40,000 but not over \$50,000.....	\$50,000.....	\$7,000, plus 25% of excess over \$40,000.....	\$50,000
Over \$50,000 but not over \$60,000.....	\$60,000.....	\$9,500, plus 28% of excess over \$50,000.....	\$60,000
Over \$60,000 but not over \$100,000.....	\$100,000.....	\$20,700, plus 30% of excess over \$60,000.....	\$100,000
Over \$100,000 but not over \$250,000.....	\$250,000.....	\$65,700, plus 32% of excess over \$100,000.....	\$250,000
Over \$250,000 but not over \$500,000.....	\$500,000.....	\$145,700, plus 35% of excess over \$250,000.....	\$500,000
Over \$500,000 but not over \$750,000.....	\$750,000.....	\$233,200, plus 37% of excess over \$500,000.....	\$750,000
Over \$750,000 but not over \$1,000,000.....	\$1,000,000.....	\$325,700, plus 39% of excess over \$750,000.....	\$1,000,000
Over \$1,000,000 but not over \$1,250,000.....	\$1,250,000.....	\$423,200, plus 42% of excess over \$1,000,000.....	\$1,250,000
Over \$1,250,000 but not over \$1,500,000.....	\$1,500,000.....	\$528,200, plus 45% of excess over \$1,250,000.....	\$1,500,000
Over \$1,500,000 but not over \$2,000,000.....	\$2,000,000.....	\$753,200, plus 49% of excess over \$1,500,000.....	\$2,000,000
Over \$2,000,000 but not over \$2,500,000.....	\$2,500,000.....	\$998,200, plus 53% of excess over \$2,000,000.....	\$2,500,000
Over \$2,500,000 but not over \$3,000,000.....	\$3,000,000.....	\$1,263,200, plus 56% of excess over \$2,500,000.....	\$3,000,000
Over \$3,000,000 but not over \$4,000,000.....	\$4,000,000.....	\$1,543,200, plus 59% of excess over \$3,000,000.....	\$3,500,000
Over \$4,000,000 but not over \$5,000,000.....	\$5,000,000.....	\$1,838,200, plus 63% of excess over \$4,000,000.....	\$4,000,000
Over \$5,000,000 but not over \$6,000,000.....	\$6,000,000.....	\$2,168,200, plus 67% of excess over \$5,000,000.....	\$5,000,000
Over \$6,000,000 but not over \$7,000,000.....	\$7,000,000.....	\$2,538,200, plus 70% of excess over \$6,000,000.....	\$6,000,000
Over \$7,000,000 but not over \$8,000,000.....	\$8,000,000.....	\$2,938,200, plus 73% of excess over \$7,000,000.....	\$7,000,000
Over \$8,000,000 but not over \$10,000,000.....	\$10,000,000.....	\$3,468,200, plus 76% of excess over \$8,000,000.....	\$8,000,000
Over \$10,000,000.....		\$6,088,200, plus 77% of excess over \$10,000,000.....	\$10,000,000

State Estate Tax Rates and Exemptions*

Source: Compiled by Tax Foundation from Commerce Clearing House Data
As of October 21, 1968. *See page 213 for state inheritance tax rates and exemptions.

State (a)	Rates (on net estate after exemptions)	Maximum rate applies above	Exemption
Alabama.....	Maximum Federal Credit (c, d)	\$10,040,000	\$60,000
Arizona.....	0.8% on first \$50,000 to 16% (e)	10,000,000	100,000 (f, g)
Arkansas.....	Maximum Federal Credit (c, d)	10,040,000	60,000 (g)
Florida.....	Maximum Federal Credit (c, d)	10,040,000	60,000
Georgia.....	Maximum Federal Credit (c, d)	10,040,000	60,000
Mississippi.....	1% on first \$60,000 to 16% (e, h)	10,000,000	60,000 (f, g)
New York.....	2% on first \$50,000 to 21% (e, h)	10,100,000	(f, g, i)
North Dakota.....	2% on first \$25,000 to 23% (e)	1,500,000	20,000 (g, j)
Ohio.....	2% on first \$40,000 to 7% (e)	500,000	5,000 (g, k)
Oklahoma.....	1% on first \$10,000 to 10% (e)	10,000,000	5,000 (g, l)
South Carolina.....	4% on first \$40,000 to 6% (e)	100,000	60,000 (g)
Utah.....	1% of first \$10,000 to 10% (e)	125,000	10,000 (g, m)

(a) Excludes states shown in table on page 213 which levy an estate tax, in addition to their inheritance taxes, to assure a full absorption of the Federal credit.

(b) The rates generally are in addition to graduated absolute amounts.

(c) Maximum Federal credit allowed under the 1954 code for state estate taxes paid is expressed as a percentage of the taxable estate (after \$60,000 exemption) in excess of \$40,000, plus a graduated absolute amount.

(d) A tax on nonresident estates is imposed on the proportionate share of the net estate which the property located in the state bears to the entire estate wherever situated.

(e) An additional estate tax is imposed to assure full absorption of the Federal credit.

(f) Insurance receives special treatment.

(g) Transfers to religious, charitable, educational, and municipal corporations are fully exempt. Limited in Mississippi to those located in

U. S.; does not extend to governmental (municipal) corporations in North Dakota.

(h) On net estate before exemption.

(i) The specific exemptions (\$20,000 of the net estate transferred to spouse and \$5,000 to lineal ancestors and descendants and certain other named relatives) are taken out of the first bracket which is fixed at \$50,000. Net estates which do not exceed \$2,000, after deducting the applicable exemptions, are not taxed.

(j) A marital deduction of 50% of adjusted gross estate is allowed instead, if larger. Exemption for a lineal descendant, if a minor, is \$5,000; for other lineal descendants and ancestors, \$2,000.

(k) Property is exempt to the extent transferred to surviving spouse not exceeding \$20,000; for a child under 21, \$7,000 and for each child over 21, \$3,000.

(l) An estate valued at \$100 or less is exempt.

(m) Transfers not exceeding \$40,000, if made to surviving spouse or children, are exempt from tax.

Corporation Taxes

Normal Tax: The normal tax rate on all net income is 22%.

Surtax: Surtax net income tax rate on net income over \$25,000 is 26%.

Surcharge: A tax equal to 10% of the normal tax and surtax is imposed on corporations for the period Jan. 1, 1968 to July 1, 1969.

Pay-as-you-go Tax: Corporations which expect to pay over \$75,600 tax must file an estimated tax

report by Apr. 15, June 15, Sept. 15, and Jan. 15, depending on when they first meet the requirements, while those on a fiscal-year basis must file a report on the 15th day of their 4th, 6th, 9th and 12th month. In 1968 the tax liability is 25% of the tax in excess of \$75,600 during each quarter.

Net operating losses may be applied against profits for 8 years. The carry-back provision allows losses to be carried back to 3 preceding years and forward to 5 succeeding years. Tax Foundation.

State Inheritance Tax Rates and Exemptions

Source: Compiled by Tax Foundation from Commerce Clearing House data

As of October 21, 1968

State (c)	Rates (per cent) (a)			Max. Rate applies above (\$1,000)	Exemptions (b) (\$1,000)			
	Spouse or child or parent	Brother or sister	Other than relative		Spouse	Child or parent	Brother or sister	Other than relative
Alaska.....	1-5.25	3-10.5	5-17.5	\$100	\$10	3 (a)	\$1	None
California.....	3-14	6-20	10-24	400	5 (e)	5 (d)	2	(f)
Colorado (g).....	2-8	10-19	10-19	500	35 (h)	10 (a)	2	\$5 (i)
Connecticut (j).....	2-8	4-10	8-14	1,000	50	10	3	.5
Delaware.....	1-4	2-5	5-8	200 (k)	20	3	1	None
Dist. of Columbia.....	1-5	3-10	5-15	1,000	5	5	2	.5
Hawaii.....	2-7.5	3.5-9	3.5-9	250	20	4 (d)	.5	None
Idaho.....	2-15	4-20	8-30	500	10 (e, h)	5	1	None
Illinois.....	2-14	2-14	10-30	500	20	20	10	.1
Indiana.....	1-10	5-15	7-20	1,500	15	2 (a)	.5	.1
Iowa.....	1-8	5-10	10-15	150	40	10 (d)	None	None
Kansas.....	5-5	3-12.5	10-15	500	75	15	5	.2 (i)
Kentucky.....	2-10	4-16	6-16	500 (l)	10 (h)	5 (d)	.5	.5
Louisiana.....	2-3	5-10	5-10	25	5	5	1	.5
Maine.....	2-6	8-12	10-18	250	15	10	.5	.5
Maryland.....	7.5	7.5	7.5	(m)	.15 (i)	0.15 (h)	.15 (l)	.15 (l)
Massachusetts.....	1.25-11.25	18-75	7.5-18.75	1,000	10 (n)	10 (n)	1 (n)	1 (n)
Michigan.....	2.8 (o)	2.8 (o)	10-15	750	30	5	.5	none
Minnesota.....	1.5-10	6-25	8-30	1,000 (p)	30 (h)	6 (d)	.5	.5
Missouri.....	1-6	3-18	5-30	400	20 (q)	5	1.5	1 (i)
Montana.....	2-8	4-16	8-32	100	20 (n)	2	.5	None
Nebraska.....	1	1	6-18	60	10	10	10	.5
New Hampshire.....	(r)	10	10	(m)	(r)	(r)	None	None
New Jersey.....	1-16	11-16	15-16	3,200	5	5	.5 (l)	.5 (l)
New Mexico.....	1 (s)	5 (s)	5 (t)	(m)	(t)	(b)	.5	.5
North Carolina.....	1-12	4-16	8-17	3,000	10 (h)	2 (d)	None	None
Oregon (a).....	1-10	1-10 (u)	1.10 (u)	500	None	None	1 (u)	.5 (u)
Pennsylvania.....	6	15	15	(m)	None	None (x)	None	None
Rhode Island.....	2-9	3-10	8-15	1,000	10	10	5	1
South Dakota (a).....	1-8	3-20	5-20	100	15	3 (d)	.5	.1
Tennessee.....	1.4-9.5	6.5-8	6.5-20	500	(v)	(v)	(v)	(v)
Texas.....	1-6	3-10	5-20	1,000	25 (e)	25	10	.5
Vermont.....	2-6	2-6	12	250	15	15	15	None
Virginia.....	1-5	2-10	5-15	1,000	5	5	2	1
Washington.....	1-10	3-20	10-25	500	10 (e)	10	1	None
West Virginia (a).....	3-13	4-18	10-30	1,000	15	5	None	None
Wisconsin.....	2-10 (w)	2-10 (w)	8-40 (w)	500	15 (h)	2	.5	.1
Wyoming.....	2	2	6	(m)	10	10	10	None

(a) In addition to an inheritance tax all states listed also levy an estate tax, generally to assure full absorption of the Federal credit. Exceptions are Oregon, South Dakota and West Virginia. See page 212 for taxes not listed here.

(b) Rates generally apply to excess above graduated absolute amounts.

(c) Generally, transfers to governments or to solely charitable (educational, scientific, religious, literary, public, and other similar organizations in the United States are wholly exempt. Some states grant additional exemptions either for insurance, homestead, joint deposits, support allowance, disinherited minor children, orphaned, incompetent or blind children, and for previously or later taxed transfers. In many states, exemptions are deducted from the first bracket only. Adopted children generally receive the same consideration as natural children.

(d) Exemption for child is (in thousands): \$10 in South Dakota and \$15 in Iowa. Exemption for minor child is (in thousands): \$12 in California; \$10 in Idaho; \$5 in Indiana; \$10 in Kentucky; \$15 in Colorado and Minnesota; \$10 in Ohio, and \$5 in North Carolina.

(e) Community property state in which, in general, either all community property to the surviving spouse is exempt or only one-half of the community property is taxable on the death of either spouse.

(f) Exemption is \$300.

(g) Additional tax: Colorado—10% on the amount of tax computed at above rates; Massachusetts—20% of inheritance tax of decedents dying before July 1, 1967, and a second tax of 3% of inheritance tax.

(h) Exemption for widower differs in the following states (thousands): Colorado, \$10; Idaho, \$4; Kentucky, \$5; Minnesota, \$6; Montana, \$10; North Carolina, \$2; Wisconsin, \$5.

(i) No exemption if share exceeds amount stated.

(j) On estates of decedents dying on or after June 8, 1961 an additional inheritance tax equal to 30% of the basic tax is imposed.

(k) Maximum rate applies above \$100,000 for other than husband, wife, lineal descendants or ancestors, wife or widow of son, and husband or widow of daughter.

(l) Estates over \$3,000,000 are not subject to the inheritance tax but are subject to an estate tax equal to the amount of the Federal credit.

(m) Entire share.

(n) No exemption if share exceeds amount stated except that the tax shall not reduce the share below the amount of the exemption. In addition there are certain exemptions to spouse for home.

(o) Transfers of real estate are taxable at 75% of specified rates.

(p) Maximum tax is 35% of value of transfer in excess of exemption.

(q) In addition, an exemption of one-half decedent's estate or one-third if decedent is survived by lineal descendants.

(r) Entirely exempt.

(s) An additional tax of 1.5-3% is also applied depending upon beneficiary.

(t) Only one exemption is allowed upon aggregate of property passing to each class of beneficiaries: \$10,000 for parents, spouse, lineal descendants, brothers, and sisters; \$500 for all others. Amount of exemption for each class is proportionate to the respective shares of the estate and shared proportionately by the beneficiaries within the class.

(u) An additional tax of 1-20% is also levied. The exemptions apply to the additional tax only.

(v) A single exemption of \$10,000 is granted against that portion of the estate distributed to the spouse, children, lineal ancestors and lineal descendants. A single exemption of \$1,000 is granted to that portion of the estate distributed to all other beneficiaries.

(w) An additional tax of 30% on the amount of tax computed at rates shown is imposed; however, there is a statutory limitation that the total tax shall not exceed 15% of property transferred to the beneficiary.

(x) In the absence of a spouse, the children may claim the \$1,000 exemption.

State Individual Income Taxes; Rates, Exemptions

Source: Analysis Staff, Tax Division, Treasury Dept. Data as of July 1, 1968

State	Net income after personal exemption	Percentage rates	Net income after personal exemption	Percentage rates	Personal Excmpt.		Credit for dependents
					Single	Married or head of family	
Alabama ¹	First \$1,000 1,001- 3,000	1.5 3	\$3,001-\$5,000 Over 5,000	4.5 5	\$1,500	\$3,000	\$300
Alaska ¹⁻⁶	16% of Federal income tax				600	1,200	600
Arizona ¹⁻⁶⁻⁷	First 1,000 1,001- 2,000 2,001- 3,000 3,001- 4,000	2 3 4 5	4,001- 5,000 5,001- 6,000 6,001- 7,000 Over 7,000	6 7 8 9	1,000	2,000	600
Resident taxpayers have the option of using as a tax base Federal net income less Federal income tax and certain Federal credits.							
Arkansas ²⁻³	First 3,000 3,001- 6,000 6,001-11,000	1 2 3	11,001-25,000 Over 25,000	4 5	17.50 (1,750)	50 (3,250)	6 (333)
California ¹⁻³⁻⁶⁻⁷	First 2,000 2,001- 3,500 3,501- 5,000 5,001- 6,500 6,501- 8,000	1 2 3 4 5	8,001- 9,500 9,501-11,000 11,001-12,500 12,501-14,000 Over 14,000	6 7 8 9 10	25 (2,250)	50 (4,500)	400
Colorado ¹⁻³⁻⁸⁻⁹	First 1,000 1,001- 2,000 2,001- 3,000 3,001- 4,000 4,001- 5,000 5,001- 6,000	3 3.5 4 4.5 5 5.5	6,001- 7,000 7,001- 8,000 8,001- 9,000 9,001-10,000 Over 10,000	6 6.5 7 7.5 8	750 Surtax on intangible income over \$5,000, 2%. A credit of 1/2 of 1% in each bracket rate is allowed for income under \$9,000.	1,500	750
Delaware ¹⁻⁶	First 1,000 1,001- 2,000 2,001- 3,000 3,001- 4,000 4,001- 5,000 5,001- 6,000	1.5 2 2 4 5 5	6,001- 8,000 8,001-30,000 30,001-50,000 50,001-100,000 Over 100,000	7 8 9 10 11	600	1,200	600
Georgia ²⁻⁶	First 1,000 1,001- 3,000 3,001- 5,000	1 2 3	5,001- 7,000 7,001-10,000 Over 10,000	4 5 6	1,500 Students above high school level and handicapped or retarded children under age 21 are allowed a \$1,200 exemption.	3,000	600
Hawaii ¹⁻⁴⁻⁶⁻⁸⁻⁹	First 500 501- 1,000 1,001- 1,500 1,501- 2,000 2,001- 3,000 3,001- 5,000	2.25 3.25 4.5 5 6.5 7.5	5,001-10,000 10,001-14,000 14,001-20,000 20,001-30,000 Over-30,000	8.5 9.5 10 10.5 11	600	1,200	600
Idaho ²⁻⁷	First 1,000 1,001- 2,000 2,001- 3,000	2.5 5 6	3,001- 4,000 4,001- 5,000 Over 5,000	7 8 9	600 A \$10 filing fee is imposed. A credit of \$10 is allowed for each personal exemption.	1,200	600
Indiana ⁶⁻⁸⁻⁹		2			1,000	*	500
* Lesser of \$1,000 or adjusted gross income of each spouse, but not less than \$500.							
Iowa ²⁻³⁻⁶⁻⁸⁻⁹	First 1,000 1,001- 2,000 2,001- 3,000	.75 1.5 2.25	3,001- 4,000 4,001- 7,000 7,001- 9,000 Over 9,000	3 3.75 4.5 5.25	15 (1,500)	30 (2,333)	10 (467)
Kansas ¹⁻⁶	First 2,000 2,001- 3,000 3,001- 5,000	2 3.5 4	5,001- 7,000 Over 7,000	5 6.5	600	1,200	600
Kentucky ¹⁻³⁻⁶	First 3,000 3,001- 4,000 4,001- 5,000	2 3 4	5,001- 8,000 Over 8,000	5 6	20 (1,000)	40 (2,000)	20 (1,111)
Louisiana ³⁻⁶⁻⁷	First 10,000 10,001-50,000	2 4	Over 50,000	6	2,500 (50)	5,000 (100)	400 (5)
The exemptions and credits for dependents are deductible from the lowest income bracket and are equivalent to the tax credits shown in parentheses. A \$1,000 additional exemption for blindness is also allowed for dependents.							
Maryland ¹⁻⁶⁻⁸	First 1,001 1,001- 2,000	2 3	2,001- 3,000 Over 3,000	4 5	800 An additional credit of \$800 is allowed for each dependent 65 years of age or over.	1,600	800
Massachusetts ¹⁻⁸⁻⁹	Earned and business income; divs., capital gains on intangibles; Annuities.	1 8 2	The exemptions shown are those allowed against business income, including salaries and wages. A specific exemption of \$2,000 is allowed for each taxpayer. In addition, a dependency exemption of \$600 is allowed for a dependent spouse who has income from all sources of less than \$2,000. In the case of a joint return, the exemption is the smaller of (1) \$4,000 or (2) \$2,000 plus the income of the spouse having the smaller income. The exemption allowed against annuity income is the amount of any unused business income exemptions. Married persons must file a joint return in order to obtain any nonbusiness income exemption.				
Michigan ¹⁻³⁻⁹	All Taxable Income				2.6	1,200	2,400
Minnesota ¹⁻³⁻⁶⁻⁸⁻⁹	First 500 501- 1,000 1,001- 2,000 2,001- 3,000 3,001- 4,000 4,001- 7,000	1.5 2 3 5 6 7	5,001- 7,000 7,001- 9,000 9,001-12,500 12,501-20,000 Over 20,000	8 9 10 11 12	19 (1,050)	38 (1,083)	19 (507)
An additional tax credit of \$20 for single persons aged 65 or over or blind. Married \$25.							
Mississippi ²	First 5,000	2	Over 5,000	4	4,000	6,000	
Missouri ¹	First 1,000 1,001- 2,000 2,001- 3,000 3,001- 5,000	1 1.5- Less \$5 2- Less \$15 2.5- \$30	5,001- 7,000 7,001- 9,000 Over 9,000	3- \$55 3.5- \$90 4- \$135 come.	1,200	2,400	400

State	Net income after exemption	Percentage rates	Net income after exemption	Percentage rates	Personal Exemp.			
					Single	Married or head of family	Credit depts.	
Montana ^{2,6}	First 1,000 1,001- 2,000 2,001- 4,000 4,001- 6,000	2 3 4 5	6,001-8,000 8,001-10,000 10,001-25,000 Over 25,000	6 7 8 10	600 The tax computed under these rates is reduced by 5%.	1,200	600	
Minimum tax for all taxable individuals \$1.								
Nebraska ⁶	The tax is imposed as a percentage of taxpayer's Federal income tax before credits. The rate will be determined by the State Board of Equalization by Nov. 15 each year.				600	1,200	600	
New Hampshire ⁵	Interest & dividends (except interest on savings deposits).	4.25			600	600		
New Jersey ²⁻⁶	First 1,000 1,001- 3,000 3,001- 5,000 5,001- 7,000 7,001- 9,000	2 3 4 5 6	9,001-11,000 11,001-13,000 13,001-15,000 Over 15,000	7 8 9 10	600	1,200	600	
The tax is imposed on net income and net capital gain derived from N. Y. sources by N. J. resident individuals and from N. J. sources by N. Y. resident individuals. A statutory credit of \$10 for a single person and \$25 for a married person living with spouse or a head of household is provided.								
New Mexico ¹⁻⁶⁻⁷	First 10,000 10,001-20,000	1.5 3.0	20,001-100,000 Over 100,000	4.5 6.0	600	1,200	600	
No tax is imposed on married taxpayers eligible to file joint returns and individual taxpayers who have one or more dependents and net income of \$1,500 or less.								
New York ¹⁻⁶	First 1,000 1,001- 3,000 3,001- 5,000 5,001- 7,000 7,001- 9,000	2 3 4 5 6	9,001-11,000 11,001-13,000 13,001-15,000 Over 15,000	7 8 9 10	600 Tax credits of \$10 for single persons, \$12.50 for married persons filing separately, and \$25 for married persons filing jointly.	1,200	600	
ried persons filing jointly and heads of households are allowed. Income from unincorporated business is taxed at 5 1/4%. The following credit is allowed: \$100 or less—full amount; \$100-200—difference between \$200 and amount of tax; \$200 or more, no credit.								
North Carolina ²⁻⁶	First 2,000 2,001- 4,000 4,001- 6,000	3 4 5	6,001-10,000 Over 10,000	6 7	1,000 An add'l exemption of \$1,000 is allowed a married woman with separate income.	2,000	600	
North Dakota ¹⁻⁶	First 3,000 3,001- 4,000 4,001- 5,000 5,001- 6,000	1 2 3 5	6,001- 8,000 8,001-15,000 Over 15,000	7.5 10 11	600	1,500	600	
Oklahoma ¹	First 1,500 1,501- 3,000 3,001- 4,500	1 2 3	4,501- 6,000 6,001- 7,500 Over 7,500	4 5 6	1,000	2,000	500	
Oregon ¹⁻⁶	First \$500 501- 1,000 1,001- 1,500 1,501- 2,000	3 4 5 6	2,001- 4,000 4,001- 8,000 Over 8,000	7 9 9.5	600 A credit of \$1 is allowed for each \$100 actually contributed by a taxpayer as part of the support of a person who would qualify as a dependent except for the chief support provision. The credit shall not exceed \$6. Taxpayers and their spouses aged 65 or over receive a \$12 tax credit each. Blind taxpayers and their spouses receive a tax credit of \$18 each.	1,200	600	
South Carolina ¹⁻⁶	First 2,000 2,001- 4,000 4,001- 6,000	2 3 4	6,001- 8,000 8,001-10,000 Over 10,000	5 6 7	800	1,600	800	
Tennessee.....	Interest and dividends	6	Dividends from corporations, 75% of whose property is taxable in Tenn., are taxed at 4%.					
Utah ²⁻⁶	First 1,000 1,001- 2,000 2,001- 3,000	2 3 4	3,001- 4,000 4,001- 5,000 Over 5,000	5 6 6.5	600 An additional exemption of \$400 in 1969 and \$600 for 1970 and thereafter will be allowed taxpayers and their spouses aged 65 and over.	1,200	600	
Vermont ¹⁻⁶	First 1,000 1,001- 3,000	2 4	3,001- 5,000 Over 5,000	6 7.5	600 The tax is imposed at a rate of 25% of the Federal income tax liability after certain credits (retirement income, investment, foreign tax and tax-free covenant bonds), reduced by the percentage of gross income not Vermont income.	600	600	
Virginia ²⁻⁶	First 3,000 3,001- 5,000	2 3	Over 5,000	5	1,000	2,000	300	
West Virginia ¹⁻⁶	First \$2,000 2,001- 4,000 4,001- 6,000 6,001- 8,000 8,001-10,000 10,001-12,000 12,001-14,000 14,001-16,000	1.2 1.3 1.6 1.8 2.0 2.3 2.6 2.8	16,001-18,000 18,001-20,000 20,001-22,000 22,001-26,000 26,001-32,000 32,001-38,000 38,001-44,000 44,001-50,000	3.0 3.1 3.4 3.5 3.7 3.9 4.1 4.3	50,001- 60,000 60,001- 70,000 70,001- 80,000 80,001- 90,000 90,001-100,000 100,001-150,000 150,001-200,000 Over 200,000	4.5 4.7 4.9 5.0 5.2 5.3 5.4 5.5	600 For married persons filing joint returns, the size of the brackets is doubled.	600 600 600
Wisconsin ¹⁻³⁻⁴⁻⁸⁻⁹	First 1,000 1,001- 2,000 2,001- 3,000 3,001- 4,000 4,001- 5,000	2.7 2.95 3.2 4.2 4.7	5,001- 6,000 6,001- 7,000 7,001- 8,000 8,001- 9,000 9,001-10,000 10,001-11,000	5.2 5.7 6.7 7.2 7.7 8.2	11,001-12,000 12,001-13,000 13,001-14,000 Over 14,000	8.7 9.2 9.7 10	10 (370) (740) (361)	10 (361)
Dist. of Col. ¹⁻⁶	First 1,000 1,001- 3,000 3,001- 5,000	2 3 4	5,001-10,000 Over 10,000	5 6	1,000 Income from unincorporated business is taxed at 6%.	2,000	500	

¹A standard deduction and an optional tax table are provided. ²A standard deduction is allowed. ³Personal exemptions and credits for dependents are allowed in the form of tax credits which are deductible from the amount of tax. With personal exemptions, the sum in parentheses is the exemption equivalent of the tax credit assuming that the exemption is deducted from the lowest brackets. With respect to the credits for dependents, the sum in parentheses is the amount by which the first dependent raises the level at which a married couple becomes taxable. ⁴A \$5,000 exemption for blindness is allowed in lieu of the personal exemption. ⁵The tax applies only to interest and dividends. ⁶Exemptions are made for age (over 65) and/or blindness. ⁷Community property state in which, in general, one-half of the community income is taxable to each spouse. ⁸A limited tax credit is allowed for sales taxes; for property taxes on homesteads of the elderly in Minn. and Wisc.; for property taxes and city income taxes in Mich.; for personal property taxes in Md. ⁹In addition to exemption deductions, a sales tax credit or cash rebate is provided.

State Sales Taxes; Types and Rates

Source: Analysis Staff, Tax Division, Treasury Dept. Data as of July 1, 1968

State	Type of tax ¹	Rates on retail sales				Rates on other services and nonretail businesses
		Tangible pers'l prop.	Admissions	Rest. meals	Public utilities	
Alabama ⁵	Retail sales	24%	4%	4%	.....	Gross receipts of amusement operators, 4%. Agriculture machinery and equipment and milking and manufacturing machinery, farm machines, 1.5%; transient lodging, 4%; closed circuit TV, 10%.
Arizona ³⁻⁴	Retail sales	3	3	3	1½	Leasing, renting of tangible personal property, 3%; producing, processing natural resources, 2%; timbering, 1½%; storage, apartment and office rentals, 3%; meat packing and wholesale sales of feed to poultrymen and stockmen, 4%; amusement operators, 3%.
Arkansas ⁴	Retail sales	3	3	3	3	Printing and photography, transient lodging, coin-operated devices, 3%.
California ⁴	Retail sales	4	.....	4	1	Renting, leasing, producing, fabricating, processing, printing, 4%.
Colorado ⁴	Retail sales	3	.....	3	3	Transient lodging, 3%.
Connecticut	Retail sales	3½	.....	3½	.....	Transient lodging, 3½%.
Florida	Retail sales	24	4	4	.....	Rental, storage or furnishing services, altering, remodeling or repairing personal property and rental income of amusement machines, 4%. Fishing, hunting, camping, swimming and diving equipment, 5% of wholesale price. Transient lodging, 4%.
Georgia ³	Retail sales	3	3	3	3	Transient lodging, 3%; lease or rental of tangible personal property, charges on amusements and amusement devices, 3%.
Hawaii	Multiple-stage sales	4	4	4	.....	Manufacturers, producers, wholesalers, sugar processors and pineapple canners and selected service businesses ½%; insurance solicitors 2%; contractors, sales representatives, professions, radio broadcasting stations, service businesses and other businesses not otherwise specified, transient lodging 4%.
Idaho	Retail sales	3	3	3	.....	Renting, leasing, producing, fabricating, processing, printing, gross receipts of amusement operators, 3%. (Closed circuit TV on boxing and wrestling matches, 5%.)
Illinois ⁴	Retail sales	4½	.....	4½	.....	Remodeling, repairing and reconditioning tangible personal property, 4½%. A special hotel occupancy tax of 3% of 97% of gross receipts from rental of rooms to transients.
Indiana	Retail sales	2	.....	2	2	Transient lodging 2%.
Iowa ⁴	Retail sales	3	3	3	3	Laundry, drycleaning, automobile and cold storage, photography, printing, repairs, barber and beauty parlor services, advertising, drycleaning equipment rentals and gross receipts from amusement devices and commercial amusement enterprises, 3%.
Kansas	Retail sales	3	3	3	3	Transient lodging and coin-operated devices and commercial amusements 3%.
Kentucky	Retail sales	5	5	5	5	Transient lodging, photographic services and sewer services, 5%.
Louisiana ⁴	Retail sales	2	2	2	.....	Leasing, renting, repairing tangible personal property, laundry, drycleaning, automobile and cold storage, printing, transient lodging, 2%.
Maine	Retail sales	4½	.....	4½	4½	Transient lodging 4½%; proceeds from closed circuit TV, 4½%.
Maryland	Retail sales	23	.....	23	3	Lease or rental of tangible personal property, production, fabrication, or printing on special order, 3%; farm equipment, 2%; manufacturing equipment and machinery used in electricity, research and development, 2%.
Massachusetts ⁶	Retail sales	3	.....	5	.....	Transient lodging, 5% ⁷ . Renting, leasing, producing, fabricating, processing, printing, 3%.
Michigan	Retail sales	4	.....	4	4	Transient lodging 4%.
Minnesota	Retail sales	3	3	3	3	Renting, leasing, producing, fabricating or printing tangible personal property, transient lodging, 3%.
Mississippi ¹³	Multiple-stage sales	25	.....	5	23½	Wholesaling ¼% (beer and motor fuel 5%); farm tractors, 1%; contracts exceeding \$10,000, 2½%; extracting or mining, specified businesses including warehouses, laundry and drycleaning, photo finishing, storage, termite or pest control services, specified repair services, 5%; cotton ginning 15¢ per bale. Transient lodging 5%.
Missouri	Retail sales	3	3	3	3	Transient lodging, trailer camp rentals, rental or lease of tangible personal property, 3%.
Nebraska	Retail sales	2½	2½	2½	2½	Renting, leasing, producing, fabricating, processing, printing, storage, 2½%.
Nevada ⁴	Retail sales	3	.....	3	.....	Renting, leasing, producing, fabricating, processing, printing, storage, 3%.
New Jersey ⁶	Retail sales	3	3	3	.....	Producing, fabricating, storing, processing, installing maintenance and repair 3%. Transient lodging ⁷ 3%.
New Mexico ⁴	Retail sales	23	3	3	3	Leasing of tangible personal property, gross receipts of services (excluding wages), 3%; contracting, 1½%; sales of farm implements and vehicles, 1½%; originating and servicing real property loans, ¾%.

State	Type of tax ¹	Rates on retail sales				Rates on other services and nonretail businesses
		Tangible pers ¹ prop.	Selected service			
			Admis- sions	Rest. meals	Public utili- ties	
New York ⁴⁻⁶	[Retail sales.....]	2	2	42	2	Leasing, renting, laundry, dry-cleaning, 3%; airplanes, boats, railway locomotives and cars, 1½%; sales of horses, mules and industrial fuels, 1%; farm and industrial machinery, 1%.
North Carolina.....	[Retail sale.....]	23		3		Farm and industrial machinery, 1% (\$80 maximum); boats (\$120 maximum), air planes, 1½%; laundry and dry cleaning 3%; transient lodging 3%.
North Dakota.....	[.....]	23	3	3	3	Transient lodging, leasing, renting, fabricating, storing tangible personal property, proceeds from coin-operated amusement machinery, severance of sand or gravel from the soil, 3%.
Ohio.....	[Retail sales.....]	4	3	3		Transient lodging, printing and reproducing, production and fabrication, 3%.
Oklahoma ²⁻⁴	[Retail sales.....]	2	2	2		Advertising (exclusive of newspapers, periodicals and billboards), printing, automobile storage, transient lodging, 2%.
Pennsylvania.....	[Retail sales.....]	6		6	6	Repairing, altering, laundering and cleaning of tangible personal property, cleaning, polishing, lubricating and inspection of motor vehicles, rental income of coin-operated amusement devices and transient lodging 6%.
Rhode Island.....	[Retail sales.....]	5		5	5	Producing, processing, fabricating, printing, transient lodging, 5%.
South Carolina.....	[Retail sales.....]	3		3	3	Transient lodging, laundry and dry cleaning, 3%.
South Dakota.....	[Retail sales.....]	23	3	3	3	Amusement devices, transient lodging, 3%. Farm machinery, 2%. Professional fees (other than medical) 3%.
Tennessee ⁴	[Retail sales.....]	3		3	3	Transient lodging, parking lots and storage of motor vehicles, repair service, installations, laundry and dry cleaning, 3%. Industrial machinery, farm equipment and machinery, 1%; vending machines, 1½%, except tobacco products, 2½%; lease or rental of tangible personal property, 3%.
Texas ⁴	[Retail sales.....]	22		2	2	Lease or rental of tangible personal property, producing, processing and storage, 2%.
Utah ²⁻⁴	[Retail sales.....]				3	Lease or rental of tangible personal property, repairing, renovating, installing transient lodging, laundry, dry cleaning, 3%.
Virginia ⁴	[Retail sales.....]	23		3		Transient lodging, storage, contracting, fabricating of tangible personal property, 3%.
Washington.....	[Retail sales.....]	4.5	4.5	4.5		Transient lodging, auto parking and storage, other specified services, selected amusement and recreation activities 4.5%.
West Virginia.....	[Retail sales.....]	23		3		All services except personal, professional and public utilities, transient lodging 3%.
Wisconsin.....	[Retail services.....]	3	3	3		Lease or rental of tangible personal property, laundry, dry cleaning, repair services, photography, transient lodging, 3%.
Wyoming.....	[Retail sales.....]	3	3	3	3	Lease or rental of tangible personal property, laundry, drycleaning, fabricating, repairing, altering, printing, garage, other services, 3%.
Dist. of Col.....	[Retail sales.....]	24		4	4	Transient lodging, 5%; food for off-premises consumption, 1%. leasing, renting, producing, fabricating, printing 4%.

¹All but a few states levy sales taxes of the single-stage retail type. Hawaii and Mississippi, levy multiple-stage sales taxes. The New Mexico and South Dakota taxes have broad bases with respect to taxable services but they are not multiple-stage taxes. Washington and West Virginia levy gross receipts taxes on all businesses, distinct from their sales taxes. Alaska also levies a gross receipts tax on businesses. The rates applicable to retailers (with exceptions) under these gross receipts taxes are as follows: Alaska, ½%, on gross receipts of \$20,000-\$100,000 and ¼% on gross receipts in excess of \$100,000; Washington, 44/100%; and West Virginia, ½%. In Indiana, an additional tax of ½% is imposed on retailers under the gross income tax. New Jersey imposes a tax of 1/20 of 1% on retail stores with income in excess of \$150,000.

²Motor vehicles are taxed at the general sales tax rates with the following exemptions. Alabama 1½%; Florida 3%; Mississippi 3% and North Carolina 1½% (\$120 maximum). The following states exempt motor vehicles from their general sales and use taxes but are taxed under motor vehicle tax laws: Maryland 3%; New Mexico 1½%; North Dakota 3%; Oklahoma 2%; South Dakota 3%; Texas and Virginia 2%; West Virginia and the District of Columbia 3%.

³Ariz. and Miss. also tax the transportation of oil and gas by pipeline. Ga., Okla. and Utah do not tax transportation of property. Miss. taxes taxicabs transportation 2%.

⁴In addition to the state tax, sales taxes are also levied by certain cities and/or counties.

⁵Restaurant meals below a specified price are exempt; Connecticut, Maryland and New York, less than \$1; Pennsylvania 10 cents or less.

⁶Rooms which rent for \$2 a day or less are exempt.

City Income Tax in Cities Over 50,000

City	Rates %		Year start	City	Rates %		Year start
	Now	Orig.			Now	Orig.	
Cities with 500,000 or more inhabitants				Cities with 50,000 to 99,000 inhabitants			
Baltimore, Md.	1.0	1.0	1966	Altoona, Pa.	1.0	1.0	1948
Cleveland, Ohio	1.0	.5	1967	Bethlehem, Pa.	1.0	1.0	1957
Cincinnati, Ohio	1.0	1.0	1954	Chester, Pa.	1.0	1.0	1956
Detroit, Mich.	1.0	1.0	1962	Covington, Ky.	1.5	1.0	1956
New York, N. Y.	4-2.0	4-2.0	1966	Euclid, Ohio	.5	.5	1967
Pittsburgh, Pa.	1.0	1.0	1954	Gadsden, Ala.	2.0	1.0	1956
Philadelphia, Pa.	2.0	1.5	1939	Hamilton, Ohio	1.0	.8	1960
St. Louis, Mo.	1.0	.25	1948	Harrisburg, Pa.	1.0	1.0	1966
Cities with 100,000 to 499,000 inhabitants				Johnstown, Pa.	1.0	1.0	1948
Akron, Ohio	1.0	1.0	1962	Kettering, Ohio	1.0	1.0	1968
Allentown, Pa.	1.0	1.0	1958	Lakewood, Ohio	1.0	1.0	1968
Canton, Ohio	1.4	.6	1954	Lancaster, Pa.	.5	.5	1959
Columbus, Ohio	1.0	.5	1947	Lexington, Ky.	1.5	1.0	1952
Dayton, Ohio	1.0	.5	1949	Lima, Ohio	1.0	.75	1959
Eric, Pa.	1.0	1.0	1948	Lorain, Ohio	.5	.5	1967
Flint, Mich.	1.0	1.0	1965	Parma City, Ohio	.5	.5	1967
Grand Rapids, Mich.	1.0	1.0	1967	Pontiac, Mich.	1.0	1.0	1968
Kansas City, Mo.	.5	.5	1964	Saginaw, Mich.	1.0	1.0	1965
Lansing, Mich.	1.0	1.0	1968	Springfield, Ohio	1.0	1.0	1948
Louisville, Ky.	1.25	1.0	1948	Warren, Ohio	1.0	.5	1952
Scranton, Pa.	1.0	1.0	1948	Wilkes-Barre, Pa.	1.0	1.0	1966
Toledo, Ohio	1.5	1.0	1946	York, Pa.	1.0	1.0	1965
Youngstown, Ohio	1.5	.3	1948				

Excise Taxes on Selected Items

Source: Tax Foundation (As of July 15, 1968)

Gasoline, diesel fuel, benzol, naphtha, for vehicle propulsion are taxed at 4¢ a gallon scheduled through Sept. 30, 1972, and at 1.5¢ thereafter.							
Liquor taxes:				Beer and fermented liquors:			
Distilled spirits.....	\$10.50	per proof gallon		(containing wine)....	\$1.92	per wine gallon	
Perfumed, imported (containing distilled spirits).....	\$10.50	per wine gallon		1% or more of alcohol)	\$9.00	per barrel	
Still wines (including vermouth and artificial or imitation wines)				Passenger car chassis or body (Mfg's sales) 7% to be reduced to 5% Jan. 1, 1970; 3%, Jan. 1, 1971; 1% Jan. 1, 1972.			
Not over 14% alcohol.....	17¢	per wine gallon		Tires and tubes (per lb.).....	10¢		
Not over 21% alcohol.....	6¢	per wine gallon		Pistols, revolvers (Mfg's sales).....	10%		
Not over 24% alcohol.....	\$2.25	per wine gallon		Slot machines, \$250 a year each. This applies to all gaming devices.			
Champagnes, sparkling wines, liqueurs and cordials:				Sugar (per lb.) (To be repealed July 1, 1972) 0.53¢			
Champagne or sparkling wine.....	\$3.40	per wine gallon		Fishing equipment (Mfg's sales).....	10%		
Artificially carbonated wine.....	\$2.40	per wine gallon		Telephone calls (toll). To be reduced Jan. 1, 1970 to 5%; Jan. 1, 1971 to 3%; Jan. 1, 1972 to 1%.			
Liqueurs and cordials				Tobacco-small cigarettes weighing less than 3 lbs. per thousand, \$4.00 per thousand.			
				Air travel tickets.....	5%		

Federal Gift Tax

Any citizen or resident who within the calendar year makes gifts in excess of \$3,000 to any one individual, or any gift of a future interest regardless of value, must file a gift tax return on or before April 15 of the following year. In addition to the annual \$3,000 exclusion for each person to whom gifts are made, each donor also has a specific lifetime exemption of \$30,000, and this may be

taken all at one time or spread over years.

When a husband or wife transfers by gift an interest in property to his or her spouse a deduction in computing gift tax will be allowed to the extent of one-half of the value of the gift. Also gifts to a third party by either husband or wife may be treated as made one-half by each. Tax Foundation

If the taxable gifts are:				The tax will be:			
Not over \$5,000.....				2½% of the taxable gifts			
Over \$5,000 but not over \$10,000.....	\$10,000			\$112.50, plus 5¼% of excess over \$5,000		\$5,000	
Over \$10,000 but not over \$20,000.....	\$20,000			\$375, plus 8¼% of excess over \$10,000		\$10,000	
Over \$20,000 but not over \$30,000.....	\$30,000			\$1,200, plus 10½% of excess over \$20,000		\$20,000	
Over \$30,000 but not over \$40,000.....	\$40,000			\$2,250, plus 13½% of excess over \$30,000		\$30,000	
Over \$40,000 but not over \$50,000.....	\$50,000			\$3,600, plus 16½% of excess over \$40,000		\$40,000	
Over \$50,000 but not over \$60,000.....	\$60,000			\$5,250, plus 18¾% of excess over \$50,000		\$50,000	
Over \$60,000 but not over \$100,000.....	\$100,000			\$7,125, plus 21% of excess over \$60,000		\$60,000	
Over \$100,000 but not over \$250,000.....	\$250,000			\$15,525, plus 22½% of excess over \$100,000		\$100,000	
Over \$250,000 but not over \$500,000.....	\$500,000			\$49,275, plus 24% of excess over \$250,000		\$250,000	
Over \$500,000 but not over \$750,000.....	\$750,000			\$109,275, plus 26¼% of excess over \$500,000		\$500,000	
Over \$750,000 but not over \$1,000,000.....	\$1,000,000			\$174,900, plus 27¾% of excess over \$750,000		\$750,000	
Over \$1,000,000 but not over \$1,250,000.....	\$1,250,000			\$244,275, plus 29¼% of excess over \$1,000,000		\$1,000,000	
Over \$1,250,000 but not over \$1,500,000.....	\$1,500,000			\$317,400, plus 31% of excess over \$1,250,000		\$1,250,000	
Over \$1,500,000 but not over \$2,000,000.....	\$2,000,000			\$396,150, plus 33¾% of excess over \$1,500,000		\$1,500,000	
Over \$2,000,000 but not over \$2,500,000.....	\$2,500,000			\$564,900, plus 36¼% of excess over \$2,000,000		\$2,000,000	
Over \$2,500,000 but not over \$3,000,000.....	\$3,000,000			\$748,650, plus 39¼% of excess over \$2,500,000		\$2,500,000	
Over \$3,000,000 but not over \$3,500,000.....	\$3,500,000			\$947,400, plus 42% of excess over \$3,000,000		\$3,000,000	
Over \$3,500,000 but not over \$4,000,000.....	\$4,000,000			\$1,157,400, plus 44¼% of excess over \$3,500,000		\$3,500,000	
Over \$4,000,000 but not over \$5,000,000.....	\$5,000,000			\$1,378,650, plus 47¼% of excess over \$4,000,000		\$4,000,000	
Over \$5,000,000 but not over \$6,000,000.....	\$6,000,000			\$1,851,150, plus 50¼% of excess over \$5,000,000		\$5,000,000	
Over \$6,000,000 but not over \$7,000,000.....	\$7,000,000			\$2,353,650, plus 52½% of excess over \$6,000,000		\$6,000,000	
Over \$7,000,000 but not over \$8,000,000.....	\$8,000,000			\$2,878,650, plus 54¾% of excess over \$7,000,000		\$7,000,000	
Over \$8,000,000 but not over \$10,000,000.....	\$10,000,000			\$3,426,150, plus 57¼% of excess over \$8,000,000		\$8,000,000	
Over \$10,000,000.....				\$4,566,150, plus 57¼% of excess over \$10,000,000		\$10,000,000	

U. S. Savings Bonds

Source: Treasury Department (in millions As of December 31)

Year	Amounts outstanding ¹	Funds received from sale	Accrued dis-counts	Re-demption ²	Year	Amounts outstanding	Funds received from sale	Accrued dis-counts	Re-demption ²
1935-41...	6,140	6,486	201	517	1955...	57,924	6,276	1,216	7,301
1943.....	27,363	13,729	169	1,585	1960.....	47,159	4,350	1,262	6,732
1944.....	40,361	16,044	295	3,311	1965.....	50,324	4,186	1,527	5,441
1945.....	48,183	12,937	484	5,558	1966.....	50,752	4,860	1,591	6,000
1950.....	58,019	6,074	1,104	5,810	1967.....	51,581	4,898	1,686	5,793

¹Interest-bearing debt only.²Comprises both matured and unmatured bonds.

RELIGIOUS INFORMATION

Census of Religious Bodies in the United States

Source: The WORLD ALMANAC Questionnaire and Yearbook of American Churches

The Yearbook of American Churches for 1969, Lauris B. Whitman, editor, published by Natl. Council of the Churches of Christ in the U. S. A., reports the following statistics compiled from figures, mainly for 1967, that were furnished by the religious bodies in the United States:

Religious Bodies Reporting—238. Total Membership—126,445,110 in the 50 states and the District of Columbia. Total membership exceeds that reported a year earlier by 666,454, a gain of .44%. There are 321,079 churches staffed by 360,092 clergymen. Church membership in the U. S. is 63.2% of the population.

Membership figures in the following table are the latest available. They come from different sources, and totals may be at variance with the figures quoted above. Some denominations submitted carefully compiled data while others approached the task more casually. Some membership figures were obtained by WORLD ALMANAC Questionnaire, others from the Yearbook of American Churches for 1968. The number of churches is given in parentheses.

Denomination	Members	Denomination	Members
Adventist Bodies:	426,632	Church of God in Christ (4,500).....	425,000
Advent Christian Church (403).....	29,838	Ch. of God & Saints of Christ (217)...	38,127
Church of God (Abrahamic Faith) (121).....	8,500	Church of Illumination (14).....	9,000
Primitive Advent Christian Ch. (10).....	578	Church of the Nazarene (4,652).....	358,346
Seventh-day Adventists (3,180).....	389,716	Church of Our Lord Jesus Christ of the Apostolic Faith (155).....	45,000
African Orthodox Church (24).....	6,000	Church of Revelation (5).....	750
Amana Church Society (7).....	737	Church of Scientology (15).....	55,000
Amer. Evang. Christian Chs. (no report)		Churches of Christ (16,500).....	2,260,000
American Rescue Workers (46).....	5,580	Chs. of Christ in Christn. Union (240).....	7,928
Apostolic Faith (43).....	4,764	Churches of God:	542,990
Apostolic Overcoming Holy Church Of God (300).....	75,000	Ch. of God (Anderson, Ind.) (2,247).....	144,243
Armenian Church of America (56).....	196,000	Ch. of God (Cleveland, Tenn.) (3,727).....	220,405
Assemblies of God (8,510).....	595,231	Church of God of Prophecy (1,469).....	43,411
		Ch. of God, Seventh Day (7).....	2,000
		Ch. of God, Seventh Day (Denver, Colo.) (56).....	5,500
Baha'i Faith (no statistics available)		Churches of God in N. A. (Gen. Eldership) (300).....	30,000
Baptist Bodies:	25,896,250	The Church of God (1,925).....	74,101
American Baptist Assn. (3,262).....	745,620	The (Original) Ch. of God (75).....	18,000
American Baptist Convention (6,085).....	1,555,460	The Church of God by Faith (105).....	15,000
Baptist General Conference (589).....	96,041	Churches of God, Holiness (32).....	25,600
Bethel Baptist Assembly (22).....	5,147	Churches of the Living God:	45,922
Christian Unity Baptist Assn. (11).....	614	Church of the Living God, Christian Workers for Fellowship (276).....	47,670
Conserv. Baptist Assn. of Amer. (1,160).....	325,000	House of God, which is the Church of the Living God, the Pillar and Ground of Truth (107).....	2,350
Duck River (and Kindred) Assns. of Baptist (69).....	6,841	Churches of the New Jerusalem:	5,771
Evang. Baptist Ch. Gen. Conf. of (31).....	2,200	General Ch. of the New Jerusalem (35).....	2,028
Free Will Baptists (2,200).....	250,000	General Convention of the New Jerusalem in the U.S.A. (35).....	3,743
General Assn. of Regular Baptist Chs. (1,244).....	170,299	Congregational Christian Churches, Nat'l Assn. of (341).....	110,000
General Baptists (844).....	64,498	Congregational Holiness Ch. (147).....	4,859
General Six-Principle Baptists (5).....	190	Conservative Congregational Christian Conf. (80).....	13,513
Natl. Baptist Conv. of Amer. (11,398).....	2,668,799	Disciples of Christ (see Christian Churches—Disciples of Christ)	
Natl. Baptist Conv. of U.S.A. (27,233).....	6,300,000	Eastern Orthodox Churches:	3,280,315
Natl. Bapt. Evangelical Life & Soul Saving Assembly of U.S.A. (264).....	57,674	Albanian Orthodox Archdiocese in Am. (12).....	17,000
Natl. Primitive Baptist Convention of the U.S.A. (18,076).....	1,225,000	American Carpatho-Russian Orthodox Greek Catholic Church (66).....	104,500
No. American Baptist Assn. (1,750).....	275,000	American Catholic Church (Syro-Antiochian) (1).....	450
No. American Baptist Gen. Conf. (337).....	54,358	Antiochian Orthodox Archdiocese of Toledo, O. (21).....	35,000
Primitive Baptists (1,000).....	72,000	Orthodox Catholic Patriarchate of America (30).....	2,850
Progressive Natl. Baptist Conv. (655).....	521,692	Bulgarian Eastern Orthodox Ch. (19).....	80,000
Regular Bapt. Chs. Gen. Assn. of (1,316).....	180,000	Church of the East and of the Assyrians (2).....	5,000
Separate Baptists in Christ (84).....	7,496	Greek Archdiocese of North and South America (406).....	1,770,000
Seventh Day Bapt. Gen. Conf. (65).....	5,773	Holy Orthodox Church in America (Eastern Cath. & Apostolic) (4).....	260
Seventh Day Bapts. (German 1728) (3).....	150	Holy Ukrainian Autocephalic Orthodox Ch. in Exile (15).....	4,800
Southern Baptist Convention (34,147).....	11,142,726	Romanian Orthod. Episc. of Amer. (49).....	50,000
United Baptists (586).....	63,641	Russian Orthodox Catholic Ch. in America Patriarchal Exarchate (67).....	152,973
United Free Will Baptist Ch. (836).....	100,000	Russian Orthodox Church Outside Russia (102).....	85,000
Berean Fundamental Church (37).....	1,982	Russian Orthodox Greek Catholic Church of America (350).....	500,000
Bible Protestant Church (42).....	2,388	Serbian Eastern Orthodox Church (49).....	200,000
Bible Way Chs. of Our Lord Jesus Christ World Wide (347).....	25,010	Syrian Antiochian Orthodox Ch. (82).....	120,000
Brethren (German Baptist):	238,256	Syrian Orthodox Church of Antioch (Archdiocese of the U.S.A. & Canada) (7).....	25,000
Brethren Ch. (Ashland, Ohio) (120).....	18,013	Ukrainian Orthodox Ch. of Amer. (37).....	40,250
Brethren Church (Progressive) (180).....	26,402	Ethical Union, American (30).....	87,232
Church of the Brethren (1,054).....	189,616	Evangelical Christian Churches (71).....	11,201
Old German Baptist Brethren (54).....	4,225	Evangelical Congregational Ch. (163).....	29,744
Brethren, Plymouth (665).....	33,250	Evangelical Covenant Church of America (517).....	65,496
Brethren (River):	9,473	Evangelical Free Ch. of America (517).....	50,312
Brethren in Christ (159).....	8,593	Evangelical United Brethren Church (3,970).....	732,377
United Zion Church (16).....	880		
Buddhist Churches of America (60).....	200,000		
Catholic Apostolic Church (no data)			
Catholic Churches (other than Roman, see Eastern Orthodox, Liberal Catholic and Old Catholics)			
Christadelphians (850).....	15,800		
Christian Catholic Church (5).....	1,555		
Christian Church of N. A. (108).....	8,000		
Christian Churches, Internat'l Conv. of (Disciples of Christ) (7,964).....	1,883,263		
Christian & Missionary Alliance (1,110).....	68,679		
Christian Nation Church, U. S. A. (16).....	3,300		
Christian Scientists (see Church of Christ, Scientist)			
Christian Union (130).....	5,821		
Christ's Sanctified Holy Church (30).....	600		
Ch. of Christ (Holiness) U. S. A. (159).....	9,289		
Church of Christ, Scientist (2,461) (membership data not published)			

Denomination	Members	Denomination	Members
Evangelistic Associations:	74,864	Holiness Methodist Church (23).....	1,000
Apostolic Christian Ch. of Amer. (72)...	8,740	Lumber River Annual Conference of the Holiness Methodist Ch. (7).....	360
Apostolic Christian Church (Nazarene) (51).....	2,317	The Methodist Church (42,165).....	11,035,313
The Christian Congregation (256).....	45,767	New Cong. Methodist Ch. (11).....	518
Church of Daniel's Band (4).....	200	Primitive Method. Ch., U.S.A. (86).....	11,945
The Church of God (Apostolic) (22).....	600	Reformed Meth. Union Episc. Ch. (21).....	16,198
Ch. of God as Organized by Christ (14).....	2,192	Reform, Zion Union Apostolic Ch. (50).....	16,000
Metropolitan Church Assn. (15).....	443	Southern Methodist Church (52).....	4,025
Missionary Church Assn. (137).....	9,475	Union Amer. Methodist Episcopal Church (256).....	27,560
Pillar of Fire (61).....	5,100	Wesleyan Meth. Ch. of Amer. (1,195).....	48,861
Fire Baptized Holiness Ch. (53).....	988	Moravian Bodies	66,742
Fire Baptized Holiness Church (Wesleyan) (53).....	1,007	Moravian Church (Unitas Fratrum) (140).....	60,600
Free Christn. Zion Ch. of Christ (742).....	22,260	Unity of the Brethren (32).....	6,142
Friends:	126,982	Mormons (see Latter-Day Saints)	
Central Yearly Meeting of Friends (12).....	534	Moslems (no statistics available)	
Friends United Meeting (509).....	69,353		
Ohio Yearly Meeting of the Friends... Church (Independent) (87).....	7,059	Natl. David Spiritual Temple of Christ Church Union U.S.A. (66).....	40,816
Oregon Yearly Meeting of the Friends Church (63).....	6,055	New Apostolic Church of N.A. (176).....	19,867
Pacific Yearly Meeting of Friends (36).....	2,227	Old Catholic Churches:	99,283
Religious Society of Friends (Conservative) (21).....	1,696	American Catholic Church, Archdiocese of N. Y. (20).....	8,437
Religious Society of Friends (General Conference) (306).....	31,831	No. Amer. Catholic Ch. (50).....	62,575
Religious Society of Friends (Kansas Yearly Meeting) (89).....	8,227	No. Amer. Old R. C. Church (32).....	18,954
Greek Orthodox (see Eastern Orthodox Churches)		Old Cath. Archdiocese of Americas & Europe (24).....	7,100
Holiness Church of God (28).....	884	Reformed Catholic Church (Utrecht Confession), Prov. of No. Am. (20).....	2,217
Independent Fundamental Churches of America (899).....	119,970	Open Bible Standard Churches (282).....	30,000
Independent Negro Churches (50).....	12,337	Pentecostal Assemblies:	458,606
International Church of the Four-square Gospel (749).....	94,788	Calvary Pentecostal Church (22).....	8,000
Jehovah's Witnesses (5,317).....	328,648	Elm Missionary Assemblies (64).....	3,000
Jewish Congregations:	5,650,000	Emmanuel Holiness Church (56).....	1,200
Union of Amer. Hebrew Cong. (690).....	1,000,000	Internat. Pentecostal Assemblies (60).....	7,500
Union of Orthod. Jewish Cong. of Amer. (3,000).....	3,000,000	Pent. Assemblies of the World (550).....	45,000
United Synagogue of Amer. (850).....	1,650,000	Pentecostal Church of Christ (42).....	1,150
Latter-Day Saints:	2,063,522	Pentecostal Ch. of God of Amer. (975).....	115,000
Church of Jesus Christ (Bickertonites) (46).....	2,309	Pentecostal Evang. Ch. of God, Natl. & Internal. (4).....	229
Church of Jesus Christ of Latter-Day Saints (Mormon) (4,413).....	1,891,965	Pentecostal Fire-Baptized Holiness Church (41).....	500
Reorganized Church of Jesus Christ of Latter Day Saints (1,008).....	169,248	Pentecostal Free Will Baptist Ch. (176).....	10,000
Liberal Catholic Church (8).....	4,000	Pentecostal Holiness Church (1,388).....	67,027
Lithuanian Nat'l Catholic Ch. (4).....	3,950	United Pentecostal Church (2,167).....	200,000
Lutheran Bodies:	8,999,007	Pilgrim Holiness Church (953).....	32,765
The Evangelical Lutheran Synodical Conf. of N. America: Lutheran Church-Mo. Synod (5,427).....	2,868,878	Polish Natl. Catholic Ch. of Amer. (162).....	282,411
Synod of Evangel. Lutheran Chs. (65).....	2,759,308	Presbyterian Bodies:	4,406,411
U. S. A. National Committee of the Lutheran World Federation Constituents:.....	5,741,593	Associate Presbyterian Ch., of N. A. (4).....	650
The American Lutheran Church (4,906).....	2,576,027	Associate Reformed Presbyt. Church (General Synod) (143).....	28,302
The Lutheran Ch. in America (5,892).....	3,165,566	Cumberland Presbyterian Ch. (914).....	86,729
Other Lutheran Churches:		U. S. (121).....	30,000
Church of the Lutheran Brethren of America (71).....	7,768	Orthodox Presbyterian Ch. (124).....	13,823
Evangelical Lutheran Church in America (Eitelen Synod) (44).....	4,220	Presbyterian Ch. in the U. S. (3,987).....	960,776
Evangelical Lutheran Synod (Norwegian Synod) (84).....	15,682	Reformed Presbyterian Ch. Evangelical Synod (115).....	11,835
Protestant Conference (Lutheran) (7).....	2,000	Reformed Presbyterian Church of N. A. (Old School) (69).....	5,535
Wisconsin Evangelical Lutheran Synod (869).....	358,466	United Presbyt. Ch. in the U.S.A. (8,877).....	3,268,761
Mennonite Bodies:	198,888	Protestant Episcopal Church (7,180).....	3,420,297
Beachy Amish Mennonite Chs. (47).....	3,689	Quakers (see Friends)	
Ch. of God in Christ (Mennonite) (38).....	5,000	Reformed Bodies:	688,814
Conference of the Evangelical Mennonite Church (21).....	2,516	Christian Reformed Church (635).....	278,969
Evangelical Mennonite Brethren (36).....	3,591	Hungarian Reformed Ch. in Am. (49).....	11,110
General Conf. Mennonite Ch. (284).....	53,584	Netherlands Ref. Congregations (14).....	2,500
Hutterian Brethren (28).....	2,835	Protestant Reformed Chs. of Amer. (19).....	3,961
Mennonite Brethren Ch. of N. A. (81).....	13,171	Reformed Church in America (939).....	389,751
Mennonite Church (1,055).....	83,627	Reformed Church in the U. S. (20).....	3,423
Old Order Amish Mennonite Ch. (301).....	21,023	Reformed Episcopal Church (65).....	7,085
Old Order (Wisler) Mennonite Ch. (55).....	7,512	Roman Catholic Church (23,814).....	47,468,333
Reformed Mennonite Church (14).....	500	Russian Orthodox (see Eastern Orthodox Churches)	
Unaffiliated Conservative and Amish Mennonite Churches (42).....	1,840	Salvation Army (1,121).....	324,911
Methodist Bodies:	13,693,322	The Schwenkfelder Church (5).....	2,550
African Meth. Episcopal Ch. (5,878).....	1,160,301	Social Brethren (31).....	1,540
African M. E. Zion Ch. (3,800).....	805,000	Spiritualists:	24,174
African Union First Colored Methodist Protestant Church (41).....	8,000	Int. Gen. Assembly of Spiritualist (84).....	16,000
Christian Meth. Episcopal Ch. (2,598).....	466,718	Natl. Spiritual Alliance of the U.S.A. (30).....	3,212
Congregational Methodist Ch. (223).....	14,274	Natl. Spiritualist Assn. of Chs. (183).....	4,962
Cong. Meth. Ch. of U.S.A. (100).....	7,500	Triumph the Church and Kingdom of God in Christ (420).....	45,000
Evangelical Methodist Church (153).....	1,085	Unitarian Universalist Assn. (1,135).....	177,431
Free Methodist Ch., of N. A. (1,124).....	62,090	United Brethren:	25,057
Fundamental Methodist Church (12).....	574	United Brethren in Christ (340).....	24,457
		United Christian Church (12).....	600
		United Church of Christ (6,909).....	2,052,857
		United Holy Ch. of America (470).....	28,980
		United Missionary Church (141).....	8,381
		Vedanta Societies (11).....	1,000
		Volunteers of America (219).....	32,760

Headquarters of Religious Bodies

(Year organized in parentheses)

Advent Christian Church (1854)—Pres. Rev. Joe Tom Tate. Exec. Sec., Rev. J. Howard Shaw, 917 Hardin St., Aurora, Ill. 60506.

Adventists, Seventh-day, General Conference of (1863)—Pres., Robert H. Pierson. Secretary, W. R. Beach, Takoma Park, Washington, D. C. 20012.

African Methodist Episcopal Zion Church (1796)—Senior Bishop, Bishop R. L. Jones, 741 S. 44th St., Louisville, Ky. 40211; Sec., Board of Bishops, Bishop F. S. Anderson.

Antiochian Orthodox Archdiocese of Toledo, Ohio (1936), Archbishop Metropolitan Amichael G. Shaheen, 532 Bush St., Toledo, Ohio 43604.

Armenian Church of America, Diocese (1889)—Primate, Most Rev. Archbishop Torkom Manogian. Sec., Rev. Arsen Ashjian, 630 Second Ave., New York, N. Y. 10016.

Assemblies of God (1914)—Gen. Supt., Thomas F. Zimmerman. Gen. Sec., Bartlett Peterson, 1445 Boonville Ave., Springfield, Mo. 65802.

Augustana Evangelical Lutheran Church. See The Lutheran Church in America.

Baha'i Faith—About 2,300 communities, groups and isolated centers in the U. S. Sec., Natl. Spiritual Assembly, Glenford E. Mitchell, 538 Sheridan Rd., Wilmette, Ill. 60091.

Baptist Association, American (1905)—Pres., Martin Canavan. Corr. Sec., Dr. A. L. Patterson, 214 E. Broad St., Texarkana, Tex.

Baptist Association, North American (1950)—Pres., Rev. W. R. Speer, Dir. Publ. Rel., Dr. D. N. Jackson, P. O. Box 19099, Oklahoma City, Okla. 73119.

Baptist Association of America, Conservative (1947)—Pres., Dr. Lester Thompson. Corr. Sec., Rev. Richard P. Camp Jr., P. O. Box 66, Wheaton, Ill. 60187.

Baptist Convention, American (1907)—Pres. Rev. Dr. Culbert G. Rutenber. Gen. Sec., Rev. Edwin H. Tuller, Valley Forge, Pa. 19481.

Baptist Convention Southern (1845)—Pres. Dr. W. A. Criswell. Exec. Sec., Dr. Porter Routh, 460 James Robertson Parkway, Nashville, Tenn. 37219.

Baptists, General (1611)—Moderator, Glen Lashley. Clerk, Vern Whitten, 1629 Stinson Ave., Evansville, Ind. 47712.

Baptist General Conference (1879)—Gen. Sec., Lloyd W. Dahlquist, 5750 No. Ashland Ave., Chicago, Ill. 60626.

Baptist General Conference, North American (1865)—Moderator, Stanley C. Johnson. Exec. Sec., Rev. G. K. Zimmerman, 7308 Madison St., Forest Park, Ill. 60130.

Baptists, Free Will (1727)—Moderator, Dr. Robert Piccirilli. Exec. Sec., Rufus Coffey, P. O. Box 1088, Nashville, Tenn. 37202.

Buddhist Churches of America (1914)—Bishop Takashi Tsuji, 1710 Octavia St., San Francisco, Calif. 94109.

Bulgarian Eastern Orthodox Church (1909)—Most Rev. Metropolitan Andrew, Archbishop, 312 West 101st St., New York, N. Y. 10025.

Calvary Grace Christian Churches of Faith (1961)—Internatl. Gen. Supt., Rev. Dr. Herman Keck, Jr., P. O. Box 1674, Ft. Lauderdale, Fla.

Calvary Grace Church of Faith (1954)—Rev. A. C. Sporn, Internatl. Gen. Supt., P. O. Box 333, Rilliton, Pa. 15678.

Christian Churches (Disciples of Christ) (1809)—Exec. Sec., Dr. A. Dale Fiers, 221 Ohmer Ave., Indianapolis, Ind. 46219.

Christian Endeavor, International Society of (1881)—Pres., Elwood Dunn. Gen. Sec., Rev. Christian A. Tirre, 1221 East Broad St., Columbus, Ohio 43216.

Christian and Missionary Alliance (1887)—President, Dr. Nathan Bailey. Secretary, Rev. W. F. Smalley, 260 West 44th St., New York, N. Y. 10036.

Christian Reformed Church (1857)—Stated Clerk, Dr. R. J. Danhof, 2850 Kalamazoo Ave., S.E., Grand Rapids, Mich. 49508.

Church of the Brethren (1719)—Gen. Sec., General Board, S. Loren Bowman, 1451 Dundee Ave., Elgin, Ill. 60120.

Church of Christ, Scientist, (1879)—Christian Science Mother Church, The First Church of Christ, Scientist, in Boston, Mass. Pres., Gordon V. Comer, First Reader, William B. Waite. Clerk, Charles Henry Gabriel, 107 Falmouth St., Boston, Mass. 02115.

Church of God (Anderson, Ind.) (1880)—Exec. Secy., Charles V. Weber, Box 2420, Anderson, Ind. 46011.

Church of God, The (1903) General Overseer, Bishop Homer A. Tomlinson, 9305 224th St., Queens Village, N. Y. 11428.

Church of Jesus Christ of Latter Day Saints, Mormon (1830)—Pres., David O. McKay. Presi-

dent of the Council of Twelve Apostles, Joseph Fielding Smith, 47 East South Temple St., Salt Lake City, Utah 84111.

Church of Jesus Christ of Latter Day Saints, Reorganized (1830)—Pres. W. Wallace Smith. President of the Council of Twelve Apostles, Clifford A. Cole. The Auditorium, Independence, Mo. 64051.

Church of the Nazarene (1908)—Gen. Sec., B. Edgar Johnson, 6401 The Paseo, Kansas City, Mo. 64131.

Church of Scientology of California (1954)—Pres., Julia L. Saimen. Sec., William Banks, 2005 9th St., Los Angeles, Calif.

Churches of Christ—No central organization. B. C. Goodpasture, editor, the Gospel Advocate, 1113 Eighth Ave. So., Nashville, Tenn. 372 4.

Churches of God in North America, General Eldership (1825)—Pres., Dr. G. Marion Smith. Sec., Dr. Arthur Eakin, R. D. 2, Box 1063A, Ellwood City, Pa. 16117.

Congregational Christian Churches, General Council. See United Church of Christ.

Congregational Christian Churches, Natl. Assn. of (1855)—Moderator, Rev. Malcolm K. Burton. Exec. Sec., A. Vaughan Abercrombie, 176 W. Wisconsin Ave., Milwaukee, Wis. 53203.

Disciples of Christ. See Christian Churches, International Convention of.

Ethical Union, American (Ethical Culture Movement)—Pres., Werner Klugman. Exec. Dir., H. B. Radest, 2 West 64th St., New York, N. Y. 10023. Member of Int. Humanist and Ethical Union.

Evangelical Christian Churches (1966)—Dir., Dr. Richard W. Hart, P. O. Box 742, Fontana, Calif. 92335.

Evangelical Lutheran Synod (Norwegian Synod) (1918)—Pres., Rev. J. B. Madison. Sec., Rev. W. C. Gullikson, Princeton, Minn. 55371.

Evangelical Lutheran Synodical Conference of North America (1872)—Pres., John Daniel, D.D., 1240 E. 4th St., Bethlehem, Pa. 18015.

Evangelical Methodist Church (1946)—Gen. Supt., Dr. Ralph A. Vanderweide. Gen. Sec., Rev. R. D. Driggers, 3036 N. Meridian, Wichita, Kan. 67204.

Evangelical and Reformed Church. See United Church of Christ.

Finnish Evangelical Lutheran Church (Suomi Synod) See The Lutheran Church in America.

Foursquare Gospel, International Church of the (1927)—Pres., Dr. Roli K. McPherson. Sec., Dr. Herman D. Mitzner, 1100 Glendale Blvd., Los Angeles, Calif. 90026.

Free Methodist Church of North America (1860)—Sec., Board of Bishops, Bishop Paul N. Ellis, Winona Lake, Ind. 46590.

Friends, General Conference of the Religious Society of (1800)—Chmn., William Hubben. Gen. Sec., Lawrence McK. Miller, Jr., 1520 Race St., Philadelphia, Pa. 19102.

Friends United Meeting (formerly, Five Years Meeting of Friends) (1902)—Presiding Clerk, Byron Haworth. Gen. Sec., Lorton Heusel, 101 Quaker Hill Dr., Richmond, Ind. 47374.

Greek Orthodox Church of North and South America (1864)—Primate, the Most Rev. Archbishop Iakovos. Chan., V Rev. George J. Bacopulos, 10 East 79th St., New York, N. Y. 10021.

Hebrew Congregations, Union of American—Pres., Rabbi Maurice N. Eisendrath, 838 Fifth Ave., New York, N. Y. 10021.

Independent Fundamental Churches of America (1930)—Pres., Rev. Tunis Mouw. Exec. Sec., Rev. Glen A. Lehman, 145 N. Washington St., Wheaton, Ill. 60187.

Jehovah's Witness (1884)—Pres., Nathan H. Knorr, 124 Columbia Heights, Brooklyn, N. Y. 11201.

Jewish Congregations of America, Union of Orthodox—Pres., Joseph Karasick. Exec. Vice Pres., Dr. Samson R. Weiss, 84 Fifth Ave., New York, N. Y. 10011.

Latter-day Saints. See Church of Jesus Christ, Lutheran Church, The American (1961)—Pres., Dr. F. A. Schlotz. Sec., A. R. Mickelson, 422 So. 5th St., Minneapolis, Minn. 55415.

Lutheran Church in America, The (estab. June 28, 1962 by merging Am. Evangelical Lutheran Ch., Augustana Evangelical Lutheran Ch., Finnish Evangelical Lutheran Ch., and The United Lutheran Ch. in Am.)—Pres., Rev. Robert J. Marshall. Sec., Rev. George F. Harkins, 231 Madison Ave., New York, N. Y. 10016.

Lutheran Church-Missouri Synod (1847)—Pres., Dr. Oliver R. Harms. Sec., Dr. Herbert A. Mueller, 210 N. Broadway, St. Louis, Mo. 60118.

Lutheran World Federation, U. S. A. National

Committee of the (formed Jan. 1, 1967, former National Lutheran Council)—Gen. Sec., Rev. Dr. Paul C. Empie, 315 Park Ave. South, N. Y., N. Y. 10010.

Mennonite Church (1863)—Moderator, John R. Mumaw. Exec. Sec., Howard J. Zehr, Mennonite Bldg., Scottsdale, Pa. 15683.

Methodist Church, The United (1784)—Pres. Bishop Eugene M. Frank; Vice Pres., Bishop Rueben H. Mueller; Sec., Bishop Roy H. Short, 1115 S. Fourth St., Louisville, Ky. 40203.

Moravian Church in America (Unitas Fratrum) (1740)—Northern Province: Hq., 69 West Church St., Bethlehem, Pa. 18018; Pres., Provincial Elders' Conf., Dr. J. S. Greenfeldt. Southern Province: Hq., 500 So. Church St., Winston-Salem, N. C. 27101; Pres., Provincial Elders' Conf., Dr. R. Gordon Spaulgh.

New Jerusalem in the U. S. A. General Convention of the (1792)—Pres., Rev. Ernest O. Martin. Rec. Sec., Mrs. Wilfred G. Rice, 31 Poole St., Brockton, Mass. 02401.

Open Bible Standard Churches (1919)—Gen. Supt., Raymond E. Smith, Sec.-Treas., O. Ralph Isbill, P. O. Box 1737, Des Moines, Ia. 50306.

Pentecostal Church of God of America (1919)—Gen. Supt., Rev. R. D. Heard, 316 Joplin Ave., Joplin, Mo. 64801.

Pentecostal Church, United (1945)—Gen. Supt., Stanley W. Chambers. Gen. Sec., Cleveland M. Eason, 3654 So. Grand Blvd., St. Louis, Mo. 63118.

Presbyterian Church, Cumberland (1810)—Moderator, Loyce S. Estes. Stated Clerk, H. Shaw Scates, Box 4149, Memphis, Tenn. 38104.

Presbyterian Church in the U. S. (1861)—Moderator, Rev. Patrick D. Miller. Stated Clerk, Dr. James A. Millard, Jr. 341 Ponce de Leon Ave., N.E., Atlanta, Ga. 30308.

Presbyterian Church in the U.S.A., United (formed 1958 through merger of the Presbyterian Ch. in the U. S. A. and the United Presbyt. Ch. of No. America)—Moderator, Rev. John C. Smith. Stated Clerk, Ruling Elder William P. Thompson, 510 Witherspoon Bldg., Philadelphia Pa. 19107.

Primitive Baptist Convention of the U. S. A. Natl. (1907)—Pres. of Natl. Convention, Rev. P. D. Brantley, 1795 N.W. 58th St., Miami, Fla.

Protestant Episcopal Church, The (1789)—Presiding Bishop, Pres. of Exec. Council, Rt. Rev. John E. Hines; Sec., Gen. Convention, Exec. Council, Rev. Canon Charles M. Guilbert, 815 Second Ave., New York, N. Y. 10017.

Rabbinical Alliance of America—Pres., Rabbi Bernard Weinberger, 156 5th Ave., New York, N. Y.

Rabbinical Assembly, The—Pres., Ralph Simon. Exec. Vice Pres., Rabbi Wolfe Kelman, 3080 Broadway, New York, N. Y. 10027.

Rabbinical Council of America—Pres., Rabbi Zev Segal. Exec. V. P., Rabbi Israel Klavan, 84 Fifth Ave., New York, N. Y. 10011.

Rabbis, Central Conference of American—Pres., Rabbi Levi A. Olan. Exec. Vice Pres., Rabbi Sidney L. Regner, 790 Madison Ave., New York, N. Y. 10021.

Reformed Church in America (1628)—Pres., Dr. Raymond E. Van Heukelom. Gen. Sec., Rev. Marion de Velder, D.D., 475 Riverside Dr., N. Y., N. Y. 10027.

Reformed Episcopal Church (1873)—President and Presiding Bishop, Rev. Howard D. Higgins. Sec., Rev. D. Ellsworth Raudenbush, 560 Fountain St., Havre de Grace, Md.

Reformed Presbyterian Church, Evangelical Synod (April 6, 1965, union of the Reformed Presbyterian Church, General Synod and the Evangelical Presbyterian Church)—Moderator, Mr. Wesley G. Vannoy, Ph.D. Stated Clerk, Rev. Harry H. Meiners, Jr., 1918 Missouri Avenue, Las Cruces, N. M. 88001.

Regular Baptist Churches, General Assn. of (1932)—Natl. Rep., Dr. Paul R. Jackson, 1800 Oakton Boulevard, Des Plaines, Ill. 60018.

Romanian Orthodox Episcopate of America (1929)—Bishop, His Grace Valerian D. Trifa. Sec. Rev. Eugene Lazar, 1465 Brown St., Akron, O. 44301.

Russian Orthodox Church Outside Russia (1920)—Pres., Council of Bishops, Most Rev. Metropolitan Philaret Voznesensky, 75 East 93rd St., New York, N. Y. 10028.

Russian Orthodox Greek Catholic Church of America (1792)—Ruling Bishop, Metropolitan Archbishop Ireney, Chancellor, Rt. Rev. Joseph Pishtey, 59 East 2nd St., New York 3, N. Y.

Salvation Army, The (1865 in England, 1880 in America)—Natl. Cmdr., Commissioner Samuel Hepburn. Natl. Chief Sec., Lt. Comr. John Grace, National Headquarters, 120-130 West 14th St., New York, N. Y. 10011.

Seamen's Church Institute of N. Y. (1834)—Director, Rev. John M. Mulligan. Sec., Clifford M. Carver, 15 State St., New York, N. Y. 10004.

Serbian Eastern Orthodox Church—Diocese for U. S., Canada, and Europe: Bishops: Most Rev. Dionisije and Iriney. Sec., Very Rev. Aleksandar Ivanovich. St. Sava Monastery, Libertyville, Ill.

Serbian Orthodox Church in U. S. and Canada—Bishops: Rt. Rev. Firmilian, Midwest Diocese, 8347 W. Summerdale Ave., Chicago, Ill. 60656; Rt. Rev. Gregory, Western Diocese, 2511 W. Garvey, Alhambra, Calif. 91803; Rt. Rev. Sava, Eastern U. S. and Canadian Diocese, 5847 Broadview Rd., Cleveland, O. 44134.

Serbian Orthodox Church, Free—Diocese for Australia and New Zealand. Bishop Most Rev. Dimitrije, Austral. N.S.W. 2171, Australia.

Spiritualists, International General Assembly of (1936)—Pres., Fred Jordan, Sec.-Treas., Harold R. Levy, 1809 Bayview Blvd., Norfolk, Va. 23503.

Synagogue Council of America—Pres., Rabbi Jacob P. Rudin. Exec. V. P., Rabbi Henry Siegman, 235 Fifth Ave., New York, N. Y. 10016.

Syrian Antiochian Orthodox Church (1894)—Head of Archdiocese, Metropn. Archbishop Philip (Saliba), 239 85th St., Brooklyn, N. Y. 10009.

Ukrainian Orthodox Church of U. S. A. (1919)—President of Consistory, Archbishop Mstyslaw S. Skrypnyk. Sec., Very Rev. Bohdan Zelechiwsky, Box 595, South Bound Brook, N. J. 08880.

Unitarian Universalist Assn. (formed May 11, 1961 by merger of the American Unitarian Assn. and the Universalist Church of America)—Pres., Rev. Dana McLean Greeley. Moderator, Dr. Joseph L. Fisher. Sec., Mrs. J. Robert Reynolds, 25 Beacon St., Boston, Mass. 02108.

United Church of Christ (formed June 25, 1957, through union of the General Council of the Congregational Christian Churches with the Evangelical and Reformed Church)—President, Rev. Dr. Ben M. Herbst. Sec., Rev. Joseph H. Evans, 297 Park Ave. South, New York, N. Y. 10010.

United Israel World Union—Pres. & Chmn. of the Board, David Horowitz. Sec., Peter-Shimon Olin Moyle, 507 Fifth Ave., New York 17, N. Y.

United Sons & Daughters of True Holiness Assn. (1912)—Gen. Secy., Rev. Edward R. Everette, 2132A Fulton St., Bklyn, N. Y.

United Synagogue of America—Pres., Henry N. Rapaport. Exec. Dir., Dr. Bernard Segal, 3080 Broadway, New York, N. Y. 10027.

Volunteers of America (1896)—Commander-in-Chief, Gen. John F. McMahon. Natl. Field Sec., Col. E. R. Coleman. Hq., 340 West 85th St., New York, N. Y. 10024. (See page 162.)

Wesleyan Methodist Church of America, The (1843)—General Superintendents, Dr. B. H. Phaup, Dr. Harold K. Sheets, Dr. Virgil A. Mitchell. Gen. Conf. Sec., Rev. Garl Beaver, P. O. Box 2000, Marion, Ind.

Wisconsin Evangelical Lutheran Synod (1850)—Pres., Rev. Oscar Naumann. Sec., Paul R. Hanke, 425 West Mulberry, Box 32, St. Peter, Minn. 56082.

World Council of Christian Education—Gen. Sec., Rev. Ralph Mould, 150 Route de Ferney, 1211 Geneva 20, Switzerland.

World Council of Churches, U. S. Conference for the—Chmn., Dr. John Coventry Smith. Exec. Sec., Dr. Eugene L. Smith, 475 Riverside Dr., New York, N. Y. 10027.

The World Council of Churches

The World Council of Churches is a fellowship of 232 Protestant, Anglican, Orthodox and Old Catholic churches from 90 countries and territories throughout the world. It was founded in Amsterdam in 1948 and stresses evangelical projects, the study of Christian doctrine and inter-church co-operation in philanthropic undertakings such as aid and service to refugees. The Council has no judicial powers over its member churches. Denominations belonging to the Council have an estimated 400,000,000 members. The Roman Catholic Church

is not a Council member. Every 5 or 6 years a world Assembly of member churches is held. The Fourth Assembly was held in Uppsala, Sweden, July 4-20, 1968. The Central Committee, policy making body of the WCC between assemblies, will meet in Kent, England, Aug. 12-23, 1969. World headquarters of the Council are in Geneva, Switzerland where the offices of General Secy. Dr. Eugene Blake are located. The Council's New York office is located at 475 Riverside Drive, New York, N. Y. 10027.

Leading Protestant Bodies in the United States

Baptists

The Baptist church was formed in Europe during the Protestant Reformation.

The first Baptist Church in America was founded in 1638 in Providence, R. I., by Roger Williams. National Organization began in 1814, and a Missionary Convention was formed to permit followers to express themselves in terms of missionary activities. Baptist bodies throughout the United States have a membership of 26,386,262.

American Baptist Convention (formerly Northern Baptist Convention) was organized in 1907. Renamed in 1950. Churches, 6,085; membership, 1,555,460. Headquarters at Valley Forge, Pa. 19481, with regional offices at 475 Riverside Dr., New York, N. Y. 10027, and 2855 Telegraph Ave., Berkeley, Calif. 94705. Agencies operating under this convention of Baptists include the American Baptist Foreign Mission Society, American Baptist Board of Education and Publication, and Ministers and Missionaries Benefit Board, all at Valley Forge, Pa. 19431.

National Baptist Convention of America, org. 1880. Churches, 11,398; membership, 2,668,799. The General Organization and 11 others. Pres., Dr. C. D. Pettaaway, 714 West 10th St., Little Rock, Ark.

National Baptist Convention, U. S. A., Inc., founded in 1880, in Montgomery, Alabama, is the oldest and parent convention of Negro Baptists. Churches, 27,369; membership, 6,410,017. Pres. Dr. J. H. Jackson; Gen. Sec., Dr. T. J. Jemison, 915 Spain St., Baton Rouge, La. 70802.

Southern Baptist Convention. In 1845 Southern Baptists withdrew from the General Missionary Convention over the question of slavery and other matters and formed the Southern Baptist Convention, largest of Baptist bodies. Churches in all 50 states are related to the Convention, 2,277 missionaries serve in 66 countries. Churches, 34,147; membership, 11,142,726. Executive Committee, 460 James Robertson Parkway, Nashville, Tenn. 37219. Exec. Sec., Dr. Porter Routh. Boards include Sunday School Board, Nashville, Tenn.; Foreign Mission Board, Richmond, Va.; Home Mission Board, Atlanta, Ga.; Annuity Board, Dallas, Tex.

Church of Christ, Scientist

First organized in 1879, under the direction of Mary Baker Eddy, the Christian Science Church took its present form in 1892 as the Mother Church, the First Church of Christ, Scientist, in Boston, Mass. Today there are 3,272 branches in 58 countries. There are 2,438 Christian Science churches in the United States. Christian Science regards the Bible as its ultimate authority and includes spiritual healing as part of its teachings.

The denomination supports radio and television programs, charitable institutions, and a worldwide Board of Lectureship. It also maintains the Christian Science Publishing Society which publishes the Christian Science Monitor and various religious periodicals. The affairs of the denomination are administered by the Christian Science Board of Directors, 107 Falmouth St., Boston, Mass. 02115. Pres., Mrs. Beatrice Thayer Pittman.

Disciples of Christ

The Christian Churches (Disciples of Christ) is an American communion arising out of a concern for Christian unity expressed by Barton W. Stone in 1804 and by Thomas Campbell and his son Alexander, in 1809. The first churches were Cane Ridge in Ky. and Brush Run near Washington, Pa. The "Christians" of Kentucky and the "Disciples" of Pennsylvania and Virginia united in 1832. The first General Convention was held in 1849. A missionary society was formed. The movement is congregational in government. Churches in the United States and Canada number 8,046; membership is 1,883,263. The communion is served by the International Convention, 16 member bodies, 40 state societies and 34 educational institutions. Exec. Sec., Dr. A. Dale Fiers, 221 Ohmer Ave., Indianapolis, Ind. 46219.

Evangelical Churches

The Evangelical and Reformed Church. See *United Church of Christ*.

The Evangelical United Brethren Church. See *United Methodist Church*.

Lutherans

The church was started in Europe during the Protestant Reformation by the followers of Martin Luther.

Lutheranism was introduced into the United States by Dutch colonists on Manhattan, later by Swedes on the Delaware, by Palatines in Pennsylvania and New York and by Salzburger in Georgia.

The American Lutheran Church was organized during a constituting convention at Minneapolis, Minn., in April 1960, merging the American Lutheran Church, The Evangelical Lutheran Church, and United Evangelical Lutheran Church. The merger brought together Lutherans of Danish, German and Norwegian heritage. A fourth body, The Lutheran Free Church, joined with The American Lutheran Church in February 1963. The American Lutheran Church has 2,576,027 members. Headquarters at 422 So. 5th St., Minneapolis. Dr. F. A. Schlotz is president. Regional offices in Chicago, Dallas, Minneapolis, Palo Alto and Washington, D. C. The 4,906 congregations are divided territorially into 18 districts in the U. S. The foreign mission program involves 670 missionaries (including wives) on 12 fields in South America, Africa and Asia. The church's Board of Publication operates the Augsburg Publishing House, 426 So. 5th St., Minneapolis 55415.

Augustana Evangelical Lutheran Church. See *The Lutheran Church in America*.

The Lutheran Church-Missouri Synod was organized in 1847. It is the leader in the conservative group among the Lutherans with 6,774 churches and a membership of 3,009,169. The Synod is divided into 37 districts (32 in the U. S.; 3 in Canada; 2 in South America). The Synod conducts a worldwide mission program and fosters a system of ministerial and teacher training to staff its congregations and its 1,326 parochial schools. Affiliated are the Lutheran Laymen's League, Lutheran Women's Missionary League, and Walther League (a young people's organization). Valparaiso University, Valparaiso, Ind., is supported and controlled by the Lutheran University Assn. Headq. for the Synod; 210 No. Broadway, St. Louis, Mo.

The Lutheran Church in America was organized June 28, 1962 by the consolidation of the American Evangelical Lutheran Church, the Augustana Evangelical Lutheran Church, the Finnish Evangelical Lutheran Church and The United Lutheran Church in America. With 3,288,037 baptized members, the new body is the largest of the Lutheran churches in the United States. The Lutheran Church in America has 6,242 congregations, organized in 33 constituent synods. The headquarters of the denomination is at 231 Madison Ave., New York, N. Y. 10016, and principal agencies are located at 2900 Queen Lane, Philadelphia, Pa., 327 South LaSalle St., Chicago, Ill., and the Pillsbury Building, Minneapolis, Minn.

Wisconsin Evangelical Lutheran Synod, organized in 1850. It has 908 congregations, 368,000 members. Formerly the second largest body of the Synodical Conference, Wisconsin withdrew from the Conference in August 1963.

Methodists

The name Methodist was originally given to Charles and John Wesley and several other Oxford students, in 1729. It is thought that the term was selected due to the exact and "methodical" manner in which they performed various engagements which a sense of Christian duty induced them to undertake. The Methodist movement was carried to America in 1760 by emigrants from Ireland. Methodist bodies in the United States (20) have a membership of 13,273,417.

The United Methodist Church has 42,165 churches and 11,035,313 members. The present organization of The United Methodist Church was formed Apr. 23, 1968, in Dallas, Tex., by the union of The Methodist Church and The Evangelical United Brethren Church. The two churches shared a common historical and spiritual heritage. The Methodist Church resulted in 1939 from the unification of three branches of Methodism—the Methodist Episcopal Church, the Methodist Episcopal Church, South, and the Methodist Protestant Church. The Methodist movement began in 18th Century England under the preaching of John Wesley, but the

so-called Christmas Conference of 1784 in Baltimore is regarded as the date on which the organized Methodist Church was founded as an ecclesiastical organization. It was there that Francis Asbury was elected the first bishop in this country. The Evangelical United Brethren Church was formed in 1946 with the merger of the Evangelical Church and the Church of the United Brethren in Christ, both of which had their beginnings in Pennsylvania in the evangelistic movement of the 18th and early 19th centuries. Philip William Otterbein and Jacob Albright were early leaders of this movement among German-speaking settlers of the Middle Colonies.

The supreme policy-making body of The United Methodist Church is the quadrennial General Conference. Principal agencies are in the following cities: New York, N. Y., Evanston, Ill., Nashville, Tenn., Washington, D. C., Dayton, O., and Lake Junaluska, N. C.

African Methodist Episcopal Church, incorporated 1816 under Pennsylvania laws, is second largest of the Methodist bodies. Churches, 6,105, membership, 1,405,000. President, Council of Bishops, Bishop H. Thomas Frimm, 1724 Villa Place, Nashville, Tenn.

Presbyterians

Presbyterianism is a system of representative church government by presbyters, or elders. John Calvin (1509-1564) has been regarded as the founder of Presbyterianism. Presbyterians were among the earliest colonists of America. Their first church was established about 1640 and the first presbytery in 1706. Nine Presbyterian bodies in the United States have a membership of 4,410,000.

The **United Presbyterian Church in the U.S.A.**, largest of the Presbyterian bodies, was formed on May 28, 1958 by a merger of the Presbyterian Church in the U.S.A. and the United Presbyterian Church of North America. It has 8,877 churches and 3,268,761 members. Offices of the General Assembly, Board of Christian Education and Board of Pensions, Witherspoon Bldg., Philadelphia, Pa. 19107. Offices of the General Council, Board of Nat'l. Missions, Commission on Ecumenical Mission and Relations and Council on Theological Education, 475 Riverside Dr., New York, N. Y. 10027.

Presbyterian Church in the United States, which established a separate existence in 1861, is sometimes mislabeled the Southern Church. Churches, 3,987, membership, 960,776. Office of the Gen. Assembly, 341 Ponce de Leon Ave., N.E., Atlanta, Ga. 30308. Moderator, Rev. Dr. Patrick D. Miller; Stated Clerk, Rev. Dr. James A. Millard, Jr.

Protestant Episcopal Church

An American religious denomination directly descended from the Church of England. Brought to America by the Jamestown colonists in 1607. Separated from English church and adopted present name in 1789. Constitutional amendment to recognize "The Episcopal Church" as an alternative name was adopted in 1967. Churches, 7,546; membership, 3,588,435. Headquarters of the Exec. Council, 815 Second Ave., N. Y., N. Y. Presiding Bishop, Rt. Rev. John E. Hines; Sec. of Gen. Convention and Exec. Council, Rev. Canon Charles M. Guilbert.

United Church of Christ

Formed in 1957 by a union of the General Council of the Congregational Christian Church and the Evangelical and Reformed Church. It is the first union in the United States of churches with different forms of church government—congregational and modified presbyterian—and different historical backgrounds. Congregationalism was brought to America by both the Pilgrims of the "Mayflower" and the Puritans of the Mass. Bay Colony. Eventually it became the dominant form of church organization in New England. The Evangelical and Reformed Church was started in 1934 with the union of the Evangelical Synod of North America and the Reformed Church in the U. S.

A constitution for the United Church of Christ was declared in force in July, 1961. The denomination has 2,052,857 members in 6,909 local congregations. The United Church Board for World Ministries has 450 missionaries and other personnel at work in 30 countries. In the United States, the United Church of Christ is active in Christian education, church extension, health and welfare, mass communication, race relations, and social action. Headquarters of United Church of Christ, 297 Park Ave. So., New York, N. Y. 10010; Office of Communication, 289 Park Ave. So., New York, N. Y. United Church Board for Homeland Ministries, 287 Park Ave. So. United Church Board for World Ministries, 475 Riverside Dr., New York, N. Y. 10027.

Latter-Day Saints

The churches of the Latter-Day Saints do not consider themselves Protestants because they had no part in the 16th century Protestant Reformation.

The **Church of Jesus Christ of Latter-Day Saints**, often called the "Mormon" church, regards the Bible, the Book of Mormon, the Doctrine and Covenants, and the Pearl of Great Price as the word of God. The church was organized Apr. 6, 1830, at Fayette, Seneca Co., N. Y., by Joseph Smith, first president. After settling in Kirtland, O., and Independence, Mo., the members located in Nauvoo, Ill., in 1839 to escape persecution. Attacks by a mob led to the fatal shooting of Joseph Smith and his brother Hyrum while they were in the Carthage, Ill., jail for protection from the mob, June 27, 1844. Beginning in 1847 many members under the leadership of Brigham Young, moved by covered wagons across the Plains to Utah.

The church is divided into stakes, wards, branches and missions. Highest authority is the First Presidency, consisting of the President and 5 counselors, assisted by 12 apostles. David O. McKay is the 9th and current President. Total membership, 2,614,340. Headq. at 47 East South Temple St., Salt Lake City, Utah.

Following the death of Joseph Smith in 1844, the scattered congregations that did not leave for the Far West formed the **Reorganized Church of Jesus Christ of Latter-Day Saints**, with the founder's son, Joseph Smith, as president. Churches, 1,100 (U. S. and Canada); membership, 196,512 (U. S., Canada and 18 foreign missions). Hq., the Auditorium, Independence, Mo. 64051.

Religious Population of the World

Source: The Encyclopedia Britannica's 1968 Book of the Year. 1967 estimated memberships.

Religion	North America ¹	South America	Europe	Asia	Africa	Oceania ²	Total
Total Christian	208,018,000	148,937,000	502,280,000	60,864,000	44,238,000	13,646,000	977,383,000
Roman Cath.	121,604,000	146,017,000	251,453,000	47,151,000	30,556,000	3,987,000	600,768,000
East Orth.	3,639,000	47,000	134,233,000	2,805,000	5,272,000	84,000	146,080,000
Protestant	82,775,000	2,873,000	116,594,000	10,908,000	8,410,000	8,975,000	230,535,000
Jewish ³	6,035,000	705,000	4,025,000	2,460,000	238,000	74,000	13,537,000
Moslem ⁴	41,000	416,000	13,576,000	359,776,000	100,382,000	118,000	474,309,000
Zoroastrian				150,000			150,000
Shinto	31,000	115,000		70,215,000			70,361,000
Taoist	16,000	19,000	12,000	54,277,000			54,324,000
Confucian	96,000	109,000	55,000	371,261,000	9,000	57,000	371,587,000
Buddhist ⁵	182,000	157,000		171,425,000			171,764,000
Hindu	54,000	623,000	160,000	421,869,000	1,455,000	218,000	424,379,000
Others or none	81,619,000	19,138,000	101,191,000	462,185,000	165,743,000	4,182,000	834,058,000
Grand total	296,092,000	170,219,000	621,301,000	1,974,482,000	312,065,000	17,695,000	3,391,854,000

¹Includes Central America and the West Indies. ²Includes Australia, New Zealand. ³Includes total Jewish population whether or not related to the synagogue. ⁴Moslem figures for China are unknown; estimates vary from 12,000,000 to 50,000,000. ⁵No one knows how many Buddhists there are; estimates vary greatly as many are in China and any accurate count is impossible.

Active Bishops of the Protestant Episcopal Church

Source: Rt. Rev. Scott Field Bailey, Sec., House of Bishops, 520 San Jacinto St., Houston, Tex. 77002
PRESIDING BISHOP: Rt. Rev. John Elbridge Hines, 815 Second Ave., N. Y. C. 10017

(M) Missionary Bishop; (C) Coadjutor; (S) Suffragan

- Alabama:** Charles C. J. Carpenter, George M. Murray (C), Birmingham.
Alaska: William J. Gordon, Jr. (M), Fairbanks.
Albany (N. Y.): Allen W. Brown, Charles B. Persell (S).
Arizona: Joseph M. Harte, Phoenix.
Arkansas: Robert R. Brown, Little Rock, Christoph Keller (S).
Atlanta (Ga.): Randolph R. Claiborne, Milton L. Wood (S).
Bethlehem (Pa.): Frederick J. Warnecke.
California: C. Kilmer Myers, George R. Millard (S), San Francisco.
Costa Rica: David E. Richards (M), San Jose, Costa Rica.
Central New York: Walter M. Higley, Ned Cole, Jr. (C), Syracuse.
Chicago: Gerald F. Burrill, J. W. Montgomery (C).
Colombia, South America: David B. Reed (M), Bogota.
Colorado: Edwin B. Thayer (S), Denver.
Connecticut: Walter H. Gray, John H. Esquirol (C), Joseph Warren Hutchens (S), Hartford.
Dallas (Tex.): C. Avery Mason, Theodore H. McCrea (S), William P. Barns (S).
Delaware: J. Brooke Mosley, Wilmington.
Dominican Republic: Paul A. Kellogg (M), Santo Domingo.
East Carolina: Thomas H. Wright, Hunley A. Elebash (C), Wilmington, N. C.
Eastern Oregon: Lane W. Barton (M), Bend.
Easton (Md.): George A. Taylor.
Eau Claire (Wis.): William W. Horstick.
Erie (Pa.): William Crittenden.
Executive Council: Stephen F. Bayne Jr., First Vice-President of Executive Council; Daniel Corrigan, Director of Home Dept., N. Y. C.; Arnold M. Lewis, Suffragan Bishop to Armed Forces.
Florida: Hamilton West, Jacksonville.
Fond du Lac (Wis.): William H. Brady.
Georgia: Albert R. Stuart, Savannah.
Guatemala: William C. Fry.
Haiti (C. A. Voegeli (M)).
Harrisburg (Pa.): Dean T. Stevenson, Harrisburg; Earl M. Honaman (S), Williamsport.
Honolulu: Harry S. Kennedy (M), Edwin L. Hancher (S).
Idaho: Norman L. Foote (M), Boise.
Indianapolis: John P. Craine.
Iowa: Gordon V. Smith, Des Moines.
Kansas: Edward C. Turner, Topeka.
Kentucky: C. Gresham Marmion Jr., Louisville.
Lexington (Ky.): William R. Moody.
Liberia: Dillard Houston Brown, Jr. (M), Monrovia.
Long Island: Jonathan G. Sherman, Charles W. MacLean (S), R. B. Martin (S), Garden City, N. Y.
Los Angeles: Francis Bloy, Robert C. Rusack (S).
Louisiana: Girault M. Jones, New Orleans; Iveson B. Nolan (C), Baton Rouge.
Maine: Frederick B. Wolf, Portland.
Maryland: Harry L. Doll, Baltimore.
Massachusetts: Anson Phelps Stokes, Jr., Boston, John M. Burgess (S).
Mexico: Jose G. Saucedo (M), Mexico City; Leonardo Romero (S), Monterey; Melchor Saucedo (S), Guadalajara.
Michigan: Richard S. Emirch, Archie H. Crowley (S), Detroit.
Milwaukee: Donald H. V. Hallock.
Minnesota: Hamilton H. Kellogg, Phillip P. McNairy (S), Minneapolis.
Mississippi: John Maury Allin.
Missouri: George L. Cadigan, St. Louis.
Montana: Jackson E. Gilliam, Helena.
Nebraska: Russell T. Rauscher, Omaha.
Nevada: William G. Wright (M), Reno.
New Hampshire: Charles F. Hall, Concord.
New Jersey: Alfred L. Banyard, Albert W. Van Duzer (S), Trenton.
New Mexico and Southwest Texas: Charles J. Kinsolving III, Santa Fe, N. M.
New York: Horace W. B. Donegan, Charles F. Boynton (S), J. Stuart Wetmore (S), N. Y. C.
Newark (N. J.): Leland Stark, George E. Rath (S).
North Carolina: Thomas A. Fraser, Jr., Raleigh.
North Dakota: George T. Masuda (M), Fargo.
Northern California: Clarence R. Haden, Jr., Edward M. McNair (S), Sacramento.
Northern Indiana: Walter C. Klein, South Bend.
Northern Michigan: George R. Selway, Menominee.
Northwest Texas: George H. Quarterman, Amarillo.
Ohio: Nelson M. Burroughs, John H. Burt (C), Cleveland.
Oklahoma: Chilton Powell, Frederick W. Putnam, Jr. (S), Oklahoma City.
Olympia, Wash.: Ivol I. Curtis, Seattle.
Oregon: James W. F. Carman, Portland; Hal R. Gross (S), Portland.
Panama Canal Zone: Reginald H. Gooden (M), Balboa.
Pennsylvania: Robert L. DeWitt, Philadelphia.
Philippines: Benito C. Cabanban (M), Edward G. Longid (S), Mt. Province.
Pittsburgh: Robert Appleyard.
Puerto Rico: Francisco Reus-Froylan, Santurce.
Quincy (Ill.): William Lickfield.
Rhode Island: John S. Higgins, Providence.
Rochester (N. Y.): George W. Barrett.
San Joaquin (Calif.): Victor M. Rivera, Stockton.
South Carolina: Gray Temple, Charleston.
South Dakota: Conrad H. Gesner (M), Lyman C. Ogilby (C), Sioux Falls.
South Florida: Henry I. Louttit, Winter Park; James L. Duncan (S), Miami; William L. Hargrave (S), St. Petersburg.
Southern Ohio: Roger W. Blanchard, Cincinnati.
Southern Virginia: George P. Gunn, Norfolk; David S. Rose (C), Petersburg.
Southwestern Virginia: William H. Marmion, Roanoke.
Spokane (Wash.): John R. Wyatt.
Springfield (Ill.): Albert A. Chambers.
Taiwan: James C. Wong (M), Taipei.
Tennessee: John Vander Horst, Memphis; William E. Sanders (C), Knoxville; William F. Gates Jr., (S), Memphis.
Texas: J. Milton Richardson, Houston; Percy Goddard (S), Tyler; Scott F. Bailey (S).
Upper South Carolina: John Pinckney, Columbia.
Utah: Richard S. Watson (M), Salt Lake City.
Vermont: Harvey D. Butterfield, Burlington.
Virgin Islands: Cedric E. Mills (M), St. Thomas.
Virginia: Robert F. Gibson, Jr., Samuel B. Chilton (S), Robert B. Hall (C), Richmond.
Washington (D. C.): William F. Creighton, Paul Moore, Jr. (S).
West Missouri: Edward R. Welles, Robert R. Spears Jr. (S), Kansas City.
West Texas: Everett H. Jones, Harold C. Gosnell (C), R. Earl Dicus (S), San Antonio.
West Virginia: Wilburn C. Campbell, Charleston.
Western Kansas: William Davidson (M), Salina.
Western Mass.: Robert M. Hatch, Springfield.
Western Michigan: Charles E. Bennison, Kalamazoo.
Western New York: Lauriston L. Scaife, Harold B. Robinson (C), Buffalo.
Western North Carolina: M. George Henry, Asheville, N. C.
Wyoming: James W. Hunter (M), Laramie.

The three Missionary Districts of Central, Southern, and Southwestern Brazil became an independent branch of the Anglican Communion in 1965 fulfilling the action of the General Convention of 1964.

Catholics, Protestants Prepare for a Common Bible

A major step toward publication of a common Christian Bible was taken in 1968 by the Roman Catholic Church and the United Bible Societies, a mostly Protestant organization.

Experts of the two bodies culminated nearly 5 years of work with publication on June 1 of a set of guiding principles for interfaith cooperation in translating the Bible.

The document prepared the way for a Bible which will include new translations of ancient basic texts with analyses, to be published in all the world's languages and dialects.

The project followed a decision of the United Bible Societies to produce Bibles which would meet the canonical requirements of all churches, and a recommendation by the Ecumenical Council Vatican II, for considering cooperation with other Christians in a new Bible translation.

Protestant Episcopal Calendar and Altar Colors

White—From the First Service (First Vespers) of Christmas Day to the Octave of Epiphany, inclusive (except on the Feasts of Martyrs); on Maundy Thursday (for the celebration); from the First Service of Easter Day to the Vigil of Pentecost (except on Feasts of Martyrs and Rogation Days); on Trinity Sunday, Conversion of St. Paul, Purification, Annunciation, St. John Baptist, St. Michael, All Saints, Saints not Martyrs, and Patron Saints (Transfiguration and Dedication of Church).

Red—From First Vespers of Pentecost to the First Vespers of Trinity Sunday (which includes Ember Days); Holy Innocents, and Feasts of all Martyrs, Apostles and Evangelists.

Violet—From Septuagesima to Maundy Thursday; Easter Even; Advent Sunday to Christmas Eve, Vigils, Ember Days (except in Whitsun Week); and Rogation Days.

An alternate Lenten color scheme: **Violet**—from Septuagesima to the Tuesday before Ash Wednesday; **Lenten White**—from Ash Wednesday to the Saturday after Fourth Lent; and **Crimson**—from Passion Sunday (Fifth Lent) to Easter Even (all inclusive).

Black—Good Friday and at funerals. **Green**—All other days.

Days, Etc.	1969	1970	1971	1972	1973	1974	1975
Golden Number.....	13	14	15	16	17	18	O
Sunday Letter.....	E	D	C	B	A	F	E
Sundays after Epiphany.....	3	2	4	3	6	5	2
Septuagesima.....	Feb. 2	Jan. 25	Feb. 6	Jan. 30	Feb. 18	Feb. 10	Jan. 26
Ash Wednesday.....	Feb. 19	Feb. 11	Feb. 24	Feb. 20	Mar. 7	Feb. 27	Feb. 12
First Sunday in Lent.....	Feb. 23	Feb. 15	Feb. 28	Feb. 26	Mar. 11	Mar. 3	Feb. 16
Palm Sunday.....	Mar. 23	Mar. 15	Mar. 28	Mar. 19	Apr. 8	Mar. 31	Mar. 16
Palm Sunday.....	Mar. 30	Mar. 22	Apr. 4	Mar. 26	Apr. 15	Apr. 7	Mar. 23
Good Friday.....	Apr. 4	Mar. 27	Apr. 9	Mar. 31	Apr. 20	Apr. 12	Mar. 28
Easter Day.....	Apr. 6	Mar. 29	Apr. 11	Apr. 2	Apr. 22	Apr. 14	Mar. 30
Rogation Sunday.....	May 11	May 3	May 16	May 7	May 27	May 19	May 4
Ascension Day.....	May 15	May 7	May 20	May 11	May 31	May 23	May 8
Whitsunday.....	May 25	May 17	May 30	May 21	June 10	June 2	May 18
Trinity Sunday.....	June 1	May 24	June 6	May 28	June 17	June 9	May 25
Sundays after Trinity.....	25	26	24	26	23	24	26
First Sunday in Advent.....	Nov. 30	Nov. 29	Nov. 28	Dec. 3	Dec. 2	Dec. 1	Nov. 30

In the Protestant Episcopal Church the days of fasting are Ash Wednesday and Good Friday. Other days of abstinence are the 40 days of Lent, the Ember Days, and all Fridays of the year except Christmas Day and the Epiphany and any Friday which may fall between them. Ember Days (12 annually at about the beginning of the four seasons) are days of abstinence and prayer for ordnands and the increase of the ministry. They fall on the Wednesday, Friday, and Saturday after the first Sunday in Lent, the Feast of Pentecost (Whitsunday), September 14, and December 13. Rogation Days are the three days from Rogation Sunday (the fifth after Easter) to Ascension Day, and are days of solemn supplication for God's blessing upon the fields and harvests of the world.

Bishops of the United Methodist Church

Source: United Methodist Information, 777 United Nations Plaza, New York, N. Y. 10017
President: Bishop Eugene M. Frank, St. Louis, Mo. (to April 1969). President-designate: Bishop Reuben H. Mueller, Indianapolis, Ind. Secretary: Bishop Roy H. Short, 1115 So. Fourth St., Louisville, Ky. 40203

Allen, L. Scott, Knoxville, Tenn.	Nagbe, Stephen Trowen, Monrovia, Liberia
Alton, Ralph T., Madison, Wis.	Nail, T. Otto, Hong Kong
Andressen, Harry P., Luanda, Angola	Nichols, Roy C., Pittsburgh, Pa.
Armstrong, A. James, Aberdeen, S. C.	Palmer, Everett W., Portland, Ore.
Barbieri, Sante Uberto, Buenos Aires	Pendergrass, Edward J., Jackson, Miss.
Cannon, William R., Raleigh, N. C.	Pope, W. Kenneth, Dallas, Tex.
Carleton, Alsie H., Albuquerque, N. M.	Pryor, Thomas M., Chicago, Ill.
Chen, W. Y.	Schafer, Franz, Zurich, Switzerland
Copeland, Kenneth W., Houston, Tex.	Shaw, Alfred J., Bombay, India
Ensley, F. Gerald, Columbus, Ohio	Short, Roy H., Louisville, Ky.
Finger, Jr., H. Ellis, Nashville, Tenn.	Shungu, John Wesley, Luluabourg, Congo
Frank, Eugene M., St. Louis, Mo.	Singh, Mangal, Delhi, India
Galloway, Paul V., Little Rock, Ark.	Slater, O. Eugene, San Antonio, Tex.
Golden, Charles F., San Francisco, Cal.	Smith, John Owen, Atlanta, Ga.
Goodson, W. Kenneth, Birmingham, Ala.	Sommer, Carl E., Frankfurt, Germany
Hagen, Odd, Stockholm, Sweden	Sparks, W. Maynard, Seattle, Wash.
Hardin, Jr., Paul, Columbia, S. C.	Stowe, W. McFerrin, Topeka, Kans.
Henley, James W., Lakeland, Fla.	Stuart, R. Marvin, Denver, Colo.
Herrick, Paul M., Richmond, Va.	Sundaram, Gabriel, Hyderabad, India
Howard, J. Gordon, Philadelphia, Pa.	Taylor, Jr., Prince A., Princeton, N. J.
Hunt, Jr., Earl G., Charlotte, N. C.	Thomas, James S., Des Moines, Iowa
Kaebnick, Hermann W., Harrisburg, Pa.	Valencia, Jose L., Baguio City, Philippines
Kearns, Francis E., Canton, Ohio	Walton, Aubrey G., New Orleans, La.
Kennedy, Gerald, Los Angeles, Cal.	Ward, W. Ralph, Syracuse, N. Y.
Loder, Dwight E., Detroit, Mich.	Washburn, Paul, Minneapolis, Minn.
Lord, John Wesley, Washington, D. C.	Webb, Lance, Springfield, Ill.
Mathews, James K., Boston, Mass.	Wertz, D. Frederick, Charleston, W. Va.
Milhouse, Paul W., Oklahoma City, Okla.	Wicke, Lloyd C., Rye, N. Y.
Moore, Jr., Noah W., Lincoln, Neb.	Zottele, Pedro, Santiago, Chile
Mueller, Reuben H., Indianapolis, Ind.	Zunguze, Escrivao A., Loureco Marques, Mozambique
Muzorewa, Abel, Salisbury, Rhodesia	

Islamic (Moslem) Calendar 1969-1970

The Islamic calendar, often referred to as Mohammedan, is a lunar reckoning from the year of the hejira, 622 A.D., when Mohammed fled from Mecca. It runs in cycles of 30 years, of which the second, 5th, 7th, 10th, 13th, 16th, 18th, 21st, 24th, 26th and 29th are leap years. Common years have 354 days, leap years 355, the extra day being added to the last month, Zu'hijjah. Except for this case, the 12 months beginning with Muharram have alternately 30 and 29 days. The month begins at sunset on the day before that given in the tables. *Leap year, 30 days.

Year	Name of the Month	Month Begins	Year	Name of the Month	Month Begins
1388	Zu'lkadab...	Jan. 20, 1969	1389	Rajab	Sept. 13, 1969
1388	Zu'hijjah...	Feb. 19, 1969	1389	Shaban	Oct. 13, 1969
1389	Muharram (New Year)...	Mar. 20, 1969	1389	Ramadan	Nov. 11, 1969
1389	Safar	Apr. 19, 1969	1389	Shawal	Dec. 11, 1969
1389	Rabia I	May 18, 1969	1389	Zu'lkadab	Jan. 9, 1970
1389	Rabia II	June 17, 1969	1389	Zu'hijjah	Feb. 8, 1970
1389	Jumada I	July 16, 1969	1390	Muharram (New Year)...	Mar. 9, 1970
1389	Jumada II	Aug. 15, 1969			

Chronological List of Popes

Source: *Annuario Pontificio*. Table lists year of consecration of each Pope.

The Roman Catholic Church names the Apostle Peter as founder of the Church in Rome. He arrived there c. 42, was martyred there c. 67, and raised to sainthood.

The Pope's temporal title is: Sovereign of the State of Vatican City.

The Pope's spiritual title is: Bishop of Rome, Vicar of Jesus Christ, Successor of St. Peter, Prince of the Apostles, Supreme Pontiff of the Universal Church, Patriarch of the West, Primate of Italy, Archbishop and Metropolitan of the Roman Province and Sovereign of the State of Vatican City.

Anti-Popes are in *Italics*. Anti-Popes were illegitimate claimants of or pretenders to the papal throne.

Year	Name of Pope	Year	Name of Pope	Year	Name of Pope	Year	Name of Pope
See above	St. Peter	615	St. Deusdedit	974	Benedict VII	1305	Clement V
67	St. Linus		or Adeodatus I	983	John XIV	1316	John XXII
76	St. Anacletus or Cletus	619	Boniface V	985	John XV	1328	Nicholas V
88	St. Clement I	625	Honorius I	996	Gregory V	1334	Benedict XII
97	St. Evaristus	640	Severinus	997	John XVI	1342	Clement VI
105	St. Alexander I	642	Theodore I	999	Sylvester II	1352	Innocent VI
115	St. Sixtus I	649	St. Martin I	1003	John XVII	1362	Urban V
125	St. Telesphorus	654	St. Eugene IV	1004	John XVIII	1370	Gregory XI
136	St. Hyginus	657	St. Vitalian	1009	Sergius IV	1378	Urban VI
140	St. Pius I	672	Adeodatus II	1012	Benedict VIII	1378	Clement VII
155	St. Anticetus	676	Donus I	1012	Gregory	1389	Boniface IX
166	St. Soterus	678	St. Agatho	1024	John XIX	1394	Benedict XIII
175	St. Eleutherius	682	St. Leo II	1032	Benedict IX	1404	Innocent VII
189	St. Victor I	684	St. Benedict II	1032	Sylvester III	1406	Gregory XII
199	St. Zephyrinus	685	John V	1045	Benedict IX	1409	Alexander V
217	St. Callistus I	686	Conon	1045	Gregory VI	1410	John XXIII
217	St. Hippolytus	687	Theodore	1046	Clement II	1417	Martin V
222	St. Urban I	687	Paschal	1047	Benedict IX	1431	Eugene IV
230	St. Pontian	687	Paschal	1048	Damasus II	1440	Felix V
235	St. Anterus	687	St. Sergius I	1049	St. Leo IX	1447	Nicholas V
236	St. Fabian	701	John VI	1055	Victor II	1455	Callistus III
251	St. Cornelius	705	John VII	1057	Stephen IX	1458	Pius II
251	<i>Novatian</i>	708	Sissinius	1058	Benedict X	1464	Paul II
253	St. Lucius I	708	Constantine	1059	Nicholas II	1471	Sixtus IV
254	St. Stephen I	715	St. Gregory II	1061	Alexander II	1484	Innocent VIII
257	St. Sixtus II	731	St. Gregory III	1061	Honorius II	1492	Alexander VI
259	St. Dionysius	741	St. Zachary	1073	St. Gregory VII	1503	Pius III
269	St. Felix I	752	Stephen II	1080	Clement III	1503	Julius II
275	St. Eutychian	757	St. Paul I	1086	Victor III	1513	Leo X
283	St. Calixtus	767	Constantine	1088	Urban II	1522	Adrian VI
296	St. Marcellinus	768	Philip	1099	Paschal II	1523	Clement VII
308	St. Marcellus I	768	Stephen III	1100	Theodore	1534	Paul III
309	St. Eusebius	772	Adrian I	1102	Albert	1550	Julius III
311	St. Melchisedes	772	St. Leo III	1102	Sylvester IV	1550	Marcellus II
314	St. Sylvester I	816	Stephen IV	1118	Calixtus II	1555	Paul IV
336	St. Mark	817	St. Paschal I	1118	Gregory VIII	1559	Pius IV
337	St. Julius I	824	Eugene II	1119	Callistus II	1566	St. Pius V
352	Libertus	827	Valentine	1124	Honorius II	1572	Gregory XIII
355	Felix II	827	Gregory IV	1124	Celestine II	1585	Sixtus V
366	St. Damasus I	843	John	1130	Innocent II	1590	Urban VII
366	<i>Ursinus</i>	844	Sergius II	1130	Anacletus II	1590	Gregory XIV
384	St. Siricius	847	St. Leo IV	1138	Victor IV	1591	Innocent IX
399	St. Anastasius I	855	Benedict III	1143	Celestine II	1592	Clement VIII
401	St. Innocent I	855	Anastasius	1144	Lucius II	1605	Leo XI
417	St. Zozimus	858	St. Nicholas I	1145	Eugene III	1605	Paul V
418	St. Boniface I	867	Adrian II	1153	Anastasius IV	1621	Gregory XV
418	<i>Eualtus</i>	872	John VIII	1154	Adrian IV	1623	Urban VIII
422	St. Celestine I	882	Marinus I	1159	Alexander III	1644	Innocent X
432	St. Sixtus III	884	St. Adrian III	1159	Victor IV	1655	Alexander VII
440	St. Leo I	885	Stephen V	1164	Paschal III	1667	Clement IX
461	St. Hilary	885	Formosus	1168	Callistus III	1670	Clement X
468	St. Simplicius	896	Boniface VI	1179	Innocent III	1676	Innocent XI
483	St. Felix III or II	896	Stephen VI	1181	Lucius III	1689	Alexander VIII
492	St. Gelasius I	897	Romanus	1185	Urban III	1691	Innocent XII
492	Anastasius II	897	Theodore II	1187	Gregory VIII	1700	Clement XI
498	St. Symmachus	898	John IX	1187	Clemente III	1721	Innocent XIII
498	<i>Lawrence</i>	900	Benedict IV	1191	Celestine III	1724	Benedict XIII
514	(501-506)	903	Leo V	1198	Innocent III	1730	Clement XII
523	St. Hormisdas	903	Christopher	1216	Honorius III	1740	Benedict XIV
526	St. John I	904	Sergius III	1227	Gregory IX	1758	Clement XIII
530	Boniface II	911	Anastasius III	1241	Celestine IV	1769	Clement XIV
530	<i>Diocorus</i>	913	Landus	1243	Innocent IV	1775	Pius VI
533	John II	914	John X	1254	Alexander IV	1800	Pius VII
533	St. Agapitus	928	Stephen VII	1261	Urban IV	1823	Leo XII
536	St. Silvester I	928	Stephen VII	1265	Clement IV	1829	Pius VIII
537	Vigilius	931	John XI	1271	Gregory X	1831	Gregory XVI
556	Pelagius I	936	Leo XII	1276	Innocent V	1831	Gregory XVI
561	John III	939	Stephen VIII	1276	Adrian V	1846	Pius IX
575	Benedict I	942	Marinus II	1276	John XXI	1878	Leo XIII
579	Pelagius II	946	Agapitus II	1277	Nicholas III	1903	St. Pius X
590	St. Gregory I	955	John XII	1281	Martin IV	1914	Benedict XV
604	Sabinianus	963	Leo XIII	1285	Honorius IV	1922	Pius XI
607	Boniface III	964	Benedict V	1286	Nicholas IV	1939	Pius XII
608	St. Boniface IV	965	John XIII	1294	St. Celestine V	1958	John XXIII
		973	Benedict VI	1294	Boniface VIII	1963	Paul VI
		974	Boniface VII	1303	Benedict XI		

Roman Catholic Days of Obligation, Fast and Abstinence, 1969

Days of Obligation in the United States are Octave of the Birth of Our Lord, January 1; Ascension Day, May 15; Assumption of the Blessed Virgin Mary, August 15; All Saints' Day, November 1; Immaculate Conception of the Blessed Virgin Mary, December 8; Christmas Day, December 25. Also all Sundays.

Days of Fast: Ash Wednesday, Feb. 19, and Good Friday, April 4. The law binds Catholics from the completion of their 21st year to the beginning of their 60th; i.e., from the ages of 21 to 59.

Days of Abstinence: Ash Wednesday, Good Friday and other Fridays in Lent. The law binds Catholics 14 years of age and older.

Roman Catholic Hierarchy

Source: Apostolic Delegation, Washington, D. C.

SUPREME PONTIFF

At the head of the Roman Catholic Church is the Supreme Pontiff, Paul VI, Giovanni Battista Montini, born at Concesio, Italy, Sept. 26, 1897, ordained priest May 29, 1920, enthroned archbishop of Milan Jan. 6, 1955, proclaimed cardinal Dec. 15, 1958; elected Pope as successor of John XXIII, June 21, 1963; crowned June 30, 1963.

CARDINAL BISHOPS

	Nation	Born	Chosen
Eugene Tisserant.....	Bishop of Ostia and Porto and Santa Rufina; Dean of the Sacred College.....	French....	1884 1936
Giuseppe Pizzardo.....	Bishop of Albano.....	Italian....	1877 1937
Benedetto Aloisi Masella.....	Bishop of Palestrina.....	Italian....	1870 1946
Amleto G. Cicognani.....	Titular Bishop of Frascati, Sec. of State of His Holiness.....	Italian....	1883 1958
Giuseppe Ferretto.....	Titular Bishop of Sabina and Poggio Mirteto; Major Penitentiary.....	Italian....	1889 1961
Fernando Cento.....	Titular Bishop of Velletri.....	Italian....	1883 1958
Paul Pierre Meouchi.....	Maronite Patriarch of Antioch.....	Lebanese....	1894 1965
Stephanos I Sidarouss.....	Coptic Patriarch of Alexandria.....	Unit. Arab Republic	1904 1965

CARDINAL PRIESTS

Emmanuel G. Cereleira.....	Patriarch of Lisbon.....	Portuguese	1888	1929
Gregory Peter XV Agagianian.....	Prefect of the Sacred Congregation for the Evangelization of the Nations.....	Armenian..	1894	1946
James C. McGuigan.....	Archbishop of Toronto.....	Canadian..	1894	1946
Carlos Carmelo de Vasconcellos Motta.....	Archbishop of Aparecida.....	Brazilian..	1890	1946
Norman Gilroy.....	Archbishop of Sydney.....	Australian..	1896	1946
Giacomo de Barros Camara.....	Archbishop of Rio de Janeiro.....	Brazilian..	1894	1946
Josef Frings.....	Archbishop of Cologne.....	German.....	1887	1946
Joseph Mindszenty.....	Archbishop of Esztergom.....	Hungarian..	1892	1946
Antonio Caggiano.....	Archbishop of Buenos Aires.....	Argentinian	1889	1946
Maurice Feltin.....	.....	French.....	1883	1953
Carlos Maria de la Torre.....	Archbishop of Quito.....	Ecuadorian..	1873	1953
Giuseppe Siri.....	Archbishop of Genoa.....	Italian.....	1906	1953
James Francis McIntyre.....	Archbishop of Los Angeles.....	American....	1886	1953
Giacomo Lercaro.....	.....	Italian.....	1891	1953
Stefan Wyszyński.....	Archbishop of Gniezno and Warsaw.....	Polish.....	1901	1953
Benjamin de Arriba y Castro.....	Archbishop of Tarragona.....	Spanish.....	1886	1953
Fernando Quiroga y Palacios.....	Archbishop of Santiago de Compostela.....	Spanish.....	1900	1953
Paul-Ernie Leger.....	.....	Canadian....	1904	1953
Valentin Gracías.....	Archbishop of Bombay.....	Indian.....	1900	1953
Alfredo Ottaviani.....	.....	Italian.....	1890	1953
Giovanni Urbani.....	Patriarch of Venice.....	Italian.....	1900	1958
Paolo Giobbe.....	.....	Italian.....	1880	1958
Jose Garibi y Rivera.....	Archbishop of Guadalajara.....	Mexican.....	1889	1958
Antonio Barbieri.....	Archbishop of Montevideo.....	Uruguayan..	1892	1958
Carlo Confalonieri.....	Prefect of Sacred Cong. for Bishops.....	Italian.....	1893	1958
Richard Cushing.....	Archbishop of Boston.....	American....	1895	1958
Jose Bueno y Monreal.....	Archbishop of Seville.....	Spanish.....	1904	1958
Franz Konig.....	Archbishop of Vienna.....	Austrian....	1905	1958
Julius Döpfner.....	Archbishop of Munich.....	German.....	1913	1958
Alberto Di Jorio.....	.....	Italian.....	1884	1958
Francesco Roberti.....	.....	Italian.....	1889	1958
Gustavo Testa.....	.....	Italian.....	1886	1959
Paolo Marella.....	Præses of Secretariat for non-Christians.....	Italian.....	1895	1959
Luigi Traglia.....	Chancellor of the Holy Roman Church.....	Italian.....	1895	1960
Peter Dol.....	Archbishop of Tokyo.....	Japanese....	1892	1960
Joseph Lefebvre.....	Archbishop of Bourges.....	French.....	1892	1960
Bernard Alfrink.....	Archbishop of Utrecht.....	Dutch.....	1900	1960
Rufino Santos.....	Archbishop of Manila.....	Philippine..	1908	1960
Laurian Rugambwa.....	Bishop of Bukoba.....	African.....	1912	1960
Jose Quintanero.....	Archbishop of Caracas.....	Venezuelan..	1902	1961
Luis Concha.....	.....	Columbian..	1891	1961
Jose da Costa Nunes.....	.....	Portuguese..	1880	1962
Indebrand Antonutti.....	Prefect of the Sacred Cong. for Religious and Secular Institutes.....	Italian.....	1898	1962
Efrem Forni.....	.....	Italian.....	1889	1962
Juan Landazuri Ricketts.....	Archbishop of Lima.....	Peruvian....	1913	1962
Raul Silva Henriquez.....	Archbishop of Santiago.....	Chilean.....	1907	1962
Leo Joseph Suenens.....	Archbishop of Malines—Brussels.....	Belgian.....	1901	1962
Josyf Slipyi.....	Ukrainian Archbishop of Lwow.....	Ukrainian..	1892	1965
Lorenz Jaeger.....	Archbishop of Paderborn.....	German.....	1892	1965
Thomas B. Cooray.....	Archbishop of Colombo.....	Ceylonese....	1901	1965
Josef Beran.....	Archbishop of Prague.....	Czechoslo- vakian.....	1888	1965
Maurice Roy.....	Archbishop of Quebec.....	Canadian....	1905	1965
Joseph Marie Martin.....	.....	French.....	1891	1965
Owen McCann.....	Archbishop of Cape Town.....	So. African..	1907	1965
Leon-Etienne Duval.....	Archbishop of Algiers.....	Algerian.....	1903	1965
Ermenegildo Florit.....	Archbishop of Florence.....	Italian.....	1901	1965
Franjo Seper.....	Prefect of Sacred Congregation for the Doc- trine of the Faith.....	Yugoslav....	1905	1965
John C. Heenan.....	Archbishop of Westminster.....	English.....	1905	1965
Jean Villot.....	Prefect of the Sacred Cong. for the Clergy.....	French.....	1905	1965
Paul Zougrana.....	Archbishop of Ouagadougou.....	Up.Volta....	1917	1965
Lawrence J. Shehan.....	Archbishop of Baltimore.....	American....	1898	1965
Cesare Zerba.....	.....	Italian.....	1892	1965
Agnello Rossi.....	Archbishop of Sao Paulo.....	Brazilian..	1913	1965
Giovanni Colombo.....	Archbishop of Milan.....	Italian.....	1902	1965
William Conway.....	Archbishop of Armagh.....	Irish.....	1913	1965
Nicholas Fasolino.....	Archbishop of Santa Fe in Argentina.....	Argentinian..	1887	1967
Giuseppe Beltrami.....	.....	Italian.....	1889	1967
Gabriel Garrone.....	Prefect of Sacred Congregation for Catholic Education.....	French.....	1901	1967
Patrick O'Boyle.....	Archbishop of Washington.....	American....	1896	1967
Maximilian De Fursenberg.....	Prefect of the Sacred Congregation for the Oriental churches.....	Belgian.....	1904	1967
Antonio Samore.....	President of Pontifical commission for Latin America.....	Italian.....	1905	1967

CARDINAL PRIESTS			Nation	Born	Chosen
Francesco Carpino	Archbishop of Palermo		Italian	1905	1967
Joseph Maurer	Archbishop of Sucre		Bolivian	1900	1967
Pietro Parente			Italian	1891	1967
Carlo Grano			Italian	1887	1967
Angelo Dell'Acqua	Vicar General of Rome		Italian	1903	1967
Dino Staffa	Prefect of the Sup. Tribunal of the Apostolic Signatura		Italian	1906	1967
John Krol	Archbishop of Philadelphia		American	1910	1967
John Cody	Archbishop of Chicago		American	1907	1967
Corrado Ursi	Archbishop of Naples		Italian	1908	1967
Alfred Bengsch	Archbishop-Bishop of Berlin		German	1921	1967
Justin Darmajuwana	Archbishop of Semarang		Indonesian	1914	1967
Karl Wojtyla	Archbishop of Krakow		Polish	1920	1967
Michele Pellegrino	Archbishop of Turin		Italian	1903	1967
Alexandre Renard	Archbishop of Lyon		French	1906	1967

CARDINAL DEACONS

Arcadio Larraona		Spanish	1887	1959
Francesco Morano		Italian	1872	1959
William Heard	Præses of Sec. for Prom. Christian Unity	Scottish	1884	1959
Augustine Bea		German	1881	1959
Antonio Bacci		Italian	1885	1960
Michael Browne		Irish	1887	1962
Federico Caffori di Vignale		Italian	1890	1965
Charles Journet	President of the Prefecture of the Holy See's Economic Affairs	Swiss	1891	1965
Egidio Vagnozzi		Italian	1896	1967
Pericle Felici	Pres. of Pontifical Commission for the Revision of the Code of Canon Law	Italian	1911	1967
Francis Brennan	Prefect of the Sacred Cong. of the Sacraments	American	1894	1967
Benno Gut	Prefect of the Sacred Congregation of Rites	Swiss	1897	1967

Roman Catholic Hierarchy of the United States

Source: Apostolic Delegation, Washington, D. C.

ARCHDIOCESES

See	Archbishops	Cons.	See	Archbishops	Cons.
Anchorage	Joseph T. Ryan	1966	Newark, N. J.	Thomas A. Boland	1947
Atlanta, Ga.	Thomas A. Donnellan	1964		Martin W. Stanton (Aux.)	1957
Baltimore, Md.	Lawrence Shehan (Card.)	1945		John J. Dougherty (Aux.)	1962
	Thomas A. Murphy (Aux.)	1962		Joseph A. Costello (Aux.)	1962
Boston, Mass.	Richard J. Cushing, (Card.)	1939	New Orleans, La.	Philip M. Hannan	1956
	Eric F. Mackenzie (Aux.)	1950		Louis A. Caillouet (Aux.)	1947
	Jeremiah F. McNihan (Aux.)	1954		Harold R. Perry (Aux.)	1965
	Thomas J. Riley (Aux.)	1960	New York, N. Y.	Terence J. Cooke	1965
Chicago, Ill.	John Cody (Card.)	1947		John J. Maguire (Coad.)	1959
	Bernard J. Shell (Aux.)	1928		Stephen J. Donahue (Aux.), 1934; Joseph F. Flannelly (Aux.), 1948; Edward W. Dargin (Aux.), 1953; J. M. Perricone (Aux.), 1954; John M. A. Feans (Aux.), 1957; Edward E. Swanson (Aux.), 1960; James E. McManus (Aux.), 1947; Edwin Broderick (Aux.)	1967
	Raymond Hillinger (Aux.)	1953			
	Thomas J. Grady (Aux.)	1967			
	William McManus (Aux.)	1967			
	John L. May (Aux.)	1967			
	Michael R. Dempsey (Aux.)	1968			
	Alfred Abramowicz (Aux.)	1968			
Cincinnati, Ohio	Karl J. Alter	1931	Omaha, Nebr.	Gerald T. Bergan	1934
	E. A. McCarthy (Aux.)	1965		Daniel E. Sheehan (Aux.)	1964
Denver, Colo.	James V. Casey	1957	Philadelphia, Pa.	John J. Krol (Card.)	1953
Detroit, Mich.	John F. Dearden	1948		Gerald V. McDevitt (Aux.)	1962
	Joseph M. Brienbeck	1965		John J. Graham (Aux.)	1964
	Walter J. Schoenherr (Aux.)	1968	Portland, Ore.	Robert J. Dwyer	1952
	Thomas J. Gumbleton (Aux.)	1968	St. Louis, Mo.	John J. Carberry	1956
Dubuque, Iowa	James J. Byrne	1947		George Gottwald (Aux.)	1961
	Lorus J. Waters (Aux.)	1965	St. Paul, Minn.	Leo Binz	1942
Hartford, Conn.	Henry J. O'Brien	1940		Leo C. Byrne (Coad.)	1954
	John F. Hackett (Aux.)	1952		Leonard Cowley (Aux.)	1958
	Joseph Donnelly (Aux.)	1965		James P. Shannon (Aux.)	1965
Kansas City, Kan.	Edward J. Hunkeler	1945	San Antonio, Tex.	Robert E. Lucey	1934
Indianapolis, Ind.	Paul C. Schulte	1937		Stephen A. Leven (Aux.)	1956
	George J. Biskup (Coad.)	1957	San Francisco, Cal.	Joseph T. McGucken	1941
Los Angeles, Calif.	J. Francis McIntyre, Card.	1941		Merlin Gullioyle (Aux.)	1950
	John J. Ward (Aux.)	1963		William McDonald (Aux.)	1964
Louisville, Ky.	Thomas J. McDonough	1947		Mark J. Hurley (Aux.)	1967
	Charles G. Maloney (Aux.)	1955	Santa Fe, N. Mex.	James Peter Davis	1943
Miami, Fla.	Coleman F. Carroll	1953	Seattle, Wash.	Thomas A. Connolly	1939
Milwaukee, Wis.	William E. Cousins	1952		Thomas E. Gill (Aux.)	1956
	Roman Atkielski (Aux.)	1940	Washington, D. C.	Patrick A. O'Boyle (Card.), 1948	
				John S. Spence (Aux.)	1964
				Edward J. Herrmann (Aux.)	1966

Bishops

DIOCESES

Bishops

Agana, Guam	Apollinaris Baumgartner	1915	Burlington, Vt.	Robert F. Joyce	1954
Albany, N. Y.	William A. Scully	1945	Camden, N. J.	George H. Guilfoyle	1964
	Edward J. Maguire (Ap. Adm.)	1957		James L. Schad (Aux.)	1966
Alexandria, La.	Charles P. Greco	1946	Charleston, S. C.	Ernest L. Neunkoefter	1962
Allentown, Pa.	Joseph M. McShea	1952	Cheyenne, Wyo.	Hubert M. Newell	1961
Altoona-Johnstown, Pa.	James J. Hogan	1959	Cleveland, Ohio	Clarence Isenmann	1954
Amario, Tex.	Lawrence DeFalco	1963	Columbus, Ohio	Clarence E. Elwell	1962
Archie, P. R.	Alfred Mendez	1960		Edw. G. Hettinger (Aux.)	1942
Austin, Texas	Louis J. Reichner	1948	Corpus Christi, Tex.	Thomas J. Drury	1962
Baker, Oreg.	Francis P. Leitzig	1950	Covington, Ky.	Richard Henry Ackerman	1956
Baton Rouge, La.	Robert E. Tracy	1959	Crookston, Minn.	Laurence Glenn	1956
Beaumont	Vincent Harris	1966	Dallas-Ft. Worth	Thomas K. Gorman	1931
Belleville, Ill.	A. R. Zuraweste	1948		A. Dangelmayr	1942
Belmont Abbey, N. C.	Walter Coggin	1960		John J. Cassata (Aux.)	1968
Bismarck, N. Dak.	Hilary Hacker	1957		Gerald F. O'Keefe	1966
Boise, Idaho	Sylvester W. Treinen	1962	Davenport, Iowa	Maurice Dingman	1968
Bridgeport, Conn.	Walter W. Curtis	1959	Dodge City, Kan.	Marion F. Forst	1960
Brooklyn, N. Y.	Francis J. Mugavero	1940	Duluth, Minn.	Francis J. Schenk	1945
	John J. Boardman (Aux.)	1952	El Paso, Tex.	S. M. Metzger	1940
	Joseph P. Denning (Aux.)	1959	Erie, Pa.	John F. Whealon	1961
	Chas. R. Mulrooney (Aux.)	1959		Alfred M. Watson	1965
Brownsville, Tex.	Humberto Medeiros	1966	Evansville, Ind.	Paul F. Leibold	1958
Buffalo, N. Y.	James A. McNulty	1947	Fairbanks	Francis D. Gleeson	1948
	Plus A. Benincasa (Aux.)	1964		Robert G. Wier (Coad.)	1968
				James Louis Connolly	1945
				James J. Gerrard (Aux.)	1959

Fargo, N. Dak.	Leo F. Dworschak.	1946	Raleigh, N. C.	Vincent S. Waters.	1945
Fort Wayne-South Bend, Ind.	Leo A. Pursley.	1950	Rapid City, S. Dak.	William T. McCarty.	1943
Fresno, Calif.	Timothy Manning.	1946	Reno, Nev.	Joseph Green.	1962
Gallup, N. Mex.	Bernard Espelage.	1940	Richmond, Va.	John J. Russell.	1950
Galveston-Houston.	Wendelin J. Nold.	1948		J. Louis Flaherty (Aux.).	1966
Gary, Ind.	J. L. Morkovsky (Ap Adm.).	1956	Rochester, N. Y.	Fulton J. Sheen.	1951
Grand Isl., Nebr.	Andrew Gregory Grutka.	1957		Dennis W. Hickey (Aux.).	1968
Grand Rapids, Mich.	John L. Paschang.	1955		John E. McCafferty (Aux.).	1968
Great Falls, Mont.	Allan J. Babcock.	1947	Rockford, Ill.	Loras T. Lane.	1951
	Aloysius J. Wycislo.	1960	Rockville Centre.	Walter Kellenberg.	1953
	Eldon B. Schuster (Aux.).	1961		Vincent J. Baldwin (Aux.).	1962
Green Bay, Wis.	Stanislaus V. Bona.	1932	Sacramento, Calif.	Alden J. Bell.	1956
	John B. Grellinger (Aux.).	1949	Saginaw, Mich.	Stephen S. Woznicki.	1938
Greensburg, Pa.	William Connare.	1960		James A. Hickey.	1967
Harrisburg, Pa.	George L. Leech.	1935	Salina, Kansas.	Cyril J. Vogel.	1965
	Joseph T. Daley (Coad.).	1964	St. Augustine, Fla.	Paul F. Tanner.	1965
Helena, Mont.	Raymond G. Hunthausen.	1962	St. Cloud, Minn.	George Spitz.	1963
Honolulu, Hawaii	John J. Scanlan.	1954	St. Petersburg, Fla.	Charles B. McLaughlin.	1964
Jefferson City, Mo.	Joseph Marling.	1947	Salt Lake C., Utah.	Joseph Lennox Federal.	1961
Joliet, Ill.	Romeo Blanchette.	1965	San Angelo.	Thomas Tschoepe.	1956
	Raymond J. Vonesh (Aux.).	1968	San Diego, Calif.	Francis J. Quinn (Aux.).	1960
Kaneau, Alaska.	Robert D. O'Flanagan.	1951	San Juan, P. R.	Luis Aponte Martinez.	1967
Kan.-C-St. Joseph.	Charles Helmsing.	1949	Santa Rosa, Calif.	Leo T. Maher.	1962
	Jos. Sullivan (Aux.).	1967	Savannah, Ga.	Gerard Frey.	1967
La Crosse, Wis.	Frederick Freking.	1957	Scranton, Pa.	J. Carroll McCormick.	1947
Lafayette, Ind.	Raymond J. Gallagher.	1965		Henry Klonowski (Aux.).	1943
Lafayette, La.	M. Schexnayder.	1951	Sioux City, Iowa.	Joseph M. Mueller.	1947
	Warren L. Boudreaux (Aux.).	1962		Frank Greteman (Aux.).	1965
Lansing, Mich.	Alex. M. Zaleski.	1950	Sioux Falls, S. Dak.	Lambert A. Hoch.	1952
Lincoln, Nebr.	Glennon P. Flavin.	1957	Spokane, Wash.	Bernard J. Topel.	1955
Little Rock, Ark.	A. L. Fletcher.	1940	Springfield, Ill.	William A. O'Connor.	1949
Madison, Wis.	Cletius F. O'Donnell.	1960	Springfield, Mass.	Christopher J. Weldon.	1950
	Jerome J. Hastrich (Aux.).	1963	Springfield-Cape Girardeau, Mo.	Ignatius J. Strecker.	1962
Manchester, N. H.	Ernest J. Primeau.	1959	Stockton, Calif.	Hugh A. Donohoe.	1947
Marquette, Mich.	Charles A. Salata.	1962	Steubenville, Ohio.	John K. Mussio.	1945
Miami, Fla.	Coleman F. Carroll.	1953	Superior, Wis.	George A. Hammes.	1960
Mobile-Birmingham.			Syracuse, N. Y.	Walter A. Foery.	1937
Alabama.	Thomas Toolen (Abp.).	1927		D. F. Cunningham (Coad.).	1950
	Joseph G. Vath (Aux.).	1966	Toledo, Ohio.	John A. Donovan.	1954
Monterey, Calif.	Harry A. Clnch.	1956	Trenton, N. J.	George W. Ahr.	1950
Nashville, Tenn.	William L. Adrian.	1936		John C. Reiss (Aux.).	1967
	Joseph M. Durick (Ap. Adm.).	1955	Tucson, Ariz.	Francis S. Green.	1953
Natchez-Jackson Miss.	J. B. Brunini.	1956	Wheeling, W. Va.	Joseph H. Hodges.	1952
New Urm, Minn.	Alphonse Schludeweller.	1958	Wichita, Kans.	David Malone.	1961
Norwich, Conn.	Vincent J. Hines.	1959	Wilmingon, Del.	Thomas J. Mardaga.	1966
Oakland, Calif.	Floyd L. Begin.	1947	Winona, Minn.	Edward J. Fitzgerald.	1946
Oranburg, N. Y.	Stanislaus J. Brzana.	1964	Worcester, Mass.	Bernard J. Flanagan.	1953
Oklahoma City and Tulsa, Okla.	Victor Reed.	1958		Timothy Harrington (Aux.).	1968
Orlando, Fla.	William Borders.	1968	Yakima, Wash.	Joseph P. Dougherty.	1953
Owensboro, Ky.	Henry Soenneker.	1961	Youngstown, Ohio.	James W. Malone.	1960
Paterson, N. J.	Lawrence Casey.	1953	Military Vicar.	Terence J. Cooke.	1965
Peoria, Ill.	John B. Franz.	1951		Philip J. Furlong (Aux.).	1955
Pittsburgh, Pa.	John J. Wright.	1947		William Moran (Aux.).	1965
	Vincent M. Leonard (Aux.).	1964	Byzantine Rite:		
	John B. McDowell (Aux.).	1966	Philadelphia.	A. Senshyshyn.	1942
Ponce, P. R.	Juan Frenito Torres Oliver.	1964	Pittsburgh.	Stephen Koelsko.	1959
Portland, Maine.	Daniel J. Feeney.	1946	Passaic.	Vacant.	
	Peter L. Gerety (Coad.).	1966	St. Nicholas.	Jaroslav Gabbo.	1961
Providence, R. I.	Russell R. McVinnay.	1948	Stamford.	Joseph Schmendluk.	1966
	Bernard M. Kelly (Aux.).	1964	Maronite Rite:	Francis Zayek.	1962
Pueblo, Colo.	Charles A. Buswell.	1969	Meichite Rite:	Vacant.	

The Ten Commandments

The Ten Commandments are an integral part of the Judaean-Christian ethical system and represent the divine law, engraved on two stone tablets and given to Moses by God atop Mt. Sinai. Two varying versions of the Ten Commandments, or Decalogue, appear in the Bible. One is in Exodus 20, the other in Deuteronomy 5. The numbering of the Commandments differs in various religions. The following text is that of Exodus 20 as it appears in the Holy Bible, Revised Standard Version:

1—I am the Lord your God, who brought you out of the land of Egypt, out of the house of bondage. You shall have no other gods before me.

2—You shall not make for yourself a graven image, or any likeness of anything that is in heaven above, or that is in the earth beneath, or that is in the water under the earth; you shall not bow down to them or serve them; for I the Lord your God am a jealous God, visiting the iniquity of the fathers upon the children to the third and the fourth generation of those who hate me, but showing steadfast love to thousands of those who love me and keep my commandments.

3—You shall not take the name of the Lord your God in vain; for the Lord will not hold him guiltless who takes his name in vain.

4—Remember the sabbath day, to keep it holy. Six days you shall labor, and do all your work; but the seventh day is a

sabbath to the Lord your God; in it you shall not do any work, you, or your son, or your daughter, your manservant, or your maidservant, or your cattle, or the sojourner who is within your gates; for in six days the Lord made heaven and earth, the sea, and all that is in them, and rested the seventh day; therefore the Lord blessed the sabbath day and hallowed it.

5—Honor your father and your mother, that your days may be long in the land which the Lord your God gives you.

6—You shall not kill.

7—You shall not commit adultery.

8—You shall not steal.

9—You shall not bear false witness against your neighbor.

10—You shall not covet your neighbor's house; you shall not covet your neighbor's wife, or his manservant, or his maidservant, or his ox, or his ass, or anything that is your neighbor's.

Roman Catholic Statistics for the United States

Source: Official Catholic Directory copyright 1968 by P. J. Kenedy & Sons

All data in the tables, including population, are for the archdioceses and the dioceses named (1968)

ARCH-DIOCESES	Cler-gy	Par-ishes	Stu-dents	Catholic Pop.*		Cler-gy	Par-ishes	Stu-dents	Catholic Pop.*
Anchorage....	24	11	3,090	34,937	Jefferson City..	201	93	18,632	62,900
Atlanta.....	146	33	16,418	48,982	Joliet.....	434	105	75,507	290,226
Baltimore....	746	145	107,100	475,745	Juneau.....	10	6	1,198	3,500
Boston.....	2,549	401	462,153	1,871,408	Kansas City—				
Chicago.....	2,616	461	573,844	2,342,000	St. Joseph....	364	96	39,976	136,634
Cincinnati...	938	260	157,930	523,608	La Crosse....	404	175	57,690	181,875
Denver.....	367	111	79,561	274,260	Lafayette Ind..	182	61	20,016	75,600
Detroit.....	1,455	331	372,624	1,548,594	Lafayette, La..	302	147	86,268	398,086
Dubuque....	559	201	71,113	222,598	Lansing.....	233	96	68,527	249,504
Hartford....	768	207	179,396	812,011	Lincoln.....	175	139	15,569	58,382
Indianapolis	483	165	55,676	210,515	Little Rock...	203	86	13,664	53,234
Kan. City, Kan.	334	104	40,964	136,750	Madison.....	277	139	51,914	184,253
Los Angeles..	1,438	313	416,858	1,662,242	Manchester...	421	122	65,224	261,644
Louisville...	454	121	63,795	196,135	Marquette....	175	95	28,675	104,290
Milwaukee...	1,204	264	208,236	699,728	Miami.....	326	99	70,211	453,470
Newark.....	1,333	253	287,730	1,637,634	Mobile-B'ham	414	150	37,874	134,685
New Orleans..	541	154	141,874	629,403	Monterey....	124	38	28,298	125,000
New York....	2,235	407	357,780	1,870,000	Nashville....	167	76	30,243	93,029
Omaha.....	405	143	60,496	186,981	Natchez.....				
Philadelphia..	1,745	322	345,673	1,353,024	Jackson.....	217	98	24,221	77,635
Portland, Ore.	402	114	52,096	200,509	New Urm.....	131	91	23,354	70,245
St. Louis....	1,098	249	144,827	511,669	Norwich.....	265	70	50,124	189,634
St. Paul.....	660	215	159,936	523,938	Oakland.....	338	82	74,972	358,730
San Antonio..	448	144	97,889	512,894	Ogdensburg...	256	118	47,493	165,987
San Francisco	815	145	156,167	849,190	Okl. City....				
Santa Fe.....	356	90	58,236	257,675	Tulsa.....	281	123	29,600	112,127
Seattle.....	473	118	80,460	311,426	Owensboro...	83	73	13,752	46,070
Washington..	1,223	123	119,067	384,400	Paterson....	453	99	77,376	320,831
Ukr. of Phila.	142	101	19,822	223,923	Peoria.....	416	107	62,026	217,013
					Pittsburgh...	850	318	217,788	826,879
					Portland, Me..	378	138	73,629	275,118
					Providence...	613	155	117,275	577,460
					Pueblo.....	170	61	29,424	107,173
					Raleigh.....	169	110	22,682	59,400
					Rapid City...	108	60	13,996	40,580
					Reno.....	85	38	14,970	82,000
					Richmond....	380	121	73,715	257,199
					Rochester...	559	157	89,997	361,790
					Rockford....	384	97	53,251	195,146
					Rockville C'tr.	242	124	263,959	878,010
					Sacramento...	267	88	30,927	221,085
					Saginaw.....	202	116	50,393	173,632
					St. Augustine..	275	131	61,973	209,241
					St. Cloud.....	359	146	44,243	140,089
					Salina.....	147	100	18,820	60,287
					Salt Lake City	101	35	15,398	52,695
					San Angelo...	73	37	15,925	60,067
					San Diego....	474	163	110,087	345,558
					San Antonio..	104	36	13,994	61,659
					Savannah...	96	38	13,250	35,050
					Savannah....	620	236	91,772	352,270
					Sioux City....	232	140	35,701	108,016
					Sioux Falls...	216	123	34,423	103,000
					Spokane.....	211	57	21,342	68,663
					Springfield, Ill.	369	143	48,014	182,340
					Springfield..				
					Mass.....	480	135	98,181	385,241
					Springfield-Cape				
					Glardeau....	123	58	11,056	36,608
					Steubenville..	194	73	15,932	55,000
					Stockton....	80	35	18,071	90,000
					Superior.....	154	89	24,055	82,536
					Syracuse.....	530	165	119,120	397,325
					Toledo.....	412	162	87,775	304,289
					Trenton.....	482	188	163,162	655,016
					Tucson.....	323	83	157,382	413,100
					Wheeling....	216	102	25,276	257,199
					Wichita.....	211	98	23,559	87,215
					Wilmington...	198	52	31,330	124,107
					Winona.....	261	131	34,062	115,019
					Worcester...	514	199	91,290	332,309
					Yakima.....	78	38	12,431	47,042
					Youngstown..	355	117	74,565	312,708
					Eastern Rite:				
					Byzan Pitts..	151	119	19,822	223,923
					Uk. G.K., Chi.	46	25	1,754	29,785
					Passaic.....	108	77	10,426	96,415
					Stamford....	102	57	5,218	87,625
					Maronite....	59	45	421	151,252
					Melkite.....	41	23	3	55,000
					Military Ord-				
					inate**.....				2,000,000
					Total 1968..	59,803	18,064	11,093,024	47,468,333
					Total 1967..	59,193	17,765	11,006,687	46,864,910

*Archdiocese of New York includes the boroughs of Manhattan, Bronx and Richmond, and 7 counties of eastern New York. Cities and dioceses of the same name do not have the same areas and in some cases the population of the diocese is greater than that of the city because of its greater area.

**Military Ordinariate under jurisdiction of His Excellency Archbishop Cooke (N. Y.) as Military Vicar.

The first 29 dioceses are archdioceses; there are 125 other dioceses.

Cardinals 6 (Baltimore, Boston, Chicago, Los Angeles, Philadelphia, and Washington). Archbishops 26, Bishops 235, Abbots 53, Priests 59,803, Brothers 12,261, Sisters 176,341, and 18,064 parishes with 17,500 pastors. There are 437 religious order seminaries with 39,838 seminarians; 305 colleges with 433,960 students; 1,407 high schools with 694,996 students; 868 private high schools with 394,276 students; 10,375 elementary schools with 4,089,826 students; 382 private elementary schools with 75,678 students; 103 protective institutes with 8,110 students; full time teachers 206,959; 239 orphanages and infant asylums with 46,425 dependent children; 788 general hospitals, 142 special hospitals, 19,180,735 patients treated annually; 420 homes for the aged. Converts (1967) 110,717.

Ash Wednesday and Easter Sunday

Year	Ash Wed.	Easter Sunday	Year	Ash Wed.	Easter Sunday	Year	Ash Wed.	Easter Sunday	Year	Ash Wed.	Easter Sunday
1907...	Feb. 20	April 7	1951...	Feb. 7	Mar. 25	2001...	Feb. 28	Apr. 15	2051...	Feb. 15	Apr. 2
1902...	Feb. 12	Mar. 30	1952...	Feb. 27	Apr. 13	2002...	Feb. 13	Mar. 31	2052...	Mar. 6	Apr. 21
1903...	Feb. 25	Apr. 10	1953...	Feb. 18	Apr. 5	2003...	Mar. 5	Apr. 20	2053...	Feb. 19	Apr. 6
1904...	Feb. 17	Apr. 3	1954...	Mar. 3	Apr. 18	2004...	Feb. 25	Apr. 11	2054...	Feb. 11	Mar. 29
1905...	Mar. 8	Apr. 23	1955...	Feb. 23	Apr. 10	2005...	Feb. 9	Mar. 27	2055...	Mar. 3	Apr. 18
1906...	Feb. 28	Apr. 15	1956...	Feb. 15	Apr. 1	2006...	Mar. 1	Apr. 16	2056...	Feb. 16	Apr. 2
1907...	Feb. 13	Mar. 31	1957...	Mar. 6	Apr. 21	2007...	Feb. 21	Apr. 8	2057...	Mar. 7	Apr. 22
1908...	Mar. 4	Apr. 19	1958...	Feb. 19	Apr. 6	2008...	Feb. 6	Mar. 23	2058...	Feb. 27	Apr. 14
1909...	Feb. 24	Apr. 11	1959...	Feb. 11	Mar. 29	2009...	Feb. 25	Apr. 12	2059...	Feb. 12	Mar. 30
1910...	Feb. 9	Mar. 27	1960...	Mar. 2	Apr. 17	2010...	Feb. 17	Apr. 4	2060...	Mar. 3	Apr. 18
1911...	Mar. 1	Apr. 16	1961...	Feb. 15	Apr. 2	2011...	Feb. 2	Apr. 24	2061...	Feb. 23	Apr. 10
1912...	Feb. 21	Apr. 7	1962...	Mar. 7	Apr. 22	2012...	Feb. 23	Apr. 8	2062...	Feb. 8	Mar. 26
1913...	Feb. 5	Mar. 23	1963...	Feb. 27	Apr. 14	2013...	Feb. 13	Mar. 31	2063...	Feb. 28	Mar. 15
1914...	Feb. 23	Apr. 12	1964...	Feb. 12	Mar. 29	2014...	Mar. 5	Apr. 20	2064...	Feb. 20	Apr. 6
1915...	Feb. 17	Apr. 4	1965...	Mar. 3	Apr. 18	2015...	Feb. 18	Apr. 5	2065...	Feb. 11	Mar. 29
1916...	Mar. 8	Apr. 23	1966...	Feb. 23	Apr. 10	2016...	Feb. 10	Mar. 27	2066...	Feb. 24	Apr. 11
1917...	Feb. 21	Apr. 8	1967...	Feb. 8	Mar. 26	2017...	Mar. 1	Apr. 16	2067...	Feb. 16	Apr. 3
1918...	Feb. 13	Mar. 31	1968...	Feb. 28	Apr. 14	2018...	Feb. 14	Apr. 1	2068...	Mar. 7	Apr. 22
1919...	Mar. 5	Apr. 20	1969...	Feb. 19	Apr. 6	2019...	Mar. 6	Apr. 21	2069...	Feb. 27	Apr. 14
1920...	Feb. 18	Apr. 4	1970...	Feb. 11	Mar. 29	2020...	Feb. 26	Apr. 12	2070...	Feb. 12	Mar. 30
1921...	Feb. 9	Mar. 27	1971...	Feb. 24	Apr. 11	2021...	Feb. 17	Apr. 4	2071...	Mar. 4	Apr. 19
1922...	Mar. 1	Apr. 16	1972...	Feb. 16	Apr. 2	2022...	Mar. 2	Apr. 17	2072...	Feb. 24	Apr. 10
1923...	Feb. 14	Apr. 7	1973...	Mar. 7	Apr. 22	2023...	Feb. 22	Apr. 9	2073...	Feb. 8	Mar. 26
1924...	Mar. 5	Apr. 20	1974...	Feb. 20	Apr. 7	2024...	Feb. 14	Mar. 31	2074...	Feb. 28	Apr. 15
1925...	Feb. 25	Apr. 12	1975...	Feb. 12	Mar. 30	2025...	Mar. 5	Apr. 20	2075...	Feb. 20	Apr. 7
1926...	Feb. 17	Apr. 4	1976...	Mar. 3	Apr. 18	2026...	Feb. 18	Apr. 5	2076...	Mar. 4	Apr. 19
1927...	Mar. 8	Apr. 23	1977...	Feb. 23	Apr. 10	2027...	Feb. 10	Mar. 28	2077...	Feb. 24	Apr. 11
1928...	Feb. 22	Apr. 8	1978...	Feb. 8	Mar. 26	2028...	Mar. 1	Apr. 16	2078...	Feb. 16	Apr. 3
1929...	Feb. 13	Mar. 31	1979...	Feb. 28	Apr. 15	2029...	Feb. 14	Apr. 1	2079...	Mar. 8	Apr. 23
1930...	Mar. 5	Apr. 20	1980...	Feb. 20	Apr. 6	2030...	Mar. 6	Apr. 21	2080...	Feb. 21	Apr. 7
1931...	Feb. 18	Apr. 5	1981...	Mar. 4	Apr. 19	2031...	Feb. 26	Apr. 13	2081...	Feb. 12	Mar. 30
1932...	Feb. 10	Mar. 27	1982...	Feb. 24	Apr. 11	2032...	Feb. 11	Mar. 28	2082...	Mar. 4	Apr. 19
1933...	Mar. 1	Apr. 16	1983...	Feb. 16	Apr. 3	2033...	Mar. 2	Apr. 17	2083...	Feb. 17	Apr. 4
1934...	Feb. 14	Apr. 7	1984...	Mar. 7	Apr. 22	2034...	Feb. 22	Apr. 9	2084...	Feb. 9	Mar. 26
1935...	Mar. 5	Apr. 21	1985...	Feb. 20	Apr. 7	2035...	Feb. 7	Mar. 25	2085...	Feb. 28	Apr. 15
1936...	Feb. 26	Apr. 12	1986...	Feb. 12	Mar. 30	2036...	Feb. 27	Apr. 13	2086...	Feb. 13	Mar. 31
1937...	Feb. 10	Mar. 28	1987...	Mar. 4	Apr. 19	2037...	Feb. 18	Apr. 5	2087...	Mar. 5	Apr. 20
1938...	Mar. 2	Apr. 17	1988...	Feb. 17	Apr. 3	2038...	Mar. 10	Apr. 25	2088...	Feb. 25	Apr. 11
1939...	Feb. 22	Apr. 9	1989...	Feb. 8	Mar. 26	2039...	Feb. 23	Apr. 10	2089...	Feb. 16	Apr. 3
1940...	Feb. 7	Mar. 24	1990...	Feb. 28	Apr. 15	2040...	Feb. 15	Apr. 1	2090...	Mar. 1	Apr. 16
1941...	Feb. 26	Apr. 13	1991...	Feb. 13	Mar. 31	2041...	Mar. 6	Apr. 21	2091...	Feb. 21	Apr. 7
1942...	Feb. 18	Apr. 5	1992...	Mar. 4	Apr. 19	2042...	Feb. 19	Apr. 6	2092...	Feb. 13	Mar. 30
1943...	Mar. 10	Apr. 25	1993...	Feb. 24	Apr. 11	2043...	Feb. 11	Mar. 29	2093...	Feb. 25	Apr. 12
1944...	Feb. 23	Apr. 9	1994...	Feb. 16	Apr. 3	2044...	Mar. 2	Apr. 17	2094...	Feb. 17	Apr. 4
1945...	Feb. 14	Apr. 7	1995...	Mar. 7	Apr. 16	2045...	Feb. 22	Apr. 9	2095...	Mar. 9	Apr. 24
1946...	Mar. 5	Apr. 21	1996...	Feb. 22	Apr. 7	2046...	Feb. 7	Mar. 25	2096...	Feb. 28	Apr. 15
1947...	Feb. 25	Apr. 12	1997...	Feb. 12	Mar. 30	2047...	Feb. 27	Apr. 14	2097...	Feb. 13	Mar. 31
1948...	Feb. 11	Mar. 28	1998...	Feb. 25	Apr. 12	2048...	Feb. 19	Apr. 6	2098...	Mar. 5	Apr. 20
1949...	Mar. 2	Apr. 17	1999...	Feb. 17	Apr. 4	2049...	Mar. 3	Apr. 18	2099...	Feb. 25	Apr. 12
1950...	Feb. 22	Apr. 9	2000...	Mar. 8	Apr. 23	2050...	Feb. 23	Apr. 10	2100...	Feb. 10	Mar. 28

A lengthy dispute over the date for the celebration of Easter was settled by the first Council of the Christian Churches at Nicea, in Asia Minor, in 325 A.D. The council ruled that Easter would be observed on the first Sunday following the 14th day of the Paschal Moon, referred to as the Paschal Full Moon. The Paschal Moon is the first moon whose 14th day comes on or after March 21. Dates of the Paschal Full Moon, which are not necessarily the same as those of the real or astronomical full moon, are listed in the table below with an explanation of how to compute the date of Easter.

If the Paschal Full Moon falls on a Sunday, then Easter is the following Sunday. The earliest date on which Easter can fall is March 22; it fell on that date in 1761 and 1818 but will not do so in any year in the 20th Century. The latest possible date for Easter is April 25; it fell on that date in 1943 and will do so next in 2038.

Lent begins on Ash Wednesday, which comes 40 days previous to Easter Sunday, not counting

Sundays. Originally it was a period of but 40 hours. Later it comprised 30 days of fasting, omitting all the Sundays and also all the Saturdays except one. Pope Gregory added Ash Wednesday to the fast, together with the remainder of that week.

The last seven days of Lent constitute Holy Week, beginning with Palm Sunday. Passion Week precedes Holy Week. The last Thursday—Maundy Thursday—commemorates the institution of the Eucharist.

The following day, Good Friday, commemorates the day of the crucifixion. Mohammedans celebrate Friday as the day of Adam's creation.

Easter is the chief festival of the Christian year, commemorating the resurrection of Christ. It occurs about the same time as the ancient heathen Roman celebration of the Vernal Equinox, the arrival of Spring. In the second century, A.D., Easter Day was among Christians in Asia Minor, the 14th of Nisan, the seventh month of the Jewish calendar. The Christians in Europe observed the nearest Sunday.

Date of Paschal Full Moon, 1900-2199

The Golden Number, used in table, is greater by unity (one) than the remainder obtained upon dividing the given year by 19; for example: 13 is the Golden Number for the year 1969, from the table the date of Paschal Full Moon is Apr. 2 and this being Wednesday, Easter Sunday is on Apr. 6.

Golden Number	Date	Golden Number	Date	Golden Number	Date	Golden Number	Date
1	April 14	6	April 18	11	Mar. 25	16	Mar. 30
2	April 3	7	April 8	12	April 13	17	April 17
3	Mar. 23	8	Mar. 28	13	April 2	18	April 7
4	April 11	9	April 16	14	Mar. 22	19	Mar. 27
5	Mar. 31	10	April 5	15	April 10		

National Council of Churches

The National Council of the Churches of Christ in the U. S. A. is a cooperative federation of 33 Protestant and Orthodox churches which seeks to advance programs and policies of mutual interest to its members. The NCC was formed in 1950 by the merger of 12 inter-denominational agencies. The Council's member churches now have an aggregate congregation totaling approximately 42,000,000. The NCC is not a governing body and has no control over the policies or operations of any

church belonging to it. The Southern Baptist Convention and the Lutheran Church-Missouri Synod have chosen not to join the NCC. The work of the Council is divided into 4 Divisions—Christian Life and Mission, Christian Education, Overseas Ministries and Christian Unity. The chief administrative officer of the NCC is Dr. R. H. Edwin Espy. The president is Dr. Arthur S. Flemming. The main office is located at 475 Riverside Drive, New York, N. Y. 10027.

Greek Orthodox Church Calendar, 1969

Date	Holy Days	Date	Holy Days
Jan. 1	The Circumcision of Christ—The Feastday of St. Basil New Year's Day	June 29	Feastday of Saints Peter and Paul
Jan. 6	The Epiphany, The Baptism of Jesus Christ The Sanctification of the Waters	June 30	Feastday of the Twelve Holy Apostles
Jan. 7	Feastday of St. John the Baptist	Aug. 6	The Transfiguration
Jan. 30	Feastday of Three Hierarchs: St. Basil, St. Gregory and St. John Chrysostom	Aug. 15	The Dormition of the Virgin Mary
Feb. 24	Beginning of Easter lenten period	Aug. 29	Beheading of St. John the Baptist
Mar. 25	The Annunciation of the Virgin Mary	Sept. 1	Beginning of the Church Year
Apr. 6	Easter Sunday	Sept. 8	Nativity of the Virgin Mary
Apr. 7-13	Holy Easter Week	Sept. 14	The Elevation of the Holy Cross
Apr. 11	Holy Friday—The Burial of Christ	Oct. 23	The Feast of St. James (Iakovos)
Apr. 13	Easter Sunday—The Resurrection of Christ	Nov. 15	The beginning of the Christmas Lent
May 22	The Ascension	Nov. 21	Presentation of Blessed Virgin Mary
June 1	Pentecost Sunday	Nov. 30	The Feast of St. Andrew, Founder Ecumenical Patriarchate of Constantinople.
		Dec. 25	Christmas Day: The Birth of Jesus Christ.

The dates above are according to the Gregorian calendar, adopted by the Greek Church in 1923. First Greek Orthodox church in U. S. founded 1864, in New Orleans, La.

Jewish Holidays, Festivals and Fasts

Source: Synagogue Council of America.

All Jewish holidays, etc., begin at sunset on the day previous. *Also observed the following day.

Festivals and Fasts	Hebrew Date	1968-1969 (5729)	1969-1970 (5730)	1970-1971 (5731)	1971-1972 (5732)	1972-1973 (5733)
New Year* (Rosh Hashanah).....	Tishri 1	Sept. 23 M	Sept. 13 S	Oct. 1 Th	Sept. 20 M	Sept. 9 S
Fast of Gedalia.....	Tishri 3	Sept. 25 W	Sept. 15 M	Oct. 4 Su	Sept. 22 W	Sept. 11 M
Fast of Gedalia.....	Tishri 4					
Day of Atonement (Yom Kippur).....	Tishri 10	Oct. 2 W	Sept. 22 M	Oct. 10 S	Sept. 29 W	Sept. 18 M
Tabernacles, 1st Day*.....	Tishri 15	Oct. 7 M	Sept. 27 S	Oct. 15 Th	Oct. 4 M	Sept. 23 S
Tabernacles, 8th Day.....	Tishri 22	Oct. 14 M	Oct. 4 S	Oct. 22 Th	Oct. 11 M	Sept. 30 S
Rejoicing of the Law.....	Tishri 23	Oct. 15 Tu	Oct. 5 Su	Oct. 23 F	Oct. 12 T	Oct. 1 Su
Hanukah.....	Kislev 25	Dec. 16 M	Dec. 5 F	Dec. 23 W	Dec. 13 M	Dec. 1 F
Fast of Tebet.....	Tebet 10	Dec. 31 Tu	Dec. 19 F	Jan. 7 Th	Dec. 28 T	Dec. 15 F
Purim.....	Adar 14	Mar. 4 Tu			Feb. 29 T	
Purim.....	Adar II 14		Mar. 22 Su	Mar. 11 Th		Mar. 18 Su
Passover, 1st Day*.....	Nisan 15	Apr. 3 Th	Apr. 21 T	Apr. 10 S	Mar. 30 Th	Apr. 17 T
Passover, 7th Day.....	Nisan 21	Apr. 9 W	Apr. 27 M	Apr. 16 F	Apr. 5 W	Apr. 23 M
Passover, Last Day.....	Nisan 22	Apr. 10 Th	Apr. 28 T	Apr. 17 S	Apr. 6 Th	Apr. 24 T
Shebueth (Feast of Weeks).....	Sivan 6	May 23 F	June 10 W	May 30 Su	May 19 F	June 6 W
Fast of Tammuz.....	Tammuz 17	July 3 Th	July 21 T		June 29 Th	July 17 T
Fast of Tammuz.....	Tammuz 18			July 11 Su		
Fast of Av.....	Av 9	July 24 Th	Aug. 11 T	Aug. 1 Su	July 20 Th	Aug. 7 T
Fast of Av.....	Av 10					

The months of the Jewish year are: 1 Tishri; 2 Chesvan (Also Marchesvan); 3 Kislev; 4 Tebet (Also Tebeth); 5 Sebat (Also Shebat); 6 Adar; 6a, added month some years, Adar Shenii (II); 7 Nisan; 8 Iyar; 9 Sivan; 10 Tammuz; 11 Av (also Abh); 12 Elul.

Lunar Calendar, Chinese New Year's, Vietnamese Tet

The ancient Chinese lunar calendar is divided into 12 months of either 29 or 30 days (compensating for the fact that the mean duration of the lunar month is 29 days, 12 hrs., 44.06 mins.). Every 30 months the calendar is further adjusted by the addition of an extra month.

The Chinese calendar runs on a sexagenary cycle, i.e., 60 years. The cycles 1864-1923 and 1924-1983, with the years grouped under their 12 animal designations, are printed below. The year 1969 is found in the 10th column, under Fowl or Chicken, and is known as a "Year of the Chicken." Similarly, readers can find the animal name for the year of their birth, marriage, etc., in the same chart.

The lunar calendar is still used to set the dates for traditional festivals in the Republic of China (Taiwan), in Chinese communities around the world, and also in Vietnam where the old Chinese calendar was in use for many centuries.

The Chinese New Year, Hsin Nien, and the 3-day Vietnamese New Year festival, Tet, begin at the first new moon after the sun enters Aquarius. The day may fall, therefore, between Jan. 21 and Feb. 19 of the Gregorian calendar. The old-style Chinese year 4667 begins Feb. 17, 1969. The year 4668 begins Feb. 6, 1970. (The date is fixed according to the date of the new moon in Taiwan and Vietnam. Since both are west of the International Date Line, the date may be one day later than that of the new moon in New York.)

Except for marking such traditional festivals, both Vietnam and the Republic of China use the western, Gregorian calendar.

Rat	Ox	Tiger	Hare (Rabbit)	Dragon	Snake	Horse	Sheep (Goat)	Monkey	Fowl Chicken	Dog	Pig
1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875
1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887
1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899
1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983

Procedures for Adopting a Child

The United States Government has published factual reports on procedures for adopting a child. They are entitled *The Physician's Part in Adoption*; *The Social Worker's Part in Adoption*; *The Attorney's Part in Adoption*; *Social Workers Look at Adoption and Manual on Intercountry Adoption*; *When You Adopt a Child*; *Legislative Guides for the Termination of Parental Rights and Responsibilities and the Adoption of Children*. The Supt. of Documents, Government Printing Office, Washington, D. C. 20402, supplies information on how to procure these issues.

AWARDS—MEDALS—PRIZES

The Alfred B. Nobel Prize Winners

Alfred B. Nobel, inventor of dynamite, who died Dec. 10, 1896, bequeathed \$9,000,000, the interest to be distributed yearly to those who had most benefited mankind during the preceding year.

Awards for physics and chemistry are made by the Swedish Academy of Science; medicine or physiology by the Stockholm Faculty of Medicine; literature by the Swedish Academy of Literature; peace by five persons elected by the Norwegian Parliament (Storting). The Fund is managed by a board of directors, the head of which is appointed by the Swedish Government.

A., American; Arg., Argentine; Austl., Australian; Aus., Austrian; B., Belgian; Br., British; Can., Canadian; Ch., Chilean; Chin., Chinese; Cz., Czechoslovak; D., Dutch; Dn., Danish; F., French; Fin., Finnish; G., German; Gr., Greek; Guat., Guatemala; Hun., Hungarian; Ice., Iceland; Ind., Indian; Ir., Irish; Is., Israel; I., Italian; J., Japanese; N., Norwegian; Nl., Netherlands; P., Polish; Port., Portuguese; R., Russian; So. A., South Africa; Sp., Spanish; Swe., Swedish; Swi., Swiss; Y., Yugoslav.

Year	Physics	Chemistry	Medicine and Physiology	Literature	Peace
1901..	Wilhelm K. Röntgen (G.)	Jacobus H. van't Hoff (D.)	Emil A. von Behring (G.)	René F. A. Sully Prudhomme (F.)	H. Dunant (Swi.); Fred. Passy (F.)
1902..	H. A. Lorentz & P. Zeeman (D.)	Emil Fischer (G.)	Sir Ronald Ross (Br.)	Theodor Mommsen (G.)	E. Ducommun & A. Gobat (Swi.)
1903..	H. A. Becquerel (F.); Pierre and Marie Curie (F.), born Poland	Svante A. Arrhenius (Swe.)	Niels R. Finsen (Dn.)	Björnstjerne Björnson (N.)	Sir William R. Cremer (Br.)
1904..	Lord Rayleigh (Br.)	Sir William Ramsay (Br.)	Ivan P. Pavlov (R.)	F. Mistral (F.); J. Echegaray (Sp.)	Institute of International Law
1905..	Philipp Lenard (G.)	Adolf von Baeyer (G.)	Robert Koch (G.)	Henryk Sienkiewicz (P.)	Bertha von Suttner (Aus.)
1906..	Joseph J. Thomson (Br.)	Henri Moissan (F.)	C. Golgi (I.); S. Ramon y Cajal (Sp.)	Giosuè Carducci (I.)	Theodore Roosevelt (A.)
1907..	Albert A. Michelson (A.)	Eduard Buchner (G.)	Charles L. A. Laveran (F.)	Rudyard Kipling (Br.)	E. T. Monet (I.); L. Renault (F.)
1908..	Gabriel Lippmann (F.)	Ernest Rutherford (Br.)	Paul Ehrlich (G.); E. Metchnikoff (F.), born Russia	Rudolf Eucken (G.)	Klas P. Arnoldson (Swe.); Frederik Bajer (Dn.)
1909..	Guglielmo Marconi (I.); Ferdinand Braun (G.)	Wilhelm Ostwald (G.)	Theodor Kocher (Swi.)	Selma Lagerlöf (Swe.)	Aug. M. E. Beernaert (B.); Baron de Constant de Rebecque d'Estournelles (F.)
1910..	Johannes D. van der Waals (D.)	Otto Wallach (G.)	Albrecht Kossel (G.)	Paul Heyse (G.)	International Peace Bureau (Swi.)
1911..	Wilhelm Wien (G.)	Marie Curie (F.), born Poland	Allvar Gullstrand (Swe.)	Maurice Maeterlinck (B.)	T. M. C. Asser (Dn.); A. H. Fried (Aus.)
1912..	Gustaf Dalén (Swe.)	V. Grignard & P. Sabatier (F.)	Alexis Carrel (A.), born France	Gerhart Hauptmann (G.)	Elihu Root (A.)
1913..	H. Kamerlingh-Onnes (D.)	Alfred Werner (Swi.)	Charles Richet (F.)	Rabindranath Tagore (Ind.)	Henri La Fontaine (B.)
1914..	M. von Laue (G.)	T. W. Richards (A.)	R. Bárány (Aus.)	Not awarded	Not awarded
1915..	W. H. Bragg & W. L. Bragg (Br.)	Richard Willstätter (G.)	Not awarded	Romain Rolland (F.)	Not awarded
1916..	Not awarded	Not awarded	Not awarded	Verner von Heldenstam (Swe.)	Not awarded
1917..	Charles G. Barkla (Br.)	Not awarded	Not awarded	K. Gjellerup & H. Pontoppidan (Dn.)	International Red Cross of Geneva
1918..	Max Planck (G.)	Fritz Haber (G.)	Not awarded	Not awarded	Not awarded
1919..	Johannes Stark (G.)	Not awarded	Jules Bordet (B.)	Carl Spitteler (Swi.)	Woodrow Wilson (A.)
1920..	C. Guillaume (Swi.)	Walther Nernst (G.)	A. Krogh (Dn.)	Knut Hamsun (N.)	L. Bourgeois (F.)
1921..	Albert Einstein (G.)	Frederick Soddy (Br.)	Not awarded	Anatole France (F.)	K. H. Branting (Swe.)
1922..	Niels Bohr (Dn.)	Francis W. Aston (Br.)	A. V. Hill (Br.); O. Meyerhof (G.)	Jacinto Benavente (Sp.)	Chr. Lange (N.)
1923..	Robert A. Millikan (A.)	Fritz Pregl (Aus.)	Frederick G. Bantling & John J. R. Macleod (Can.)	William B. Yeats (Ir.)	Fridtjof Nansen (N.)
1924..	Karl M. G. Siegbahn (Swe.)	Not awarded	Willem Einthoven (D.)	Wladyslaw Reymont (P.)	Not awarded
1925..	James Franck & Gustav Hertz (G.)	Richard Zsigmondy (G.), born in Austria	Not awarded	George Bernard Shaw (Br.)	C. G. Dawes (A.); Sir Austen Chamberlain (Br.)
1926..	Jean B. Perrin (F.)	Theodor Svedberg (Swe.)	Johan Fibiger (Dn.)	Grazia Deledda (I.)	Arist. Briand (F.); G. Stresemann (G.)
1927..	Arthur Compton (A.); Chas. T. R. Wilson (Br.)	Heinrich Wieland (G.)	J. Wagner Jauregg (Aus.)	Henri Bergson (F.)	Ferdinand Buisson (F.); Ludwig Quidde (G.)
1928..	Owen W. Richardson (Br.)	Adolf Windaus (G.)	Charles Nicolle (F.)	Sigrid Undset (N.)	Not awarded
1929..	Prince Louis V de Broglie (F.)	Arth. Harden (Br.); H. von Euler-Chelpin (Swe.); Gerhaan (Br.)	Sir Frederick G. Hopkins (Br.); Christiaan Eijkman (D.)	Thomas Mann (G.)	Frank B. Kellogg (A.)
1930..	Sir Chandrasekhara V. Raman (Ind.)	Hans Fischer (G.)	Karl Landsteiner (A.), born Austria	Sinclair Lewis (A.)	Nathan Söderblom (Swe.)
1931..	Not awarded	Carl Bosch & Friedrich Bergius (G.)	Otto Warburg (G.)	Erik A. Karlfeldt (Swe.)	N. M. Butler & Jans Addams (A.)
1932..	Werner Heisenberg (G.)	Irving Langmuir (A.)	Sir Charles S. Sherrington & E. D. Adrian (Br.)	John Galsworthy (Br.)	Not awarded
1933..	P. A. M. Dirac (Br.); Erwin Schrödinger (Aus.)	Not awarded	Thomas H. Morgan (A.)	Ivan Bunin (F.), born Russia	Sir Norman Angell (Br.)
1934..	Not awarded	Harold C. Urey (A.)	G. H. Whipple, G. R. Minot & W. P. Murphy (A.)	Luigi Pirandello (I.)	Arthur Henderson (Br.)
1935..	James Chadwick (Br.)	Frederic and Irene Joliot-Curie (F.)	Hans Spemann (G.)	Not awarded	Carl von Ossietzky (G.)
1936..	Carl D. Anderson (A.); Victor F. Hess (Aus.)	Peter J. W. Debye (Nl.)	Sir Henry H. Dale (Br.); Otto Loewi (Aus.)	Eugene O'Neill (A.)	Carlos de S. Lamas (Arg.)
1937..	Clinton J. Davisson (A.); G. P. Thomson (Br.)	Walter N. Haworth (Br.); Paul Karrer (Swi.)	Albert von Szent-Györgyi (Hun.)	Roger Martin du Gard (F.)	Viscount Cecil of Chelwood (Br.)

Year	Physics	Chemistry	Medicine and Physiology	Literature	Peace
1938..	Enrico Fermi (I.)	Richard Kuhn (G.) *	Cornelius Heymans (B.)	Pearl Buck (A.)	Nansen Internat'l Office for Refugees at Geneva Not awarded
1939..	E. O. Lawrence (A.)	A. Butenandt (G.) *; L. Ruzicka (Swi.)	Gerhard Domagk (G.) *	Frans Eemil Sillanpaa (Fin.)	Not awarded
1943..	Otto Stern (A.)	Georg von Hevesy (Hun.)	Edward Doisy (A.); Henrik Dam (Dn.)	Not awarded	Not awarded
1944..	Isidor Isaac Rabi (A.)	Otto Hahn (G.)	Joseph Erlanger & Herb. Gasser (A.)	Johannes V. Jensen (Dn.)	International Red Cross of Geneva
1945..	Wolfgang Pauli (Aus.)	Artturi Virtanen (Fin.)	Sir Alexander Fleming & Sir Howard W. Florey (Br.); Ernst Boris Chain (G.)	Gabriela Mistral (Lucila Godoy y Alcayaga) (Ch.)	Cordeil Hull (A.)
1946..	Percy W. Bridgman (A.)	James B. Sumner, John Northrop & Wendell M. Stanley (A.)	Herman J. Muller (A.)	Herman Hesse (Swi.), born in Germany	John R. Mott & Emily G. Balch (A.)
1947..	Sir Edward Appleton (Br.)	Sir Robert Robinson (Br.)	Carl F. and Gerty T. Cori (A.), born in Czechoslovakia; Bernardo Houssay (Arg.)	Andre P. G. Gide (F.)	American Friends Service Committee (Quakers) & Friends Service Council, London Not awarded
1948..	Patrick M. S. Blackett (Br.)	Arne Tiselius (Swi.)	Paul Mueller (Swi.)	Thomas Stearns Eliot (Br.), American-born	Not awarded
1949..	Hideki Yukawa (J.)	William F. Giauque (A.)	Walter R. Hess (Swi.); Antonio C. A. F. E. Moniz (Port.)	William Faulkner (A.)	Lord Boyd Orr (Br.)
1950..	Cecil Frank Powell (Br.)	Otto Dieis & Kurt Alder (G.)	Philip S. Hench & Edward C. Kendall (A.); Tadeus Reichstein (Swi.)	Bertrand Russell (Br.)	Ralph J. Bunche (A.)
1951..	Sir John Cockcroft (Br.); Ernest T. S. Walton (Ir.)	Edwin M. McMillan & Glenn T. Seaborg (A.)	Max Theiler (So. A.)	Par Lagerkvist (Swi.)	Leon Jouhaux (F.)
1952..	Felix Bloch & Edward Mills Purcell (A.)	Archer J. P. Martin & Richard L. M. Synge (Br.)	Selman A. Waksman (A.), born in Ukraine	France Mauriac (F.)	Albert Schweitzer (F.)
1953..	Fritz Zernike (D.)	Herman Staudinger (G.)	Fritz A. Lipmann (A.) & Hans A. Krebs (Br.), both German born	Winston Churchill (Br.)	Gen. George C. Marshall (A.)
1954..	Max Born (Br.), German-born & Walter Bothe (G.)	Linus Pauling (A.)	Thomas H. Weller, Frederick C. Robbins & John F. Enders (A.)	Ernest Hemingway (A.)	The office of the United Nations Commissioner for Refugees Not awarded
1955..	Polykarp Kusch & Willis E. Lamb (A.)	Vincent du Vigneaud (A.)	Hugo Theorell (Swi.)	Halldor K. Laxness (Ice.)	Not awarded
1956..	William Shockley, Walter H. Brattain & John Bardeen (A.)	Sir Cyril N. Hinshelwood (Br.); Nikolai N. Semenov (R.)	Dickinson W. Richards, Jr. (A.); André F. Cournand (A.), born in France; Werner Forssmann (G.)	Juan Ramon Jimenez (Puerto Rico), born in Spain	Not awarded
1957..	Chen Ning Yang & Tsung Dao Lee (Chin.)	Sir Alexander Todd (Br.)	Daniel Bovet (I.), born in Switzerland	Albert Camus (F.)	Lester B. Pearson (Can.)
1958..	Pavel A. Cherenkov, Igor E. Tamm & Ilya M. Frank (R.)	Frederick Sanger (Br.)	George W. Beadle, Edward L. Tatum & Joshua Lederberg (A.)	Boris Pasternak (R.) *	Rev. Dominique Georges Fie (B.)
1959..	Emilio Segre (A.), born Italy; Owen Chamberlain (A.)	Jaroslav Heyrovsky (Cz.)	Severo Ochoa (A.), born Sp.; Arthur Kornberg (A.)	Salvatore Quasimodo (I.)	Philip John Noel-Baker (Br.)
1960..	Donald A. Glaser (A.)	Willard F. Libby (A.)	Sir Macfarlane Burnet (Aust.); Peter Brian Medawar (Br.)	Alexis Léger (St.-John Perse) (F.)	Albert John Luthuli (So. A.)
1961..	Robert Hofstadter (A.); Rudolf L. Mössbauer (G.)	Melvin Calvin (A.)	George von Békésy (A.) Hungarian-born	Ivo Andrić (Y.)	Dag Hammarskjöld (Swi.) Posthumously
1962..	Lev Davidovich Landau (R.)	John C. Kendrew (Br.); Max F. Perutz (Br.) Austrian-born	Francis H. C. Crick (Br.); James D. Watson (A.); Maurice H. F. Wilkins (Br.)	John Steinbeck (A.)	Linus C. Pauling (A.)
1963..	Eugene B. Wigner (A.) Hungarian born; Maria Goeppert Mayer (A.) & J. Hans D. Jensen (G.)	Karl Ziegler (G.) & Giulio Natta (I.)	Alan Lloyd Hodgkin (Br.); Andrew Fielding Huxley (Br.) & John C. Eccles (Austl.)	Giorgos Seferis (Gr.)	International Red Cross & League of Red Cross Societies
1964..	Charles H. Townes (A.); Nikolai Basov (R.) & Alexander Prochorov (R.)	Dorothy Crowfoot Hodgkin (Br.)	Konrad E. Bloch (A.); Feodor Lynen (G.)	Jean-Paul C. A. Sartre (F.) *	Dr. Martin Luther King (A.)
1965..	Richard P. Feynman (A.); Julian S. Schwinger (A.); Shinichiro Tomonaga (J.)	Robert Burns Woodward (A.)	Francis Jacob; Andre Lwoff & Jacques Monod, all French	Mikhail Sholokhov (R.)	United Nations Children's Fund
1966..	Alfred Kastler (F.)	Robert S. Mulliken (A.)	Charles B. Huggins (A.); Francis Peyton Rous (A.)	Shmuel Yosef Agnon (Ir.) & Nelly Sachs (Swi.)	Not awarded
1967..	Hans Albrecht Bethe (A.)	Manfred Eigen (G.); Ronald G. W. Norrish (Br.)	Haldan Keffer Hartline (A.); George Wald (A.)	Miguel Angel Asturias (Guat.)	Not awarded
		George Porter (Br.)	Ragnar Granit (Swi.)		

(See Index for 1968 awards.)

*Declined. **No prizes announced in 1940, 1941 and 1942.

Pulitzer Prizes in Journalism, Letters and Music

The Pulitzer Prizes were endowed by Joseph Pulitzer (1847-1911), publisher of The World, New York, N. Y., in a bequest to Columbia University, New York, N. Y., and are awarded annually by the trustees of the university on recommendation of the Advisory Board on Pulitzer Prizes for work done during the preceding year. Secretary of the Advisory Board is John Hohenberg of Columbia Univ.

Prizes in Journalism are \$1,000 (originally \$500) in each category, except Meritorious Public Service for which a gold medal is given. Prizes in Letters, in each category, and Prize in Music are \$500.

No awards given for years omitted.

PULITZER PRIZES IN JOURNALISM

MERITORIOUS PUBLIC SERVICE

For disinterested and meritorious public service by a United States newspaper.

- 1918—The New York Times. Also special award to Minna Lewinson and Henry Beetle Hough.
- 1919—Milwaukee Journal
- 1921—Boston Post.
- 1922—The World, New York.
- 1923—Memphis (Tenn.) Commercial Appeal.
- 1924—The World, New York.
- 1926—Enquirer-Sun, Columbus, Ga.
- 1927—Canton (O.) Daily News.
- 1928—Indianapolis Times.
- 1929—Evening World, New York.
- 1931—Atlanta (Ga.) Constitution.
- 1932—Indianapolis (Ind.) News.
- 1933—New York World-Telegram.
- 1934—Medford (Ore.) Mail-Tribune.
- 1935—Sacramento (Calif.) Bee.
- 1936—Cedar Rapids (Iowa) Gazette.
- 1937—St. Louis Post-Dispatch.
- 1938—Bismarck (N. D.) Tribune.
- 1939—Miami (Fla.) Daily News.
- 1940—Waterbury (Conn.) Republican and American.
- 1941—St. Louis Post-Dispatch.
- 1942—Los Angeles Times.
- 1943—Omaha World Herald.
- 1944—The New York Times.
- 1945—Detroit Free Press.
- 1946—The Scranton (Pa.) Times.
- 1947—Baltimore Sun.
- 1948—St. Louis Post-Dispatch.
- 1949—Nebraska State Journal.
- 1950—Chicago Daily News; St. Louis Post-Dispatch.
- 1951—Miami (Fla.) Herald and Brooklyn Eagle.
- 1952—St. Louis Post-Dispatch.
- 1953—Whiteville (N. C.) News Reporter; Tabor City (N. C.) Tribune.
- 1954—Newsday, Garden City, N. Y.
- 1955—Columbus (Ga.) Ledger and Sunday Ledger-Enquirer.
- 1956—Watsonville (Calif.) Register-Pajaronian.
- 1957—Chicago Daily News.
- 1958—Arkansas Gazette, Little Rock.
- 1959—Utica (N. Y.) Observer-Dispatch and Utica Daily Press.
- 1960—Los Angeles Times.
- 1961—Amarillo (Tex.) Globe-Times.
- 1962—Panama City (Fla.) News-Herald.
- 1963—Chicago Daily News.
- 1964—St. Petersburg (Fla.) Times.
- 1965—The Hutchinson (Kans.) News.
- 1966—Boston Globe.
- 1967—The Louisville Courier-Journal and The Milwaukee Journal.
- 1968—The Riverside (Calif.) Press-Enterprise.

REPORTING

This category originally embraced all fields, local, national, and international. Later separate categories were created for the different fields of reporting.

- 1917—Herbert Bayard Swope, The World, N. Y.
- 1918—Harold A. Littlefield, New York Evening Post.
- 1920—John J. Leary, Jr., The World, New York.
- 1921—Louis Seibold, The World, New York.
- 1922—Kirke L. Simpson, Associated Press.
- 1923—Alva Johnston, New York Times.
- 1924—Magner White, San Diego (Calif.) Sun.
- 1925—James W. Mulroy and Alvin H. Goldstein, Chicago Daily News.
- 1926—William Burke Miller, Louisville Courier-Journal.
- 1927—John T. Rogers, St. Louis Post-Dispatch.
- 1929—Paul Y. Anderson, St. Louis Post-Dispatch.
- 1930—Russell D. Owens, New York Times. Also \$500 to W. O. Dapping, Auburn (N. Y.) Citizen.
- 1931—A. B. MacDonald, Kansas City (Mo.) Star.
- 1932—W. C. Richards, D. D. Martin, J. S. Pooler, F. D. Webb, J. N. W. Sloan, Detroit Free Press.
- 1933—Francis A. Jamieson, Associated Press.
- 1934—Rovee Brier, San Francisco Chronicle.
- 1935—William H. Taylor, New York Herald Tribune.
- 1936—Lauren C. Lyman, New York Times.
- 1937—John J. C. Neill, N. Y. Herald Tribune; William L. Laurence, N. Y. Times; Howard W. Blakeslee, A. P.; Gobind Behari Lal, Universal Service and David Dietz, Scripps-Howard Newspapers.
- 1938—Raymond Sprigle, Pittsburgh Post-Gazette.
- 1939—Thomas L. Stokes, Scripps-Howard Newspaper Alliance.
- 1940—S. Burton Heath, New York World-Telegram.
- 1941—Westbrook Pegler, New York World-Telegram.
- 1942—Stanton Delaplane, San Francisco Chronicle.

1943—George Weller, Chicago Daily News.

1944—Paul Schoenstein, N. Y. Journal-American.

1945—Jack S. McDowell, San Francisco Call-Bulletin.

1946—William L. Laurence, New York Times.

1947—Frederick Woltman, N. Y. World-Telegram.

1948—George E. Goodwin, Atlanta (Ga.) Journal.

1949—Malcolm Johnson, The Sun, New York.

1950—Meyer Berger, New York Times.

1951—Edward S. Montgomery, San Francisco Examiner.

1952—Geo. de Carvalho, San Francisco Chronicle.

Since 1953 two prizes are given for local reporting: (1) to meet a deadline; (2) free of deadline.

1953—(1) Providence (R. I.) Journal and Evening Bulletin; (2) Edward J. Mowery, N. Y. World-Telegram & Sun.

1954—(1) Vicksburg (Miss.) Sunday Post-Herald;

(2) Alvin Scott McCoy, Kansas City (Mo.) Star.

1955—(1) Mrs. Caro Brown, Alice (Tex.) Daily Echo; (2) Roland K. Towery, Cuero (Tex.) Record.

1956—(1) Lee Hills, Detroit Free Press; (2) Arthur Daley, New York Times.

1957—(1) Salt Lake Tribune, Salt Lake City, Utah; (2) Wallace Turner and William Lambert, Portland Oregonian (\$1,000 each).

1958—(1) Fargo (N. D.) Forum; (2) George

Beveridge, Evening Star, Washington, D. C.

1959—(1) Miss Mary Lou Werner, Evening Star, Washington, D. C.; (2) John Harold Brislin, Scranton (Pa.) Tribune and The Scrantonian.

1960—(1) Jack Nelson, Atlanta (Ga.) Constitution; (2) Miriam Ottenberg, Evening Star, Washington, D. C.

1961—(1) Sanche de Granont, N. Y. Herald Tribune; (2) Edgar May, Buffalo Evening News.

1962—(1) Robert D. Mullins, Desert News, Salt Lake City; (2) George Bliss, Chicago Tribune.

1963—(1) Shared by Sylvan Fox, William Longgood, and Anthony Shannon, N. Y. World-Telegram & Sun; (2) Oscar Griffin, Jr., Pecos (Tex.) Independent and Enterprise.

1964—(1) Norm L. C. Miller, Wall Street Journal; (2) Shared by James V. Magee, Albert V. Gaudiosi, and Frederick A. Meyer, Philadelphia Bulletin.

1965—(1) Melvin H. Ruder, Hungry Horse News (Columbia Falls, Mont.); (2) Gene Goltz, Houston, Post.

1966—(1) Los Angeles Times staff; (2) John A. Frasca, Tampa (Fla.) Tribune.

1967—(1) Robert V. Cox, Chambersburg (Pa.) Public Opinion; (2) Gene Miller, Miami Herald.

1968—Detroit Free Press; (2) J. Anthony Lukas, N. Y. Times.

NATIONAL REPORTING

1942—Louis Stark, New York Times.

1944—Dewey L. Fleming, Baltimore Sun.

1945—James B. Reston, New York Times.

1946—Edward A. Harris, St. Louis Post-Dispatch.

1947—Edward T. Foillard, Washington Post.

1948—Bert Andrews, New York Herald Tribune;

Nat S. Finney, Minneapolis Tribune.

1949—Charles P. Trussell, New York Times.

1950—Edwin O. Guthman, Seattle (Wash.) Times.

1952—Anthony Leviero, New York Times.

1953—Don Whitehead, Associated Press.

1954—Richard Wilson, Cowles Newspapers.

1955—Anthony Lewis, Washington Daily News.

1956—Charles L. Bartlett, Chattanooga Times.

1957—James Reston, New York Times.

1958—Reiman Morin, A. P.; Clark Mollenhoff, Des Moines Register & Tribune (\$1,000 each).

1959—Howard Van Smith, Miami (Fla.) News.

1960—Vance Trimble, Scripps-Howard, Washington, D. C.

1961—Edward R. Cony, Wall Street Journal.

1962—Nathan G. Caldwell and Gene S. Graham, Nashville Tennessean.

1963—Anthony Lewis, New York Times.

1964—Merriman Smith, U.P.

1965—Louis M. Kohlmeier, Wall Street Journal.

1966—Haynes Johnson, Evening Star, Washington, D. C.

1967—Monroe W. Karmin and Stanley W. Penn, Wall Street Journal.

1968—Howard James, Christian Science Monitor; Nathan K. Kotz, Des Moines Register.

INTERNATIONAL REPORTING

1942—Laurence Edmund Allen, Associated Press

1943—Ira Wolfert, No. Am. Newspaper Alliance.

1944—Daniel DeLuce, Associated Press.

1945—Mark S. Watson, Baltimore Sun.

- 1946—Homer W. Bigart, New York Herald Tribune.
 1947—Eddy Gilmore, Associated Press.
 1948—Paul W. Ward, Baltimore Sun.
 1949—Price Day, Baltimore Sun.
 1950—Edmund Stevens, Christian Science Monitor.
 1951—Keyes Beech, Chicago Daily News; Homer Bigart and Marguerite Higgins, New York Herald Tribune; Reiman Morin and Don Whitehead, A. P.; Fred Sparks, Chicago Daily News.
 1952—John M. Hightower, Associated Press.
 1953—Austin C. Wehrwein, Milwaukee Journal.
 1954—Jim G. Lucas, Scripps-Howard Newspapers.
 1955—Harrison Salisbury, New York Times.
 1956—William Randolph Hearst, Jr., J. Kingsbury Smith, Frank Conniff, Hearst Newspapers.
 1957—Russell Jones, United Press.
 1958—The New York Times.
 1959—Joseph Martin and Philip Santora, N. Y. Daily News.
 1960—A. M. Rosenthal, New York Times.
 1961—Lynn Henzel, Associated Press.
 1962—Walter Lipman, N. Y. Herald Tribune Synd.
 1963—Hal Hendrix, Miami (Fla.) News.
 1964—Malcolm W. Browne, A.P.; David Halberstam, N.Y. Times.
 1965—J. A. Livingston, Philadelphia Bulletin.
 1966—Peter Arnett, A.P.
 1967—R. John Hughes, Christian Science Monitor.
 1968—Alfred Friendly, Washington Post.

CORRESPONDENCE

- For Washington or foreign correspondence. Category was merged with those in national and international reporting in 1948.
 1929—Paul Scott Mowrer, Chicago Daily News.
 1930—Leland Stewart, New York Herald Tribune.
 1931—H. R. Knickerbocker, Philadelphia Public Ledger and New York Evening Post.
 1932—Walter Duranty, New York Times, and Charles G. Ross, St. Louis Post-Dispatch.
 1933—Edgar Ansel Mowrer, Chicago Daily News.
 1934—Frederick T. Birehall, New York Times.
 1935—Arthur Krock, New York Times.
 1936—Wilfred C. Barber, Chicago Tribune.
 1937—Anne O'Hare McCormick, New York Times.
 1938—Arthur Krock, New York Times.
 1939—Louis P. Lochner, Associated Press.
 1940—Otto D. Toischus, New York Times.
 1941—Bronze plaque to commemorate work of American correspondents on war fronts.
 1942—Carlos P. Romulo, Philippines Herald.
 1943—Hanson W. Baldwin, New York Times.
 1944—Ernest Taylor Pyle, Scripps-Howard Newspaper Alliance.
 1945—Harold V. (Hal) Boyle, Associated Press.
 1946—Arnaldo Cortesi, New York Times.
 1947—Brooks Atkinson, New York Times.

EDITORIAL WRITING

- The test of excellence is clearness of style, moral purpose, sound reasoning and power to influence public opinion.
 1917—New York Tribune.
 1918—Louisville (Ky.) Courier-Journal.
 1920—Harvey E. Newbranch, Omaha Evening World-Herald.
 1922—Frank M. O'Brien, New York Herald.
 1923—William Allen White, Emporia Gazette.
 1924—Boston Herald, Frank Buxton, Special prize.
 1925—Frank I. Cobb, The World, New York.
 1926—Charleston (S. C.) News and Courier.
 1928—The New York Times, Edward M. Kingsbury.
 1927—Boston Herald, F. Lauriston Bullard.
 1928—Grover C. Hall, Montgomery Advertiser.
 1929—Louis Isaac Jaffe, Norfolk Virginian-Pilot.
 1931—Chas. Ryckman, Fremont (Nebr.) Tribune.
 1933—Kansas City (Mo.) Star.
 1934—E. P. Chase, Atlantic (Ga.) News Telegraph.
 1936—Felix Morley, Washington Post, George B. Parker, Scripps-Howard Newspapers.
 1937—John W. Owens, Baltimore (Md.) Sun.
 1938—W. W. Waymack, Des Moines (Ia.) Register and Tribune.
 1939—Ronald G. Callvert, Portland Oregonian.
 1940—Bart Howard, St. Louis (Mo.) Post-Dispatch.
 1941—Reuben Maury, Daily News, N. Y.
 1942—Geoffrey Parsons, New York Herald Tribune.
 1943—Forrest W. Seymour, Des Moines (Ia.) Register and Tribune.
 1944—Kansas City (Mo.) Star, Henry J. Haskell.
 1945—George W. Potter, Providence (R. I.) Journal-Bulletin.
 1946—Hodding Carter, Greenville (Miss.) Delta Democrat-Times.
 1947—William H. Grimes, Wall Street Journal, N. Y.
 1948—Virgilinus Dabney, Richmond (Va.) Times-Dispatch.
 1949—John H. Crider, Boston (Mass.) Herald, Herbert Elliston, Washington (D.C.) Post.
 1950—Carl M. Saunders, Jackson Citizen-Patriot.
 1951—William B. Fitzpatrick, New Orleans States.
 1952—Louis LaCoss, St. Louis Globe Democrat.
 1953—Vernon C. Royster, Wall Street Journal.
 1954—Boston Herald, Don Murray.
 1955—Detroit Free Press, Royce Howes.
 1956—Lauren K. Soth, Des Moines (Ia.) Register and Tribune.

- 1957—Buford Boone, Tuscaloosa (Ala.) News.
 1958—Harry S. Ashmore, Arkansas Gazette.
 1959—Ralph McGill, Atlanta (Ga.) Constitution.
 1960—Lenoir Chambers, Norfolk Virginian-Pilot.
 1961—William J. Dorvillier, San Juan (Puerto Rico) Star.
 1962—Thomas M. Storke, Santa Barbara (Calif.) News-Press.
 1963—Ira B. Harkey, Jr., Pascagoula (Miss.) Chronicle.
 1964—Hazel Brannon Smith, Lexington (Miss.) Advertiser.
 1965—John R. Harrison, The Gainesville (Fla.) Sun.
 1966—Robert Lasch, St. Louis Post-Dispatch.
 1967—Eugene C. Patterson, Atlanta Constitution.
 1968—John S. Knight, Knight Newspapers.

CARTOON

- 1922—Rollin Kirby, The World, New York.
 1924—J. N. Darling, New York Herald Tribune.
 1925—Rollin Kirby, The World, New York.
 1926—D. B. Fitzpatrick, St. Louis Post-Dispatch.
 1927—Nelson Harding, Brooklyn Eagle.
 1928—Nelson Harding, Brooklyn Eagle.
 1929—Rollin Kirby, The World, New York.
 1930—Charles Macauley, Brooklyn Eagle.
 1931—Edmund Duffy, Baltimore Sun.
 1932—John T. McCutcheon, Chicago Tribune.
 1933—H. M. Talburt, Washington Daily News.
 1934—Edmund Duffy, Baltimore Sun.
 1935—Ross A. Lewis, Milwaukee Journal.
 1936—C. D. Batchelor, Daily News, New York.
 1937—Yaphn Shoemaker, Chicago Daily News.
 1938—Charles G. Werner, Daily Oklahoman.
 1940—Edmund Duffy, Baltimore Sun.
 1941—Jacob Burck, Chicago Times.
 1942—H. L. Block, Newspaper Enterprise Assn.
 1943—Jay N. Darling, New York Herald Tribune.
 1944—Clifford K. Berryman, Washington Star.
 1945—Bill Mauldin, United Feature Syndicate.
 1946—Bruce Alexander Russell, Los Angeles Times.
 1947—Yaphn Shoemaker, Chicago Daily News.
 1948—Reuben L. (Rube) Goldberg, The Sun, N. Y.
 1949—Eute Pease, Newark (N. J.) Evening News.
 1950—James T. Berryman, Washington Star.
 1951—Reginald W. Manning, Arizona Republic.
 1952—Fred L. Packer, New York Mirror.
 1953—Edward D. Kuekes, Cleveland Plain Dealer.
 1954—Herbert L. Block, Washington Post & Times-Herald.
 1955—Daniel R. Fitzpatrick, St. Louis Post-Dispatch.
 1956—Robert York, Louisville (Ky.) Times.
 1957—Tom Little, Nashville, Tennesseean.
 1958—Bruce M. Shanks, Buffalo Evening News.
 1959—Bill Mauldin, St. Louis Post-Dispatch.
 1961—Carey Orr, Chicago Tribune.
 1962—Edmund S. Valtman, Hartford Times.
 1963—Frank Miller, Des Moines Register.
 1964—Paul Conrad, Denver Post.
 1966—Don Wright, Miami News.
 1967—Patrick B. Ophiant, Denver Post.
 1968—Eugene Gray Payne, Charlotte Observer.

FEATURE PHOTOGRAPHY

- 1968—Toshio Sakai, UPI.

NEWS PHOTOGRAPHY

- 1942—Milton Brooks, Detroit News.
 1943—Frank Noel, Associated Press.
 1944—Frank Filan, Associated Press; Earle L. Bunker, Omaha World-Herald.
 1945—Joe Rosenthal, Associated Press, for photograph of planting American flag on Iwo Jima.
 1947—Arnold Hardy, amateur, Atlanta, Ga.
 1948—Frank Cushing, Boston Traveler.
 1949—Nathaniel Fein, New York Herald Tribune.
 1950—Bill Crouch, Oakland (Calif.) Tribune.
 1951—Max Desfor, Associated Press.
 1952—John Robinson and Don Ultang, Des Moines Register and Tribune.
 1953—William M. Gallagher, Flint (Mich.) Journal.
 1954—Mrs. Walter M. Schau, amateur (Calif.).
 1955—John L. Gaunt, Jr., Los Angeles Times.
 1956—New York Daily News.
 1957—Harry A. Trask, Boston Traveler.
 1958—William C. Beall, Washington Daily News.
 1959—William Seaman, Minneapolis Star.
 1960—Andrew Lopez, United Press Intl.
 1962—Yasushi Nagao, Mainichi Newspapers, Tokyo.
 1962—Paul Vathis, Associated Press.
 1963—Hector Rondón, La Republica, Caracas, Venezuela.
 1964—Robert H. Jackson, Dallas Times-Herald.
 1965—Horst Faas, Associated Press.
 1966—Kyoichi Sawada, U.P.I.
 1967—Jack R. Thornell, Associated Press.
 1968—Rocco Morabito, Jacksonville Journal.

SPECIAL CITATION

- 1938—Edmonton (Alberta) Journal, bronze plaque.
 1941—New York Times.
 1944—Byron Price and Mrs. William Allen White. Also to Richard Rodgers and Oscar Hammerstein, 2nd, for musical, Oklahoma!

- 1945—Press cartographers for war maps.
 1947—(Pulitzer centennial year.) Columbia University and the Graduate School of Journalism, and the St. Louis Post-Dispatch.
 1948—Dr. Frank Diehl Packenthal.
 1951—Cyrus L. Sulzberger, New York Times.
 1952—Max Kase, New York Journal-American, and Kansas City (Mo.) Star.
 1953—The New York Times, for Review of the Week section and Lester Markel, its founder.
 1957—Kenneth Roberts, for his historical novels.
 1958—Walter Lippmann, New York Herald Tribune.
 1960—Garrett Mattingly, for *The Armada*.
 1961—American Heritage Picture History of the Civil War.
 1964—The Gannett Newspapers.

PULITZER PRIZES IN LETTERS FICTION

- For fiction in book form by an American author, preferably dealing with American life.
 1918—Ernest Poole, *His Family*.
 1919—Booth Tarkington, *The Magnificent Ambersons*.
 1921—Edith Wharton, *The Age of Innocence*.
 1922—Booth Tarkington, *Alice Adams*.
 1923—Willia Cather, *One of Ours*.
 1924—Margaret Wilson, *The Able McLaughlins*.
 1925—Edna Ferber, *So Big*.
 1926—Sinclair Lewis, *Arrowsmith*. (Refused prize.)
 1927—Louis Bromfield, *Early Autumn*.
 1928—Thornton Wilder, *Bridge of San Luis Rey*.
 1929—Julia M. Peterkin, *Scarlet Sister Mary*.
 1930—Oliver La Farge, *Laughing Boy*.
 1931—Margaret Ayer Barnes, *Years of Grace*.
 1932—Pearl S. Buck, *The Good Earth*.
 1933—T. S. Stribling, *The Store*.
 1934—Caroline Miller, *Lamb in His Bosom*.
 1935—Josephine W. Johnson, *Now in November*.
 1936—Harold L. Davis, *Honey in the Horn*.
 1937—Margaret Mitchell, *Gone With the Wind*.
 1938—John P. Marquand, *The Late George Apley*.
 1939—Marjorie Kinman Rawlings, *The Yearling*.
 1940—John Steinbeck, *The Grapes of Wrath*.
 1942—Ellen Glasgow, *In This Our Life*.
 1943—Upton Sinclair, *Dragon's Teeth*.
 1944—Martin Flavin, *Journey in the Dark*.
 1945—John Hersey, *A Bell for Adano*.
 1947—Robert Penn Warren, *All the King's Men*.
 1948—James A. Michener, *Tales of the South Pacific*.
 1949—James Gould Cozzens, *Guard of Honor*.
 1950—A. B. Guthrie, Jr., *The Way West*.
 1951—Conrad Richter, *The Town*.
 1952—Herman Wouk, *The Caine Mutiny*.
 1953—Ernest Hemingway, *The Old Man and the Sea*.
 1955—William Faulkner, *A Fable*.
 1956—MacKinlay Kantor, *Andersonville*.
 1958—James Agee, *A Death in the Family*.
 1959—Robert Lewis Taylor, *The Travels of Jaimie McPheeters*.
 1960—Allen Drury, *Advise and Consent*.
 1961—Harper Lee, *To Kill Mockingbird*.
 1962—Edwin O'Connor, *The Edge of Sadness*.
 1963—William Faulkner, *The Reivers*.
 1965—Shirley Ann Grau, *The Keepers of the House*.
 1966—Katherine Anne Porter, *Collected Stories of Katherine Anne Porter*.
 1967—Bernard Malamud, *The Fixer*.
 1968—William Styron, *The Confessions of Nat Turner*.

DRAMA

- For an American play, preferably original and dealing with American life.
 1918—Jesse Lynch Williams, *Why Marry?*
 1920—Eugene O'Neill, *Beyond the Horizon*.
 1921—Zona Gale, *Miss Lulu Bett*.
 1922—Eugene O'Neill, *Luna Christie*.
 1923—Owen Davis, *Icebound*.
 1924—Fletcher Hughes, *Hell-Bent for Heaven*.
 1925—Sidney Howard, *They Knew What They Wanted*.
 1926—George Kelly, *Craig's Wife*.
 1927—Paul Green, in *Abraham's Bosom*.
 1928—Eugene O'Neill, *Strange Interlude*.
 1929—Elmer Rice, *Street Scene*.
 1930—Marc Connelly, *The Green Pastures*.
 1931—Susan Glaspell, *Allison's House*.
 1932—George S. Kaufman, *Morrie Ryskind and Ira Gershwin, Of Thee I Sing*.
 1933—Maxwell Anderson, *Both Your Houses*.
 1934—Sidney Kingsley, *Men in White*.
 1935—Zoe Akins, *The Old Maid*.
 1936—Robert E. Sherwood, *Idiot's Delight*.
 1937—George S. Kaufman and Moss Hart, *You Can't Take It With You*.
 1938—Thornton Wilder, *Our Town*.
 1939—Robert E. Sherwood, *Abe Lincoln in Illinois*.
 1940—William Saroyan, *The Time of Your Life*.
 1941—Robert E. Sherwood, *There Shall Be No Night*.
 1943—Thornton Wilder, *The Skin of Our Teeth*.
 1945—Mary Chase, *Harvey*.
 1946—Russel Crouse and Howard Lindsay, *State of the Union*.

- 1948—Tennessee Williams, *A Streetcar Named Desire*.
 1949—Arthur Miller, *Death of a Salesman*.
 1950—Richard Rodgers, Oscar Hammerstein II, and Joshua Logan, *South Pacific*, based on James A. Michener's 1948 prize-winning book, *Tales of the South Pacific*.
 1952—Joseph Kramm, *The Shrike*.
 1953—William Inge, *Picnic*.
 1954—John Patrick, *Teahouse of the August Moon*.
 1955—Tennessee Williams, *Cat on a Hot Tin Roof*.
 1956—Frances Goodrich and Albert Hackett, *The Diary of Anne Frank*.
 1957—Eugene O'Neill, *Long Day's Journey Into Night*.
 1958—Ketti Frings, *Look Homeward, Angel*.
 1959—Archibald MacLeish, *J. B.*
 1960—George Abbott, Jerome Weidman, Sheldon Harnick and Jerry Bock, *Florence*.
 1961—Tad Mosel, *All the Way Home*.
 1962—Frank Loesser and Abe Burrows, *How To Succeed in Business Without Really Trying*.
 1965—Frank D. Gilroy, *The Subject Was Roses*.
 1967—Edward Albee, *A Delicate Balance*.

HISTORY

- 1917—J. J. Jusserand, *With Americans of Past and Present Days*.
 1918—James Ford Rhodes, *History of the Civil War*.
 1927—Justin H. Smith, *The War with Mexico*.
 1928—William Snowden Sims, *The Victory at Sea*.
 1922—James Truslow Adams, *The Founding of New England*.
 1923—Charles Warren, *The Supreme Court in United States History*.
 1924—Charles Howard McIlwain, *The American Revolution: A Constitutional Interpretation*.
 1925—Frederick L. Paxton, *A History of the American Frontier*.
 1926—Edward Channing, *History of the U. S.*
 1927—Samuel Flagg Bemis, *Pinckney's Treaty*.
 1928—William Louis Farrington, *Main Currents in American Thought*.
 1929—Fred A. Shannon, *The Organization and Administration of the Union Army, 1861-65*.
 1930—Claude H. Van Tyne, *The War of Independence*.
 1931—Bernadotte E. Schmitt, *The Coming of the War, 1914*.
 1932—Gen. John J. Pershing, *My Experiences in the World War*.
 1933—Frederick J. Turner, *The Significance of Sections in American History*.
 1934—Herbert Agar, *The People's Choice*.
 1935—Charles McLean Andrews, *The Colonial Period of American History*.
 1936—Andrew C. McLaughlin, *A Constitutional History of the United States*.
 1937—Van Wyck Brooks, *The Flowering of New England*.
 1938—Paul Herman Buck, *The Road to Reunion*.
 1939—Frank Luther Mott, *A History of American Magazines*.
 1940—Carl Sandburg, *Abraham Lincoln: The War Years*.
 1941—Marcus Lee Hansen, *The Atlantic Migration*.
 1942—Margaret Leech, *Reveille in Washington*.
 1943—Esther Forbes, *Paul Revere and the World He Lived In*.
 1944—Merle Curti, *The Growth of American Thought*.
 1945—Stephen Bonsal, *Unfinished Business*.
 1946—Arthur M. Schlesinger, Jr., *The Age of Jackson*.
 1947—Dr. James Phinney Baxter 3d, *Scientists Against Time*.
 1948—Bernard De Voto, *Across the Wide Missouri*.
 1949—Roy F. Nichols, *The Disruption of American Democracy*.
 1950—O. W. Larkin, *Art and Life in America*.
 1951—R. Carlyle Buley, *The Old Northwest, Pioneer Period 1815-1840*.
 1952—Oscar Handlin, *The Uprooted*.
 1953—George Dangerfield, *The Era of Good Feelings*.
 1954—Bruce Catton—*A Stillness at Appomattox*.
 1955—Paul Horgan, *Great River: The Rio Grande in North American History*.
 1956—Richard Holstadter, *The Age of Reform*.
 1957—George F. Kennan, *Russia Leaves the War*.
 1958—Bray Hammond, *Banks and Politics in America—From the Revolution to the Civil War*.
 1959—Leonard D. White and Jean Schneider, *The Republican Era: 1869-1901*.
 1960—Margaret Leech, *In the Days of McKinley*.
 1961—Herbert Fels, *Between War and Peace: The Potsdam Conference*.
 1962—Lawrence H. Gipson, *The Triumphant Empire, Thunder-Clouds Gather in the West*.
 1963—Constance McLaughlin Green, *Washington, Village and Capital, 1800-1878*.
 1964—Sumner Chilton Powell, *Puritan Village: The Formation of a New England Town*.
 1965—Irwin Unger, *The Greenback Era*.
 1966—Perry Miller, *Life of the Mind in America*.
 1967—William H. Gutzmann, *Exploration and Empire: the Explorer and Scientist in the Winning of the American West*.

1968—Bernard Bailyn, *The Ideological Origins of the American Revolution*.

BIOGRAPHY OR AUTOBIOGRAPHY

For a distinguished biography or autobiography by an American author, preferably on an American subject.

1917—Laura E. Richards and Maude Howe Elliott, assisted by Florence Howe Hall, *Julia Ward Howe*.

1918—William Cabell Bruce, Benjamin Franklin, *Self-Revealed*.

1919—Henry Adams, *The Education of Henry Adams*.

1920—Albert J. Beveridge, *The Life of John Marshall*.

1921—Edward Bok, *The Americanization of Edward Bok*.

1922—Hamlin Garland, *A Daughter of the Middle Border*.

1923—Burton J. Hendrick, *The Life and Letters of Walter H. Page*.

1924—Michael Pupin, *From Immigrant to Inventor*.

1925—M. A. DeWolfe Howe, Barrett Wendell and His Letters.

1926—Harvey Cushing, *Life of Sir William Osler*.

1927—Emory Holloway, Whitman, *An Interpretation in Narrative*.

1928—Charles Edward Russell, *The American Orchestra and Theodore Thomas*.

1929—Burton J. Hendrick, *The Training of an American: The Earlier Life and Letters of Walter H. Page*.

1930—Marquis James, *The Raven*. (Sam Houston).

1931—Henry James, Charles W. Eliot.

1932—Henry F. Pringle, Theodore Roosevelt.

1933—Allan Nevins, Grover Cleveland.

1934—Tyler Dennett, John Hay.

1935—Douglas Southall Freeman, R. E. Lee.

1936—Ralph Barton Perry, *The Thought and Character of William James*.

1937—Allan Nevins, Hamilton Fish, *The Inner History of the Great Administration*.

1938—Divided between Odell Shepard, *Pedlar's Progress*; Marquis James, *Andrew Jackson*.

1939—Carl Van Doren, Benjamin Franklin.

1940—Ray Stannard Baker, Woodrow Wilson, *Life and Letters*.

1941—Ola Elizabeth Winslow, Jonathan Edwards.

1942—Forrest Wilson, *Crusader in Crinoline*.

1943—Samuel Eliot Morison, *Admiral of the Ocean Sea* (Columbus).

1944—Carleton Mabee, *The American Leonardo: The Life of Samuel F. B. Morse*.

1945—Russell Blaine Nye, George Brancroft: *Brahmin Rebel*.

1946—Lanny Marsh Wolfe, *Son of the Wilderness*.

1947—William Allen White, *The Autobiography of William Allen White*.

1948—Margaret Clapp, *Forgotten First Citizen*. John Bigelow.

1949—Robert E. Sherwood, *Roosevelt and Hopkins*.

1950—Samuel Flag Bemis, John Quincy Adams and the Foundations of American Foreign Policy.

1951—Margaret Louise Coit, John C. Calhoun: *American Portrait*.

1952—Merlo J. Pusey, Charles Evans Hughes.

1953—David J. Mays, Edmund Pendleton 1721-1803.

1954—Charles A. Lindbergh, *The Spirit of St. Louis*.

1955—William S. White, *The Taft Story*.

1956—Talbot F. Hamlin, Benjamin Henry Latrobe.

1957—John F. Kennedy, *Profiles in Courage*.

1958—Douglas Southall Freeman (died, 1953), *George Washington*, vols. I-VI; John Alexander Carroll and Mary Wells Ashworth, vol. VII.

1959—Arthur Walworth, Woodrow Wilson, *American Prophet*.

1960—Samuel Eliot Morison, John Paul Jones.

1961—David Donald, Charles Sumner and The Coming of the Civil War.

1962—Leon Edel, Henry James: Vol. II, *The Conquest of London, 1870-1881*; Vol. III, *The Middle Years, 1881-1895*.

1964—Walter Jackson Bate, John Keats.

1965—Ernest Samuels, Henry Adams.

1966—Arthur M. Schlesinger, Jr., *A Thousand Days*.

1967—Justin Kaplan, Mr. Clemens and Mark Twain.

1968—George F. Kennan, *Memoirs (1925-1950)*.

AMERICAN POETRY

Before this prize was established in 1922, the following awards were made from gifts provided by the Poetry Society. 1918—Love Songs, by Sara Teasdale. 1919—Old Road to Paradise, by Margaret Widdemer; *Corn Huskers*, by Carl Sandburg. 1922—Edwin Arlington Robinson, *Collected Poems*. 1923—Edna St. Vincent Millay, *The Ballad of the Harp-Weaver: A Few Fligs from Thistles*; *Eight Sonnets in American Poetry, 1922; A Miscellany*.

1924—Robert Frost, *New Hampshire: A Poem with Notes and Grace Notes*.

1925—Edwin Arlington Robinson, *The Man Who Died Twice*.

1926—Amy Lowell, *What's O'Clock*.

1927—Leonora Speyer, *Fiddler's Farewell*.

1928—Edwin Arlington Robinson, *Tristram*.

1929—Stephen Vincent Benet, *John Brown's Body*.

1930—Conrad Aiken, *Selected Poems*.

1931—Robert Frost, *Collected Poems*.

1932—George Dillon, *The Flowering Stone*.

1933—Archibald MacLeish, *Conquistador*.

1934—Robert Hillier, *Collected Verse*.

1935—Audrey Wurdemann, *Bright Ambush*.

1936—Robert P. Tristram Coffin, *Strange Holiness*.

1937—Robert Frost, *A Further Range*.

1938—Marya Zaturenska, *Cold Morning Sky*.

1939—John Gould Fletcher, *Selected Poems*.

1940—Mark Van Doren, *Collected Poems*.

1941—Leonard Bacon, *Sunderland Capture*.

1942—William Rose Benet, *The Dust Which Is God*.

1943—Robert Frost, *A Witness Tree*.

1944—Stephen Vincent Benet, *Western Star*.

1945—Karl Shapiro, *V-Letter and Other Poems*.

1947—Robert Lowell, *Lord Weary's Castle*.

1948—W. H. Auden, *The Age of Anxiety*.

1949—Peter Viereck, *Terror and Decorum*.

1950—Wendolyn Brooks, *Annie Allen*.

1951—Carl Sandburg, *Complete Poems*.

1952—Marianne Moore, *Collected Poems*.

1953—Archibald MacLeish, *Collected Poems*.

1954—Theodore Roethke, *The Waking*.

1955—Wallace Stevens, *Collected Poems*.

1956—Elizabeth Bishop, *Poems, North and South*.

1957—Richard Wilbur, *Things of This World*.

1958—Robert Penn Warren, *Promises: Poems 1954-1956*.

1959—Stanley Kunitz, *Selected Poems 1928-1958*.

1960—W. D. Snodgrass, *Heart's Needle*.

1961—Phyllis McGinley, *Times Three: Selected Verse from Three Decades*.

1962—Alan Dugan, *Poems*.

1963—William Carlos Williams, *Pictures From Brueghel*.

1964—Louis Simpson, *At the End of the Open Road*.

1965—John Berryman, *77 Dream Songs*.

1966—Richard Eberhart, *Selected Poems*.

1967—Anne Sexton, *Live or Die*.

1968—Anthony Hecht, *The Hard Hours*.

GENERAL NON-FICTION

For best book by an American, not eligible in any other category.

1962—Theodore H. White, *The Making of the President 1960*.

1963—Barbara W. Tuchman, *The Guns of August*.

1964—Richard Hofstadter, *Anti-Intellectualism in American Life*.

1965—Howard Mumford Jones, *O Strange New World*.

1966—Edwin Way Teale, *Wandering Through Winter*.

1967—David Brion Davis, *The Problem of Slavery in Western Culture*.

1968—Will and Ariel Durant, *The Story of Civilization* (Vol. 10).

PULITZER PRIZE IN MUSIC

For composition in the larger forms of chamber, orchestral or choral music or for an operatic work including ballet, performed or published by a composer resident in the United States.

1943—William Schuman, *Secular Cantata No. 2. A Free Song*.

1944—Howard Hanson, *Symphony No. 4, Op. 34*.

1945—Aaron Copland, *Appalachian Spring*.

1946—Leo Sowerby, *The Canticle of the Sun*.

1947—Charles E. Ives, *Symphony No. 3*.

1948—Walter Piston, *Symphony No. 3*.

1949—Virgil Thomson, *Louisiana Story*.

1950—Gian-Carlo Menotti, *The Consul*.

1951—Douglas Moore, *Giants in the Earth*.

1952—Gail Kubik, *Symphony Concertante*.

1954—Quincy Porter, *Concerto for Two Pianos and Orchestra*.

1955—Gian-Carlo Menotti, *The Saint of Bleecker Street*.

1956—Ernest Toch, *Symphony No. 3*.

1957—Norman Dello Joio, *Meditations on Ecclesiastes*.

1958—Samuel Barber, *Vanessa*.

1959—John La-Montaine, *Concerto for Piano and Orchestra*.

1960—Elliott Carter, *Second String Quartet*.

1961—Walter Piston, *Symphony No. 7*.

1962—Robert Ward, *The Crucible*.

1963—Samuel Barber, *Piano Concerto No. 1*.

1966—Leslie Bassett, *Variations for Orchestra*.

1968—Leon Kirchner, *Quartet No. 3*.

1968—George Crumb, *Echoes of Time and the River*.

Academy Awards in Motion Pictures

Source: Academy of Motion Picture Arts and Sciences

- 1927-28
Actor: Emil Jannings, *Way of All Flesh*.
Actress: Janet Gaynor, *Seventh Heaven*.
Picture: *Wings*, Paramount.
- 1928-29
Actor: Warner Baxter, *In Old Arizona*.
Actress: Mary Pickford, *Coquette*.
Picture: *Broadway Melody*, MGM.
- 1929-30
Actor: George Arliss, *Disraeli*.
Actress: Norma Shearer, *The Divorcee*.
Picture: *All Quiet on the Western Front*, Univ.
- 1930-31
Actor: Lionel Barrymore, *Free Soul*.
Actress: Marie Dressler, *Min and Bill*.
Picture: *Cimarron*, RKO.
- 1931-32
Actor: Fredric March, *Dr. Jekyll and Mr. Hyde*.
Actress: Heyen Hayes, *Sin of Madelon Claudet*.
Picture: *Grand Hotel*, MGM.
Special: Walt Disney, *Mickey Mouse*.
- 1931-32
Actor: Chas. Laughton, *Private Life of Henry VIII*.
Actress: Katharine Hepburn, *Morning Glory*.
Picture: *Cavalcade*, Fox.
- 1932
Actor: Clark Gable, *It Happened One Night*.
Actress: Claudette Colbert, same.
Picture: *It Happened One Night*, Columbia.
- 1932
Actor: Victor McLaglen, *The Informer*.
Actress: Bette Davis, *Dangerous*.
Picture: *Mutiny on the Bounty*, MGM.
- 1932
Actor: Paul Muni, *Story of Louis Pasteur*.
Actress: Lulise Rainer, *The Great Ziegfeld*.
Picture: *The Great Ziegfeld*, MGM.
- 1932
Actor: Spencer Tracy, *Captains Courageous*.
Actress: Lulise Rainer, *The Good Earth*.
Picture: *Life of Emile Zola*, Warner.
- 1932
Actor: Spencer Tracy, *Boys Town*.
Actress: Bette Davis, *Jezabel*.
Picture: *You Can't Take It With You*, Columbia.
- 1932
Actor: Robert Donat, *Goodbye Mr. Chips*.
Actress: Vivien Leigh, *Gone With the Wind*.
Picture: *Gone With the Wind*, Selznick International.
- 1932
Actor: James Stewart, *The Philadelphia Story*.
Actress: Ginger Rogers, *Kitty Foyle*.
Picture: *Rebecca*, Selznick International.
- 1932
Actor: Gary Cooper, *Sergeant York*.
Actress: Joan Fontaine, *Suspicion*.
Picture: *How Green Was My Valley*, 20th Cnt.-Fox.
- 1932
Actor: James Cagney, *Yankee Doodle Dandy*.
Actress: Greer Garson, *Mrs. Miniver*.
Picture: *Mrs. Miniver*, MGM.
- 1932
Actor: Paul Lukas, *Watch on the Rhine*.
Actress: Jennifer Jones, *The Song of Bernadette*.
Picture: *Casablanca*, Warner.
- 1932
Actor: Bing Crosby, *Going My Way*.
Actress: Ingrid Bergman, *Gaslight*.
Picture: *Going My Way*, Paramount.
- 1932
Actor: Ray Milland, *The Lost Weekend*.
Actress: Joan Crawford, *Mildred Pierce*.
Picture: *The Lost Weekend*, Paramount.
- 1932
Actor: Fredric March, *Best Years of Our Lives*.
Actress: Olivia de Havilland, *To Each His Own*.
Picture: *The Best Years of Our Lives*, Saml. Goldwyn, RKO.
- 1932
Actor: Ronald Colman, *A Double Life*.
Actress: Loretta Young, *The Farmer's Daughter*.
Picture: *Gentleman's Agreement*, 20th Cnt.-Fox.
- 1932
Actor: Laurence Olivier, *Hamlet*.
Actress: Jane Wyman, *Johnny Belinda*.
Picture: *Hamlet*, Two Cities Film, Universal International.
- 1932
Actor: Broderick Crawford, *All the King's Men*.
Actress: Olivia de Havilland, *The Heiress*.
Picture: *All the King's Men*, Columbia.
- 1932
Actor: Jose Ferrer, *Cyrano de Bergerac*.
Actress: Judy Holliday, *Born Yesterday*.
Picture: *All About Eve*, 20th Century-Fox.
- 1932
Actor: Humphrey Bogart, *The African Queen*.
Actress: Vivien Leigh, *A Streetcar Named Desire*.
Picture: *An American in Paris*, MGM.
- 1952
Actor: Gary Cooper, *High Noon*.
Actress: Shirley Booth, *Come Back, Little Sheba*.
Picture: *Greatest Show on Earth*, Cecil B. De-Mille, Paramount.
- 1953
Actor: William Holden, *Stalag 17*.
Actress: Audrey Hepburn, *Roman Holiday*.
Picture: *From Here to Eternity*, Columbia.
- 1954
Actor: Marlon Brando, *On the Waterfront*.
Actress: Grace Kelly, *The Country Girl*.
Picture: *On the Waterfront*, Horizon-American Corp., Columbia.
- 1955
Actor: Ernest Borgnine, *Marty*.
Actress: Anna Magnani, *The Rose Tattoo*.
Picture: *Marty*, Hecht and Lancaster's Steven Productions, U.A.
- 1956
Actor: Yul Brynner, *The King and I*.
Actress: Ingrid Bergman, *Anastasia*.
Picture: *Around The World in 80 Days*, Michael Todd Co., U.A.
- 1957
Actor: Alec Guinness, *The Bridge on the River Kwai*.
Actress: Joanne Woodward, *The Three Faces of Eve*.
Picture: *The Bridge on the River Kwai*, Horizon Picture, Columbia.
- 1958
Actor: David Niven, *Separate Tables*.
Actress: Susan Hayward, *I Want to Live*.
Picture: *Gigi*, Arthur Freed Production, MGM.
- 1959
Actor: Charlton Heston, *Ben-Hur*.
Actress: Simone Signoret, *Room at the Top*.
Picture: *Ben-Hur*, MGM.
- 1960
Actor: Burt Lancaster, *Elmer Gantry*.
Actress: Elizabeth Taylor, *Butterfield 8*.
Picture: *The Apartment*, Mirisch Co., U.A.
- 1961
Actor: Maximilian Schell, *Judgment at Nuremberg*.
Actress: Sophia Loren, *Two Women*.
Picture: *West Side Story*, Mirisch Pictures, Inc. and B & P Enterprises, Inc., United Artists.
- 1962
Actor: Gregory Peck, *To Kill a Mockingbird*.
Actress: Anne Bancroft, *The Miracle Worker*.
Picture: *Lawrence of Arabia*, Horizon Pictures Ltd.—Sam Spiegel-David Lean prod., Columbia.
- 1963
Actor: Sidney Poitier, *Lilies of the Field*.
Actress: Patricia Neal, *Hud*.
Picture: *Tom Jones*, Woodfall Prod., UA-Lopert Pictures.
- 1964
Actor: Rex Harrison, *My Fair Lady*.
Actress: Julie Andrews, *Mary Poppins*.
Picture: *My Fair Lady*, Warner Bros.
- 1965
Actor: Lee Marvin, *Cat Ballou*.
Actress: Julie Christie, *Darling*.
Picture: *The Sound of Music*, 20th Century-Fox.
- 1966
Actor: Paul Scofield, *A Man for All Seasons*.
Actress: Elizabeth Taylor, *Who's Afraid of Virginia Woolf?*.
Picture: *A Man for All Seasons*, Columbia.
- 1967
Actor: Rod Steiger, *In the Heat of the Night*.
Supporting Actor: George Kennedy, *Cool Hand Luke*.
Actress: Katharine Hepburn, *Guess Who's Coming to Dinner*.
Supporting Actress: Estelle Parsons, *Bonnie and Clyde*.
Picture: *In the Heat of the Night*.
Foreign Language Film: *Closely Watched Trains*, Czechoslovakia.
- 1967
Documentary: (feature) Pierre Schoendorffer, *The Anderson Platoon*; (short subject) Mark Harris & Trevor Greenwood, *The Redwoods*.
Costume Design: John Truscott, *Camelot*.
Short Subjects: (cartoon) Fred Wolf, *The Box*; (live action) Christopher Chapman, *A Place to Stand*.
Music: (substantially original) Elmer Bernstein. *Thoroughly Modern Millie*; (adaptation or treatment) Alfred Newman & Ken Darby, *Camelot*; (song) Leslie Brisusse, *Talk to the Animals* from Dr. Doolittle.
- 1967
Cinematography: Burnett Guffey, *Bonnie and Clyde*.
Writing: (screenplay adapted) Stirling Silliphant, *In the Heat of the Night*; (directly for screen) William Rose, *Guess Who's Coming to Dinner*.
Irving Thalberg Memorial Award: Alfred Hitchcock.
- 1967
Jean Hersholt Award: Gregory Peck.

SPECIAL AWARDS, GRANTS, FELLOWSHIPS

All awards in 1968, unless otherwise designated

Books, Allied Arts

Jane Addams Children's Book Award, for the children's book best combining literary merit, themes of brotherhood and creative solutions to problems: Erik Christian Haugaard for *The Little Fishes*.

American Revolution Round Table Book Award, for a contribution to a better understanding of the history of the American Revolution: Lt. Col. John R. Galvin for *The Minute Men: A Compact History of the Defenders of the American Colonies, 1645-1775*.

Anisfield-Wolf Awards, by the Saturday Review for contribution to intergroup understanding, \$750 each: Raul Hilberg for *The Destruction of the European Jews*; Erich Kahler for *The Jews Among the Nations*; Robert Coles for *Children of Crisis: A Study of Courage and Fear*; and Norman Cohn for *Warrant for Genocide: The Myth of the Jewish World-Conspiracy and the Protocols of the Elders of Zion*.

Aviation/Space Writers Assn. Awards: Martin Caidin for *No Man's World*; Don Diggins for *Hollywood Pilot*; and Lt. Col. Gene Gurney and Lt. Col. James C. Elliott for *The Private Pilot's Handbook of Navigation*.

Emily Clark Balch Prizes, by the Virginia Quarterly Review, First Prize, \$500: John Berryman for *Eleven Dream Songs*.

Bancroft Prizes, by Columbia Univ. for books in American history, diplomacy and international relations, \$4,000 each: Bernard Bailyn for *The Ideological Origins of the American Revolution*; Dr. Henry Allen Bullock for *A History of Negro Education in the South from 1619 to the Present*; and Dr. Richard L. Bushman for *From Puritan to Yankee: Character and the Social Order in Connecticut, 1690-1765*.

Henry Bellamann Award, for contribution to literature, \$1,000: Elizabeth Spencer.

B'nai B'rith Jewish Heritage Award, for excellence in Jewish literature, \$1,000: Saul Bellow. **Brandeis Univ. Creative Arts Awards**, \$1,000 each: Lionel Trilling, Elizabeth Thomas, Joseph Cornell and Richard Rodgers.

John Burroughs Medal, for book on natural history: Hal Borland for *Hill Country Harvest*.

National Conference on Christianity and Literature Book Award: Dr. Nathan A. Scott, Jr. for *The Broken Center: Studies in the Theological Horizon of Modern Literature*.

The Civil War Round Table, Fletcher Pratt Award, for best nonfiction book about the civil war: Glyndon G. Van Deusen for *William Henry Seaward*.

Commonwealth Club of California, gold medals for best books by California authors: Fiction, Wallace Stegner for *All the Little Live Things*; nonfiction, Margaret Sanborn for *Robert E. Lee: The Complete Man, 1861-1870*.

John O'Hara Cosgrave Gold Medal for Literature, by the Dutch Treat Club of New York for services to American writing: Ben Lucien Burman.

Dutton Junior Animal Book Award: Walt Morey for *Kavik the Wolf Dog*.

Educator's Award, by the Delta Kappa Gamma Society, for the book by a woman which best deals with interests and aspects of education, \$1,500: Maya Pines for *Revolution in Learning*.

William Faulkner Foundation Award, for the best first novel of the year: Robert Stone for *A Hall of Mirrors*.

Friends of American Writers Award, \$1,000: Allan W. Eckert for two books, *The Frontiersman and Wild Season*.

Eva L. Gordon Award, by the American Nature Study Society: Robert M. McClung for *Redbird: The Story of a Cardinal*.

Joseph Henry Jackson Award, by the San Francisco Foundation, \$1,500: Stanley T. Rice, Jr., for 48 poems collected under the title *Eye*.

John F. Kennedy Memorial Award, by Harper & Row, \$10,000: Louis Heren for *The New American Commonwealth*.

Otto Kinkelley Award, by the American Musicological Society for excellence in a musicological book: William Austin for *Music in the Twentieth Century*.

Frederic G. Melcher Award, by the Unitarian Universalist Assn. for book judged to be the most significant contribution to religious liberalism, \$1,000: Alan Westin for *Privacy and Freedom*.

National Book Awards, by the American Booksellers Assn., American Book Publishers Council and the Book Manufacturers Institute, \$1,000 each: Thornton Wilder for *The Eighth Day*; Johnathan Kozel for *Death at an Early Age*; George F. Kennan for *Memoirs*; Robert Bly for *The Light Around the Body*; William Troy for *Selected Essays*.

National Institute of Arts and Letters, Richard and Hilda Rosenthal Foundation Awards, \$2,000

each: Joyce Carol Oates, author; and Elizabeth Osborne, painter. **Arnold W. Brunner Memorial Prize in Architecture**, \$1,000: John M. Johnson. **Gold Medals, poetry**: Wystan Hugh Auden; architecture: Buckminster Fuller. **Marc Blitzstein Award for the Musical Theatre**, \$2,500: Jack Beeson. **Marjorie Peabody Waite Award**, \$1,500: Abraham Harriton, painter. **Loines Award for Poetry**, \$2,500: Anthony Hecht. **Arts and Letters Grants**, \$2,500 each. **Art**: A Robert Birmelin, Kenneth Callahan, Leon Goldin, Joe Lasker, Vincent Smith, Elbert Weinberg, and Charles Wilson. **Literature**: John Malcolm Brinnin, Fred Chappell, Reuel Denney, Howard Moss, John Frederick Nims, Julia Randall, Richard G. Stern, and Eleanor Ross Taylor. **Music**: David Del Tredici, William Flanagan, Ned Rorem, and Francis Thorne. **Award of Merit**, \$1,000: Joseph Cornell, artist.

Nebula Awards, by the Science Fiction Writers of America. Samuel R. Delany won an award for the best novel *The Einstein Intersection*, and for the best short story *Eye and Gomorrah*; Novlette: Fritz Leiber for *Gonna Roll the Bones*.

John Newbery Medal, by the American Library Assn. for contribution to American literature for children: E. Konigsburg for *From the Mized-up Files of Mrs. Basil E. Frankweiler*.

P.E.N. Translation Award, \$1,000: Vladimir Mayov and Merrill Sparks for *Modern Russian Poetry*.

Edgar Allan Poe Awards, by the Mystery Writers of America. **Mystery Novel**: Donald Westlake for *God Save the Mark*; **First Mystery Novel**: Michael Collins for *Act of Fear*; **Fact Crime Book**: Victoria Lincoln for *A Private Disgrace*; **Juvenile Mystery**: Gretchen Sprague for *Signpost to Terror*. **Academy of American Poets Fellowship Award**, \$5,000: Stanley Kunitz.

John Glimary Shea Prize, by the American Catholic Historical Assn. for contributions to literature in history & biography: Rev. Robert Burns for *The Crusader Kingdom of Valencia: Reconstruction of a Thirteenth-Century Frontier*.

The Texas Institute of Letters, for best Texas books. **Carr P. Collins Award**, for non-fiction, \$1,000: Will Morris for *North Town Home*. **Jesse H. Jones Award for fiction**, \$1,000: Robert Flynn for *North to Yesterday*. **Friends of the Dallas Public Library Award**, for best book in the field of general knowledge, \$500: W. W. Newcomb for *Rock Art of Texas Indians*. **Amon G. Carter Award**, for book on Southwest history, \$500: Pauline A. Pinckney for *Painting in Texas*. **Voertman Poetry Award**, \$200: Frederic Will for *Planets*.

Western Heritage Awards, by the National Cowboy Hall of Fame: Robert Flynn for *North to Yesterday*; Eric Scott for *Down the Rivers, Westward Ho!*; Maurice Bloch for *George Washington: Birth of an Artist*; John Hawgood for *America's Western Frontiers*; and Carolyn Weirhaye for *The Snows of Rimrock Ridge*.

Journalism Awards

American Institute of Physics—United States Steel Foundation Science Writing Award, \$1,500: William J. Perkinson, *The Baltimore Evening Sun*.

Meyer Berger Award, by Columbia Univ. Graduate School of Journalism for distinguished local reporting in a New York daily, \$500 each: J. Anthony Lukas, *N. Y. Times*; and Felix Kessler, *The Wall Street Journal*.

Heywood Brown Memorial Award, by the American Newspaper Guild, \$1,000: Robert Wyrick, *Today*, *Cocoa*, Fla.

National Cartoonist Society Awards. **Cartoonist of the Year** (Reuben Award): Rube Goldberg. **Humor strip**: John Hart, *Wizard of Id*, B.C., Publishers-Hall Syndicate. **Advertising and illustration**: Roy Doty. **Editorial cartoon**: Karl Hubenthal, *Los Angeles Herald Examiner*. **Sports cartoon**: Lou Darvas, *Cleveland Press*. **Syndicated panel**: Bill Keane, *Family Circus*, *Channel Chuckles*. **Register and Tribune Syndicate**. **Comic books**: Will Eisner. **Magazine gag cartoons**: Orlando Busino. **Special feature**: Hal Foster, *Prince Valiant*, *King Features Syndicate*. **Strip**: John Prentice, *Rip Kirby*, *King Features*.

Raymond Clapper Memorial Award: Nathan K. Kotz, *The Des Moines Register*.

Grenville Clark Editorial Page Award, sponsored by the Stanley Foundation: Joe Lersky, *Celina* (Ohio) *Daily Standard*, and Jack Bender, *Waterloo* (Iowa) *Daily Courier*.

Fourth Estate Award, for distinguished public service in communications: William S. White, *United Features Syndicate*.

Albert Lasker Medical Journalism Awards: Carl M. Cobb, *The Boston Globe*; Matt Clark, *Newsweek* magazine; and CBS News.

Loeb Awards, for excellence in business and

financial writing, \$1,000 each: Richard A. Nenne-man, Christian Science Monitor; and Michael Laurence, Playboy Magazine.

Edward J. Meeman Conservation Awards, by Scripps-Howard Foundation, for work in the cause of conservation: First Prize, \$1,000: James Ryan, St. Petersburg Times. Other Awards, cash prizes as indicated: Neva S. Flaherty, Perth Amboy (N. J.); Evening News (\$750); Fred Garretson, Oakland Tribune (\$750); Guernsey Le Peller, Christian Science Monitor (\$500); James Robey, Dayton, Ohio, Journal Herald (\$500); Julian Morrison, Washington Daily News (\$500); John G. Warren, Moline, Ill., Daily Dispatch (\$500); Ralph Thornton, Minneapolis Star (\$250); and Ward Sinclair, Louisville Times (\$250).

University of Missouri Awards: Honor awards for distinguished service in journalism to Seymour Topping, foreign news editor of the New York Times; Ben F. Weir, Sr., publisher of the Nevada (Mo.) Daily Mail; NBC's Today Show, the New York Daily News; the Encyclopedia Britannica; the Newspaper Fund; and the Saturday Review.

National Magazine Award: Newsweek magazine, for development of a new form of editorial analysis and advocacy in its major effort to present American racial problems.

Newspaper Reporters Assn. of New York City, plaques for excellence in writing, reporting and public service: Lawrence Van Gelder, William Federici, Edward O'Neill, Patrick Doyle and Joseph Modzelowski, all New York Daily News; J. Anthony Lukas and Milton Esterow, both New York Times; Cy Egan, New York Post; Ralph Penza, WCBS-TV; and Joe Famm, WABC.

Overseas Press Club Awards, for distinguished service in foreign journalism: George Polk Memorial Award, for best reporting in any medium requiring exceptional courage and enterprise abroad, \$500; Eric Pace, The New York Times. **Vision Magazine—Ed Stout Award**, for a report on Latin America, \$500: Laura Bergquist, Look magazine. **E. W. Fairchild Award**, for best business reporting, \$500: Ray Vicker, The Wall Street Journal. **Asia Magazine Award**, for a report on that region, \$500: Horace Sutton, Saturday Review. **Robert Capa Medal for Photography**, David Douglas Duncan, Life Magazine & ABC. Other Award Winners: Joe Alex Morris, Jr., Los Angeles Times; Michael R. McGrady, Newsday; R. W. Apple, Jr., The New York Times; Linda Grant Martin; Frances FitzGerald, Atlantic Monthly; Catherine Leroy, Associated Press; Jack Smith, Saturday Evening Post; Peter Skingley, United Press International; Don North; James Robinson, Wells Hanger, both NBC; Eric Sevareid, CBS; Ted Yates, NBC; George F. Kennan; and William Attwood, Look magazine.

Page One Awards, by the Newspaper Guild of New York: Local Reporting, William Rice, Daily News; Crusading Journalism, Leonard Victor, Long Island Press; National Reporting, Louis Cassels, UPI; Feature Writing, J. Anthony Lukas, Times, and Bernard Bard, Post; News Photo, Frank Hurley, Daily News; Feature Photo, Bill Quinn, Daily News; Sports Photo, Robert Walker, Times; Editorial Cartoon, John Platten, Post; Sports Cartoon, Bill Gallo, Daily News; Magazine photography, Stanley Tretick, Look magazine.

George Polk Memorial Awards, by Long Island Univ. for achievement in journalism: Foreign Reporting, R. W. Apple, Jr., The New York Times; National Reporting, Clayton Fritchey, Newsday; Local Reporting, J. Anthony Lukas, The New York Times; Community Service, Newsday; News Photography, Catherine Leroy, The Associated Press; Magazine Reporting, The Paris Review; Criticism, Saul Maloff, Newsweek.

Ernie Pyle Memorial Award, by Scripps-Howard Newspapers, to the newspaperman most nearly exemplifying the style and craftsmanship of Ernie Pyle, \$1,000: Martin Gershen, The Newark Star-Ledger; and William Thomas, The Memphis Commercial Appeal.

Richard Reid Memorial Award, by the Catholic Institute of the Press: Victor L. Ridder, publisher, The Catholic News.

John Russum Award, by the N. Y. Urban League to members of the news media whose material has contributed to improving the plight of the unfortunate in the New York community: C. Gerald Fraser, New York Times; Ponchitta Pierce, Ebony Magazine; George Barner, The Amsterdam News; Laymond Robinson, ABC-TV; Hugh L. Simpson, WMCA; Nat Hentoff, Village Voice; Nancy Hicks, New York Post.

Sigma Delta Chi Awards. General reporting: Charles Nicodemus, Chicago Daily News. Editorial writing: Robert E. Fisher, Crossett (Ark.) News Observer. Washington correspondence: Jack C. Landau, Newhouse News Service. Foreign correspondence: Peter Arnett, Associated Press. News photography: Catherine Leroy, free-lance, Paris. Editorial cartooning: Eugene C. Payne, Charlotte (N. C.) Observer. Public service: Newsday, Garden

City, N. Y. Magazine reporting: William Lambert, Life. Magazine public service: Philadelphia Magazine. Radio reporting: WJR, Detroit. Radio editorializing: WSBA, York, Pa. Radio public service: Westinghouse Broadcasting Co. TV reporting: John Laurence, CBS. TV public service: NBC. TV editorializing: KWTU, Oklahoma City, Okla. Research about journalism: Prof. John Hohenberg, Columbia University Graduate School of Journalism.

Silurian Awards, by the Silurians, a society of present and former New York newspapermen: Spot News, The Morning Call of Paterson, N. J.; Feature Story, Milton Esterow, New York Times; Public Service, Newsday; Spot News Photo, Mel Finkelstein, The Daily News; Feature Photo, Jim Garrett, The Daily News; Editorial Writing, Joseph E. Evans, The Wall Street Journal; Cartoon, John Platten, New York Post.

Mark Watson Memorial Award, for distinguished news writing on military subjects: Jim G. Lucas, Scripps-Howard Newspaper Alliance.

William Allen White Foundation Citation for Journalistic Merit: Erwin D. Canham, The Christian Science Monitor.

John Peter Zenger Freedom of the Press Award: John S. Knight, editor and publisher.

Music Awards

Chopin Competition, by the Kosciuszko Foundation, \$1,000: Alan David Marks, pianist.

Kirsten Flagstad Memorial Awards, for young people preparing for careers in opera: Richard Daren Evans, St. Louis, Mo., and David Stone, Indiana Univ.

Dimitri Mitropoulos International Music Competition, \$5,000 and a gold medal each: Boris Brott, Canada; Gaetano Delogu, Italy; Francois Huybrechts, Belgium, and Farhad Mechat, Iran. Other awards, cash prizes as indicated: Catherine Comet, France (\$2,500); Akira Endo, Japan (\$1,000).

Science Awards

Archives of Science Award, for contributions to public understanding of science, \$25,000: Dr. Glenn T. Seaborg.

Enrico Fermi Award, by the Atomic Energy Comm., \$25,000: Dr. John A. Wheeler, Princeton Univ.

Robert H. Goddard Memorial Trophy, by the National Space Club: Dr. Robert C. Seamans.

Hailey Astronautics Award, by the American Institute of Aeronautics and Astronautics: Lt. Col. Virgil I. Grissom, posthumously, for meritorious service and outstanding contributions to the advancement of manned space flight.

The National Academy of Sciences Awards, \$5,000 to Dr. Jack L. Strominger, Univ. of Wisconsin, for his work with bacterial cells. **U. S. Steel Foundation Award**, \$5,000: Dr. Walter Gilbert, Harvard Univ., for research in the field of genetics. **John J. Carly Medal**, \$3,000: Dr. Murray Gell-Mann, Calif. Inst. of Technology. **Comstock Prize**, \$2,000 each: Dr. Leon N. Cooper, Brown Univ., and Dr. J. Robert Schrieffer, Univ. of Penn., for research in the field of electricity.

National Medal of Science, established by Congress to be awarded by the President to individuals who are deserving of special recognition by reason of their contribution to knowledge in the physical, biological, mathematical or engineering sciences: Kenneth Cole, National Institutes of Health; Harry F. Harlow, Univ. of Wisconsin; Alfred H. Sturtevant, Calif. Inst. of Technology; Michael Heidelberger, New York Univ.; Edwin H. Land, Polaroid Corp.; Igor I. Sikorsky, Sikorsky Aircraft; Paul J. Cohen, Sanford Univ.; Jesse W. Beams, Univ. of Virginia; Francis Birch, Harvard Univ.; Gregory Breit, Yale Univ.; Louis F. Hammett, Columbia Univ.; and George Kistiakowsky, Harvard Univ.

Smithsonian Institution Research Awards, provides postdoctoral scientists with opportunities for independent research in the various areas of investigation pursued at the Smithsonian Institution. The stipends ranged from \$12,000 to \$15,000: Krishna Apparao, India; Philippa Black, New Zealand; Vagn Buchwald, Denmark; Walter Cernohorsky, Fiji Islands; Elias R. de la Sota, Argentina; Dennis Devaney, Hawaii; Leo J. Hickey, Philadelphia, Pa.; Eui Lin, Philadelphia, Pa.; Philip Malone, Louisville, Ky.; Bruce Runnegar, Australia.

Stouffer Prize, for contribution to the understanding of blood pressure, \$12,500 each: Dr. Leonard T. Skeggs, Western Reserve Univ.; Dr. Merlin Bumpus, Cleveland Clinic Fdn.; Dr. William S. Pearl, London; Prof. Robert Schwyzler, Zurich.

Westinghouse Science Talent Search, annual high school student science talent competition for scholarships conducted by Science Service through its Science Clubs of America. First Prize, \$10,000: Roger Y. Tsien, Livingston, N.J. Three students from Forest Hills High School in Queens, N.Y.,

won the following: John Gomori (\$8,000); Perrin White (\$8,000), and John Goldsmith (\$4,000). **Other winners**, scholarship awards as indicated: Bruce L. Frostick, Jr., Richmond, Va. (\$6,000); Robert W. Guth, Eureka, Ill. (\$6,000); William L. Spence, Farmington, Mich. (\$6,000); Penclope Jo Parsons, San Diego, Calif. (\$4,000); Jonathan Rosenberg, Pittsburgh, Pa. (\$4,000); and Bruce Waddington, Long Beach, Calif. (\$4,000).

Television & Radio Awards

Emmy Awards by the Academy of Television Arts and Sciences. **Actors Awards:** Continued performance in a dramatic series, Bill Cosby, *I Spy* (NBC); Continued performance in a comedy series, Don Adams, *Get Smart* (NBC); Single performance in a drama, Mervyn Douglas, *Do Not Go Gentle Into That Good Night* (CBS Playhouse); Supporting role in a dramatic series, Milburn Stone, *Gunslinger* (CBS); Supporting role in a comedy series, Werner Klemperer, *Hogan's Heroes* (CBS); **Actress Awards:** Continued performance in a dramatic series, Barbara Bain, *Mission: Impossible* (CBS); Continued performance in a comedy series, Lucille Ball, *The Lucy Show* (CBS); Single performance in a drama, Maureen Stapleton, *Among the Paths to Eden* (ABC Special); Supporting role in a drama, Barbara Anderson, *Ironside* (NBC); Supporting role in a comedy, Marion Lorne, *Bewitched* (ABC). **Best Musical or Variety Program:** Rowan & Martin Laugh-In (NBC). **Dramatic Programs:** (special) Elizabeth the Queen (NBC); (series) *Mission: Impossible* (CBS). **Writing Awards:** (comedy) Allan Burns & Chris Hayward, *He & She* (CBS); (music or variety) Chris Beard, Phil Hahn, Jack Hanrahan, Coslough Johnson, Paul Keyes, Marc London, Allan Manings, David Panich, Hugh Wedlock and Digby Wolfe, Rowan and Martin's Laugh-In (NBC); (drama) Loring Mandel, *Do Not Go Gentle Into That Good Night* (CBS). **Directing Awards:** (comedy) Bruce Bilson, *Get Smart*; (drama) Paul Bogart, *Dear Friends* (CBS Playhouse).

George Foster Peabody Awards, for achievement in television and radio. **Television:** Entertainment Award: CBS Playhouse; and An Evening at Tangewood (NBC). **Education Award:** The Eternal Light (NBC). **Art and Atrial (ABC), Youth and Children's Programs:** The Children's Film Festival (CBS); and Mr. Knozt (WIS-TV), Columbia, (S. C.). **Public Service:** The Opportunity Line (WBMM-TV, Chicago). **Special Awards:** Bob Hope, Ed Sullivan, Eric Sevareid and James R. Killian, Jr. **Radio-Television Special Award:** Meet the Press (NBC). **Radio News Award:** Elie Abel, *The World and Washington* (NBC).

Theater Awards

American Society of Composers Award, for contributions to American theater music, \$1,250: Walter Marks.

Clarence Derwent Awards, for performance in nonfeatured roles, \$500 each: David Birney, for *Summertime*, and Catherine Burns for *The Prime of Miss Jean Brodie*.

Margo Jones Award, presented to producers who have done the most to stimulate the production of new plays, \$500: Edith Baker, managing director of the Dallas Theater Center.

Joseph Maharam Foundation Awards, for stage design, \$500: Peter Wexler for *The Happy Time*; Ming Cho Lee for *Ergo*; and Nancy Potts, designer for the APA-Phoenix's *The Show-Off*, *The Cherry Orchard*, *Panteleize*, and *Exit the King*.

New York Drama Critics Circle Award, for best productions during the season: Play, Rosenkrantz and Guildenstern Are Dead. *Musical*, Your Own Thing.

Antoinette Perry Awards (Tonys). By the League of New York Theaters, 1967-68 season. *Hallelujah, Baby!* won the following awards: Best Musical; Musical Score, Jule Styne, Betty Comden and Adolph Green; Supporting Actress, Lillian Hayman; Actress (co-winner), Leslie Uggams. **Other Awards, Drama:** Best Play, *Rosenkrantz and Guildenstern Are Dead*. Actor, Martin Balsam, *You Know I Can't Hear You When the Water's Running*. Actress, Zoe Caldwell, *The Prime of Miss Jean Brodie*. Supporting Actor, James Patterson, *The Birthday Party*. Supporting Actress, Zena Walker, Joe Egg, Director, Mike Nichols, *Plaza Suite*. Musical: Best Actor, Robert Goulet, *The Happy Time*. Actress, Patricia Routledge (co-winner) *Darling of the Day*. Supporting Actor, Hiram Sherman, *How Now, Dow Jones*. Director, Gower Champion, *The Happy Time*. Choreographer, Gower Champion, *The Happy Time*.

Vernon Rice Awards, by the Drama Desk, an organization of drama editors and reporters, for outstanding achievement in the Off-Broadway theater: Israel Horowitz, Bruce Jay Friedman, Ron Cowen and Ed Bullins, playwrights. Donald

Driver, Tom O'Horgan and Robert Moore, directors. Galt MacDermot and Al Carmines, composers. Helen Hayes, actress.

Sang Prize for Critics of the Fine Arts, by Knox College, \$5,000: Harold Clurman.

Sam S. Shubert Foundation Award, for outstanding contribution to the American theater: Neil Simon.

Other Awards

American Homemaker of Tomorrow, conducted annually by General Mills, Inc., for senior class high school girl, \$5,000 first prize to Irene Lindley, Honolulu, Hawaii.

American Institute of Architects Gold Medal: Marcel Breuer.

Aspen Award, \$30,000 tax free to the individual anywhere in the world judged to have made the greatest contribution to the advancement of the humanities: Edmund Wilson.

Atoms for Peace Award, \$30,000 each: Sigvard Eklund, Sweden; Abdus Salam, Pakistan; and Henry DeWolf Smyth, United States.

Bernard M. Baruch Prize, for contributions in the field of conservation, \$2,000 each: Rep. John P. Saylor and Rep. John A. Blatnik.

Frederick Douglas Awards, by the New York Urban League: Robert Mangum; Rev. Gregory L. Mooney; and Mr. and Mrs. Stephen Currier. **Special Citation:** W. Willard Wirtz.

Albert Einstein Commemorative Awards, for contributions to man's betterment: Henry S. Moore; Dr. Harry Eagle; James Reston; Robert C. Weaver and Jack D. Weiler.

Federal Woman's Award, for outstanding service to the nation: Dr. Ruth Rogan Benerito, Dr. Mabel Kuncze Gibby, Frances M. James, Mrs. Ruby Grant Martin, Dr. Lucille F. Stickel, Rogene L. Thompson, and Dr. Nina Benich Woodside.

Freedoms Foundation Awards, given annually by the Freedoms Foundation at Valley Forge for contribution toward a better understanding and greater appreciation of the American Way of Life. **George Washington Award**, \$5,000: Frank J. Mrkva. **National Service Medal:** Martha Raye.

American Statesman Medal: James F. Byrnes. **Defender of Freedom Award**, \$1,000: Mark A. White. Creston, Iowa. **Freedom Leadership Medals:** Dr. William B. Walsh, Washington, D. C.; Dr. Kenneth McFarland, Topeka, Kansas; and Mr. and Mrs. Walter Knott, Buena Park, Calif.

National Recognition Awards: Ernest Crain, Sheriff Donald S. Genung, Lt. Col. Samuel R. Loboda, and Mr. and Mrs. Ken Masner. **Other Awards:** **George Washington Medals**, cash prizes as indicated: Rev. John F. Sammon, Tustin, Calif. (\$500); Carl R. Terzian, Los Angeles, Calif. (\$500); Louis Goodwin, Columbus, Ohio (\$500); Jim Wright, Dallas, Tex. (\$500); Mary Jo Payne, Tulsa, Okla. (\$500).

Sidney Hillman Awards, by the Sidney Hillman Fdn. for achievement in mass communications, \$500 each: Dr. Alan Westin, Ronald Steel, Howard James, and Jay L. McMullen. **Special Citation:** Harold and Lynne Mayer.

Human Relations Awards, by the National Conference of Christians and Jews: John Cardinal Krol, Archbishop of Philadelphia.

Thomas Jefferson Memorial Medal in Architecture, by the Univ. of Virginia, \$5,000: Marcel Breuer.

Joseph P. Kennedy Jr. International Awards, for work in mental retardation, \$20,000 each: Dr. Nells Erik Bank-Mikkelsen, Copenhagen, Denmark; Dr. Maria Egg, Zurich, Switzerland; Dr. Robert Cooke, Johns Hopkins Univ.; Harvey A. Stevens, Univ. of Wisconsin; Dr. Harold M. Skells, Balboa, Calif.; Dr. Maria Skodak, Swartz Creek, Mich.; Dr. Jack Tizard and Dr. Neil O'Connor, both London.

Lactate Medal, by the Univ. of Notre Dame to outstanding Catholic laymen: Sargent Shriver.

Lawman of the Year, by the National Sheriff's Assn.: Sheriff William R. Heidtman, Palm Beach County, Fla.

Herbert H. Lehman Human Relations Award, by the American Jewish Committee: Gustave L. Levy.

Frances Lehman Loeb Award, from the American Field Service for contributions toward understanding among people of different nations, \$5,000; Yves-Louis Decker.

Jawaharlal Nehru Award for International Understanding, \$13,000: Dr. Martin Luther King, posthumously.

Philadelphia Fellowship Commission's National Fellowship Award, for contributions to human rights: Mayor Carl B. Stokes of Cleveland and Mayor Richard G. Hatcher of Gary, Indiana.

Sylvanus Thayer Medal, by the Association of Graduates, U. S. Military Academy: Bob Hope, for outstanding service to the nation.

Thomas D. White National Defense Award, by the Air Force Academy for contribution to the national defense and security of the country: Gen. Carl Spaatz.

Miss America Pageant of Atlantic City, N. J.

The Miss America Pageant of Atlantic City, N. J., is a resort-promotion device developed since 1921, attracting thousands of visitors and getting national newspaper, radio and television coverage. Miss Ruth McCandless is Executive Secretary. Local and state contestants are chosen by civic, educational and service organizations. A contestant must have a high school education and may come from any of the 50 states. The Scholarship Foundation, supported by industrial leaders, supplies \$58,000 at the national finals, while \$500,000 is awarded at 3,500 local and state pageants leading up to the finals. The 1968 finals were held at Atlantic City Sept. 2-8.

MISS AMERICA PAGEANT CONTESTANTS

MISS AMERICA OF 1969 (\$10,000 Scholarship)

Miss Illinois—Judith Anne Ford, Belvidere.

RUNNERS UP

Miss Massachusetts—Catherine Monroe, Lynnfield, 1st—\$6,000 scholarship.

Miss Iowa—Susan Alane Thompson, Des Moines, 2nd—\$3,000 scholarship.

Miss Oregon—Marjean Kay Langley, Milton-Freewater, 3rd—\$2,500 scholarship.

Miss Indiana—Katherine Virginia Field, Indianapolis, 4th—\$2,000 scholarship.

SEMI-FINALISTS (\$1,500 Scholarship)

Miss Alabama—Dellynne Cole Catching, Birmingham.

Miss Florida—Linda Fitts, Panama City.

Miss New York—Patricia Joy Burmeister, Portville.

Miss Tennessee—Brenda Joan Seal, Kingsport.

Miss Virginia—Cherie Suzanne Davis, Clifton Forge.

TALENT AWARDS (\$1,000 Scholarship)

Most Talented in All Other Fields—Miss California, Sharon Kay Terrill, Torrance.

Most Talented Classical Singer—Miss Connecticut, Gunnell L. Ragone, West Hartford.

Most Talented Popular Singer—Miss North Carolina, Elisa Annette Johnson, New Bern.

Most Talented Actress (Serious)—Miss South Dakota, Charlotte Ann McKay, Vermillion.

Most Talented Dancer—Miss Vermont, Elizabeth Ann Sackler, Putney.

Most Talented Musician—Miss Wyoming, Carol Ann Ross, Burns.

Miss Congeniality—Miss New Mexico, Karen Jan Maciolek, Albuquerque.

Judges Special Award—Miss Idaho, Karen Renee Ryder, Weiser.

Preliminary Talent Winners—Misses Florida, Illinois and Virginia.

Preliminary Swimsuit Winners—Misses Alabama, Illinois and Iowa.

ALL OTHER CONTESTANTS

(\$500.00 Scholarships)

Miss Alaska—Jane Allison Haycraft, Fairbanks.

Miss Arizona—Linda Johnson, Warren.

Miss Arkansas—Helen Rose Gennings, Batesville.

Miss Colorado—Pamela Sue Kerker, Sterling.

Miss Delaware—Gayle Freeman, Wilmington.

Miss Georgia—Burma Ann Davis, Warner Robbins.

Miss Hawaii—Deborah Ynez Gima, Kailua, Oahu.

Miss Kansas—Jane Kathryn Bair, Parsons.

Miss Kentucky—Janet Sue Hatfield, Jeffersonton.

Miss Louisiana—Susanne Gail Saunders, Shreveport.

Miss Maine—Brenda Renee Verceles, Bangor.

Miss Maryland—Karen Ann Hansen, College Park.

Miss Michigan—Darlene Joyce Kurant, Muskegon.

Miss Minnesota—Mary Louise Williams, Minneapolis.

Miss Mississippi—Mary Linda Mills, Hattiesburg.

Miss Missouri—Kathleen Paulette Goff, DeSoto.

Miss Montana—Karen Sue Frank, Park City.

Miss Nebraska—Diane Lorraine Boldt, Omaha.

Miss Nevada—Sharon Jane Davis, Reno.

Miss New Hampshire—Michelle Sharon Godfrey, Pease A.F.B.

Miss New Jersey—Linda Ann Wilmer, Laurel Springs.

Miss North Dakota—Virginia Lee Hansen, Bismark.

Miss Ohio—Leslyn Anita Hipple, Louisville.

Miss Oklahoma—Beverly Jeanne Drew, Harrah.

Miss Pennsylvania—Susan Robinson, Hershey.

Miss Rhode Island—Arlene Lois Pinto, Warwick.

Miss South Carolina—Rebecca Louise Smith, Clover.

Miss Texas—Shirley Diane Huggins, Tyler.

Miss Utah—Kathleen Frances Wood, Salt Lake City.

Miss Washington—Joyce Kay Stepanek, Issaquah.

Miss West Virginia—Charlotte Delana Warwick, Charleston.

Miss Wisconsin—Marilyn Kay Brahmsteadt, Wisc. Rapids.

Miss America Winners of Yesteryear and Today

		Height	Bust	Waist	Hips	Wgt.	Age	Hair	Eyes
1921	Margaret Gorman, Washington, D. C.	5-1	30	25	32	108	16	Blonde	Blue
1922-23	Mary Campbell, Columbus, Ohio	5-7	35	26	36	140	16	Brown	Blue
1924	Ruth Malcomson, Philadelphia, Pa.	5-6	34	25	34	137	18	Brown	Blue
1925	Fay Lanphier, Oakland, California	5-8	35	26	37	138	19	Blonde	Hazel
1926	Norma Smallwood, Tulsa, Oklahoma	5-4	33	25	34	118	18	Brown	Blue
1927	Lola Delander, Joliet, Illinois	5-5½	33	25½	34	115	17	Brown	Blue
1928	Marion Bergeron, West Haven, Conn.	5-4	32	24	33½	112	16	Blonde	Blue
1935	Henrietta Leaver, Pittsburgh, Pa.	5-6½	33	23	35½	120	19	Brown	Blue
1936	Rose Coyle, Philadelphia, Pa.	5-6	34	23½	34½	114	22	Black	Brown
1937	Bette Cooper, Bertrand Island, N. J.	5-6	32	26	36	120	17	Blonde	Blue
1938	Marilyn Meseke, Marion, Ohio	5-7	34½	26	35½	128	20	Blonde	Blue
1939	Patricia Donnelly, Detroit, Michigan	5-7	36	25	34	126	19	Brown	Brown
1940	Frances Marie Burke, Philadelphia, Pa.	5-9	34	23	35	120	19	Brown	Green
1941	Rosemary LaPlanche, Los Angeles, Calif.	5-5½	34	24	36	120	18	Blonde	Hazel
1942	Jo-Carroll Dennison, Tyler, Texas	5-5	34	22	34½	118	18	Brown	Brown
1943	Jean Bartel, Los Angeles, Calif.	5-8	36	23	35	130	19	Brown	Blue
1944	Venus Ramey, Washington, D. C.	5-7	37½	25	36½	125	19	Auburn	Blue
1945	Bess Myerson, New York City, N. Y.	5-10	35½	26	35	135	20	Black	Hazel
1946	Marilyn Buford, Denver, Colorado	5-5	35	23	35	123	21	Brown	Blue
1947	Barbara Walker, Memphis, Tennessee	5-7	35	25½	35	130	21	Black	Hazel
1948	BeBe Shopp, Hopkins, Minnesota	5-9	37	27	36	140	18	Brown	Hazel
1949	Jacque Mercer, Litchfield, Arizona	5-4	34	22	34	106	18	Black	Brown
1951	Yolande Betbeze, Mobile, Alabama	5-5½	35	24	35	119	21	Brown	Brown
	(Postdated)								
1952	Colleen Kay Hutehins, Salt Lake City, Utah	5-10	36	24	36	143	25	Blonde	Blue
1953	Neva Jane Langley, Macon, Ga.	5-6½	36	23	35	118	19	Brown	Green
1954	Evelyn Margaret Ay, Ephrata, Pa.	5-8	37	24	36	132	20	Blonde	Green
1955	Lee Meriwether, San Francisco, Calif.	5-8½	34½	22	35	124	19	Brown	Blue
1956	Sharon Ritchie, Denver, Colorado	5-6	35	23	35	116	18	Brown	Blue
1957	Marlan McKnight, Manning, S. C.	5-5	35	23	35	120	19	Blonde	Blue
1958	Marilyn Van Derburg, Denver, Colorado	5-8½	35	25	36	130	20	Blonde	Green
1959	Mary Ann Mobley, Brandon, Miss.	5-5	34½	22	35	114	21	Brown	Brown
1960	Lynda Lee Mead, Natchez, Miss.	5-7	36	24	36	120	20	Brown	Green
1961	Nancy Fleming, Montague, Michigan	5-6	35	22	35	116	18	Brown	Green
1962	Maria Fletcher, Asheville, N. C.	5-5½	35	24	35	116	19	Brown	Hazel
1963	Jacquelyn Mayer, Sandusky, Ohio	5-5	36	22	36	115	20	Brown	Hazel
1964	Donna Axum, El Dorado, Arkansas	5-6½	35	23	35	124	21	Brown	Brown
1965	Vonda Kay Van Dyke, Phoenix, Ariz.	5-6	36	24	36	124	21	Brown	Brown
1966	Deborah Irene Bryant, Overland Park, Kansas	5-7	36	23	36	115	19	Brown	Blue
1967	Jane Anne Jayroe, Laverne, Oklahoma	5-6	36	24	35	116	19	Brown	Green
1968	Debra Dene Barnes, Moran, Kansas	5-9	36½	24	36½	135	20	Brown	Blue
1969	Judith Anne Ford, Belvidere, Ill.	5-7	36	24½	36	125	18	Blonde	Blue

Prior to 1950 the selection of Miss America was for the year in which she was selected. Starting with 1950 she became Miss America of the following year; as a result there was no Miss America for 1950.

Labor Union Memberships

Source: AFL-CIO and World Almanac Questionnaire
UNIONS WITH A MEMBERSHIP OF 25,000 OR OVER
As of Sept. 1, 1968

AFL-CIO UNIONS		MEMBERS	AFL-CIO UNIONS		MEMBERS
Actors and Artists of America, Associated		68,000	Office & Professional Employees Int'l		61,000
Air Line Pilots Assn.		28,000	Oil, Chemical and Atomic Workers Int'l		147,000
Aluminum Workers Int'l. Union		27,000	Union		
Bakery and Confectionery Workers Int'l		82,000	Painters, Decorators and Paperhangers of		160,000
Union, American			America, Brotherhood of		121,000
Barbers, Hairdressers and Cosmetologists'		66,000	Papermakers and Paperworkers, United		
Int'l Union of America, Journeymen			Plasterers' and Cement Masons' Int'l		68,000
Boilermakers, Iron Ship Builders, Black-		123,000	Ass'n of the United States and Canada,		
smiths, Forgers and Helpers, Int'l			Operative		
Brotherhood of		61,000	Plumbing and Pipe Fitting Industry of the		225,000
Bookbinders, Int'l Brotherhood of		40,000	United States and Canada, United Ass'n		152,000
Boot and Shoe Workers' Union		40,000	of Journeymen and Apprentices of the		
Brewery, Flour, Cereal, Soft Drink and		120,000	Postal Clerks, United Federation of		106,000
Distillery Workers, Int'l Union of United			Printing Pressmen's and Assistants' Union		
Bricklayers, Masons and Plasters Int'l		700,000	of North America, Int'l		
Union of America			Pulp Sulphite and Paper Mill Workers of		141,000
Carpenters and Joiners of America, United		28,000	the United States and Canada, Int'l		
Brotherhood of		88,000	Brotherhood of		
Cement, Lime and Gypsum Workers Int'l			Railroad Trainmen, Brotherhood of		96,000
Union, United			Railway Carmen of America, Brotherhood		76,000
Chemical Workers Union, Int'l		288,000	Railway, Airline, and Steamship Clerks,		
Clothing Workers of America		329,000	Freight Handlers, Express and Station		175,000
Amalgamated			Employees, Brotherhood of		510,000
Communications Workers of America		27,000	Retail Clerks, Int'l Ass'n		
Distillery, Rectifying, Wine & Allied			Retail, Wholesale and Department Store		119,000
Workers' Int'l Union of America			Union		
Dolls, Toys, Playthings, Novelties and		26,000	Rubber, Cork, Linoleum and Plastic		174,000
Allied Products of the United States and			Workers of America, United		80,000
Canada, International Union of		312,000	Seafarers Int'l Union of North America		344,000
Electrical, Radio and Machine Workers		724,000	Service Employees Int'l. Union		100,000
Int'l Union of			Sheet Metal Workers Int'l. Union		44,000
Electrical Workers, Int'l Brotherhood of		300,000	Shoe Workers of America, United		
Engineers, Int'l Union of Operating		87,000	Stage Employees and Moving Picture Ma-		
Fire Fighters, Int'l Ass'n of		41,000	chine Operators of the United States and		50,000
Firemen and Oilers, Int'l Brotherhood of		34,000	Canada, Int'l Alliance of Theatrical		
Furniture Workers of America, United		35,000	State, County and Municipal Employees,		350,000
Garment Workers of America, United		363,000	American Federation of		943,000
Garment Workers Union, Int'l Ladies		32,000	Steelworkers of America, United		143,000
Glass and Ceramic Workers of North			Teachers, American Federation of		37,000
America, United		70,000	Textile Workers of America, United		122,000
Glass Bottle Blowers' Ass'n of the United		34,000	Textile Workers Union of America		89,000
States and Canada			Transit Union Amalgamated		
Glass Workers Union, American Flint		249,000	Transportation-Communication Em-		27,000
Government Employees, American Fed-			ployees Union		80,000
eration of		28,000	Transport Workers Union of America		90,000
Hatters, Cap and Hat Millinery Workers Int'l			Typographical Union, Int'l		
Union, United		300,000	Upjohns' Int'l Union of North		50,000
Hotel and Restaurant Employees' and		86,000	America		52,000
Bartenders' Int'l. Union			Utility Workers Union of America		49,000
Industrial Workers of America, Int'l		150,000	Woodworkers of America, Int'l		
Union, Allied					
Iron Workers, International Association of		453,000			
Bridge and Structural					
Laborers' International Union of North		39,000			
America					
Leather Goods, Furs and Novelty		130,000			
Workers Union, International					
Letter Carriers, National Association of		44,000			
Lithographers and Photoengravers Int'l		33,000			
Union					
Locomotive Firemen and Enginemen,		50,000			
Brotherhood of					
Longshoremen's Ass'n, Int'l		800,000			
Machinists & Aerospace Workers Int'l					
Ass'n of		63,000			
Maintenance of Way Employees, Brother-					
hood of		32,000			
Marine and Shipbuilding Workers of		45,000			
America, Industrial Union of					
Maritime Union of America, Nat'l		429,000			
Meat Cutters & Butcher Workmen of No.		37,000			
America		50,000			
Mechanics Educational Society of America		233,000			
Molders and Allied Workers Union, Int'l		25,000			
Musicians, American Federation of					
Newspaper Guild, American					

INDEPENDENT UNIONS

Automobile, Aerospace and Agricultural					
Implement Workers of America, Int'l.					
Union, United					1,339,000
Bakery and Confectionery Workers' Int'l					
Union of America					62,000
Electrical, Radio and Machine Workers of					
America, United					165,000
Federal Employees, Nat'l Federation of					90,000
Government Employees, Nat'l Assn.					151,000
Internal Revenue Employees, Nat'l					
Ass'n of					27,000
Letter Carriers Ass'n, Nat'l Rural					42,500
Locomotive Engineers, Brotherhood of					61,000
Longshoremen's Union, Int'l					65,000
Mine, Mill and Smelter Workers, Int'l					
Union of					75,000
Mine Workers of America, United					450,000
Postal Union, National					80,000
Teamsters, Chauffeurs, Warehousemen					
and Helpers of America, Int'l Brother-					1,666,230
hood of					
Telephone Unions, Alliance of Independent					72,036

Work Stoppages (Strikes) in the United States

Source: Bureau of Labor Statistics, U. S. Department of Labor

Year	Number stoppages	Workers involved	Man days idle	Year	Number stoppages	Workers involved	Man days idle
Average				1959	3,708	1,880,000	69,000,000
1935 to 1939	2,862	1,130,000	16,900,000	1960	3,333	1,320,000	19,100,000
War Period				1961	3,367	1,450,000	16,300,000
Dec. 8, 1941-				1962	3,614	1,230,000	18,600,000
Aug. 14, 1945..	14,371	6,744,000	36,300,000	1964	3,655	1,640,000	22,900,000
1946	4,985	4,600,000	116,000,000	1965	3,963	1,550,000	23,300,000
1947	3,693	2,170,000	34,600,000	1966	4,115	1,791,700	25,105,000
1948	3,419	1,960,000	34,100,000	1967 prelim.	4,495	2,870,700	40,520,000
1949	3,606	3,030,000	50,500,000	1968 Jan.	310	135,000	2,520,000
Average				Feb.	330	232,000	3,780,000
1947-49	3,573	2,380,000	39,700,000	Mar.	390	130,000	3,550,000
1950	4,843	2,410,000	38,800,000	Apr.	430	438,000	4,910,000
1955	4,320	2,650,000	28,200,000	May	600	252,000	5,650,000
				June	500	167,000	4,260,000

AVIATION

Huge Aviation Increase by 1979 Forecast by Federal Agency

The Federal Aviation Administration, in its latest multiyear projections, forecast a doubling, tripling, and even quadrupling of major indicators of aviation activity in the United States by 1979.

According to the FAA, airline passengers will more than triple, from 126,000,000 in fiscal 1967 to 444,000,000 in 1979. Revenue passenger miles flown by the airlines will nearly quadruple, from 86 billion in 1967 to 342 billion in 1979. The airline fleet will increase from 2,272 aircraft to 3,860.

General aviation (non-airline) flying will show similar increases. The general aviation fleet will almost double from 104,706 aircraft as of Jan. 1, 1967, to 203,000 at the beginning of 1979. General aviation flying hours will increase from 21,900,000 hours to 40,500,000.

Use of jet fuel and aviation gasoline in the United States will more than triple, increasing from a total of 5.403 billion gallons in 1967 to 17.7 billion gallons in 1979. Jet fuel consumption will increase from 4.697 billion gallons to 16.890 billion. Use of aviation gasoline will increase from 706,000,000 gallons to 810,000,000.

Civil aircraft production will more than double from 15,171 aircraft in 1967 to 32,480 in 1979. Airline transport production will decrease from 372 to 280 aircraft, while general aviation aircraft production will increase from 14,799 aircraft to 32,200 by 1979. Aircraft engine production will increase from 20,812 units to 46,300 in the same time period.

Busiest Control Towers

The 10 busiest FAA control towers all reported more than 400,000 operations during 1967. The top 10 were: O'Hare International, Chicago—643,787 operations; Opa Locka, Fla.—634,799; Van Nuys, Calif.—496,564; Ft. Lauderdale, Fla.—495,874; Long Beach, Calif.—484,863; Los Angeles International—482,774; Kennedy International—481,458; Miami International—446,867; Denver International (Stapleton)—444,910; San Jose Municipal (Calif.)—410,311.

The annual FAA Air Traffic Activity report, released in 1968, showed that flying nearly doubled during the 1957-1967 period, with yearly increases varying from 2% to 19%. In 1967 the FAA's 313 airport traffic control towers (108 more than in 1957) reported a record 49,900,000 takeoffs and landings, nearly twice as many as the 25,100,000 operations reported by 205 FAA towers in 1957. IFR (instrument flight rules) aircraft handled by FAA air route traffic control centers jumped from 8,000,000 in 1957 to 16,600,000 in 1967.

By 1979, according to FAA projections, landings and takeoffs at airports with FAA air traffic control towers are expected to more than triple, jumping to 167,000,000. Part of the huge gain will stem from increased airline and general aviation flying and part from installation of more airport traffic control towers. Cur-

rently there are 311 control towers in operation.

Domestic Air Traffic Increases

During the first half of 1968, scheduled domestic airline passenger traffic increased 17.4% compared with the corresponding period in 1967, according to the Air Transport Assn. of America. The 11 trunk, 10 local service and 3 helicopter airlines flew 41,385,618,000 revenue passenger miles compared with the 35,262,945,000 flown in the same part of 1967. Available seat miles flown totaled 77,909,621,000, up 25.6% from the 62,027,938,000 of 1967's corresponding period. Passenger load factor (percentage of available seats sold) was 53.1%, down from the 56.9% of the first 6 months of the previous year.

Domestic air cargo carried by U. S. scheduled airlines gained 21.9% during the first half of 1968, compared with the corresponding period of 1967. The 11 trunk, 10 local service and 3 all-cargo carriers carried 1,077,614,000 revenue ton miles of air freight, mail and express service compared with their total of 883,803,000 during the first half of 1967 (a ton mile is one ton flown one mile).

Record Number of U. S. Airports

At the beginning of 1968, U. S. airports numbered a record 9,276, an increase of almost 400 over the total of a year earlier, according to the Federal Aviation Administration. In addition, 452 heliports and 398 seaplane bases brought the total number of landing facilities to a record 10,126. Included were 19 airports in Puerto Rico, 3 in the Virgin Islands, and 5 in the South Pacific. Over 62% of the national total were privately owned.

Texas continued to lead all the states with 900 landing facilities, followed by California with 684. Alaska 626, Pennsylvania 443, Illinois 433, Ohio 397, New York 338, Florida 281, Kansas 266, and Missouri 265. Of the total, 3,149 airports had lighted runways and 3,109 paved runways.

In 1968 the FAA presented its Air Traffic Facility of the Year Awards to the Washington National Airport Tower, the Denver Flight Service Station, and the Oakland Air Route Traffic Control Center for exhibiting "the highest degree of operational efficiency in rendering professional air traffic services" during 1967. The FAA's Director of Air Traffic Service, William M. Fleener, said the winning facilities had made important contributions to operational efficiency, community relations and training of personnel, as well as meeting the agency's high standards of air safety.

50th Anniversary of U. S. Air Mail

The 50th anniversary of the beginning of United States Air Mail service was commemorated in Washington, D. C., May 15, 1968. A new 10¢ air mail stamp was issued that day to mark the anniversary. The stamp depicted a Curtiss "Jenny," the same plane pictured on the first air mail stamp of 1918, a 24-cent denomination stamp, 10 cents of the charge being for special delivery.

Notable Ocean and Intercontinental Flights

Pilot, Plane	From	To	Mi.	Time	Date
DIRIGIBLE BALLOONS					
British R-34 (1).....	{ East Fortune, Scot. Mineola, N. Y. }	Mineola, N. Y. Pulham, Eng. ....	.....	108 hrs. 75 hr.	July 2-6, 1919 July 9-13, 1919
Amundsen-Ellsworth- Noble expedition.....	Spitsbergen.....	Teller, Alaska.....	.....	.....	May 1926
Graf Zeppelin.....	Friedrichshafen.....	Lakehurst, N. J.	6,650	4d 15h 40m	Oct. 11-15, 1928
Hindenburg Zeppelin.....	{ Germany..... Lakehurst, N. J. }	Lakehurst, N. J. Frankfort, Ger. ....	.....	51h 17m....	June 30-July 2, 1936
USN ZPG-2 Blimp....	{ Lakehurst, N. J. S. Weymouth, Mass. Africa..... }	{ Frankfort, Ger. Africa..... Key West, Fla. .... }	.....	42h 53m	Aug. 9-11, 1936
			7,000	275h	Mar. 4-16, 1957
AIRPLANES					
USN NC-4.....	Newfoundland.....	Lisbon, Port.....	.....	.....	May 16-27, 1919
John Alcock-A. W. Brown (2).....	St. John's, Nfld.....	Clifden, Ireland.....	1,960	16h 12m	June 14-15, 1919
Richard E. Byrd (3) ..	Spitsbergen.....	North Pole.....	1,545	15h 30m	May 9, 1926
Chas. A. Lindbergh (4)	Mineola, N. Y.	Paris.....	3,610	33h 29m 30s	May 20-21, 1927
Chas. A. Levine-Clar- ence D. Chamber- lin (5).....	Roosevelt Field, Mineola, N. Y.	Eisleben, Ger.....	3,911	42h 31m	June 4-6, 1927
Baron G. von Huene- feld, crew (6).....	Dublin.....	Greenly Isl., Lab.....	.....	37 hrs.	Apr. 12-13, 1928
Sir Hubert Wilkins (8)	Point Barrow, Alaska.	Spitsbergen.....	.....	.....	April 16, 1928
Sir Chas. Kingsford- Smith, crew (7).....	Oakland, Calif.....	Brisbane, Aust.....	.....	.....	May 31-June 8 1928
Amelia Earhart Put- nam, W. Stultz, L. Gordon.....	Trepassey, Nfld.....	Burry Port, Wales.....	.....	20h 40m	June 17-18, 1928
Richard E. Byrd (9) ..	Bay of Wales.....	South Pole.....	.....	.....	Nov. 28-29, 1929
Capt. D. Coste-M. Bellonte.....	Paris.....	Valley Stream, N. Y.	4,100	37h 18m 30s	Sept. 1-2, 1930
Lt. L. Challe-Lt. T. L. Borres.....	Seville, Spain.....	Natal, Brazil.....	3,600	.....	Dec. 15-17, 1930
Wiley Post-Harold Gatty.....	Harbor Grace, Nfld.....	England.....	2,200	16h 17m	June 23-24, 1931
Clyde Pangborn-Hugh Herndon, Jr. (10)...	Tokyo.....	Wenatchee, Wash....	4,458	41h 34m	Oct. 3-5, 1931
Amelia Earhart Put- nam (11).....	Harbor Grace, Nfld.....	Ireland.....	2,026½	14h 56m	May 20-21, 1932
James A. Mollison (12)	Portmarnock, Ire.....	Pennfield, N. B. ....	.....	.....	Aug. 18, 1932
Amelia Earhart Put- nam (11).....	Honolulu, T. H.....	Oakland, Calif.....	2,408	18h 16m	Jan. 11-12, 1935
China Clipper (Pan Am. Airways) (13)...	{ San Francisco..... Manila, P. I. }	{ Manila, P. I. San Francisco..... }	.....	.....	Nov. 22-23, 1935
Gromov, Yumashev, Danilin (USSR).....	Moscow, USSR.....	San Jacinto, Calif....	6,262	62h 02m	July 12-14, 1937
Douglas C. Corrigan ..	Floyd Bennett Field..	Dublin, Ire.....	.....	28h 13m	July 17-18, 1938
B-29 (Lt. Col. C. J. Miller).....	Honolulu, T. H.....	Washington, D. C.....	4,640	17h 21m	Sept. 1, 1945
C-54 (Maj. G. E. Cain)	Tokyo.....	Washington, D. C.....	.....	31h 25m	Sept. 3, 1945
William P. Odum.....	Honolulu, T. H.....	Teterboro, N. J.	5,300	36 hrs.	Mar. 8, 1949
USN Caroline Mars ..	Honolulu, T. H.....	San Diego, Calif.....	.....	14h 17m	June 17-18, 1950
Col. David C. Schilling, USAF (14).....	England.....	Limestone, Me.....	3,300	10h 01m	Sept. 22, 1950
Chas. F. Blair, Jr.....	New York.....	London.....	3,500	7h 48m	Jan. 31, 1951
Canberra Bomber.....	Aldergrove, Belfast, N. I.	Gander, Nfld.....	.....	4h 40m	Feb. 21, 1951
Chas. F. Blair, Jr. (15)	Bardufoss, Nor.....	Fairbanks, Alaska.....	3,300	10h 29m	May 29, 1951
Chas. F. Blair, Jr.....	Fairbanks, Alaska.....	New York.....	3,450	9h 31m	May 30, 1951
Canberra Bomber.....	England.....	Australia.....	.....	20h 20m	Mar. 16, 1952
British Comet.....	London.....	Johannesburg, S. Af.	.....	23h 38m	May 2-3, 1952
Two U. S. S-55 Heil- icopters (16).....	Westover AFB, Mass.....	Prestwick, Scot.....	3,410	42h 30m	July 15-31, 1952
RB-45 Tornado (17) ..	Anchorage, Alaska.....	Yokota AFB, Japan.....	3,460	9h 50m	July 29, 1952
Canberra Bomber (18)	{ Aldergrove, N. I. Gander, Nfld..... }	{ Gander, Nfld..... Aldergrove, N. I. }	2,073 2,073	4h 34m 3h 25m	Aug. 26, 1952 Aug. 26, 1952
B-47B.....	California.....	Hawaii.....	2,463	4h 52m	Sept. 20, 1952
British Comet.....	London-Tokyo.....	Tokyo-London.....	20,400	74h 52m	April 3-7, 1953
U. S. B-47.....	Limestone AFB, Me.....	Fairford, Eng.....	2,925	4h 45m	July 28, 1953
U. S. B-47.....	Fairford, Eng.....	Tampa, Fla.....	4,450	9h 53m	Aug. 4, 1953
British Comet.....	London.....	Rio de Janeiro.....	6,000	12h 30m	Sept. 13-14, 1953
Flt. Lieut. Roland Burton (Canberra PR-3 bomber in race)	England.....	New Zealand.....	12,270	23h 51m	Oct. 8-9, 1953
Comet II.....	London.....	Khartoum, Egypt.....	3,064	6h 22m	Jan. 22, 1954
Max Conrad (solo) ..	New York.....	Paris, France.....	.....	22h 23m	Nov. 7, 1954
10 U. S. F-84's.....	Stugate AFB, Eng.....	Bergstrom AFB, Austin, Texas.....	5,118	10h 48m	Aug. 17, 1955
Canberra Bomber.....	London (round trip) ..	New York.....	6,920	14h 21m 45s	Aug. 23, 1955
Capt. William F. Judd	New York.....	Paris.....	.....	24h 11m	Jan. 29-30, 1956
Pan American DC-7....	New York.....	Shannon, Ire.....	.....	7h 45m	Dec. 10, 1956
Bristol Britannia.....	New York.....	Rome.....	4,700	12h 20m	Mar. 8, 1957
Three USAF F-100 Cs Spirit of St. Louis II (USAF F-100F jet)	London.....	Los Angeles, Calif....	6,710	14h 5m	May 13, 1957
Air France.....	McGuire AFB, N. J. ..	Le Bourget, Paris.....	.....	6h 38m	May 21, 1957
	Los Angeles.....	Paris.....	6,102	16h 21m	Aug. 26, 1957
Soviet TU-104.....	{ Vnukovo Airport, Moscow..... }	McGuire AFB, N. J.	5,570	21h 54m	Sept. 3-4, 1957
	McGuire AFB, N. J.	Moscow.....	5,570	11h 13m	Sept. 7, 1957
Soviet TU-104.....	Moscow.....	McGuire AFB, N. J.	5,570	18h 30m	Sept. 13-14, 1957
Lockheed Super Star- liner (19).....	New York.....	Athens, Greece.....	5,000	14h 38m	Sept. 26, 1957
TWA Jetstream (20) ..	London.....	San Francisco.....	5,900	23h 19m	Oct. 1-2, 1957
6 USAF B-52 bombers	{ U. S. Argentina (no-stop) Tokyo..... }	{ Argentina-U. S..... Honolulu..... }	10,425 3,850	21h 42m 6h 35m	Nov. 16-17, 1957 Dec. 2, 1957
El Al Britannia.....	New York.....	London.....	.....	7h 44m	Jan. 9, 1958
USAF KC-135.....	Tokyo.....	Lajes AFB, Azores.....	10,230	18h 48m	Apr. 7-8, 1958
Max Conrad (solo) ..	New York.....	Palermo, Sicily.....	4,440	32h 55m	June 22-23, 1958
USAF KC-135.....	New York.....	London.....	3,442	5h 27m 42.8s	June 27, 1958
USAF KC-135.....	London.....	New York.....	3,460	5h 51m 24.8s	June 29, 1958

Pilot, Plane	From	To	Mi.	Time	Date
Capt. Malron Boling	Manila, P. I.	Pendleton, Oreg.	6,979	45h 42m	Jy. 31-Aug. 1 58
Comet IV jet airliner	New York	London	3,496	6h 27m	Aug. 12, 1958
Boeing 707 Clipper	New York	London		7h 28m	Sept. 8, 1958
USAF KC-135	Yokota AB, Japan	Washington, D. C.	7,100	12h 28m	Sept. 12, 1958
Comet IV jet airliner	New York	London	3,650	6h 12m	Oct. 4, 1958
Boeing 707 Clipper	New York	Paris		7h 1m	Nov. 4-5, 1958
Boeing 707	London	New York	3,700	7h 17m	Jan. 10, 1959
Max Conrad (solo)	Chicago	Rome	5,000	34h 3m	Mar. 5-6, 1959
Boeing 707-320	Seattle, Wash.	Rome	5,800	11h 6m	May 29, 1959
Max Conrad (solo)	Casablanca, Africa	Ros Angeles	7,700	58h 36m	June 2-4, 1959
USSE TU-114 (22)	Moscow	New York	5,092	11h 6m	June 28, 1959
Boeing 707 airliner	New York	Sydney, Australia	7,630	16h 10m	July 2, 1959
Boeing 707-320	New York	Moscow	c.5,090	sh 54m	July 23, 1959
Pan Amer. Clipper	Honolulu, Hawaii	San Francisco	2,410	4h 25m	Aug. 25, 1959
USAF F-100 (group)	Darwin, Australia	Itazuke, Japan	c.3,000	6h 35m	Nov. 4, 1959
Boeing 707	New York	Paris		5h 44m	Nov. 10, 1959
Boeing 707	New York	Shannon, Ireland		5h 5m	Nov. 11, 1959
Max Conrad (solo)	Casablanca, Mor.	El Paso, Texas	6,911	56h 26m	Nov. 22-26, 1959
USAF B-58	New York	Paris		3h 10m 58s	May 26, 1961
Col. J. B. Swindal	Washington, D. C.	Moscow	5,004	8h 39m 02.2s	May 19, 1963
Mrs. Jerrie Mock (23)	Columbus, Ohio	Columbus, Ohio	23,206	29d 11h 59m	Mr. 19-Apr. 18/64
Joan Merriam (24)	Oakland, Calif.	Oakland, Calif.	27,750	56d	Mr. 17-Mar. 12/64

Notable first flights: 1. Atlantic aerial round trip. 2. Non-stop transatlantic flight. 3. Polar flight. 4. Solo transatlantic flight in the Ryan monoplane the "Spirit of St. Louis." 5. Transatlantic passenger flight. 6. East-West transatlantic crossing. 7. U. S. to Australia flight. 8. Trans-Arctic flight. 9. South Pole flight. 10. Non-stop Pacific flight. 11. Woman's transoceanic solo flight. 12. Westbound transatlantic solo flight. 13. Pacific airmail and U. S. to Philippines crossing. 14. Non-stop jet transatlantic flight. 15. Solo across North Pole. 16. Transatlantic helicopter flight. 17. Non-stop jet Pacific flight. 18. Transatlantic round trip on same day. 19. Non-stop between New York and Athens, carried 59 persons. 20. Non-stop London to San Francisco via polar route, carried 32 passengers. 21. Non-stop jet flight from Tokyo to Honolulu. 22. Non-stop between Moscow and New York. 23. First woman pilot to circle globe; first woman to fly both North Atlantic and Pacific. 24. Followed route Amelia Earhart partly completed in 1937.

Fastest Trips Around the World

Fast circuits of the earth have been a subject of wide interest since Jules Verne, French novelist, described an imaginary trip by Phileas Fogg in *Around the World in 80 Days*, assertedly occurring Oct. 2 to Dec. 20, 1872. Notable actual such events follow:

Craft, pilot	Terminal	(Mi.)	Time	Date
Nelle Elv	New York, N. Y.		72d 6h 11m	1889
George I. Francis Train	New York, N. Y.		67d 12h 03m	1890
James Fitzmaurice	Chicago		60d 13h 29m	1901
J. W. Willis Sayre	Seattle		54d 09h 42m	1903
Henry Frederick	Seattle		54d 07h 02m	1903
Col. Burnley-Campbell			40d 19h 30m	1907
Andre Jaeger-Schmidt			39d 19h 42m 38s	1911
John Henry Mears			35d 21h 36m	1913
Two U. S. Army airplanes	Seattle (57 hops, 21 countries)	26,103	35d 11h 11m	1924
Edward S. Evans and Linton Wells (New York World) (1)	New York	18,400	28d 14h 36m 05s	June 16-19, 1926
John H. Mears and Capt. C. B. D. Collyer	New York		23d 15h 21m 03s	June 29-July 2, 1928
Graf Zeppelin	Friedrichshafen, Ger. via Tokyo, Los Angeles, Lakehurst, N. J.	21,700	20d 04h	Aug. 14-Sept. 4, 1929
Wiley Post and Harold Gatty (Monoplane Winnie Mae)	Roosevelt Field, via Arctic Circle	15,474	8d 15h 51m	June 23, 1931
Wiley Post (Monoplane Winnie Mae) (2)	Floyd Bennett Field, via Arctic Circle	15,596	115h 36m 30s	July 15-22, 1933
H. R. Ekins (Scripps-Howard Newspapers in race) (Zeppelin)	Lakehurst, N. J., via Frankfort, Ger.	25,654	18d 11h 14m 33s	Sept. 30-Oct. 19, 1936
Howard Hughes and 4 assistants	New York, Paris, Moscow, Siberia, Fairbanks, Alaska	14,824	3d 19h 08m 10s	July 10-13, 1938
Mrs. Clara Adams (Pan American Clipper)	Port Washington, N. Y., ret. Newark, N. J.		16d 19h 04m	July 28-July 15, 1939
Globeaster, U. S. Air Transport Command	Washington, D. C.	23,279	149h 44m	Sept. 4, 1945
Capt. William P. Odom (A-26 Reynolds Bombshell)	New York, via Paris, Cairo, Tokyo, Alaska	20,000	78h 55m 12s	Oct. 4, 1945
America, Pan American 4-engine Lockheed Constellation (3)	New York, eastward	22,219	101h 32m	Apr. 12-16, 1947
Col. Edward P. F. Eagan	New York	20,559	147h 15m	Dec. 13, 1948
USAF B-50, Lucky Lady II (Capt. James Gallagher) (4)	Fort Worth, Texas	23,452	94h 01m	Feb. 26-Mar. 2, 1949
Thos. G. Lapphler, Jr.	New York	22,180	119h 47m	Dec. 2-7, 1949
Jean-Marie Audibert	Paris		4d 19h 38m	Dec. 11-15, 1952
Horace C. Boren	Newlid Airport, New York		99h 16m	July 15, 1953
Faustina Martin	Midway Airport, Chicago, via Castle AFB, Merced, Calif., via Nfld., Morocco, Saudi Arabia, India, Ceylon, P. I., Guam, Riverside, Calif.	24,325	45h 19m	Dec. 21-25, 1953
Three USAF B-52 Stratofortresses (5)	Cleveland, Ohio		89h 13m 37s	Dec. 5-8, 1953
Joseph Cavoli	Tokyo, via Bangkok, Karachi, Rome, Anchorage	18,580	73h 9m	Jan. 15-18, 1957
Miss K. Kanetake	San Francisco	22,800	29d	Jan. 31-Feb. 4, 1958
Peter Gluckmann (solo)	San Francisco		51h 45m 22s	July 28-31, 1958
Milton Reynolds	San Francisco		62h 59m	Aug. 22-Sept. 20, 1959
Sue Snyder	Chicago	21,219	82h 59m	Jan. 12-14, 1960
Max Conrad (solo)	Miami, Fla.	25,946	8d 18h 35m 57s	Jan. 22-24, 1960
Sam Miller & Louis Fodor	New York		46h 28m	Feb. 28-Mar. 8, 1961
Henry G. Beard	Wichita, Kans.	22,992	65h 38m 49s	Aug. 3-4, 1963
Robert & Joan Wallick (6)	Manila, Philippines	23,557	5d 6h 17m 10s	May 23-26, 1966
Arthur Godfrey, Richard Merrill, Fred Austin, Karl Keller	New York	23,333	86h 9m 1s	June 1-7, 1966

1. Mileage by train and auto, 4,100; by plane, 6,300; by steamship, 8,000. 2. First to fly solo around northern circumference of the world, also first to fly twice around the world. 3. Inception of regular commercial global air service. 4. First non-stop round-the-world flight, refueled 4 times in flight. 5. First non-stop global flight by jet planes; refueled in flight by KC-97 aerial tankers; average speed, approx. 525 m.p.h. 6. Official world record for light planes.

INTERNATIONAL AERONAUTICAL RECORDS

Source: The National Aeronautics Association, 806 15th St., N.W., Washington, D.C. 20005, representative in the United States of the Federation Aéronautique Internationale, certifying agency for world aviation and space records. The International Aeronautical Federation was formed in 1905 by representatives from Belgium, France, Germany, Great Britain, Spain, Italy, Switzerland and the United States, with headquarters in Paris. Regulations for the control of official records were signed Oct. 14, 1905. World records are defined as maximum performance, regardless of class or type of aircraft used. Records to Nov. 1, 1965.

WORLD AIR RECORDS—MAXIMUM PERFORMANCE IN ANY CLASS

Speed Over a Straight Course—3,331.507 km.p.h. (2,070.101 m.p.h.)—Col. R. L. Stephens, USAF, United States; Lockheed YF-12A; Edwards Air Force Base, Calif., May 1, 1965.

Speed Over a Closed Circuit—2,981.5 km.p.m. (1,850.61 m.p.h.)—Mikhail Komarov, USSR; E-266 Jet; Oct. 5, 1967.

Distance in a Straight Line—20,168.75 kms. (12,532.28 mi.)—Maj. Clyde P. Evely, USAF, United States; Boeing B52-H; Kadena, Okinawa, to Madrid, Spain, Jan. 11, 1962.

Distance Over a Closed Circuit—18,245.5 kms. (11,336.92 mi.)—Capt. William Stevenson, USAF, United States; Boeing B52-H; Seymour-Johnson, N. C.; Kindley, Bermuda; Sondrestrom, Greenland; Anchorage, Alaska; March AFB, Calif.; Key West, Fla.; Seymour-Johnson, N. C., June 6-7, 1962.

Altitude—95,935.99 meters (314,750 feet)—Maj. Robert M. White, USAF, United States; North American X-15-1; Edwards AFB, Calif., July 17, 1962.

Altitude in Horizontal Flight—24,462.596 meters (80,257.86 ft.)—Col. R. L. Stephens, USAF, United States; Lockheed YF-12A; Edwards Air Force Base, Calif., May 1, 1965.

MANNED SPACE CRAFT

Duration With Earth Orbit—330 hrs. 35 mins. 00 secs.—Lt. Col. Frank Borman, USAF and Cdr. James A. Lovell, Jr., USN, United States; Spacecraft Gemini 7; Dec. 4-18, 1965.

Distance With Earth Orbit—9,204,575 kms. (5,719,457 miles)—Lt. Col. Frank Borman, USAF and Cdr. James A. Lovell, Jr., USN, United States; Spacecraft Gemini 7; Dec. 4-18, 1965.

Greatest Altitude With Earth Orbit—1,369 kms. (850.65 miles)—Cdr. Charles Conrad Jr. and Lt. Cdr. Richard Gordon, United States; Spacecraft Gemini 11; Sept. 13-15, 1966.

Greatest Mass Lifted With Earth Orbit—5,320 kgs. (11,728.59 lbs.)—V. M. Komarov and K. P. Feoktistov, USSR; Spacecraft "Voskhod"; Oct. 12-13, 1964.

Greatest Altitude Without Earth Orbit—187.5 kms. (116.5 mi.)—Comdr. Alan B. Shepard, USN, United States; McDonnell Spacecraft Freedom 7; Cape Kennedy, Fla., to 27° 13' 7" N., 75° 51' 14" W., May 5, 1961.

Greatest Mass Lifted Without Earth Orbit—1,832.51 kgs. (4,040 lbs.)—Comdr. Alan B. Shepard, USN, United States; McDonnell Spacecraft Freedom 7; Cape Kennedy, Fla., to 27° 13' 7" N., 75° 51' 14" W., May 5, 1961.

All other records, international in scope, are termed World "Class" records and are divided into classes: Airships, free balloons, airplanes, seaplanes, amphibians, gliders, and rotorplanes. Airplanes (Class C) are sub-divided into four groups: Group I—Piston Engine Aircraft, Group II—Turbo-prop Aircraft, Group III—Jet Aircraft, Group IV—Rocket Powered Aircraft. A partial listing of world records follows:

WORLD "CLASS" RECORDS

AIRPLANES (Class C, Group I—Piston Engine)

Distance, Closed Circuit—14,249.656 kms. (8,854.308 miles)—Lt. Col. O. F. Lassiter, USAF, United States; Boeing B-29; Tampa, Fla., Aug. 1, 1947.

Distance, Airline (International)—18,081.990 kms. (11,235.6 miles)—Comdr. Thomas D. Davies, USN; Comdr. Eugene P. Rankin, USN; Comdr. Walter S. Reid, USN, and Lt. Comdr. Ray A. Tabelling, USN; United States; Lockheed P2V-1; from Pearce Field, Perth, Australia, to Port Columbus, Columbus, Ohio, Sept. 29-Oct. 1, 1946. (United States)—same.

Maximum speed over 3-kilometer measured course (International)—755.138 km.p.h. (469.220 m.p.h.)—Fritz Wendel, Germany, Messerschmitt B. F. 109R, Augsburg, April 26, 1939. (United States)—663.054 km.p.h. (412.002 m.p.h.)—Jacqueline Cochran, United States; North American F-51, Thermal, Calif., Dec. 17, 1947.

Speed 100 kilometers (62.137 miles) without payload (International)—755.668 km.p.h. (469.549 m.p.h.)—Jacqueline Cochran, United States; North American F-51, Coachella Valley, Calif., Dec. 10, 1947. (United States)—same.

Speed for 1,000 Kilometers (621.369 miles) without payload—693.78 km.p.h. (431.09 m.p.h.)—Jacqueline Cochran, United States; North American P-51; Santa Rosasummit, Calif.—Flagstaff, Arizona course, May 24, 1948.

Speed for 5,000 Kilometers (3,106.849 miles) without payload—544.59 km.p.h. (338.39 m.p.h.)—Capt. James Bauer, USAF, United States; Boeing B-29; Dayton, Ohio, June 28, 1946.

Speed Around the World—300.20 km.p.h. (186.53 m.p.h.)—Robert Wallick and Joan Wallick, United States; Beechcraft Baron C55, 2 Continental 10-520 engines; Manila, Philippines; June 2-7, 1966. Distance: 23,129.23 miles. Time: 5 days 6 hours 17 min. 10 sec.

AIRPLANES (Class C, Group II—Turbo-prop)

Altitude—13,513 meters (44,334 ft.)—Loubov Ulanova, USSR; IL-18 Aircraft; Oct. 20, 1967.

Speed for 1,000 kilometers (621.369 miles) without payload (International)—871.38 km.p.h. (541.449 m.p.h.)—Ivan Soukhomline, Boris Timochok and crew, USSR; TU-114 Swept Wing Monoplane, 4 turbo-prop TB-12 engines; Sternberg course, Mar. 24, 1960.

Speed for 5,000 Kilometers (3,106.849 miles) without payload (International)—877.212 km.p.h. (545.072 m.p.h.)—Ivan Soukhomline, K. Sapiekin and crew, USSR; TU-114 Swept Wing Monoplane, 4 turbo-prop TB-12 engines; Sternberg-Svierdlovsk-Sebastopol-Sternberg, Apr. 9, 1960.

AIRPLANES (Class C, Group III—Jet-powered)

Distance in a Straight Line—20,168.78 kms. (12,532.28 mi.)—Maj. Clyde P. Evely, USAF, United States; Boeing B52-H, 8 Pratt & Whitney TF-33P-3 engines; Kadena, Okinawa, to Madrid, Spain, Jan. 10-11, 1962.

Distance in a Closed Circuit—18,245.05 kms. (11,336.92 miles)—Capt. William Stevenson, USAF, United States; Boeing B52-H, 8 Pratt & Whitney TF-33P-3 engines; terminal: Seymour-Johnson, N. C., June 6-7, 1962.

Altitude—34,714 meters (113,890.848 feet)—Gueorgui Mossolov, USSR; E-66A jet monoplane, triangular wing, T.R.D. and G.R.D. engines; Podmoskovnoe, USSR, Apr. 28, 1961.

Speed Over a 3-Kilometer Course—1,452.777 km.p.h. (902.769 m.p.h.)—Lt. Hunt Hardisty, USN, United States; McDonnell F4H Phantom, 2 GE J-79 jet engines; White Sands, N. M., Aug. 29, 1961.

Speed over 15-25 Kilometer Course—3,331.507 km.p.h. (2,070.101 m.p.h.)—Col. R. L. Stephens, USAF, United States; Lockheed YF-12A; Edwards Air Force Base, Calif., May 1, 1965.

Speed for 100 Kilometers—2,401 km.p.h. (1,491.9 m.p.h.)—A. Fedotov, USSR; triangular-wing aircraft, P-166 jet engine; Sidorovo Course, USSR; Oct. 7, 1961.

Speed for 500 Kilometers in a Closed Circuit—2,981.5 km.p.h. (1,852.61 m.p.h.)—Mikhail Komarov, USSR; E-266 Airplane, 2 RD jet engines; Oct. 5, 1967.

Speed for 1,000 Kilometers in a Closed Circuit—2,920.67 km.p.h. (1,814.81 m.p.h.)—Pyotr Ostapenko, USSR; E-266 Airplane, 2 RD jet engines; Oct. 27, 1967.

Speed for 2,000 Kilometers in Closed Circuit—1,703.817 km.p.h. (1,061.808 m.p.h.)—Maj. H. J. Deutchendorf, Jr., USAF, United States; Convaair B-58 Hustler Bomber; Desert, Stoval, Boundary, Morris, Desert, Edwards AFB, Calif. Course; Jan. 12, 1961.

LIGHT AIRPLANES—Class C-1.d

Distance Airline (International)—12,341.26 kms. (7,668.48 miles)—Max Conrad, United States; Piper Comanche 250, Lycoming 0-540-A1A 250 hp.; Casablanca, Morocco to Los Angeles, June 2-4, 1959.

Speed for 100 Kilometers (62.137 miles) in a Closed Circuit (International)—519.480 km.p.h. (322.789 m.p.h.)—Miss R. M. Sharpe, Great Britain; Vickers Supermarine Spitfire 5-B; Wolvehampton, June 17, 1950.

GLIDERS (Class D—Single-place)

Distance, Straight Line—1,041.52 kms. (647.17 miles)—Alvin Parker, United States; SISU 1-A sailplane; Odessa, Texas, to Kimball, Nebr., July 31, 1964.

Altitude above sea level—14,102 meters (46,267 feet)—Paul F. Bikle, United States; Sailplane Schweizer SGS 123E; Mojave, Lancaster, Calif., Feb. 25, 1961.

HELICOPTERS (Class E-1)

Distance in a Straight Line 3,561.55 kms. (2,213.04 miles)—Robert G. Ferry, United States; Hughes YO-H-6A Helicopter; Culver City, Calif., to Daytona, Fla., Apr. 6-7, 1966.

Speed Over 3-Km. Course—341.23 km.p.h. (212.029 m.p.h.)—Jean Boulet, France; Superfrelon SA 3210/01 helicopter; Istres Airport, France, July 19, 1963.

FREE BALLOONS (Tenth category, 4001 cu. meters or more)

Altitude—34,668 meters (113,739.9 feet)—Cmdr. Malcolm D. Ross, USSR, United States; Lee Lewis Memorial Winzen Research Balloon; Gulf of Mexico, May 4, 1961.

F. A. I. COURSE RECORDS

Los Angeles to New York—1,954.79 km.p.h. (1,214.65 m.p.h.)—Capt. Robert G. Sowers, USAF, United States; Convaiv B-58 Hustler, 4 GE-J-79-5B engines. Elapsed time: 2 hrs. 58.71 secs., Mar. 5, 1962.

New York to Los Angeles—1,741 km.p.h. (1,081.8 m.p.h.)—Capt. Robert G. Sowers, USAF, United States; Convaiv B-58 Hustler. Elapsed time: 2 hrs. 15 min. 50.08 sec., Mar. 5, 1962.

Los Angeles-New York-Los Angeles—1,681.71 km.p.h. (1,044.46 m.p.h.) Capt. Robert G. Sowers, USAF, United States; Convaiv B-58 Hustler; Elapsed time: 4 hrs. 41 min. 14.98 sec., Mar. 5, 1962.

New York to Paris—1,753.068 km.p.h. (1,089.36 m.p.h.)—Maj. W. R. Payne, United States; Convaiv B58 Hustler; elapsed time, 3 hrs. 10 min. 58 sec., May 26, 1961.

Anchorage to Chicago—843.49 km.p.h. (524.12 m.p.h.)—Lt. Col. G. A. Andrews, USAF, United States; Convaiv B-58A Hustler. Elapsed time: 5 hours 26 minutes 33.9 seconds, Oct. 16, 1963.

Anchorage to London—1,330.80 km.p.h. (826.91 m.p.h.)—Maj. S. J. Kubesch, USAF, United States; Convaiv B-58A Hustler. Elapsed time: 5 hours 24 minutes 54 seconds, Oct. 16, 1963.

New York to London: (International)—1,014.248 km.p.h. (630.223 m.p.h.)—Maj. Burl B. Davenport, Lt. James J. Jones, and crew, USAF, Boeing KC-135 Stratotanker, 4 Pratt & Whitney J-57-P-43W turbo-jet engines; Idlewild International Airport, Long Island, to London International Airport, June 27, 1958. Elapsed time: 5 hours 29 minutes 14.64 seconds.

London to New York (International)—945.423 km.p.h. (587.457 m.p.h.)—Maj. Burl B. Davenport, Lt. James J. Jones, and crew USAF, United States; Boeing KC-135 Stratotanker; London International Airport to Idlewild International Airport, Long Island, June 27, 1958. Elapsed time: 5 hours 29 minutes 14.64 seconds.

Baltimore to Moscow, USSR—906.64 km.p.h. (563.36 m.p.h.)—Col. James B. Swindal, USAF, United States; Boeing VC-137 (707). Elapsed time: 8 hours 33 minutes 45.4 seconds.

Moscow to Washington, D. C.—768.67 km.p.h. (490.06 m.p.h.)—Col. James B. Swindal, USAF, United States; Boeing VC-137 (707). Elapsed time: 9 hrs. 54 min., 48.5 sec. May 20-21, 1963.

Belfast to Gander, Newfoundland (International)—774.255 km.p.h. (481.099 m.p.h.)—Wing Commander R. P. Beaumont and crew, Great Britain; Canberra bomber, two Rolls-Royce turbo-jet engines. Aug. 31, 1951. Elapsed time: 4 hours 18 minutes 24.4 seconds.

Aviation Hall of Fame

The Aviation Hall of Fame at Dayton, Ohio, is dedicated to honoring aviation's outstanding pioneers. It operates as a non-profit, privately supported organization under a charter granted in 1964 by the Congress of the United States.

1962

Orville Wright and Wilbur Wright for co-invention of the first successful man-carrying airplane and for the first powered flights in Dec., 1903.

1963

Octave Chanute, for successful man-carrying glider flights and experiments; Samuel Pierpont Langley, for studies of air and space and demonstrations of practicability of mechanical flight; Frank Purdy Lahm, first Army airplane and dirigible pilot; and Benjamin Delahauf Foulis, first Army Signal Corps pilot.

1964

Thomas Scott Baldwin, early balloon and dirigible builder and pilot; Theodore Gordon Ellyson, first U. S. Navy pilot, pilot of first plane successfully launched by catapult; Henry W. Walden, inventor of first American monoplane; Glenn Hammond Curtiss, holder of first pilot's license issued by Aero Club of America (1911), inventor, builder; Calbraith Perry Rodgers, pilot of first transcontinental flight, New York to Pasadena, Calif., Sept. 17-Nov., 1911; and John J. Montgomery, maker of first American glider flight (1884).

1965

Alexander Graham Bell, inventor of the telephone, for research on aerodynamic lift, propulsion and control; Alfred Austell Cunningham, first Marine Corps aviator; Albert Cushing Read, a participant in first successful transatlantic flight; Eugene Burton Ely, pilot of first plane to fly from a ship, whose work led to practical use of aircraft carriers; A. Roy Knabenshue, pioneer in building and flying steerable balloons; Thomas Etholen Selfridge, first American killed testing an experimental aircraft; Charles Edward Taylor, builder of engine for first successful airplane; and Edward Vernon Rickenbacker, World War I ace and later president of Eastern Airlines.

1966

Lincoln Beachey, early dirigible and airplane exhibitionist, who made the first inside loop in America; William Edward Boeing, developer of first airline network and producer of vitally important military and commercial aircraft; Robert Hutchings Goddard, pioneer in rocket technology who laid the foundation for space travel; Glenn Luther Martin, pioneer in aircraft design and mass manufacturing techniques; William "Billy" Mitchell, visionary proponent of an independent air force and a martyr to the cause of airpower; John Henry Towers, pioneering naval aviator who promoted airpower as a vital naval doctrine.

1967

Henry Harley "Hap" Arnold, student of Wright Brothers who later became first five-star general of Air Force; James Harold Doolittle, who performed first outside loop, made first blind landing, and led famous Tokyo raid in World War II; Charles Augustus Lindbergh, who made first solo trans-Atlantic flight and promoted many facets of aviation; and Carl A. Spaatz, World War I pilot, air commander of World War II, and first Chief of Staff of Independent Air Force.

1968

Richard Evelyn Byrd, naval aviator who developed aerial navigation instruments, made flight over North Pole 1926, transatlantic flight 1927, and flight over South Pole in 1929; Amelia Earhart, first woman to fly across Atlantic as passenger, later made solo flight across Atlantic, holder of many records, disappeared on flight across Pacific; John A. MacReady, Army Air Service pilot who made pioneering high altitude and endurance flights in 1920s, participated in first nonstop transcontinental flight 1923; and Igor I. Sikorsky, for development of long-range flying boats in 1930s that opened commercial transoceanic flights, and successful development of the helicopter in 1939.

Consolidated Airline Traffic

	1966	1967	1967 (6 mo.)	1968 (6 mo.)
Revenue passenger miles*	79,889,246,000	98,746,641,000	45,793,552,000	53,620,183,000
Revenue ton-miles traffic:				
Passenger	7,736,469,000	9,560,623,000	4,434,233,000	5,183,183,000
U. S. Mail (priority)	542,772,000	507,728,000	271,416,000	261,121,000
U. S. Mail (non-priority)	207,746,000	407,746,000	148,729,000	345,902,000
Express	99,690,000	2,351,108,000	49,287,000	1,302,930,000
Freight	2,050,735,000	98,883,000	1,128,402,000	48,788,000
Charter	1,754,930,000	2,648,005,000	1,245,103,000	1,411,201,000
Excess baggage & foreign mail	48,514,000	49,132,000	22,800,000	28,852,000
Total revenue ton-miles	12,440,836,000	15,683,236,000	7,299,980,000	8,560,577,000

Air Line Distances Between Principal Cities of the World

Source: USAF Aeronautical Chart & Information Center (Statute Miles)
Point-to-point measurements are usually from City Hall.

Statute miles from/to	Azores	Baghdad	Berlin	Bombay	Buenos Aires	Cairo	Cape-town	Chicago	Guam	Honolulu
Azores.....		3,852	2,142	5,865	5,376	3,225	5,621	3,295		7,389
Baghdad.....	3,825		2,029	2,015	8,135	798	4,924	6,430	6,904	8,399
Berlin.....	2,142	2,029		3,915	7,395	1,768	5,958	4,415	7,952	7,323
Bombay.....	5,865	2,015	3,915		9,283	2,717	5,103	8,066	4,765	8,036
Buenos Aires.....	5,376	7,135	7,395	9,283		7,360	4,285	5,582	10,477	7,554
Cairo.....	3,225	798	1,768	2,717	7,360		4,510	6,116	7,092	8,818
Cape-town.....	5,621	4,924	5,958	5,103	4,285	4,510		8,489	8,810	11,534
Chicago.....	3,295	6,430	4,415	8,066	5,582	6,116	8,489		7,379	4,256
Guam.....	8,904	6,904	7,052	4,765	10,377	7,092	8,810	7,379		3,808
Honolulu.....	7,389	8,399	7,323	8,036	7,554	8,818	11,534	4,256	3,808	
Istanbul.....	2,872	1,006	1,075	3,000	7,608	7,411	5,204	5,485	6,892	8,118
Juneau.....	4,724	6,121	4,586	6,890	7,743	6,259	10,334	2,306	5,101	2,810
London.....	1,583	2,547	580	4,478	6,907	2,158	5,988	3,960	7,489	7,241
Manila.....	8,258	4,910	6,139	3,195	11,048	5,704	7,488	8,142	1,599	5,308
Melbourne.....	11,898	8,105	9,929	6,101	7,219	8,700	6,428	9,667	3,628	5,501
Mexico City.....	4,569	5,082	6,054	9,739	4,580	7,677	8,516	1,688	7,544	3,791
Montreal.....	2,559	5,768	3,740	7,234	5,597	5,403	7,920	746	7,723	4,919
Moscow.....	3,136	1,583	1,001	3,132	8,389	1,770	6,277	4,984	6,106	7,049
New Orleans.....	3,718	7,161	5,132	8,881	4,902	6,764	8,324	831	7,723	4,213
New York.....	3,624	6,007	3,980	7,811	5,273	5,598	7,801	714	7,959	4,969
Panama City.....	3,906	7,752	5,856	3,763	3,301	7,021	2,321	2,321	9,037	5,254
Paris.....	1,601	2,405	549	4,478	6,857	1,973	5,782	4,145	7,571	7,432
Rio de Janeiro.....	4,283	6,938	6,207	8,334	1,231	6,153	3,773	5,288	11,604	8,295
Rome.....	2,021	1,836	735	3,846	6,925	1,305	5,231	4,823	7,568	8,040
San Francisco.....	5,081	7,466	5,673	8,406	6,455	7,436	10,248	1,860	5,809	2,397
Santiago.....	5,665	8,756	7,772	9,983	702	7,967	4,947	5,295	9,826	6,861
Seattle.....	4,708	6,799	5,060	7,756	6,903	6,809	10,205	1,737	5,675	2,681
Shanghai.....	7,269	4,104	5,231	3,140	12,667	5,188	8,062	7,071	1,921	4,947
Sydney.....	12,138	8,119	9,997	6,304	7,341	8,969	6,856	9,242	3,282	5,065
Tokyo.....	7,342	5,199	5,557	4,196	11,411	6,937	9,155	6,313	1,563	3,860

Statute miles from/to	Istanbul	Juneau	London	Manila	Melbourne	Mexico City	Montreal	Moscow	New Orleans	New York
Azores.....	2,872	4,724	1,583	8,258	11,898	4,569	2,559	3,136	3,718	2,623
Baghdad.....	1,006	6,121	2,547	4,910	8,105	8,082	5,768	1,583	7,161	6,007
Berlin.....	1,075	4,586	580	6,139	9,929	6,054	3,740	1,001	5,132	3,980
Bombay.....	3,000	6,890	4,478	6,195	7,219	9,739	3,524	3,312	8,881	7,811
Buenos Aires.....	7,608	7,743	6,907	11,048	7,219	4,580	5,597	8,369	4,902	5,279
Cairo.....	741	6,259	2,158	5,704	8,700	7,677	5,403	1,770	7,674	5,598
Cape-town.....	5,204	10,334	5,988	7,488	6,428	8,516	7,920	6,277	8,324	7,801
Chicago.....	5,485	2,306	3,960	8,142	9,667	1,688	746	4,984	831	714
Guam.....	6,892	5,101	7,489	1,599	3,528	7,544	7,723	6,106	7,723	7,959
Honolulu.....	8,118	2,810	7,241	5,308	5,501	3,791	4,919	7,049	4,213	4,969
Istanbul.....		5,519	1,551	5,674	9,100	7,106	4,798	1,087	6,184	5,022
Juneau.....	5,519		4,441	4,441	8,867	3,217	2,644	4,560	2,859	2,859
London.....	1,551	4,441		6,680	10,508	5,558	3,256	1,556	4,636	3,509
Manila.....	5,674	5,885	6,680		3,332	8,198	5,139	8,737	8,737	8,737
Melbourne.....	9,100	8,067	10,508	3,932		8,420	10,390	8,965	9,271	10,352
Mexico City.....	7,106	3,217	5,558	8,849	8,420		2,315	6,671	923	2,086
Montreal.....	4,798	2,644	3,256	8,198	10,390	2,315		4,397	1,394	333
Moscow.....	1,087	4,560	1,556	5,139	8,965	6,871	4,397		5,773	4,680
New Orleans.....	6,184	2,859	4,636	8,737	9,271	923	1,394	5,773		1,167
New York.....	5,022	2,859	3,473	8,509	10,352	2,086	333	4,680	1,167	
Panama City.....	6,756	4,453	5,285	10,296	9,027	1,496	2,542	6,720	1,601	2,213
Paris.....	1,400	4,054	215	6,688	10,442	5,723	3,432	1,550	4,804	3,638
Rio de Janeiro.....	6,378	7,757	8,121	1,260	4,769	5,082	7,162	4,792	4,805	
Rome.....	8,258	5,927	892	6,466	8,258	4,102	7,077	5,460	4,283	
San Francisco.....	6,711	1,517	5,369	6,978	7,850	1,879	2,544	5,884	1,925	2,574
Santiago.....	8,135	7,307	7,241	10,945	7,017	4,094	5,436	8,770	4,546	5,106
Seattle.....	6,077	892	4,799	6,653	8,176	2,340	5,217	2,098	2,109	
Shanghai.....	4,975	4,891	5,728	1,147	4,991	8,033	7,067	4,248	7,739	7,384
Sydney.....	9,289	7,649	10,556	3,882	437	8,064	9,959	9,002	8,887	9,936
Tokyo.....	5,574	4,030	5,956	1,862	5,070	7,036	6,470	4,663	6,877	6,757

Statute miles from to	Panama City	Paris	Rio de Janeiro	Rome	San Francisco	Santiago	Seattle	Shanghai	Sydney	Tokyo
Azores.....	3,906	1,601	4,283	2,021	5,081	5,665	4,708	7,269	12,138	7,342
Baghdad.....	7,752	2,405	6,938	1,836	7,466	8,756	6,799	4,404	8,319	5,199
Berlin.....	5,856	549	6,207	735	5,673	7,772	5,060	5,231	9,997	5,557
Bombay.....	9,753	4,367	8,334	3,846	8,406	9,982	7,756	3,140	6,304	4,196
Buenos Aires.....	3,301	6,857	1,231	6,925	6,455	702	6,903	12,667	7,341	11,411
Cairo.....	7,118	1,973	1,613	1,305	7,436	7,967	6,809	5,188	8,969	5,937
Cape-town.....	7,021	8,882	3,773	10,288	10,288	7,021	7,021	7,021	9,125	6,313
Chicago.....	2,321	4,145	5,288	4,402	1,860	5,295	1,737	7,071	9,242	6,313
Guam.....	9,047	7,571	11,604	7,568	5,809	9,826	5,675	1,921	3,282	1,563
Honolulu.....	5,254	7,452	8,295	8,040	2,397	6,861	2,681	4,947	5,065	3,860
Istanbul.....	6,756	1,400	6,378	853	6,711	8,135	6,077	4,975	9,289	5,574
Juneau.....	4,453	4,654	7,591	5,272	1,517	7,307	892	4,891	7,649	4,030
London.....	5,285	215	5,751	892	5,369	7,241	4,799	5,728	10,556	5,956
Manila.....	10,296	6,688	11,260	6,466	6,978	10,945	6,753	1,147	3,882	1,862
Melbourne.....	9,027	10,442	8,127	9,940	7,850	7,017	8,176	4,991	437	5,070
Mexico City.....	1,496	3,723	4,769	6,374	1,859	4,094	2,340	8,033	8,934	7,036
Montreal.....	2,542	3,432	5,082	4,102	2,544	5,436	2,289	7,067	9,959	6,470
Moscow.....	6,720	1,550	7,162	1,477	5,884	8,770	2,217	4,248	9,002	4,663
New Orleans.....	1,601	4,804	4,792	5,460	1,925	4,546	2,098	7,739	8,887	6,777
New York.....	2,213	3,638	4,805	4,292	2,574	5,106	2,409	7,384	9,936	6,757
Panama City.....		5,388	3,296	5,916	3,326	2,974	3,651	9,310	8,801	8,441
Paris.....	5,388		5,681	688	5,579	7,224	5,012	5,772	10,539	6,054
Rio de Janeiro.....	3,296	5,681		5,704	6,621	1,820	6,890	11,339	8,414	11,535
Rome.....	5,916	688	5,704		6,259	7,391	5,680	5,679	10,141	6,140
San Francisco.....	3,326	5,579	6,621	6,259		5,926	679	6,150	7,416	5,148
Santiago.....	2,974	7,224	1,820	7,391	5,926		6,433	11,718	7,066	10,711
Seattle.....	3,651	5,012	6,680	5,680	679	6,433		5,721	7,737	4,293
Shanghai.....	9,340	3,772	11,339	5,679	6,150	11,718	5,721		4,879	1,097
Sydney.....	8,801	10,539	8,414	10,141	7,416	7,066	7,740	4,879		4,842
Tokyo.....	8,441	6,054	11,535	6,140	5,118	10,711	4,793	1,097	4,842	.....

Air Line Distances Between Principal Cities in the United States

Source: Coast and Geodetic Survey, U. S. Dept. of Commerce (Statute Miles)

Distances are measured from a central point in each city.

Statute miles from/to	At- lanta	Bos- ton	Chi- cago	Cin- cinnati	Cleve- land	Dallas	Den- ver	De- troit	Hous- ton	Indian- apolis
Atlanta, Ga.		937	587	369	554	721	1,212	596	701	426
Boston, Mass.	937		851	740	551	1,551	1,769	613	1,605	807
Chicago, Ill.	587	851		252	308	803	920	238	940	165
Cincinnati, O.	369	740	252		222	814	1,094	235	892	100
Cleveland, O.	554	551	308	222		1,025	1,227	90	1,114	263
Dallas, Texas.	721	1,551	803	814	1,025		663	999	225	763
Denver, Colo.	1,212	1,769	920	1,094	1,227	663		1,156	1,105	1,000
Detroit, Mich.	596	613	238	235	90	999	1,156		1,105	240
Houston, Tex.	701	1,605	940	892	1,114	225	879	1,105		865
Indianapolis.	426	807	165	100	263	763	1,000	240	865	
Jacksonville.	285	1,017	863	626	770	908	1,467	831	821	699
Kansas City.	676	1,251	414	541	700	451	558	645	1,444	453
Los Angeles.	1,936	2,596	1,745	1,891	2,049	1,240	831	1,983	1,874	1,809
Louisville, Ky.	319	826	269	90	311	726	1,038	316	803	107
Memphis.	337	1,137	482	410	630	420	879	623	484	384
Miami, Fla.	604	1,255	1,188	952	1,087	1,111	1,726	1,152	968	1,024
Minneapolis.	907	1,123	355	605	630	862	700	543	1,056	511
Nashville.	214	943	397	238	459	617	1,023	470	665	251
New Orleans.	424	1,359	833	706	924	443	1,082	939	318	712
New York.	748	188	713	570	405	1,374	1,631	482	1,420	646
Oklahoma C'y	757	1,495	692	758	951	190	505	910	413	689
Omaha, Nebr.	817	1,282	432	622	739	586	488	669	794	525
Philadelphia.	666	271	666	503	360	1,299	1,579	443	1,341	585
Pittsburgh.	521	483	410	251	115	1,070	1,320	205	1,137	330
Portland, Ore.	2,172	2,540	1,758	1,985	2,055	1,633	982	1,969	1,836	1,885
St. Louis, Mo.	467	1,038	262	309	492	547	796	455	679	231
Salt Lake C'y	1,583	2,099	1,260	1,453	1,568	999	371	1,492	1,200	1,356
San Francisco.	2,139	2,699	1,858	2,043	2,166	1,483	949	2,091	1,645	1,949
Seattle, Wash.	2,182	2,493	1,737	1,972	2,026	1,681	1,021	1,938	1,891	1,872
Washington.	543	393	597	404	306	1,185	1,494	396	1,220	494

Statute miles from/to	Jack- sonville	Kansas City	Los An- geles	Louis- ville	Mem- phis	Mi- ami	Minne- apolis	Nash- ville	New Orleans	New York
Atlanta, Ga.	285	676	1,936	319	337	604	907	214	424	748
Boston, Mass.	1,017	1,251	2,596	826	1,137	1,255	1,123	943	1,359	188
Chicago, Ill.	583	414	1,745	269	482	1,185	355	897	853	713
Cincinnati, O.	369	541	1,397	90	410	952	605	239	708	900
Cleveland, O.	770	700	2,049	311	630	1,087	630	457	924	405
Dallas, Texas.	908	451	1,240	726	420	1,111	862	617	443	1,371
Denver, Colo.	1,467	558	831	1,038	879	1,726	700	1,023	1,082	1,631
Detroit, Mich.	831	645	1,983	316	623	1,152	543	470	939	482
Houston, Tex.	821	644	1,374	803	484	968	1,056	665	318	1,420
Indianapolis.	699	453	1,809	107	384	1,024	511	251	712	646
Jacksonville.		950	2,147	594	590	326	1,191	499	504	838
Kansas City.	950		1,356	480	369	1,241	413	473	680	1,097
Los Angeles.	2,147	1,356		1,829	1,603	2,339	1,524	1,780	1,673	2,451
Louisville, Ky.	319	480	1,829		320	919	605	154	623	652
Memphis.	337	590	1,603	320		872	699	197	358	957
Miami, Fla.	326	1,241	2,339	919	872		1,511	815	669	1,092
Minneapolis.	1,191	413	1,524	605	699	1,511		697	1,051	1,018
Nashville.	499	473	1,780	154	197	815	697		469	761
New Orleans.	504	680	1,673	623	358	669	1,051	469		1,171
New York.	838	1,097	2,451	652	957	1,092	1,018	761	1,171	
Oklahoma C'y	986	296	1,181	678	422	1,226	693	605	577	1,328
Omaha, Nebr.	1,098	166	1,315	580	529	1,397	290	607	847	1,114
Philadelphia.	758	1,038	2,394	582	881	1,019	985	685	1,089	813
Pittsburgh.	703	781	2,136	344	660	1,010	743	472	919	317
Portland, Ore.	2,439	1,497	825	1,950	1,849	2,705	1,427	1,969	2,063	2,415
St. Louis, Mo.	1,737	925	1,589	242	1,061	1,466	466	1,564	598	875
Salt Lake C'y	1,583	2,099	1,260	1,453	1,568	999	371	1,492	1,200	1,356
San Francisco.	2,139	2,699	1,858	2,043	2,166	1,483	949	2,091	1,645	1,949
Seattle, Wash.	2,182	2,493	1,737	1,972	2,026	1,681	1,021	1,938	1,891	1,872
Washington.	543	393	597	404	306	1,185	1,494	396	1,220	494

Statute miles from/to	Okl- City	Oma- ha	Phila.	Pitts- burgh	P'tland, Ore.	St. Louis	Salt Lake	San Fran.	Se- attle	Wash., D. C.
Atlanta, Ga.	757	817	666	521	2,172	467	1,583	2,139	2,182	543
Boston, Mass.	1,495	1,282	271	483	2,540	1,038	2,099	2,699	2,193	393
Chicago, Ill.	692	432	666	410	1,758	262	1,260	1,858	1,747	697
Cincinnati, O.	758	622	503	257	2,055	309	1,133	2,043	1,972	404
Cleveland, O.	951	739	360	115	2,985	492	1,568	2,166	2,026	306
Dallas, Texas.	721	586	1,240	1,070	1,633	982	1,499	1,839	1,681	1,021
Denver, Colo.	505	488	1,579	1,320	999	547	371	949	1,021	1,491
Detroit, Mich.	910	669	443	205	1,969	455	1,492	2,091	1,938	396
Houston, Tex.	413	794	1,341	1,137	1,836	679	1,200	1,645	1,891	1,220
Indianapolis.	689	525	585	330	1,855	231	1,356	1,949	1,872	494
Jacksonville.	986	1,098	758	703	2,439	751	1,837	2,374	2,455	647
Kansas City.	296	166	1,038	781	1,497	285	925	1,506	1,506	945
Los Angeles.	1,181	1,315	2,394	2,136	825	1,589	579	347	959	2,300
Louisville, Ky.	678	580	582	344	1,950	242	1,102	1,966	1,943	476
Memphis.	422	529	881	660	1,849	240	1,250	1,802	1,867	765
Miami, Fla.	1,226	1,019	1,019	1,010	2,708	1,061	2,089	2,594	2,734	923
Minneapolis.	605	290	985	743	1,427	466	987	1,584	1,795	934
Nashville.	605	607	685	472	1,969	254	1,393	1,963	1,975	569
New Orleans.	677	847	1,089	919	2,063	508	1,434	1,926	2,101	966
New York.	1,328	1,144	83	317	2,445	875	1,972	2,571	2,408	205
Oklahoma C'y		408		1,014	1,486	459	862	1,388	1,524	1,153
Omaha, Nebr.			1,094	836	1,371	354	833	1,429	1,369	1,014
Philadelphia.	1,260	1,094		259	2,412	811	1,925	2,523	2,580	123
Pittsburgh.	1,014	836	259		2,165	559	1,668	2,264	2,138	192
Portland, Ore.	1,486	1,371	2,412	2,165		1,723	636	534	135	2,354
St. Louis, Mo.	459	354	811	559	1,723		1,162	1,744	1,724	712
Salt Lake C'y	862	833	1,925	1,668	636	1,162		600	701	1,848
San Francisco.	1,938	1,429	2,523	2,204	534	1,744	600		678	2,442
Seattle, Wash.	1,624	1,369	2,380	2,183	145	1,724	701	678		2,329
Washington.	1,153	1,014	123	192	2,354	712	1,848	2,442		

ASTRONOMY AND CALENDAR

Edited by James S. Pickering

ASTRONOMER EMERITUS, AMERICAN MUSEUM-HAYDEN PLANETARIUM

Celestial Events for 1969

Since the planets of the solar system are in constant motion about the sun and thus change their positions continually in the sky, they cannot be shown on conventional star charts. The locations of these planets during 1969 are given in the paragraphs below, either by the constellations which are the backgrounds for their positions or by the time they rise or set with relation to the sun. Also given below are other predictable astronomical phenomena such as meteor showers, phases of the moon, eclipses and the dates of the beginnings of the seasons.

PLANETS AND THE SUN

The planets of the solar system, in order of their distance from the sun are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto. Uranus, Neptune and Pluto are not included in the celestial list because they are too faint to be seen without optical aid. Both Uranus and Neptune are visible through good field glasses, but Pluto is so distant and so small that only large telescopes or long exposure photographs can make it visible.

Since Mercury and Venus are nearer to the sun than is the earth, their motions about the sun are seen from the earth as wide swings first to one side of the sun and then to the other, although they are both passing continuously around the sun in orbits that are almost but not quite circular. When their passage takes them either between the earth and the sun, or beyond the sun as seen from the earth, they are invisible to us. Because of the laws which govern the motions of planets about the sun, both Mercury and Venus require much less time to pass between the earth and the sun than around the far side of the sun, so their periods of invisibility are unequal.

The planets that lie farther from the sun than does the earth may be seen for longer periods of time and are invisible only when they are so located in our sky that they rise and set about the same time as the sun when, of course, they are overwhelmed by the sun's great brilliance. None of the planets have any light or exterior heat of their own and shine only by reflecting sunlight from their surfaces. Mercury and Venus, because they are between the earth and the sun, show phases very much as the moon does. The planets farther from the sun are always seen as full, although Mars does occasionally present a slightly gibbous phase—like the moon when not quite full.

The planets move rapidly among the stars because they are very much nearer to us than the stars are. The stars are also in motion, some of them at tremendous speeds, but they are so far away that their motion does not change their apparent positions in the heavens sufficiently for anyone to perceive that change in a single lifetime. The very nearest star is more than 7,000 times as far away as the most distant planet.

January

Mercury reaches greatest angular distance east of the sun—greatest eastern elongation—on Jan. 13 and may be seen in the southwest for about an hour after sunset. It moves rapidly toward interior conjunction—between the earth and the sun—on Jan. 19, when it cannot be seen.

Venus is in the western sky after sunset, farther north than Mercury. It reaches greatest eastern elongation Jan. 26, and sets about 3 hours after the sun. On Jan. 21, the crescent moon after new passes 1 degree below Venus, causing an occultation of Venus in Australia and South Africa.

Mars rises from 5 to 6 hours before the sun in the southeast in Virgo. On Jan. 12, the last quarter moon passes 5 degrees below Mars early in the morning.

Jupiter rises before midnight and is visible most of the night in Virgo, near Mars. On Jan. 10, the moon, approaching last quarter, passes 2 degrees below Jupiter.

Saturn is just east of the meridian at sunset and sets about midnight in Pisces. On Jan. 24, the moon, nearly at first quarter, passes 4 degrees above Saturn.

Moon—Full moon, Jan. 3; last quarter, Jan. 11, new moon, Jan. 17; first quarter, Jan. 25. Moon at apogee, Jan. 1, at perigee, Jan. 16; again at apogee, Jan. 28. The moon is said to be at perigee when it passes nearest to the earth for the month, and at apogee when it is most distant from the earth. The nearest possible approach of the moon to the earth is 221,463 miles, and the greatest possible distance between the moon and the earth is 252,710 miles. The moon does not reach these extreme distances each month. Note that the moon reaches apogee twice during January. The period between successive returns of the moon to either perigee or apogee is the anomalistic month, which is a few hours shorter than 28 days. Thus, if a perigee or apogee passage occurs during the first days of a calendar month, a second may occur before the end of the month. Because of its proximity to the earth, the moon has a strong tidal effect on the earth which increases as the distance between the earth and the moon

decreases. The gravitational pull of the sun also affects the tides, and when the sun and the moon are in line with the earth, as at new moon or full moon, their tide-raising effects are combined and produce spring tides—higher and lower than average. The combination of a perigee position of the full or new moon may produce unusually high and low tides for a short time. The moon reaches perigee this month one day before new moon Jan. 17. This year, the moon passes close before several planets and bright stars, causing occultations of these objects as seen from the earth. When these conjunctions and occultations involve the planets, they are discussed under the heading for that planet. Conjunctions and occultations of the invisible planets and bright stars are mentioned under the heading of the moon.

Jan. 10. The moon, nearly at last quarter, passes 1 degree below the planet Uranus. This causes an occultation of Uranus in South America. Uranus is just below naked-eye visibility and may be seen with binoculars. This conjunction at 4 a.m., EST, will help to locate Uranus. Jan. 11, the last quarter moon passes close above the bright star Spica in Virgo. This conjunction occurs during daylight, but will bring Spica close west of the moon in the early morning sky. This is an occultation of Spica over eastern Asia. Jan. 14, at 2 a.m., EST, the moon passes 6 degrees below the planet Neptune. Neptune is only one-fifth as bright as Uranus and a small telescope may be required to make it visible. On the evening of Jan. 14, at 7 p.m., EST, the moon passes close below the red star Antares in Scorpius. This causes an occultation of Antares over southern Asia and Australia and brings the crescent moon before new close west of Antares in the morning sky.

Jan. 3. The earth reaches perihelion, that point in its orbit when it is nearest the sun for the year. This brings the earth to slightly more than 91,000,000 miles from the sun, about 3,000,000 nearer than in July when it reaches aphelion, its greatest distance from the sun.

February

Mercury is now in the morning sky. It reaches greatest western elongation Feb. 23, when it rises

about 1½ hours before the sun.

Venus sets about 4 hours after the sun in Pisces, increasing slightly in brilliance during the month.

Mars rises about 1 a.m. in Libra. On Feb. 10, the last quarter moon passes 6 degrees below Mars. On Feb. 22, Mars passes close below the planet Neptune, but a small telescope will be needed to see Neptune.

Jupiter rises late in the evening in Virgo. On Feb. 6, the moon, nearing first quarter, passes below Jupiter.

Saturn sets a few hours after the sun in Pisces. On Feb. 20, the crescent moon after new passes 5 degrees above Saturn.

Moon—Full moon, Feb. 2; last quarter, Feb. 9; new moon, Feb. 16; first quarter, Feb. 23. Moon at perigee, Feb. 13; at apogee, Feb. 25. On Feb. 6 the moon, 4 days past full, is in conjunction with Uranus at 8 a.m. EST. This causes an occultation of Uranus in New Zealand and Antarctica. Observers in the U. S. may see Uranus with binoculars to the west of the moon that evening. On Feb. 7, the moon is in close conjunction with Spica in Virgo. This produces an occultation of Spica in southeast Europe, north Africa, Asia Minor and Australia. On Feb. 11 at 2 a.m. the moon is in close conjunction with Antares in Scorpius, causing an occultation of Antares over South America and south Africa.

March

Mercury is in the morning sky, rising about 1½ hours before the sun early in the month. It is moving toward superior conjunction—beyond the sun from the earth—later in the month when it will no longer be visible. On Mar. 16 at 11 p.m., the moon occults Mercury over western Africa and South America.

Venus sets about 3 hours after the sun. It reaches its greatest brilliancy Mar. 3, when it is about 15 times as bright as Sirius, the brightest star. On Mar. 20, Venus and the crescent moon are near each other in the evening sky.

Mars rises about midnight in Scorpius and is visible for the last half of the night. On Mar. 10 the moon, nearly at last quarter, passes 6 degrees below Mars.

Jupiter reaches opposition on Mar. 21, rising as the sun sets, and is visible in the sky all night in Virgo. On Mar. 5, the moon passes 2 degrees below Jupiter. On Mar. 15, Jupiter will reveal the position of Uranus as the two planets are in conjunction at 6 p.m. Uranus may be seen with binoculars close west of Jupiter.

Saturn is approaching conjunction with the sun in Pisces and is far to the west at sunset.

Moon—Full moon, Mar. 4; last quarter, Mar. 11; new moon, Mar. 17; first quarter, Mar. 25. Moon at perigee, Mar. 12; at apogee, Mar. 25. At midnight between Mar. 6 and 7, the moon, 3 days past full, occults Spica in Virgo. This occultation is visible in North and South America. On Mar. 10, the moon is in close conjunction with Antares in Scorpius. This occurs by daylight in North America, but causes an occultation of Antares in South America.

Mar. 18. An annular eclipse of the sun is visible over the Indian Ocean and Indonesia.

Mar. 20. At 2:08 p.m. EST, the sun appears to cross the equator on its way north. This crossing is at the vernal equinox and spring begins in the northern hemisphere while autumn commences south of the equator.

April

Mercury reaches superior conjunction Apr. 8, beyond the sun from the earth, and moves into the evening sky, where it sets about an hour after the sun by the end of the month.

Venus reaches inferior conjunction, between the earth and the sun, also Apr. 8 and moves into the morning sky, but is too much in line with the sun to be seen.

Mars rises late in the evening in Scorpius. On Apr. 7, the gibbous moon passes 6 degrees below Mars at 11 p.m. EST.

Jupiter is in the eastern sky at sunset in Virgo. On Apr. 1, the moon nearing full phase, passes 2 degrees below Jupiter and again Apr. 28, the waning crescent moon is 1 degree below Jupiter.

Saturn reaches conjunction with the sun in Pisces Apr. 18 and moves into the morning sky, but is too much in line with the sun all month to be seen.

Moon—Full moon, Apr. 2; last quarter, Apr. 9; new moon, Apr. 16; first quarter, Apr. 24. Moon at perigee, Apr. 6; at apogee, Apr. 22. On Apr. 3, the moon is again in close conjunction with Spica in Virgo at 9 p.m. EST. This causes an occultation of Spica over southeast Asia. On Apr. 6, the moon is in close conjunction with Antares in Scorpius. This conjunction occurs during daylight in North America but causes an occultation of Antares over Australia. On Apr. 29, the moon passes 1 degree below Uranus, which may be seen close east of the moon during the evening. On Apr. 30, the moon again occults Spica in Virgo for observers in west and south Africa. This may be seen as an extremely close conjunction early in the evening from the U. S.

Apr. 2. The full moon passes through the outer region of the earth's shadow. This eclipse occurs during daylight over North America, but a penumbral eclipse cannot be easily observed without special equipment.

Apr. 23. The Lyrid meteor shower occurs. The moon sets early in the evening and does not interfere with observation of the few more than normal number of meteors this shower produces.

May

Mercury reaches greatest eastern elongation May 5 and sets about 1½ hours after the sun. It may be seen in the northwest during the first half of the month. On May 11, Mercury will be near the red star Aldebaran in Taurus, but will rapidly fade from view into inferior conjunction between the earth and the sun May 29.

Venus rises from 2 to 3 hours before the sun and reaches greatest brilliancy May 14. On May 12, the waning crescent moon is in conjunction with Venus. This causes an occultation of Venus over eastern Europe and Asia, and brings Venus close west of the moon in the U. S. in the early morning hours.

Mars reaches opposition on May 31, rising as the sun sets and visible in the sky all night in Ophiuchus. On May 4, the moon, two days past full, passes close below Mars and on May 31, the full moon is 2 degrees below Mars at 9 p.m. EST.

Jupiter is well up in the east at sunset before the stars of Virgo.

Saturn is too much in line beyond the sun to be seen, in Pisces.

Moon—Full moon, May 2; last quarter, May 8; new moon, May 16; first quarter, May 24; full moon, May 31. Note that the moon reaches full phase twice in May. The period of time for the moon to progress from any given phase to the corresponding phase in its next cycle—in this case, from full moon to the next full moon—is the synodical month, which is slightly more than 29 days. Hence, when a given phase occurs on the 1st or 2nd day of most months, that phase may be reached again before the end of the calendar month. Moon at perigee, May 4; at apogee May 20. The moon passes through two close conjunctions with Antares in Scorpius this month. On May 3, the conjunction occults Antares over South America and southern Africa. On May 31, the conjunction occults Antares over Indonesia and Australasia. On May 28, the moon is in close conjunction with Spica in Virgo, occulting Spica over New Zealand.

May 1-4. The Eta Aquarid meteor shower reaches its climax about midnight May 4. The moon, just past full, makes observation of the meteors of this shower difficult.

June

Mercury emerges from inferior conjunction and moves into the morning sky where it reaches greatest western elongation June 23, rising about 1½ hours before the sun.

Venus reaches greatest western elongation June 17, rising about 3 hours before the sun and about 1½ hours before Mercury. Venus will be to the south and west of Mercury and near Saturn during the first part of the month. Venus and Saturn are in close conjunction during daylight June 11 and the waning crescent moon passes close above both that morning.

Mars, just past opposition, is up in the east in Scorpius and Ophiuchus. On June 3, Mars is 2 degrees above Antares in Scorpius. The name Antares is Greek for "The Rival of Mars," and this conjunction of Mars and the red star will demonstrate the origin of the star's name. On June 8, Mars reaches that point in its orbit near-

est the earth for this passage, bringing it slightly more than 43,000,000 miles from the earth. On June 27, the nearly full moon passes 2 degrees below Mars at 9 p.m. EST.

Jupiter is east of the meridian at sunset and is in the sky for the first half of the night in Virgo. On June 18 at 1 a.m. EST, Jupiter is in close conjunction with Uranus, which may be seen with good binoculars.

Saturn is in the morning sky near Venus and Mercury. On June 8, the waning crescent moon passes 6 degrees above Saturn.

Moon—Last quarter, June 6; new moon, June 14; first quarter, June 22; full moon, June 29. Moon at perigee, June 1; at apogee, June 16; at perigee, June 29. The combination of perigee full moon on June 29 may produce extreme tides. Note that the moon returns to perigee twice in June, which occurs when the first perigee falls on the 1st or 2nd day of the month. See notes for January. On June 24, the moon's close conjunction with Spica, the seventh such conjunction this year, occults Spica over South America and south Africa. On June 17, the moon also reaches its seventh close conjunction with Antares in Scorpius. This is also an occultation over South America and south Africa.

June 21. At 8:55 a.m., EST (9:55 a.m. EDT) the summer solstice occurs. The earth reaches that point in its orbit where, because of the inclination of the earth's axis, the sun appears highest in the northern sky and summer begins. For the southern hemisphere, this is the beginning of winter.

July

Mercury moves toward superior conjunction July 22 when it changes from the morning to the evening sky, but is too much in line with the sun to be seen.

Venus rises from 3 to 4 hours before the sun and is bright in the morning sky. On July 10, the waning crescent moon passes near Venus.

Mars is near the meridian at sunset and is visible for the first half of the night in Scorpius. On July 24, the waxing crescent moon passes 2 degrees below Mars at 7 p.m. EST.

Jupiter is far to the west at sunset in Virgo. On July 20, the moon, nearly at first quarter, passes Jupiter after setting from the U. S. and appears east of the planet the following evening.

Saturn is in the morning sky rising about midnight ahead of Venus in Aries. On July 8, Saturn is close south and west of the waning crescent moon.

Moon—Last quarter, July 6; new moon, July 14; first quarter, July 22; full moon, July 28. Moon at apogee, July 13; at perigee, July 28. The combination of perigee and full moon could cause extreme tides at this time. On July 21, the moon near first quarter occults Spica in Virgo for the eighth time this year. This occultation is over New Zealand and South America. On July 25, Antares in Scorpius is occulted for the eighth time this year. This occultation occurs over Indonesia and Australasia.

July 5. The earth reaches aphelion, that point in its orbit which brings it farthest from the sun for the year. The earth is now about 3,000,000 miles more distant from the sun than it was at perihelion in January.

July 29. The Delta Aquarid meteor shower begins and provides more than the average number of meteors for about 3 weeks. This annual summer display is strikingly augmented by the August Perseid shower whose forerunners may begin to appear late this month. The full moon will handicap observers of this shower for the first few nights.

August

Mercury is too much in line with the sun to be visible this month.

Venus rises 3 to 4 hours ahead of the sun. On Aug. 9 the waning crescent moon is near Venus, and Aug. 24 Venus is below the star Pollux in Gemini.

Mars is on the meridian at sunset in Ophiuchus and is visible for the first half of the night. On Aug. 11, Mars and Antares, in Scorpius, are again in close association. On Aug. 21 the moon, just past first quarter, passes 2 degrees below Mars at 7 p.m. EST.

Jupiter sets from 3 to 2 hours after the sun

in Virgo. On Aug. 16, the early crescent moon passes 3 degrees below Jupiter at 5 p.m., just above the western horizon.

Saturn rises about 10 p.m. in Aries.

Moon—Last quarter, Aug. 4; new moon, Aug. 13; first quarter, Aug. 20; full moon, Aug. 27. Moon at apogee, Aug. 9; at perigee, Aug. 25. On Aug. 18, the moon again occults Spica in Virgo for the ninth consecutive time this year, but this occultation cannot be seen from North America. On Aug. 21, Antares is occulted by the moon, also for the ninth time this year. This occultation occurs over southwest Australia and South America.

Aug. 11-12. The Perseid meteor shower reaches its climax after midnight between these two dates. This is the most dependable and one of the most spectacular meteor showers and there is no interference by the moon with observation of the 50 or more meteors an hour which one observer may see.

Aug. 27. The full moon passes through the penumbra, the outer fringe of the earth's shadow. This part of the shadow is faint and makes little or no impression to the casual observer.

September

Mercury reaches greatest eastern elongation Sept. 3 and sets about 1½ hours after the sun during the first part of the month. It moves rapidly to inferior conjunction—between the earth and the sun—on Sept. 29 and is not then visible.

Venus is in the morning sky, rising 2 to 3 hours before the sun in Cancer and Leo. On Sept. 8, the waning crescent moon passes 3 degrees above Venus as the moon and planet rise. On Sept. 22, Venus is near the bright star Regulus in Leo.

Mars is far to the west at sunset and sets about 3 hours after the sun in Ophiuchus and Sagittarius. On Sept. 19, Mars is close north of the first quarter moon.

Jupiter is moving toward conjunction with the sun in early October and is too much in line with the sun to be seen easily. On Sept. 7, Jupiter and Mercury are near each other in the western sky, with Jupiter the more northern and brighter of the two planets.

Saturn rises early in the evening in Aries, and is in the sky most of the night. On Sept. 1 the moon, just past full, passes above Saturn; it repeats this performance Sept. 28.

Moon—Last quarter, Sept. 3; new moon, Sept. 11; first quarter, Sept. 18; full moon, Sept. 25. Moon at apogee, Sept. 6; at perigee, Sept. 22. On Sept. 14, the moon continues its monthly occultation of Spica in Virgo. This occurs at 8 p.m. EST and is not visible from North America. On Sept. 17, the moon again occults Antares in Scorpius, but this occultation is also invisible from North America.

Sept. 11. There is an annular eclipse of the sun, visible over the Pacific Ocean west of North America and over the western portion of South America. The eclipse is partial over all but the northeastern U. S. In an annular eclipse, the moon, at central eclipse, does not completely cover the sun and there is a narrow ring of sun visible around the black silhouette of the moon.

Sept. 23. At 12:07 a.m. EST (1:07 a.m. EDT), the sun crosses the equator at the autumnal equinox on its apparent journey south. Autumn commences in the northern hemisphere and spring begins south of the equator.

Sept. 25. The full moon passes through the outer fringe of the earth's shadow, causing a penumbral eclipse of the moon. This eclipse, which is not visible except with special methods, affects only the extreme northeast part of North America.

October

Mercury reaches greatest western elongation on Oct. 14, and is visible for a few mornings near that date in the eastern sky for about an hour before sunrise.

Venus is also in the eastern sky at sunrise. Venus rises ahead of Mercury and is much the brighter of the two. On Oct. 9, the moon passes close below Venus at 2 a.m., but the moon is so near new that it is difficult to see.

Mars sets about 3 hours after the sun in Sagittarius, and is difficult to see.

Jupiter reaches conjunction with the sun Oct. 9 and cannot be seen.

Saturn is in opposition on Oct. 28, rising as

the sun sets and in the sky all night before the stars of Aries. On Oct. 25, the full moon passes 7 degrees above Saturn as the two objects rise.

Moon—Last quarter, Oct. 3; new moon, Oct. 11; first quarter, Oct. 18; full moon, Oct. 25. Moon at apogee, Oct. 4; at perigee Oct. 17. Consistent with its performance this year, the moon again occults Antares in Scorpius. This occultation occurs at 11 p.m. EST Oct. 18 and is over Australasia. There is no occultation of Spica in Virgo this month.

Oct. 18-23. The Orionid meteor shower occurs, reaching a climax in the early morning hours of Oct. 20. The moon, past first quarter and far to the west, will not interfere greatly with observation.

November

Mercury reaches superior conjunction, beyond the sun from the earth, Nov. 11, and is not visible.

Venus rises about an hour before the sun in Virgo and may be seen during morning twilight.

Mars sets soon after the sun in Capricornus and is not easy to see close above the western horizon.

Jupiter is in the morning sky not far from Venus. The two planets are in conjunction about $\frac{1}{2}$ a degree apart before they rise on Nov. 4. Both planets are near Spica in Virgo.

Saturn, just past opposition in Aries, is in the east at sunset. On Nov. 21, the nearly full moon passes above Saturn.

Moon—Last quarter, Nov. 2; new moon, Nov. 9; first quarter, Nov. 16; full moon, Nov. 23. Moon at apogee, Nov. 1; at perigee, Nov. 12; at apogee, Nov. 29. For explanation of the moon's return to apogee, see notes for January. On Nov. 8, the moon, less than 2 days before new, occults Spica in Virgo, but this occultation occurs during daylight. On Nov. 11, the moon occults Antares in Scorpius, but this occultation also occurs during daylight.

Nov. 16. The Leonid meteor shower occurs. This shower has produced spectacular displays in the

past and should be watched. Look to the northeast from 10 p.m. on. The first quarter moon will not interfere with observation.

December

Mercury reaches greatest eastern elongation Dec. 27, but is still too much in line with the sun to be seen easily.

Venus is also too much in line with the sun to be seen.

Mars is far to the west, setting soon after the sun in Sagittarius. On Oct. 14, the moon occults Mars, but this occultation is not visible from North America.

Jupiter rises about 5 hours before the sun in Virgo.

Saturn, in Aries, is west of the meridian at sunset and is in the sky for the first part of the night. On Dec. 18 at 11 P.M. EST, the gibbous moon passes above Saturn.

Moon—Last quarter, Dec. 1; new moon, Dec. 9; first quarter, Dec. 15; full moon, Dec. 23; last quarter, Dec. 31. For explanation of the recurrence of the last quarter moon, see note for May. Moon at perigee, Dec. 10; at apogee, Dec. 26. The perigee new moon of Dec. 9-10 may cause extreme tides. On Dec. 1 at 1 a.m. EST, the moon is in close conjunction with the bright star Regulus in Leo, causing occultation of Regulus over eastern Europe. Again on Dec. 28, the moon occults Regulus, but this occultation occurs during daylight in North America. The moon occults Spica in Virgo for the 12th time this year on Dec. 5, but this is also a daylight occultation.

Dec. 13. The Geminid meteor shower occurs. This shower has produced many bright meteors and fireballs in the past. The moon, not yet at first quarter, will not interfere with observation.

Dec. 21. At 7:44 p.m. EST, the sun reaches its lowest point in northern skies. This is the winter solstice and marks the beginning of winter in the northern hemisphere and of summer south of the equator.

COMET TABLE 1969

Name	Due to Return	Period in Years	Year of Disc.	Perihelion Dist.	Aphelion Dist.	Inclination to Ecliptic	Long. of Asc. Node on Ecliptic	From Asc. Node to Perihelion
						Degree	Degree	Degree
Perrine	Jan. 1969	6.58	1896	1.19	4.59	16	242	167
Dutoit-Neujmin	Mar. 1969	5.58	1941	1.34	4.95	3	229	70
Pons-Winnecke	July 1969	6.15	1819	1.08	5.56	22	94	170
Whipple	Dec. 1969	7.42	1933	2.45	5.16	10	189	190
Neujmin II	Aug. 1970	5.45	1916	1.34	4.84	11	328	194
Encke	Jan. 1971	3.31	1786	0.34	4.10	12	355	185
Tempel-Swift	Jan. 1971	5.68	1809	1.15	5.21	5	290	114
Grigg-Skellerup	Aug. 1971	4.90	1902	0.86	4.91	18	215	359
Tempel II	Jan. 1973	5.27	1873	1.36	4.68	12	119	191
Taylor	Sep. 1973	3.73	1915	1.56	3.52	16	114	355
Finlay	Apr. 1974	6.81	1886	1.04	6.16	3	45	321
Encke	Apr. 1974	3.31	1786	0.34	4.10	12	355	185
Forbes	Apr. 1974	6.44	1929	1.55	5.40	5	260	25
Brooks II	May 1974	6.93	1889	1.87	5.41	6	178	196
Borelly	July 1974	7.01	1905	1.45	5.88	31	76	351
Schwassmann-Wachsmann	Aug. 1974	6.53	1929	2.16	4.83	4	126	358
Perrine	July 1975	6.58	1896	1.19	4.59	16	242	167
Pons-Winnecke	Aug. 1975	6.15	1819	1.08	5.56	22	94	170
Dutoit-Neujmin	Aug. 1975	5.45	1916	1.34	4.95	3	229	70
Halley	1986	76.02	240 B.C.	0.59	35.32	162	57	112

Morning and Evening Stars of 1969

MORNING

Mercury—Jan. 29-Apr. 8; May 29-July 22; Sept. 29-Nov. 16.
 Venus—Apr. 8-Dec. 31.
 Mars—Jan. 1-May 31.
 Jupiter—Jan. 1-Mar. 21; Oct. 9-Dec. 31.
 Saturn—Apr. 18-Oct. 29.

EVENING

Mercury—Jan. 1-Jan. 29; Apr. 8-May 29; Jul. 22-Sept. 29; Nov. 16-Dec. 31.
 Venus—Jan. 1-Apr. 8.
 Mars—May 31-Dec. 31.
 Jupiter—Mar. 21-Oct. 9.
 Saturn—Jan. 1-Apr. 18; Oct. 29-Dec. 31.

Astronomical Signs and Symbols

☉ The Sun.	♁ The Earth.	♅ Uranus.	☐ Quadrature.
☾ The Moon.	♂ Mars.	♆ Neptune.	♄ Opposition.
☿ Mercury.	♂ Jupiter.	♇ Pluto.	♊ Ascending Node.
♀ Venus.	♄ Saturn.	♈ Conjunction.	♋ Descending Node.

Two heavenly bodies are in "conjunction" (♈) when they have the same Right Ascension, or are on the same meridian, i.e., when one is due north or south of the other; if the bodies are near each other as seen from the earth, they will rise and set at the same time; they are in "opposition" (♄) when in opposite quarters of the heavens, or when one rises as the other is setting. "Quadrature" (☐) is half way between conjunction and opposition. By "greatest elongation" is meant the

greatest apparent angular distance from the sun, the planet is then generally most favorably situated for observation. Mercury can be seen with the naked eye only at this time. When a planet is in its "ascending" (♊) or "descending" (♋) node it is passing through the plane of the earth's orbit. The term "Perihelion" means nearest to the sun, and "Aphelion" farthest from the sun. An "occultation" of a planet or star is an eclipse of it by some other body, usually the moon.

Giant Telescopes Planned for Southern Hemisphere

For many years astronomers have been aware of a serious deficiency in optical observation. All of the world's larger telescopes are in the northern hemisphere and thus cannot be used to study southern skies. The 200-inch Hale reflector is at Mt. Palomar in California. The 120-inch reflector is at the Lick Observatory in California. Mt. Wilson in California and the Crimean Astrophysical Observatory in the USSR have telescopes with 100-inch and 104-inch mirrors, respectively, and Russia is constructing a reflector with a mirror 236 inches in diameter. The largest telescopes at present in the southern hemisphere, however, are 74-inch reflectors in Pretoria, South Africa and Mt. Stromlo, Australia.

Two telescopes are being planned for South America which will remedy this situation. The U. S. is erecting a 150-inch reflector at Cerro Tololo in Chile, and a 140-inch mirror at La Silla Mountain will be administered by the European Observatory Group. Australia is planning a telescope with an aperture of 150 inches at Siding Spring. Tremendous advances in the study of the central region of the Milky Way and of the Magellanic Clouds, as well as more detailed studies of many other regions hitherto unavailable to giant telescopes, will be made through the use of these planned instruments.

OPTICAL TELESCOPES

Optical astronomical telescopes are of two kinds, refracting and reflecting. In the first, light passes through a lens which brings the light rays to a focus, where the image may be examined after being magnified by a second lens, the eye-piece, or directly photographed.

The reflector consists of a concave parabolic mirror, generally of Pyrex, coated with silver or aluminum, which reflects the light rays back toward the upper end of the telescope, where they are either magnified and observed by the eye-piece or, as in the case of the refractors, photographed. In most reflecting telescopes, the light is reflected again by a secondary mirror and comes to a focus after passing through a hole in the side of the telescope, where the eye-piece or camera is located, or after passing through a hole in the center of the primary mirror.

The Schmidt Telescopes are strictly cameras and cannot be used for visual observation. Light enters the upper end of the telescope tube, is refracted slightly by a correcting lens and is then reflected from a spherical mirror with a short focus. A camera, placed inside the telescope at the focus of the mirror can photograph large areas of the sky without distortion at the edges of the photograph. The diameters of Schmidt telescopes are given in two figures; first, the diameter of the correcting lens, followed by the diameter of the mirror.

Major Planetariums in the United States

A planetarium projector is perhaps the most complicated instructional device ever made. The first modern planetarium projector was designed and built in 1923 by Walter Bauersfeld of the Zeiss Optical Company. Other instruments had been attempted with only fair success before this time and modern projectors have developed from this beginning. There are now several manufacturers who make elaborate planetarium projectors.

A typical projector for a large auditorium can project the images of nearly 9,000 stars against the reflective surface of a hemispherical dome. In addition, the Milky Way, star clusters, nebulae and other objects sufficiently bright to be seen under ideal conditions by the unaided eye are shown.

Planetarium projectors are usually in the form of two globes, one at either end of a latticed cylinder. The globes contain projectors for the stars, one for the northern hemisphere and the other for the south. In the latticed cylinder are projectors for the sun, the moon and the five planets visible to the eye. The motions of all of these objects are duplicated by the projector with amazing fidelity. First of all, the projector can be set in latitude so that it will produce the sky as it might be seen from any location on earth. The daily motion of the earth which moves the sky throughout the day and night is the first and simplest effect produced. Then there is annual motion, the progress of the sun, moon and planets through the year, including the phasing of the moon. Finally, the precession of the equinoxes, the slow swing of the poles

WORLD'S LARGEST REFRACTORS

Location and diameter in inches.

Yerkes Observatory, Williams Bay, Wisconsin	40.0
Lick Observatory, Mt. Hamilton, Calif.	36.0
Paris Observatory, Meudon, France	32.7
Astrophysical Obs., Potsdam, Germany	31.5
Allegheny Observatory, Pittsburgh, Pa.	30.0
Univ. of Paris, Nice, France	30.0
Pulkovo Observatory, U.S.S.R.	30.0
U.S. Naval Obs., Washington, D.C.	26.0
University of Virginia	26.0
Yale University, Canberra, Australia	26.0

WORLD'S LARGEST REFLECTORS

This is a partial list including most reflectors of 40-inches aperture or larger.

Mt. Palomar, Calif. Inst. of Tech., California	200.0
Lick Observatory, Mt. Hamilton, Calif.	120.0
Crimean Astrophysical Obs., Russia	104.0
Mt. Wilson Obs., California	100.0
Herstmonceux, England	98.0
Kitt Peak Nat'l Obs., Arizona	84.0
McDonald Obs., Texas	82.0
Tautenberg, Germany	(Schmidt) 80-54
Haute-Provence Obs., France	77.0
David Dunlap Obs., Ontario, Can.	74.0
Radcliffe Obs., Pretoria, So. Africa	74.0
Mt. Stromlo, Canberra, Australia	74.0
Helwan Obs., Egypt	74.0
Tokyo Obs., Japan	74.0
Mt. Palomar, Calif.	
Inst. of Tech., Calif.	(Schmidt) 72-48
Perkins Obs., Arizona	69.0
Harvard Obs., Oak Ridge, Mass.	61.0
U. S. Naval Obs., Ariz.	61.0
Arizona Un. Obs., Tucson, Ariz.	60.0
Harvard Obs., Bloemfontein, So. Africa	60.0
Cordoba Obs., Bosque Alegre, Argentina	60.0
Mt. Wilson Obs., Calif.	60.0
Uppsala U. Obs., Sweden	(Schmidt) 54-40
Mt. Stromlo, Canberra, Australia	50.0
Sternberg Inst., Moscow, Russia	50.0
Merate Obs., Italy	50.0
Berlin-Babelsberg Obs., Germany	49.0
Dominion Astrophysical Obs., Canada	48.0
Melbourne, Australia	48.0
Crimean Astrophysical Obs., Russia	48.0
Nizamiah Obs., Hyderabad, India	48.0
Hamburg Obs., Germany	(Schmidt) 48-32
Paris Obs., St. Michel, France	47.0
Uccle Obs., Belgium	(Schmidt) 46-33
Lowell Obs., Flagstaff, Ariz.	44.0
U. S. Naval Obs., Washington, D. C.	40.0
Merate Obs., Italy	40.0
Pulkovo Obs., Russia	40.0
Stockholm Obs., Sweden	(Schmidt) 40-26
U. S. Naval Obs., Flagstaff, Ariz.	40.0
Royal Cape Obs., So. Africa	40.0
Mt. Stromlo, Canberra, Australia	40.0

of the earth which is accomplished in 25,800 years and which slowly changes our view of the sky is also built into the complicated mechanism of these instruments.

The effects of the projector itself are usually supplemented by auxiliary projectors mounted around the edges of the auditorium to produce the color effects of sunrise and sunset, the aurora, clouds, rainbows, eclipses and many other phenomena. Most of the functions of the projector are controlled by the lecturer, who produces them from an array of switches and rheostats mounted in a control console usually situated near the north side of the auditorium. Appropriate music, pre-recorded on tape and played on signal adds to the dramatic effect of a planetarium presentation.

There are literally hundreds of small planetarium projectors in schools and museums in the United States and several planetariums whose auditoriums will seat hundreds. The major planetariums in the United States are listed below.

Academy Planetarium, U. S. Air Force Academy.
Adler Planetarium, Chicago, Ill.
American Museum-Hayden Planetarium, N. Y. C.
Buhl Planetarium, Pittsburgh, Pa.
Charles Hayden Planetarium, Boston, Mass.
Fels Planetarium, Philadelphia, Pa.
Griffith Planetarium, Los Angeles, Calif.
McDonnell Planetarium, St. Louis, Mo.
Morehead Planetarium, Chapel Hill, N. C.
Morrison Planetarium, San Francisco, Calif.
Robert T. Longway Planetarium, Flint, Mich.

Visible Planets of the Solar System

Mercury, Venus, Mars, Jupiter and Saturn

MERCURY

Mercury, nearest planet to the sun, is also the smallest of the nine planets known to be orbiting the sun. Its diameter is 3,100 miles and its mean distance from the sun is 39,000,000 miles.

Mercury moves with great speed in its journey about the sun, averaging about 30 miles a second to complete its circuit of the sun in 88 of our days. Radar observations of Mercury by the 1,000-foot radio telescope at Arecibo, Puerto Rico, disclosed that Mercury rotates upon its axis over a period of nearly 59 days, thus exposing all of its surface periodically to the sun. For nearly 100 years, astronomy had accepted a rotational period for Mercury of 88 earth-days, synchronous with its period of revolution. A synchronous rotation-revolution period would have caused the same side of Mercury to face the sun constantly and would have produced a temperature of between 750° and 1,000° on the sun-facing surface, while the perpetually dark side would have had a temperature of about -450° Fahrenheit.

Now, while it is believed that the surface passing before the sun may have a temperature of about 800° F., the temperature on the side turned temporarily away from the sun does not fall as low as might be expected. This night temperature has been described by Russian astronomers as "room temperature"—possibly about 70°. This would contradict the former belief that Mercury did not possess an atmosphere, for some sort of atmosphere would be needed to retain some of the fierce solar radiation that must strike Mercury at its small distance from the sun. A shallow but dense layer of carbon dioxide would produce the "greenhouse" effect in which heat accumulated during exposure to the sun, would not completely escape at night.

This uncertainty about conditions upon Mercury and its motion arise from its short angular distance from the sun as seen from the earth, for Mercury is always too much in line with the sun to be observed against a dark sky, but is always seen during either morning or evening twilight.

VENUS

Venus is slightly smaller than the earth. Its diameter is about 200 miles less than the earth's diameter. Venus moves about the sun at a mean distance of 67,000,000 miles in 225 of our days. Its synodical revolution—its return to the same relationship with the earth and the sun, which is a result of the combination of its own motion and that of the earth—is 584 days. Venus will, then, be nearer to the earth every 19 months than any of the other planets of the solar system. We have never been able to see the surface of Venus because the planet is covered with a dense, white cloudy atmosphere that conceals whatever is below it. This same cloud reflects sunlight efficiently so that when Venus is favorably situated, it is the third brightest object in the sky, exceeded only by the sun and the moon.

Telescopic observation of Venus has not been able to disclose the rate of rotation of the planet and, until late in 1962, there was nothing more than speculation about the temperatures on its surface, the nature of its atmosphere and the inclination of its axis of rotation which would produce seasonal changes there. Latest authorities now state that the polar axis of Venus is tilted away from the vertical by about 32°, so that Venus does have seasons. Opinions as to its period of rotation ranged from about the same as that of the earth—about 24 hours—to a longer intermediate period of about 30 earth days and then to one in which its period of rotation corresponded with its period of revolution, 225 days. This would keep the same side of Venus always facing the sun, and would produce high temperatures on that side. Observation appeared to confirm a high temperature on the sunlit face of Venus and the longer rotation period was generally accepted. Traces of what appeared to be carbon dioxide were found in the atmosphere and no water vapor or free oxygen appeared to exist there.

In 1959, a spectroscopic sent in a balloon to a height of about 100,000 feet did indicate the presence of both these commodities in the atmosphere of Venus and our conception of the planet underwent certain changes. Where Venus had earlier been considered a waterless desert, water

vapor and oxygen indicated a planet whose surface must be a steaming caldron because of a possible high temperature, at least upon the sunward side. Estimates of this temperature ran as high as 600° and seemed to inhibit the possibility of organic life on Venus and to support the theory that Venus rotated in the same period as it revolved.

In 1966, the Russian space probe, Venus 4, landed upon the surface of the planet and a few days later, the American space probe, Mariner V, made a close fly-by of Venus. Readings from the instruments of both these vehicles confirmed the 1962 findings of Mariner II, which then passed within 25,000 miles of Venus. The temperature on the surface of Venus, below its atmosphere, is extremely high—perhaps 800 degrees F. No breaks in the cloudy atmosphere were reported. The temperature on the upper surface of the clouds was about 30° below zero. An extremely weak magnetic field or none at all appeared to be indicated by other instruments in the space probe. This would indicate that Venus did not rotate at all or had an extremely slow rotation. Further studies of Venus by radio astronomy indicate a retrograde rotation—in the opposite direction to the rotation of the Earth, for example—with a period of 247 earth days. This, combined with the period of revolution of Venus of 225 earth days, would give a specific point on Venus a period of sunlight 118 earth days in length during which the sun would rise in what would be west on earth, move slowly eastward and set in the east.

Venus also appears to be subjected to fierce blasts of solar plasma which produce conditions dangerous to living organisms in its vicinity. The mysteries of Venus have only been intensified by the knowledge we have recently gained about it.

MARS

Mars is the first planet beyond the earth, away from the sun. Mars's diameter is about 4,200 miles, although a determination of the radius and mass of Mars by the space-probe, Mariner IV, which flew by Mars on July 14, 1965 at a distance of less than 6,000 miles, indicated that these dimensions were slightly larger than had been previously estimated. While Mars's orbit is also nearly circular, it is not as nearly centered on the sun as are the orbits of many of the other planets, and Mars is more than 30 million miles farther from the sun in some parts of its year than it is at others. Mars takes 687 of our days to make one circuit of the sun, traveling at about 15 miles a second. Mars rotates upon its axis in almost the same period of time that the earth does—24 hours and 37 minutes. Mars's mean distance from the sun is 141 million miles, so that the temperature on Mars would be lower than that on the earth even if Mars's atmosphere were about the same as ours. This is far from being the case, however, for Mariner IV reported that atmospheric pressure on Mars as between 1% and 2% of the earth's atmospheric pressure. This thin atmosphere appears to be largely carbon dioxide with traces of nitrogen and argon. No evidence of free water was found.

There appears to be no magnetic field about Mars. This would eliminate the previous conception of a dangerous radiation belt around Mars similar to the Van Allen Belt around the earth. The same lack of a magnetic field would expose the surface of Mars to an influx of cosmic radiation about 100 times as intense as that on earth.

Five-eighths of the surface of Mars is a desert of reddish rock, sand and soil. The rest of Mars is covered by irregular patches that appear generally green in hues that change through the Martian year. These were formerly held to be some sort of primitive vegetation, but with the findings of Mariner IV of a complete lack of water and oxygen, such growth does not appear possible. The nature of the green areas is now unknown, but two theories about them have been advanced. They may be regions covered with volcanic salts whose color changes with changing temperatures and atmospheric conditions, or they may be gray, rather than green. Optical experiments show that when large gray areas are placed beside large red areas, the gray areas will

appear green to the eye.

Mars is inclined from a vertical to the plane of its orbit about the sun by about 25° and therefore has seasons as does the earth, except that the Martian seasons are longer because Mars's year is longer. White caps form about the winter pole of Mars, growing through the winter and shrinking in summer. These polar caps were thought to be frozen water which when it melted, nourished the green areas. In view of the negative findings of Mariner IV, however, the caps are thought to be carbon dioxide.

The canals of Mars have become more of a mystery than they were before the voyage of Mariner IV. Markings forming a network of fine lines crossing much of the surface of Mars have been seen there by men who have devoted much of their professional time to the study of the planet, but no canals have shown clearly enough upon previous photographs to be universally accepted. A few of the 21 photographs sent back to earth by Mariner IV covered areas crossed by canals. The pictures show faint, ill-defined, broad, dark markings, but no positive identification of the nature of the markings has been made. The photographs show that the surface of Mars bears a marked resemblance to the surface of the moon. There are craters in most of the pictures, which appear identical with lunar craters.

Mars's position in its orbit and its speed around that orbit in relation to the earth's position and speed bring Mars fairly close to the earth on two occasions about two years apart and then move Mars and the earth too far apart for accurate observation and photography for about 15 years. In September, 1956, Mars paid the second of the current series of close visits to the earth, when it came to a little more than 35 million miles from us. It had not been as close as this since 1924 and it will be even closer in 1971.

When Mars is favorably situated it is brighter than most of the stars and is definitely red and not difficult to locate. The polar caps may be seen with a small telescope under good conditions and the differences in color of the various regions of the surface can sometimes be perceived. To bring out any surface detail, however, requires a large instrument and the cooperation of the atmosphere of the earth and Mars.

Mars has two satellites. They are small, about 5 and 10 miles in diameter. They were discovered in 1877 by Asaph Hall. The outer satellite is named Deimos and it revolves around Mars in about 31 hours. The inner satellite, Phobos, whips around Mars in a little more than 7 hours, making three trips around the planet each Martian day. While these tiny satellites were not discovered until 1877, they were described with uncanny accuracy by Johnathan Swift in "Gulliver's Travels," published in 1726.

JUPITER

Jupiter is the largest of the planets. Its equatorial diameter is 88,000 miles, 11 times the diameter of the earth. Its polar diameter is about 6,000 miles shorter. This is caused by the almost fluid condition of its atmosphere and its extremely rapid rate of rotation. Jupiter's day is just under 10 hours long. For a planet of this size, this rotational speed is amazing, and it carries a point on Jupiter's equator along at a speed of 22,000 miles an hour, as compared with 1,000 miles an hour for a point on the earth's equator. Jupiter is at an average distance of 480 million miles from the sun and takes almost 12 of our years to make one complete circuit of the sun. This makes its apparent motion through our skies very slow. Jupiter moves through one of the 12 zodiacal constellations in about a year.

Much of Jupiter's diameter is atmosphere. The question of whether or not the giant planet has any solid core at all has recently been re-opened, but the current widely accepted picture of the planet provides a small, heavy, solid center, covered with a sheath of ice about 10,000 miles thick. This all lies at the bottom of an atmosphere about 25,000 miles deep. This atmosphere is made up of hydrogen, helium, methane and ammonia and, since the temperature on the surface of Jupiter is about 200° below zero F., these gases must be of the consistency of slush. Jupiter's cloudy atmosphere is a fairly good reflector of sunlight and makes it far brighter than any of the stars among which it wanders. An extremely heavy radioactive belt has also been discovered

surrounding Jupiter, similar to the earth's Van Allen Belt.

Jupiter has 12 satellites. Four of these are large and bright, rivaling our own moon and the planet Mercury in diameter, and may be seen through a field glass. They move rapidly around Jupiter and their change of position from night to night is extremely interesting to watch. The eight additional satellites are much smaller and, in all but one instance, much farther from Jupiter, and cannot be seen except through powerful telescopes. The 4 outermost satellites are revolving around Jupiter from east to west, contrary to the motions of the great majority of the satellites in the solar system and to the direction of revolution of the planets around the sun. The reason for this retrograde motion is not known, but one theory is that Jupiter's tremendous gravitational power may have captured 4 of the minor planets or asteroids, that move about the sun between Mars and Jupiter, and that these 4 may be running backwards. Jupiter's mass is more than twice the mass of all the other planets put together, and accounts for Jupiter's tremendous gravitational field and so, probably, for its numerous satellites and its dense atmosphere.

SATURN

Saturn, last of the planets visible to the unaided eye, is almost twice as far from the sun as is Jupiter, almost 900 million miles. It is second in size to Jupiter but its mass is much smaller. Saturn's specific gravity is less than that of water, and if an ocean big enough could be found, Saturn would float in it. Its diameter is about 71,000 miles at the equator; its rotational speed spins it completely around in a little more than 10 hours, and its atmosphere is much like that of Jupiter, except that at its greater distance from the sun, its temperature is at least 100° colder. At about 300° F. below zero, the ammonia would be frozen out of Saturn's clouds. The theoretical construction of Saturn resembles that of Jupiter, it is either all gas, or it has a small heavy center surrounded by a layer of ice and a deep atmosphere.

Saturn has ten satellites, the 10th having been discovered by the French astronomer Audouin Dollfus in December, 1966. The newly found satellite is a few thousand miles outside of the edge of Saturn's ring system and its discovery was made possible by the edge-on presentation of the rings which is caused by the inclinations of the polar axes of Saturn and the earth. At such times, the rings virtually disappear to observers on earth. This aspect of the rings reduces their brilliance and would permit the hitherto unknown satellite to be seen.

Saturn's ring system begins about 7,000 miles above the visible disk of Saturn, lying above its equator and is a flat ring that extends about 35,000 miles into space around the planet. Although the diameter of the ring system, including Saturn itself, is about 170,000 miles, the rings are estimated to be no more than 10 miles in depth—from top to bottom. This makes them among the flattest things in nature, considering depth in proportion to width. The rings are probably made of billions of tiny particles, undoubtedly including ice, each of which follows its own individual orbit about Saturn. One theory of the origin of this system is that the material in it was once consolidated into an eleventh satellite which, because of some gravitational aberration ages ago, was drawn so close to Saturn that the great planet's gravitational stresses shattered it to bits, scattering the fragments as rings around the destroying planet.

The rings cannot be seen except in a telescope of at least 3-inch aperture. Because of Saturn's inclination, as stated above, there are two periods during Saturn's journey around the sun when the rings are presented to us edge-on. At these times, the rings disappear. Nothing that is only 10 miles wide can be seen from a distance of nearly 900 million miles. The rings are not now in a favorable position to be seen. They were edge-on in 1966 and will reach maximum visibility again in 1973, when we will see the lower or southern face of the rings.

Saturn takes 29½ years to go around the sun. It thus moves very slowly among the constellations of the zodiac, remaining in each one for more than two years.

The Earth; Size; Computation of Time; Seasons

SIZE AND DIMENSIONS

The earth is the fifth largest planet and the third from the sun. Its mass is 6 sextillion, 538 quintillion short tons. Using the parameter of an ellipsoid adopted by the International Astronomical Union in 1964 and recognized by the International Union of Geodesy and Geophysics in 1967, the length of the equator is 24,901.55 miles, the length of a meridian is 24,859.82 miles, the equatorial diameter is 7,926.41 miles, and the area of this reference ellipsoid is approximately 196,938,800 square miles.

The earth is considered a solid, rigid mass with a dense core of magnetic, probably metallic material. The outer part of the core is probably liquid. Around the core is a thick shell or mantle of heavy crystalline rock which in turn is covered by a thin crust forming the solid granite and basalt base of the continents and ocean basins. Over broad areas of the earth's surface the crust has a thin cover of sedimentary rock such as sandstone, shale, and limestone formed by weathering of the earth's surface and deposition of sands, clays, and plant and animal remains.

The temperature in the earth increases about 1°F. with every 100 to 200 feet in depth, in the upper 100 kilometers of the earth, and the temperature near the core is believed to be near the melting point of the core materials under the conditions at that depth. The heat of the earth is believed to be derived from radioactivity in the rocks, pressures developed within the earth, and original heat (if the earth in fact was formed at high temperature).

ATMOSPHERE OF THE EARTH

The earth's atmosphere is a blanket composed of gases and some water vapor. The principal gases are nitrogen, oxygen and argon, in amounts of about 78, 21 and 1% by volume. Also present in minute quantities are carbon dioxide, hydrogen, neon, helium, krypton and xenon.

Water vapor occupies space independent of other gases and varies from nearly zero to about 4% by volume. The height of the ozone layer varies from approximately 12 to 21 miles above the earth. Traces exist as low as 6 miles and as high as 35 miles. Bits of methane have been found.

The atmosphere rests on the earth's surface with the weight equivalent to a layer of water 34 ft. deep. For about 300,000 ft. upward the gases remain in the proportions stated. Gravity holds the gases to the earth. The weight of the air compresses it at the bottom, so that the greatest density is at the earth's surface. Pressure, as well as density, decreases as height increases because the weight pressing upon any layer is always less than that pressing upon the layers below.

The temperature of the air drops with increased height, until the tropopause is reached. This may vary from 25,000 to 60,000 ft. The atmosphere below the tropopause is the **troposphere**; the atmosphere for about twenty miles above the tropopause is the **stratosphere**, where the temperature generally increases with height except at high latitudes in winter. A temperature maximum near the 30-mile level is called the **stratopause**. Above this boundary is the **mesosphere** where the temperature decreases with height to a minimum, the **mesopause**, at a height of 50 miles. Extending above the mesosphere to the outer fringes of the atmosphere is the **thermosphere**, a region where temperature increases with height to a value measured in thousands of degrees Fahrenheit. The lower portion of this region, extending from 50 to about 400 miles in altitude, is characterized by a high ion density, and is thus called the **ionosphere**. The outer region is called **exosphere**, this is the region where gas molecules traveling at high speed may escape into outer space. Above 600 miles.

LATITUDE, LONGITUDE

Position on the globe is measured by means of meridians and parallels. Meridians, which are imaginary lines drawn around the earth through the poles, determine **longitude**. The meridian running through Greenwich, England, is the **prime meridian** of longitude, and all others are either east or west. Parallels, which are imaginary circles parallel with the equator, determine **latitude**. The length of a degree of longitude varies as the cosine of the latitude. At the equator a degree is 69.171 statute miles; this is gradually reduced toward the poles. Value of a longitude degree at the poles is zero.

Latitude is reckoned by the number of degrees north or south of the equator, an imaginary circle on the earth's surface everywhere equidistant

between the two poles. According to the IAU Ellipsoid of 1964, the length of a degree of latitude is 68.708 statute miles at the equator and varies slightly north and south because of the oblate form of the globe; at the poles it is 69.403 statute miles.

COMPUTATION OF TIME

The earth rotates on its axis and follows an elliptical orbit around the sun. The rotation makes the sun appear to move across the sky from East to West. It determines day and night and the complete rotation, in relation to the sun, is called the **apparent** or **true solar day**. This varies but an average determines the **mean solar day** of 24 hours.

The mean solar day is in universal use for civil purposes. It may be obtained from apparent solar time by correcting observations of the sun for the equation of time, but when high precision is required, the mean solar time is calculated from its relation to sidereal time.

Sidereal time is the measure of time defined by the diurnal motion of the vernal equinox, and is determined from observation of the meridian transits of stars. One complete rotation of the earth relative to the equinox is called the **sidereal day**. The mean sidereal day is 23 hours, 56 minutes, 4.091 seconds of mean solar time.

The **Calendar Year** begins at 12 o'clock precisely local clock time, on the night of Dec. 31-Jan. 1. The day and the calendar month also begin at midnight by the clock. The interval required for the earth to make one absolute revolution around the sun is a **sidereal year**; it consists of 365 days, 6 hours, 9 minutes, and 9.5 seconds in 1900, and is increasing at the rate of 0.0001 second annually.

The **Tropical Year**, on which the return of the seasons depends, is the interval between two consecutive returns of the sun to the vernal equinox. The tropical year consisted of 365 days, 5 hours, 48 minutes, and 46 seconds. It is decreasing at the rate of 0.530 seconds per century.

In 1956 the unit of time interval was defined to be identical with the second of **Ephemeris Time**, 1/31,556,925.9747 of the tropical year for 1900 January 0d 12th hour E. T. A physical definition of the second based on a quantum transition of cesium (atomic second) was adopted in 1964. The atomic second is equal to 8,192,631,770 cycles of the emitted radiation. In 1967 this atomic second was adopted as the unit of time interval for the Intern'l System of units.

THE ZONES AND SEASONS

The five zones of the earth's surface are the **Torrid**, lying between the Tropics of Cancer and Capricorn; **North Temperate**, between Cancer and the Arctic Circle; **South Temperate**, between Capricorn and the Antarctic Circle; the **Frigid Zones**, between the polar Circles and the Poles.

The inclination or tilt of the earth's axis with respect to the sun determines the seasons. These are best marked in the North Temperate Zone, where spring begins at the vernal equinox, summer at the summer solstice, autumn at the autumnal equinox and winter at the winter solstice.

In the South Temperate Zone, the seasons are reversed. Spring begins at the autumnal equinox, summer at the winter solstice, etc.

If the earth's axis were perpendicular to the plane of the earth's orbit around the sun there would be no change of seasons. Day and night would be of equal length and there would be equable conditions of temperature. But the axis is tilted 23° 27' away from a perpendicular to the orbit and only in March and September is the axis at right angles to the sun.

The points at which the sun crosses the equator are the equinoxes, when day and night are most nearly equal. The points at which the sun is at a maximum distance from the equator are the solstices. Days and nights are then most unequal.

In June the North Pole is tilted 23° 27' toward the sun and the days in the northern hemisphere are longer than the nights, while the days in the southern hemisphere are shorter than the nights. In December the North Pole is tilted 23° 27' away from the sun and the situation is reversed.

THE SEASONS IN 1969

In 1969 the 4 seasons will begin as follows according to EST; add one hour for Atlantic Time; subtract one hour for Central, two hours for Mountain, 3 hours for Pacific; 4 hours for Yukon; 5 hours for Alaska-Hawaii and 6 hours for Bering Time.

Vernal Equinox	(Spring)	March 20, 2:08 p.m.
Summer Solstice	(Summer)	June 21, 8:55 a.m.
Autumnal Equinox	(Autumn)	Sept. 23, 12:07 a.m.
Winter Solstice	(Winter)	Dec. 21, 7:44 p.m.

Poles and Rotation of the Earth

POLES OF THE EARTH

Source: Coast and Geodetic Survey, ESSA

The geographic (rotation) poles, or points where the earth's axis of rotation cuts the surface, are not absolutely fixed in the body of the earth. The pole of rotation describes an irregular curve about its mean position.

Two periods have been detected in this motion: (1) an annual period due to seasonal changes in barometric pressure, load of ice and snow on the surface and to other phenomena of seasonal character; (2) a period of about 14 months due to the shape and constitution of the Earth.

In addition there are small but as yet unpredictable irregularities. The whole motion is so small that the actual pole at any time remains within a circle of 30 or 40 feet in radius centered at the mean position of the pole.

The pole of rotation for the time being is of course the pole having a latitude of 90° and an indeterminate longitude.

MAGNETIC POLES

The north magnetic pole of the earth is that region where the magnetic force is vertically downward and the south magnetic pole that region where the magnetic force is vertically upward. A compass placed at the magnetic poles experiences no directive force.

There are slow changes in the distribution of the earth's magnetic field. These changes were at one time attributed in part to a periodic movement of the magnetic poles around the geographical poles, but later evidence refutes this theory and points, rather, to a slow migration of "disturbance" foci over the earth.

There appear shifts in position of the magnetic poles due to the changes in the earth's magnetic field. The center of the area designated as the north magnetic pole was estimated to be in about latitude 70.5° N and longitude 96° W in 1905; from recent nearby measurements and studies of the secular changes, the position in 1965 is estimated as latitude 75.5° N and longitude 100.5° W. Improved data rather than actual motion account for at least part of the change.

The position of the south magnetic pole in 1912 was near 71° S and longitude 150° E; the position in 1965 is estimated at latitude 66.5° S. and longitude 139.9° E.

The direction of the horizontal components of the magnetic field at any point is known as magnetic north at that point, and the angle by which it deviates east or west of true north is known as

the magnetic declination, or in the mariner's terminology the variation of the compass.

A compass without error points in the direction of magnetic north. (In general this is not the direction of the magnetic north pole.) If one follows the direction indicated by the north end of the compass, he will travel along a rather irregular curve which eventually reaches the north magnetic pole (though not usually by a great-circle route). However, the action of the compass should not be thought of as due to any influence of the distant pole, but simply as an indication of the distribution of the earth's magnetism at the place of observation.

ROTATION OF THE EARTH

Source: U. S. Naval Observatory

The speed of rotation of the earth about its axis has been found to be slightly variable. The variations may be classified as:

(a) **Secular.** Tidal friction acts as a brake on the rotation and causes a slow secular increase in the length of the day, about 1 millisecond per century.

(b) **Irregular.** The speed of rotation may increase for a number of years, about 5 to 10, and then start decreasing. The maximum difference from the mean in the length of the day during a century is about 5 milliseconds. The accumulated difference in time has amounted to approximately 40 seconds since 1900. The cause is probably turbulent motion in the core of the earth.

(c) **Periodic.** Seasonal variations exist with periods of one year and six months. The cumulative effect is such that each year the earth is late about 30 milliseconds near June 1 and is ahead about 30 milliseconds near Oct. 1. The maximum seasonal variation in the length of the day is about 0.5 millisecond. It is believed that the principal cause of the annual variation is the seasonal change in the wind patterns of the Northern and Southern Hemispheres. The semi-annual variation is due chiefly to tidal action of the sun, which distorts the shape of the earth slightly.

The secular and irregular variations were discovered by comparing time based on the rotation of the earth with time based on the orbital motion of the moon about the earth and of the planets about the sun. The periodic variation was determined largely with the aid of quartz-crystal clocks. The introduction of the cesium-beam atomic clock in 1955 made it possible to determine in greater detail than before the nature of the irregular and periodic variations.

Five Eclipses in 1969

The time used in these tables is Eastern Standard Time. To obtain Central Standard Time, subtract 1 hour; Mountain Standard Time, subtract 2 hours; Pacific Standard Time, subtract 3 hours. A.M. light figures; P.M. black; 0 designates midnight, 12 designates noon.

FIRST ECLIPSE

An Annular Eclipse of the Sun, March 17-18, 1969. The eclipse is visible over the Indian Ocean, the Malay Peninsula, Indonesia, the Philippines, part of Southeast Asia and Japan, Australia, the western Pacific Ocean, and part of Antarctica.

CIRCUMSTANCES OF THE ECLIPSE

	d	h	m
Eclipse begins	March 17	09	06.5
Central eclipse begins	March 17	10	08.7
at local apparent noon	March 17	11	37.8
Central eclipse ends	March 18	01	40.2
Eclipse ends	March 18	02	42.4

SECOND ECLIPSE

A Penumbra Eclipse of the Moon, April 2, 1969. The beginning of the eclipse is visible in the western part of the Pacific Ocean, Asia, eastern Europe, the eastern half of Africa, the Indian Ocean, Australia, New Zealand, and Antarctica; the end of the eclipse is visible in Asia except the extreme northeastern part, most of Australia, the Indian Ocean, Africa, Europe, the Atlantic Ocean except the western part, and Antarctica.

CIRCUMSTANCES OF THE ECLIPSE

	d	h	m
Moon enters penumbra	April 2	11	38.4
Middle of the eclipse	April 2	01	32.5
Moon leaves penumbra	April 2	03	26.6
Penumbra magnitude of the eclipse			0.728

THIRD ECLIPSE

A Penumbra Eclipse of the Moon, August 27, 1969. The beginning of the eclipse is visible in North America except the extreme northeastern part, the western half of South America, the

Pacific Ocean, the northeastern coast of Asia, Australia, New Zealand, and Antarctica; the end visible in North America except the northeastern part, the Pacific Ocean, the east coast of Asia, New Zealand and Antarctica.

CIRCUMSTANCES OF THE ECLIPSE

	d	h	m
Moon enters penumbra	August 27	05	21.0
Middle of the eclipse	August 27	05	47.7
Moon leaves penumbra	August 27	06	14.7
Penumbra magnitude of the eclipse			0.038

FOURTH ECLIPSE

An Annular Eclipse of the Sun, September 11, 1969. The eclipse is visible over the central Pacific Ocean and the western half of South America.

CIRCUMSTANCES OF THE ECLIPSE

	d	h	m
Eclipse begins	September 11	12	01.5
Central eclipse begins	September 11	01	06.7
Central eclipse at local apparent noon	September 11	02	44.6
Central eclipse ends	September 11	04	50.1
Eclipse ends	September 11	05	55.1

FIFTH ECLIPSE

A Penumbra Eclipse of the Moon, September 25, 1969. The beginning of the eclipse is visible in Asia, the western Pacific Ocean, Australia, New Zealand, the Indian Ocean, Africa except the western part, Europe except the western part, and the Arctic regions; the end is visible in Asia except the eastern part, the Indian Ocean, Africa, Europe, the Atlantic Ocean, South America except the western part, the extreme northeastern part of North America and the Arctic regions.

CIRCUMSTANCES OF THE ECLIPSE

	d	h	m
Moon enters penumbra	September 25	01	05.0
Middle of the eclipse	September 25	03	09.7
Moon leaves penumbra	September 25	05	14.3
Penumbra magnitude of the eclipse			0.926

Meteor Showers Are Numerous Every Year

About a dozen meteor showers occur each year and the dates on which they take place may be found in the Calendar of Celestial Events. These showers are caused by the earth's passage through streams of meteoroids left in space by comets, of which they were a part. The meteoroids orbit the sun along the path originally followed by the comet and are encountered annually by the earth as it moves about the sun.

Canadian and American researchers have found evidence that the earth has been subjected to heavy bombardment from space on several occasions from 34,000,000 to 700,000 years ago.

The oldest of these catastrophes covered the eastern half of North America, the Atlantic Ocean and the northern half of Africa. Scars in the form of circular pits, sometimes a score of yards in diameter and often filled with water, have been located in northern Quebec, and fragments of metallic, stony and glassy objects define the area.

Central Europe received a fall of similar objects about 15,000,000 years ago and the most recent fall, about 700,000 years ago, struck the region including Australia and southeastern Asia.

The stony-metallic fragments are thought to originate in the asteroid belt, a region in space roughly between Mars and Jupiter in which travel thousands of minor planets ranging in size from 480 miles in diameter down to flying mountains a few miles across. Gravitational upheavals and collisions among asteroids are believed to provide fragments, some of which may reach the earth.

The glassy fragments, called tektites, are thought to be material resulting from collisions of large objects with the earth or the moon, scattered originally in liquid form and cooling after impact into drop-shaped, glassy particles.

METEORS

Meteoroids are celestial bodies, possibly associated with comets, that move through space with velocities up to 40 miles per second. Upon reaching the earth's atmosphere, they are vaporized by the heat of the friction of their passage into the atmosphere and are seen as meteors. An unusual number in a short period of time is

called a meteor shower. Meteors are popularly known as falling stars or shooting stars. While most of them are consumed, a few fall to earth as fused metal or stone, and are called meteorites.

Many meteorites have been picked up in the United States, most of them small. A huge meteorite may be embedded in the earth at Meteor Crater on U. S. 6 near Canyon Diablo in Arizona. The crater is 1 mi. in diameter at the surface and over 500 feet deep, and is surrounded by a wall of earth filled with pyrites presumably originating with the meteor. A lake in the Ungava region of northern Quebec fills the Chubb Crater, discovered 1943, which is $7\frac{1}{2}$ mi. around. Vast destruction of timber was caused by a meteorite that hit in the vicinity of Lake Baikal, in Siberia, June 30, 1908. A large meteor that split into fragments of 80 to 820 pounds fell Feb. 17, 1930, 14 mi. sw of Paragould, Ark.

On display in the American Museum-Hayden Planetarium, New York, N. Y., are three meteorites: a 34-lb. 88-pound iron-nickel meteorite and another 3-ton one brought from Cape York, Greenland, by Robert E. Peary in 1907 and a $14\frac{1}{2}$ -ton meteorite found in the Willamette region of Oregon in 1902.

COMETS

The origin of comets is not known. Dr. Jan Oort, a Dutch astronomer, presents the hypothesis that there is a wide, irregular cloud of comets around the outskirts of the solar system. From this cloud single comets may be drawn, from time to time, by the gravitational pull of one of the large outer planets and started on journeys through the solar system on long elliptical orbits about the sun.

Comets sufficiently bright to be seen without a telescope are rare. In October and November, 1965, a new comet, Ikeya-Seki, was visible in the morning skies before sunrise as the most spectacular comet since Halley's in 1910. Barring the unexpected appearance of an as yet unknown bright comet, possible at any time, the next certain bright comet due to appear is Halley's Comet, expected in 1986.

On page 256 are listed a few of the short-period comets that make fairly regular visits to the region of the earth.

Landing Sites for Apollo Exploration of Moon Chosen

From a series of unmanned explorations, the National Aeronautics and Space Administration has selected 5 possible landing sites for the first manned mission to the moon. This choice may be reduced to 3 by the time the 3-man Apollo Space Craft is ready for launching.

All 5 landing sites are in relatively smooth areas, which, nevertheless, contain features of scientific interest such as small craters, rilles, faults, ray material and ridges. All the sites are near the lunar equator on the side of the moon that perpetually faces the earth.

One is almost in the center of the visible side of the moon, in the Sinus Medii, "The Central Bay." It is south of the small crater Bruce. Two are in the Oceanus Procellarum, "The Ocean of Storms," the great plain that covers half of the west side of the moon. One of these is near the bright crater Kepler, north and west of the great crater Copernicus. The other is farther east, near the crater Flamsteed.

The remaining two sites are on the lunar east, not far from each other, in the Mare Tranquillitatis, "The Sea of Tranquility." The first of these is north of the small crater Moltke, and the other farther east near the crater Censorius.

The location of these sites on the face of the moon visible from the earth makes continuous radio communication possible, although the two members of the Apollo team on the moon will be able to communicate with the third member, in orbit about the moon, only when the command module of the Apollo is above their horizon.

United States space probes, in both hard and soft landings on the moon, and other U. S. space vehicles orbiting the moon have found valuable new material for studies of the lunar surface.

During 1964 and 1965, three successful landings on the moon were made by moon probes of the Ranger series, designed to photograph the surface of the moon at close range. These three Ranger vehicles sent back nearly 18,000 pictures of the surface of the moon before crashing. These pictures were taken at distances ranging from 300 miles to less than 2,000 feet from the moon.

On June 2, 1966, the first of the Surveyor vehicles made a soft landing on the moon near the

crater Flamsteed in the Oceanus Procellarum, on the eastern side of the moon slightly north of the lunar equator. Its cameras took photographs from a height of about four feet.

Surveyor III duplicated this feat on April 19, 1967, by landing gently on the moon after some heart-stopping bounces which evidently did no damage to its instruments. It landed in the Oceanus Procellarum, not far from Surveyor I, apparently on the slope of a shallow crater so that its cameras saw the moon at a slight angle.

Meanwhile, three Lunar Orbiters are revolving about the moon, securing and transmitting photographs of much of the moon's surface in order to find the best landing place for the manned Apollo flight to take place in the future. Orbiter II is placed at a much greater distance from the moon than its two orbiting companions so that its cameras can secure pictures of large areas for making detailed lunar maps.

The Ranger vehicles revealed that there is hardly any of the moon's surface unmarked by craters, from the enormous depression visible in telescopes from the earth to tiny holes inches across. There does not appear to be any overall cover of dust on the moon. The pictures sent back by Surveyor I show the surface strewn with small, loose rocks and rubble and the instruments on the vehicle registered a temperature of 280 degrees below zero, Fahrenheit, during the two-week lunar night through which it passed before its communication systems ceased to operate. One of the Orbiter pictures shows Surveyor I on the moon.

Surveyor III was equipped with a small metal claw with which it could dig into the surface material of the moon. The amount of current required to move this claw through the surface gave a measure of the density of this material and its composition. It appears to be dry and fine-grained, resembling silt or closely packed sand. Surveyor III took photographs during an eclipse of the moon which showed the reverse of that phenomenon from the lunar viewpoint—an eclipse of the sun by the earth. Its instruments registered a 400-degree temperature drop as the moon passed through the earth's shadow.

2nd Month

FEBRUARY, 1969

28 Days

Local Mean Time, A.M., light figures; P.M., black (0 designates midnight; 12 designates noon)

CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude						40° N. Latitude						35° N. Latitude						30° N. Latitude						
		Idaho, Iowa (No.), Me., Mich. (except Far So.), Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wis., Wyo. (No. & Cent.).						Calif. (No.), Colo., Conn., Del., D.C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Mo., Mich. (Far So.), Mo. (No. & Cent.), Nebr., Nev. (No. & Cent.), N. J., N. Y. City, N. Y. (So.), Ohio, Pa., R. I., Utah, W. Va., Wyo. (So.).						Alabama (No.), Ariz. (Except Far So.), Ark., Calif. (So.), Georgia (No.), Mich. (Far So.), N. Mex. (Except Far So.), Nevada (So.), N. C., Okla., S. C., Tenn., Tex. (No.), Va. (So.).						Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.).						
		Sun Rises		Sun Sets		Moon R. & S.	Sun Rises		Sun Sets		Moon R. & S.	Sun Rises		Sun Sets		Moon R. & S.	Sun Rises		Sun Sets		Moon R. & S.	Sun Rises		Sun Sets		Moon R. & S.
		h. m.	h. m.	h. m.	sets	h. m.	h. m.	h. m.	sets	h. m.	h. m.	sets	h. m.	h. m.	h. m.	sets	h. m.	h. m.	h. m.	sets	h. m.	h. m.	sets			
1	Sa	7 21	5 08	7 18 rises	7 09	5 19	6 59 rises	6 59	5 29	6 44 rises	6 51	5 37	6 30 rises													
2	S	7 19	5 09	5 17	7 08	5 21	5 32	6 59	5 30	5 43	6 50	5 38	5 53													
3	M	7 18	5 11	6 28	7 07	5 22	6 37	6 58	5 31	6 45	6 50	5 39	6 52													
4	Tu	7 17	5 12	7 38	7 06	5 23	7 49	6 57	5 32	7 47	6 49	5 40	7 50													
5	W	7 16	5 13	8 46	7 05	5 24	8 48	6 56	5 33	8 48	6 48	5 41	8 48													
6	Th	7 14	5 15	9 58	7 04	5 25	9 54	6 55	5 34	9 49	6 47	5 42	9 47													
7	Fr	7 13	5 16	11 11	7 03	5 27	11 02	6 54	5 35	10 56	6 47	5 42	10 49													
8	Sa	7 11	5 18	...	7 02	5 28	...	6 53	5 36	...	6 46	5 43	11 53													
9	S	7 10	5 19	0 27	7 01	5 29	0 14	6 52	5 37	0 03	6 45	5 44	...													
10	M	7 09	5 20	1 46	7 00	5 30	1 28	6 51	5 38	1 14	6 44	5 45	1 01													
11	Tu	7 07	5 22	3 07	6 59	5 31	2 45	6 50	5 39	2 26	6 43	5 46	2 10													
12	W	7 06	5 23	4 23	6 57	5 32	3 59	6 50	5 40	3 38	6 43	5 46	3 21													
13	Th	7 04	5 25	5 26	6 56	5 33	5 02	6 49	5 41	4 42	6 42	5 47	4 25													
14	Fr	7 03	5 26	6 15	6 55	5 34	5 53	6 48	5 42	5 37	6 41	5 48	5 21													
15	Sa	7 01	5 27	6 50	6 54	5 35	6 34	6 47	5 43	6 21	6 40	5 49	6 08													
16	S	7 00	5 29	5 35	6 52	5 36	5 45	6 46	5 44	5 53	6 39	5 50	6 01													
17	M	6 59	5 30	6 53	6 51	5 38	6 58	6 44	5 44	7 03	6 39	5 50	7 06													
18	Tu	6 57	5 32	8 08	6 49	5 39	8 08	6 43	5 45	8 08	6 38	5 51	8 08													
19	W	6 55	5 33	9 20	6 48	5 40	9 15	6 42	5 46	9 11	6 37	5 52	9 07													
20	Th	6 53	5 34	10 31	6 47	5 41	10 22	6 41	5 47	10 14	6 36	5 53	10 07													
21	Fr	6 52	5 36	11 41	6 45	5 42	11 27	6 40	5 48	11 16	6 35	5 53	11 04													
22	Sa	6 51	5 37	...	6 44	5 44	...	6 38	5 49	...	6 34	5 54	...													
23	S	6 49	5 39	0 49	6 42	5 45	0 32	6 37	5 50	0 17	6 33	5 55	0 04													
24	M	6 47	5 40	1 57	6 41	5 46	1 35	6 36	5 51	1 18	6 32	5 55	1 03													
25	Tu	6 45	5 41	2 59	6 40	5 47	2 36	6 35	5 52	2 16	6 31	5 56	2 00													
26	W	6 44	5 43	3 55	6 38	5 48	3 31	6 34	5 53	3 10	6 30	5 57	2 54													
27	Th	6 43	5 44	4 41	6 37	5 50	4 18	6 32	5 54	3 59	6 28	5 57	3 42													
28	Fr	6 41	5 46	5 18	6 35	5 51	4 59	6 31	5 55	4 41	6 27	5 58	4 26													

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	12 13 35	7	12 14 10	13	12 14 17	19	12 13 58	25	12 13 15
2	12 13 43	8	12 14 13	14	12 14 16	20	12 13 52	26	12 13 04
3	12 13 50	9	12 14 16	15	12 14 14	21	12 13 45	27	12 12 53
4	12 13 57	10	12 14 17	16	12 14 11	22	12 13 38	28	12 12 43
5	12 14 02	11	12 14 18	17	12 14 07	23	12 13 31		
6	12 14 07	12	12 14 18	18	12 14 03	24	12 13 22		

Twilight (Local Mean Time)

Place	Feb.	Begins	Ends	Feb.	Begins	Ends	Feb.	Begins	Ends
45° N. Lat..	1	5 40	6 48	11	5 29	7 00	21	5 16	7 15
40° N. Lat..	1	5 37	6 51	11	5 28	7 02	21	5 15	7 14
35° N. Lat..	1	5 34	6 55	11	5 26	7 04	21	5 15	7 13
30° N. Lat..	1	5 30	6 59	11	5 24	7 06	21	5 15	7 13

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Full Moon	2	7	56 A.M.	New Moon	15	11	25 A.M.
Last Quarter	9	7	08 P.M.	First Quarter	23	11	30 P.M.

Morning Stars—Mercury; Mars; Jupiter.

Evening Stars—Venus; Saturn.

3rd Month

MARCH, 1969

31 Days

Local Mean Time, A.M., light figures: P.M., black (0 designates midnight; 12 designates noon)
CAUTION—Must be converted to ordinary clock time (STANDARD TIME) See page 277

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Sun			Sun			Sun			Sun		
		Rises	Sets	Moon R. & S.	Rises	Sets	Moon R. & S.	Rises	Sets	Moon R. & S.	Rises	Sets	Moon R. & S.
		h m	h m	h m sets	h m	h m	h m sets	h m	h m	h m sets	h m	h m	h m sets
1	Sa	6 39	5 47	5 40	6 34	5 52	5 31	6 30	5 56	5 18	6 26	5 59	5 05
2	S	6 37	5 48	6 12	6 32	5 53	6 00	6 29	5 57	5 49	6 25	6 00	5 39
3	M	6 35	5 50	6 32	6 31	5 54	6 24	6 27	5 58	6 17	6 24	6 00	6 11
4	Tu	6 34	5 51	6 35	6 30	5 55	6 37	6 26	5 58	6 38	6 23	6 01	6 40
5	W	6 32	5 53	7 46	6 28	5 56	7 44	6 24	5 59	7 42	6 22	6 01	7 39
6	Th	6 30	5 54	9 00	6 26	5 57	8 53	6 23	6 00	8 46	6 21	6 02	8 42
7	Fr	6 28	5 55	10 17	6 25	5 58	10 05	6 22	6 01	9 55	6 20	6 03	9 45
8	Sa	6 26	5 56	11 36	6 23	5 59	11 19	6 21	6 02	11 06	6 19	6 04	10 53
9	S	6 25	5 58	...	6 22	6 00	...	6 19	6 02	...	6 17	6 04	...
10	M	6 23	5 59	0 57	6 20	6 01	0 35	6 18	6 03	0 18	6 16	6 05	0 02
11	Tu	6 21	6 00	2 13	6 19	6 02	1 48	6 17	6 04	1 29	6 15	6 06	1 11
12	W	6 19	6 01	3 19	6 17	6 03	2 54	6 16	6 05	2 34	6 14	6 07	2 17
13	Th	6 17	6 03	4 10	6 16	6 04	3 49	6 14	6 06	3 30	6 13	6 07	3 14
14	Fr	6 15	6 04	4 50	6 15	6 06	4 31	6 13	6 06	4 16	6 11	6 08	4 02
15	Sa	6 13	6 06	5 18	6 13	6 07	5 05	6 11	6 07	4 54	6 10	6 08	4 44
16	S	6 11	6 07	5 43	6 11	6 08	5 33	6 10	6 08	5 26	6 09	6 09	5 20
17	M	6 09	6 08	6 01	6 09	6 09	5 57	6 09	6 09	5 54	6 08	6 10	5 51
18	Tu	6 07	6 09	6 58	6 07	6 10	6 55	6 07	6 10	6 54	6 07	6 10	6 52
19	W	6 06	6 11	8 10	6 06	6 11	8 03	6 06	6 10	7 56	6 05	6 11	7 51
20	Th	6 04	6 12	9 21	6 04	6 12	9 09	6 04	6 11	8 59	6 04	6 11	8 50
21	Fr	6 02	6 13	10 32	6 02	6 13	10 16	6 03	6 12	10 02	6 03	6 12	9 50
22	Sa	6 00	6 14	11 40	6 00	6 14	11 21	6 02	6 13	11 04	6 02	6 13	10 50
23	S	5 58	6 16	...	5 59	6 15	...	6 00	6 14	...	6 01	6 13	11 48
24	M	5 57	6 17	0 47	5 58	6 16	0 23	5 59	6 14	0 05	5 59	6 14	...
25	Tu	5 55	6 19	1 45	5 56	6 17	1 21	5 57	6 15	1 01	5 58	6 14	0 44
26	W	5 53	6 20	2 36	5 54	6 18	2 12	5 56	6 16	1 52	5 57	6 15	1 35
27	Th	5 51	6 21	3 16	5 52	6 19	2 54	5 55	6 17	2 37	5 56	6 16	2 21
28	Fr	5 49	6 22	3 48	5 51	6 20	3 31	5 53	6 18	3 15	5 55	6 16	3 02
29	Sa	5 47	6 24	4 15	5 50	6 21	4 00	5 52	6 18	3 48	5 53	6 17	3 38
30	S	5 45	6 25	4 36	5 48	6 22	4 25	5 50	6 19	4 17	5 52	6 17	4 10
31	M	5 43	6 26	4 55	5 46	6 23	4 49	5 49	6 20	4 41	5 51	6 18	4 39

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	12 12 31	8	12 10 59	14	12 09 25	20	12 07 42	26	12 05 54
2	12 12 20	9	12 10 44	15	12 09 08	21	12 07 24	27	12 05 35
3	12 12 07	10	12 10 29	16	12 08 51	22	12 07 06	28	12 05 17
4	12 11 54	11	12 10 13	17	12 08 34	23	12 06 48	29	12 04 59
5	12 11 41	12	12 09 57	18	12 08 17	24	12 06 30	30	12 04 41
6	12 11 27	13	12 09 41	19	12 08 00	25	12 06 12	31	12 04 22
7	12 11 13								

Twilight (Local Mean Time)

Place	Mar.	Begins	Ends	Mar.	Begins	Ends	Mar.	Begins	Ends
		h. m.	h. m.		h. m.	h. m.		h. m.	h. m.
45° N. Lat..	1	5 02	7 25	11	4 44	7 38	21	4 25	7 52
40° N. Lat..	1	5 05	7 22	11	4 50	7 32	21	4 33	7 44
35° N. Lat..	1	5 07	7 20	11	4 54	7 28	21	4 39	7 37
30° N. Lat..	1	5 08	7 19	11	4 57	7 26	21	4 44	7 32

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Full Moon	4	0	17 A.M.	New Moon	17	11	51 P.M.
Last Quarter	11	2	44 A.M.	First Quarter	25	7	48 P.M.
Morning Stars—Mercury; Mars; Jupiter (Mar. 1-21).				Evening Stars—Venus; Saturn; Jupiter (Mar. 21-31).			

4th Month

APRIL, 1969

30 Days

Local Mean Time, A.M., light figures: P.M., black (0 designates midnight; 12 designates noon)
CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude						40° N. Latitude						35° N. Latitude						30° N. Latitude					
		Idaho, Iowa (No.), Me., Mich. (Except Far So.), Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wis., Wyo. (No. & Cent.).						Calif. (No.), Colo., Conn., Del., D. C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Mich. (Far So.), Mo. (No. & Cent.), Nebr., Nev. (No. & Cent.), N. J., N. Y. City, N. Y. (So.), Ohio, Pa., R. I., Utah, W. Va., Wyo. (So.).						Alabama (No.), Ariz. (Except Far So.), Ark., Calif. (So. & Cent.), Ga. (No.), Miss. (Far So.), N. Mex. (Except Far So.), Nevada (So. & Cent.), Okla., S. C., Tenn., Tex. (No.), Va. (So.).						Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.).					
		Sun Rises		Sun Sets		Moon R. & S.		Sun Rises		Sun Sets		Moon R. & S.		Sun Rises		Sun Sets		Moon R. & S.		Sun Rises		Sun Sets		Moon R. & S.	
		h. m.	h. m.	h. m.	sets	h. m.	h. m.	h. m.	sets	h. m.	h. m.	h. m.	sets	h. m.	h. m.	h. m.	sets	h. m.	h. m.	h. m.	sets	h. m.	h. m.	h. m.	sets
1	Tu	5 41	6 27	5 12	rises	5 44	6 24	5 11	rises	5 48	6 21	5 09	rises	5 50	6 19	5 08	rises								
2	W	5 39	6 29	6 41		5 43	6 25	6 36		5 46	6 22	6 33		5 49	6 19	6 28									
3	Th	5 38	6 30	7 59		5 42	6 26	7 49		5 45	6 22	7 40		5 47	6 20	7 34									
4	Fr	5 36	6 31	9 20		5 40	6 27	9 05		5 43	6 23	8 50		5 46	6 20	8 41									
5	Sa	5 34	6 33	10 43		5 38	6 28	10 23		5 42	6 24	10 06		5 45	6 21	9 52									
6	S	5 32	6 34	.....		5 36	6 29	11 39		5 40	6 25	11 19		5 44	6 22	11 03									
7	M	5 30	6 35	0 03		5 35	6 30	.....		5 39	6 26	.....		5 43	6 22	.....									
8	Tu	5 29	6 37	1 13		5 34	6 31	0 49		5 38	6 26	0 27		5 41	6 23	0 11									
9	W	5 27	6 38	2 09		5 32	6 32	1 46		5 36	6 27	1 27		5 40	6 23	1 11									
10	Th	5 25	6 39	2 51		5 30	6 33	2 32		5 35	6 28	2 16		5 39	6 24	2 01									
11	Fr	5 23	6 40	3 22		5 29	6 34	3 08		5 33	6 29	2 55		5 38	6 25	2 44									
12	Sa	5 21	6 41	3 46		5 27	6 35	3 36		5 32	6 30	3 28		5 37	6 25	3 20									
13	S	5 20	6 43	4 06		5 26	6 36	4 01		5 31	6 30	3 56		5 36	6 26	3 52									
14	M	5 18	6 44	4 25		5 24	6 37	4 23		5 29	6 31	4 21		5 35	6 26	4 21									
15	Tu	5 16	6 45	4 42		5 23	6 38	4 45		5 28	6 32	4 47		5 34	6 27	4 49									
16	W	5 14	6 46	7 03	sets	5 21	6 39	6 53	sets	5 27	6 33	6 45	sets	5 33	6 28	6 37	sets								
17	Th	5 12	6 47	8 14		5 20	6 40	8 00		5 26	6 34	7 48		5 32	6 28	7 37									
18	Fr	5 11	6 49	9 24		5 19	6 41	9 06		5 24	6 34	8 50		5 30	6 29	8 37									
19	Sa	5 09	6 50	10 31		5 17	6 42	10 11		5 23	6 35	9 52		5 29	6 29	9 36									
20	S	5 07	6 51	11 34		5 15	6 43	11 11		5 22	6 36	10 50		5 28	6 30	10 34									
21	M	5 05	6 52	.....		5 14	6 44	.....		5 21	6 37	11 44		5 27	6 31	11 27									
22	Tu	5 04	6 54	0 29		5 12	6 45	0 04		5 20	6 38	.....		5 26	6 31	.....									
23	W	5 03	6 55	1 13		5 11	6 46	0 50		5 18	6 38	0 31		5 25	6 32	0 15									
24	Th	5 01	6 57	1 48		5 09	6 47	1 28		5 17	6 39	1 12		5 24	6 32	0 57									
25	Fr	4 59	6 58	2 15		5 08	6 48	2 00		5 16	6 40	1 46		5 23	6 33	1 34									
26	Sa	4 57	6 59	2 38		5 07	6 49	2 27		5 15	6 41	2 16		5 22	6 34	2 07									
27	S	4 56	7 00	2 58		5 06	6 50	2 50		5 14	6 42	2 44		5 21	6 35	2 37									
28	M	4 55	7 02	3 16		5 04	6 51	3 12		5 13	6 43	3 09		5 20	6 35	3 06									
29	Tu	4 53	7 03	3 33		5 03	6 52	3 34		5 12	6 43	3 34		5 19	6 36	3 35									
30	W	4 51	7 04	3 52		5 02	6 53	3 57		5 11	6 44	4 00		5 18	6 37	4 04									

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	12 04 04	7	12 02 18	13	12 00 40	19	11 59 14	25	11 58 02
2	12 03 46	8	12 02 01	14	12 00 25	20	11 59 01	26	11 57 52
3	12 03 28	9	12 01 45	15	12 00 10	21	11 58 49	27	11 57 43
4	12 03 11	10	12 01 28	16	11 59 56	22	11 58 36	28	11 57 33
5	12 02 53	11	12 01 12	17	11 59 42	23	11 58 25	29	11 57 24
6	12 02 36	12	12 00 56	18	11 59 28	24	11 58 13	30	11 57 15

Twilight (Local Mean Time)

Place	Apr.	Begins	Ends	Apr.	Begins	Ends	Apr.	Begins	Ends
45° N. Lat.	1	4 03	8 09	11	3 40	8 26	21	3 17	8 44
40° N. Lat.	1	4 13	7 57	11	3 55	8 09	21	3 36	8 24
35° N. Lat.	1	4 22	7 47	11	4 06	7 57	21	3 51	8 08
30° N. Lat.	1	4 30	7 39	11	4 16	7 46	21	4 04	7 54

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Full Moon	2	1	45 P.M.	New Moon	16	1	16 P.M.
Last Quarter	9	8	58 A.M.	First Quarter	24	2	45 P.M.
Morning Stars—Mercury (Apr. 1-8); Venus (Apr. 8-30); Mars; Saturn (Apr. 18-30).				Evening Stars—Mercury (Apr. 8-30); Venus (Apr. 11-8); Jupiter; Saturn (Apr. 1-18).			

5th Month

MAY, 1969

31 Days

Local Mean Time, A.M., light figures; P.M., black (0 designates midnight; 12 designates noon)

CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Idaho, Iowa (No.), Me., Mich. (Except Far So.), Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wyo. (No. & Cent.).			Calif. (No.), Colo., Conn., Del., D. C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Md., Mich. (Far So.), Mo. (No. & Cent.), Neb. (No. & Cent.), N. Y. City, N. Y. (So.), Ohio, Pa., R. I., Utah, W. Va., Wyo. (So.).			Alabama (No.), Ark. (Except Far So.), Calif. (So.), Conn. (No.), Missouri (So.), Mex. (Except Far So.), Nevada (So.), N. C., Okla., S. C., Tenn., Tex. (No.), Va. (So.).			Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.).		
		Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
		<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i> sets	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i> sets	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i> sets	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i> sets
1	Th	4 50	7 05	4 12 rises	5 01	6 54	4 21 rises	5 10	6 45	4 30 rises	5 17	6 38	4 37 rises
2	Fr	4 48	7 06	8 18	5 00	6 55	8 00	5 09	6 46	7 45	5 16	6 38	7 33
3	Sa	4 47	7 08	9 42	4 58	6 56	9 21	5 07	6 46	9 02	5 16	6 39	8 46
4	S	4 45	7 09	11 00	4 57	6 57	10 36	5 06	6 47	10 15	5 15	6 39	9 58
5	M	4 44	7 10	.....	4 56	6 58	11 40	5 05	6 48	11 20	5 14	6 40	11 03
6	Tu	4 43	7 11	0 04	4 55	6 59	.....	5 04	6 49	.....	5 13	6 41	11 58
7	W	4 41	7 12	0 52	4 54	7 00	0 30	5 03	6 50	0 14	5 12	6 41	.....
8	Th	4 40	7 14	1 26	4 52	7 01	1 10	5 03	6 50	0 56	5 12	6 42	0 44
9	Fr	4 38	7 15	1 52	4 51	7 02	1 41	5 02	6 51	1 30	5 11	6 42	1 22
10	Sa	4 37	7 16	2 13	4 50	7 03	2 05	5 01	6 52	2 00	5 10	6 43	1 55
11	S	4 36	7 17	2 31	4 49	7 04	2 29	5 00	6 53	2 27	5 09	6 44	2 24
12	M	4 35	7 18	2 49	4 48	7 05	2 49	4 59	6 54	2 51	5 09	6 44	2 52
13	Tu	4 33	7 20	3 06	4 47	7 06	3 12	4 59	6 54	3 16	5 08	6 45	3 20
14	W	4 32	7 21	3 24	4 46	7 07	3 34	4 58	6 55	3 43	5 08	6 45	3 49
15	Th	4 31	7 22	3 45	4 45	7 08	3 59	4 57	6 56	4 11	5 07	6 46	4 22
16	Fr	4 30	7 23	8 18 sets	4 44	7 09	7 59 sets	4 56	6 57	7 40 sets	5 06	6 47	7 26 sets
17	Sa	4 29	7 24	9 24	4 43	7 10	9 09	4 55	6 58	8 42	5 06	6 47	8 25
18	S	4 28	7 26	10 20	4 43	7 11	9 56	4 55	6 58	9 37	5 05	6 48	9 19
19	M	4 27	7 27	11 08	4 42	7 12	10 46	4 54	6 59	10 25	5 05	6 48	10 10
20	Tu	4 26	7 28	11 46	4 41	7 13	11 26	4 53	7 00	11 08	5 04	6 49	10 53
21	W	4 25	7 29	.....	4 40	7 14	11 59	4 52	7 01	11 45	5 04	6 50	11 32
22	Th	4 24	7 30	0 17	4 39	7 15	.....	4 52	7 02	.....	5 03	6 50	.....
23	Fr	4 23	7 31	0 41	4 39	7 15	0 27	4 51	7 02	0 16	5 03	6 51	0 06
24	Sa	4 22	7 32	1 01	4 38	7 16	0 52	4 51	7 03	0 44	5 02	6 51	0 36
25	S	4 21	7 33	1 19	4 37	7 17	1 14	4 50	7 04	1 09	5 02	6 52	1 05
26	M	4 20	7 34	1 37	4 36	7 18	1 36	4 50	7 05	1 34	5 02	6 53	1 33
27	Tu	4 20	7 35	1 54	4 36	7 19	1 56	4 49	7 05	1 59	5 01	6 53	2 01
28	W	4 19	7 36	2 13	4 35	7 19	2 20	4 49	7 06	2 27	5 01	6 54	2 31
29	Th	4 19	7 37	2 36	4 35	7 20	2 47	4 48	7 06	2 57	5 00	6 54	3 06
30	Fr	4 18	7 38	3 04	4 34	7 21	3 21	4 48	7 07	3 34	5 00	6 55	3 47
31	Sa	4 17	7 39	8 36 rises	4 33	7 22	8 13 rises	4 48	7 08	7 53 rises	5 00	6 56	7 35 rises

Sun on 75th Meridian (Local Mean Time)

Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>
1	11 57 07	8	11 56 27	14	11 56 15	20	11 56 24	26	11 56 52
2	11 57 00	9	11 56 24	15	11 56 15	21	11 56 28	27	11 56 59
3	11 56 53	10	11 56 21	16	11 56 15	22	11 56 32	28	11 57 06
4	11 56 47	11	11 56 19	17	11 56 16	23	11 56 36	29	11 57 13
5	11 56 41	12	11 56 17	18	11 56 19	24	11 56 41	30	11 57 21
6	11 56 36	13	11 56 16	19	11 56 21	25	11 56 47	31	11 57 29
7	11 56 31								

Twilight (Local Mean Time)

Place	May	Begins	Ends	May	Begins	Ends	May	Begins	Ends
45° N. Lat..	1	2 55	9 03	11	2 33	9 23	21	2 12	9 44
40° N. Lat..	1	3 18	8 38	11	3 02	8 53	21	2 48	9 08
35° N. Lat..	1	3 37	8 19	11	3 24	8 30	21	3 13	8 42
30° N. Lat..	1	3 51	8 04	11	3 41	8 13	21	3 32	8 22

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Full Moon	2	0	13 A.M.	New Moon	16	3	26 A.M.
Last Quarter	8	3	12 P.M.	First Quarter	24	7	15 A.M.
				Full Moon	31	8	18 A.M.

Morning Stars—Mercury (May 29-31); Venus; Mars (May 1-31); Saturn.

Evening Stars—Mercury (May 1-29); Mars (May 31); Jupiter.

6th Month

JUNE, 1969

30 Days

Local Mean Time, A.M., light figures: P.M., black (0 designates midnight; 12 designates noon)

CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Idaho, Iowa (No.), Me., Mich. (Except Far So.), Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wis., Wyo. (No. & Cent.)			Calif. (No.), Colo., Conn., Del., D. C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Md., Mich. (Far So.), Mo. (No. & Cent.), Nebr., Nev. (No. & Cent.), N. J., N. Y. City, N. Y. (So.), Ohio, Pa., R. I., Utah, W. Va., Wyo. (So.)			Alabama (No.), Ariz. (Except Far So.), Ark. Calif. (So.), Georgia (No.), Missouri (So.), N. Mex. (Except Far So.), Nevada (So.), N. C., Okla., S. C., Tenn., Tex. (No.), Va. (So.)			Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.)		
		Sun Rises	Sun Sets	R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
		h. m.	h. m.	h. rises	h. m.	h. m.	h. rises	h. m.	h. m.	h. rises	h. m.	h. m.	h. rises
1	S	4 17	7 39	9 48	4 33	7 22	9 24	4 47	7 08	9 04	5 00	6 56	8 47
2	M	4 16	7 40	10 42	4 33	7 23	10 23	4 47	7 09	10 04	4 59	6 57	8 48
3	Tu	4 16	7 41	11 25	4 32	7 24	11 07	4 46	7 09	10 52	4 59	6 57	10 39
4	W	4 15	7 42	11 55	4 32	7 25	11 42	4 46	7 10	11 30	4 59	6 58	11 21
5	Th	4 15	7 43	.....	4 32	7 26	.....	4 46	7 11	.....	4 59	6 58	11 57
6	Fr	4 14	7 43	0 18	4 32	7 26	0 09	4 46	7 12	0 03	4 59	6 59	.....
7	Sa	4 14	7 44	0 37	4 31	7 27	0 33	4 46	7 12	0 30	4 58	6 59	0 26
8	S	4 13	7 44	0 55	4 31	7 27	0 55	4 46	7 13	0 55	4 58	7 00	0 56
9	M	4 13	7 45	1 12	4 31	7 28	1 17	4 46	7 13	1 20	4 58	7 00	1 24
10	Tu	4 13	7 46	1 30	4 31	7 28	1 39	4 46	7 13	1 45	4 58	7 00	1 52
11	W	4 13	7 46	1 50	4 31	7 29	2 03	4 46	7 14	2 14	4 58	7 01	2 23
12	Th	4 13	7 47	2 15	4 30	7 29	2 31	4 45	7 14	2 45	4 58	7 01	2 57
13	Fr	4 13	7 47	2 44	4 30	7 30	3 05	4 45	7 15	3 21	4 58	7 02	3 36
14	Sa	4 13	7 48	3 21	4 30	7 30	3 45	4 45	7 15	4 04	4 58	7 02	4 20
				sets			sets			sets			sets
15	S	4 13	7 48	9 05	4 30	7 30	8 41	4 45	7 15	8 22	4 58	7 02	8 05
16	M	4 13	7 49	9 46	4 30	7 31	9 24	4 45	7 16	9 07	4 58	7 03	8 51
17	Tu	4 13	7 49	10 18	4 31	7 31	10 00	4 46	7 16	9 45	4 59	7 03	9 32
18	W	4 13	7 50	10 45	4 31	7 32	10 29	4 46	7 17	10 17	4 59	7 04	10 07
19	Th	4 13	7 50	11 06	4 31	7 32	10 56	4 46	7 17	10 46	4 59	7 04	10 38
20	Fr	4 13	7 50	11 24	4 31	7 32	11 17	4 46	7 17	11 11	4 59	7 04	11 06
21	Sa	4 13	7 50	11 41	4 31	7 32	11 39	4 46	7 17	11 36	4 59	7 04	11 34
22	S	4 14	7 51	11 58	4 32	7 33	11 58	4 47	7 18	.....	5 00	7 05	.....
23	M	4 14	7 51	.....	4 32	7 33	.....	4 47	7 18	0 00	5 00	7 05	0 01
24	Tu	4 14	7 51	0 15	4 32	7 33	0 21	4 47	7 18	0 25	5 00	7 05	0 29
25	W	4 14	7 51	0 35	4 32	7 33	0 45	4 47	7 18	0 53	5 00	7 05	1 01
26	Th	4 15	7 51	1 00	4 33	7 33	1 14	4 48	7 18	1 27	5 01	7 05	1 37
27	Fr	4 15	7 51	1 32	4 33	7 33	1 51	4 48	7 18	2 07	5 01	7 05	2 22
28	Sa	4 16	7 51	2 17	4 34	7 33	2 40	4 49	7 18	2 59	5 02	7 05	3 16
				rises			rises			rises			rises
29	S	4 16	7 51	8 29	4 34	7 33	8 06	4 49	7 18	7 46	5 02	7 05	7 29
30	M	4 17	7 51	9 18	4 34	7 33	8 58	4 49	7 18	8 42	5 02	7 05	8 27

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	11 57 38	7	11 58 37	13	11 59 48	19	12 01 06	25	12 02 24
2	11 57 47	8	11 58 48	14	12 00 01	20	12 01 19	26	12 02 36
3	11 57 56	9	11 59 00	15	12 00 14	21	12 01 32	27	12 02 49
4	11 58 06	10	11 59 12	16	12 00 27	22	12 01 45	28	12 03 01
5	11 58 16	11	11 59 24	17	12 00 39	23	12 01 58	29	12 03 13
6	11 58 26	12	11 59 36	18	12 00 53	24	12 02 11	30	12 03 25

Twilight (Local Mean Time)

Place	June	Begins	Ends	June	Begins	Ends	June	Begins	Ends
45° N. Lat.	1	1 54	10 05	11	1 43	10 18	21	1 40	10 21
40° N. Lat.	1	2 35	9 22	11	2 29	9 31	21	2 28	9 35
35° N. Lat.	1	3 03	8 53	11	2 59	9 00	21	3 00	9 05
30° N. Lat.	1	3 25	8 31	11	3 22	8 37	21	3 22	8 41

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Last Quarter	6	10	39 P.M.	First Quarter	22	8	44 P.M.
New Moon	14	6	09 P.M.	Full Moon	29	3	04 P.M.
Morning Stars—Mercury; Venus; Saturn.				Evening Stars—Mars; Jupiter.			

7th Month

JULY, 1969

31 Days

Local Mean Time, A.M., light figures: P.M., black (0 designates midnight; 12 designates noon)

CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Idaho, Iowa (No.), Me. Mich (Except Far So.) Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wis., Wyo. (No & Cent.)			Calif. (No.), Colo., Conn., Del., D.C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Md., Mich. (Far So.), Mo. (No. & Cent.), Nev., Nev. (No. & Cent.), N. J., N. Y. City, N. Y. (So.), Ohio, Pa., R.I., Utah, W. Va., Wyo. (So.)			Alabama (No.), Ariz. (Except Far So.), Ark., Calif. (So.), Georgia (No.), Missouri (So.), N. Mex. (Except Far So.), Nevada (So.), N. C. Okla., S. C., Tenn., Tex. (No.), Va. (So.)			Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.)		
		Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
1	Tu	4 17	7 51	9 53	4 35	7 33	9 38	4 50	7 18	9 26	5 02	7 05	9 14
2	W	4 18	7 50	10 20	4 35	7 32	10 10	4 50	7 18	10 01	5 03	7 05	9 54
3	Th	4 18	7 50	10 41	4 36	7 32	10 36	4 51	7 18	10 30	5 03	7 05	10 27
4	Fr	4 19	7 50	11 00	4 36	7 32	10 59	4 51	7 18	10 58	5 03	7 05	10 57
5	Sa	4 20	7 50	11 18	4 37	7 32	11 21	4 51	7 18	11 23	5 04	7 05	11 26
6	S	4 20	7 49	11 36	4 37	7 32	11 43	4 52	7 18	11 49	5 04	7 05	11 55
7	M	4 21	7 49	11 55	4 38	7 31	.....	4 52	7 17	.....	5 05	7 04	.....
8	Tu	4 21	7 48	.....	4 38	7 31	0 07	4 53	7 17	0 17	5 05	7 04	0 25
9	W	4 22	7 48	0 18	4 39	7 31	0 34	4 53	7 17	0 46	5 06	7 04	0 58
10	Th	4 23	7 47	0 46	4 40	7 31	1 05	4 54	7 17	1 21	5 06	7 04	1 36
11	Fr	4 24	7 47	1 21	4 41	7 30	1 42	4 54	7 16	2 01	5 07	7 04	2 18
12	Sa	4 24	7 46	2 05	4 41	7 30	2 28	4 55	7 16	2 49	5 07	7 03	3 05
13	S	4 25	7 46	2 58	4 42	7 29	3 22	4 55	7 15	3 41	5 08	7 03	3 58
14	M	4 26	7 45	8 20	4 43	7 29	8 02	4 56	7 15	7 46	5 08	7 03	7 31
15	Tu	4 27	7 44	8 48	4 44	7 28	8 33	4 57	7 14	8 19	5 09	7 03	8 08
16	W	4 28	7 43	9 11	4 45	7 27	9 00	4 58	7 14	8 49	5 10	7 02	8 40
17	Th	4 29	7 43	9 30	4 45	7 27	9 22	4 58	7 13	9 16	5 10	7 02	9 09
18	Fr	4 30	7 42	9 47	4 46	7 26	9 44	4 59	7 13	9 39	5 11	7 01	9 37
19	Sa	4 31	7 41	10 04	4 47	7 25	10 03	5 00	7 12	10 03	5 11	7 01	10 04
20	S	4 32	7 40	10 19	4 48	7 24	10 23	5 01	7 11	10 27	5 12	7 01	10 31
21	M	4 33	7 39	10 38	4 49	7 24	10 47	5 01	7 11	10 53	5 12	7 00	11 00
22	Tu	4 34	7 38	10 59	4 49	7 23	11 12	5 02	7 10	11 23	5 13	7 00	11 33
23	W	4 35	7 37	11 28	4 50	7 23	11 44	5 02	7 10	11 59	5 13	6 59	.....
24	Th	4 36	7 36	.....	4 51	7 22	.....	5 03	7 09	.....	5 14	6 59	0 12
25	Fr	4 37	7 35	0 06	4 52	7 21	0 26	5 04	7 08	0 45	5 15	6 58	1 00
26	Sa	4 38	7 34	0 57	4 53	7 20	1 21	5 05	7 08	1 41	5 15	6 58	1 59
27	S	4 39	7 33	2 06	4 53	7 19	2 30	5 05	7 07	2 50	5 16	6 57	3 07
28	M	4 40	7 32	3 27	4 54	7 18	3 49	5 06	7 07	4 06	5 16	6 57	4 21
29	Tu	4 41	7 31	8 18	4 55	7 17	8 06	5 07	7 06	7 55	5 17	6 56	7 45
30	W	4 42	7 30	8 43	4 56	7 16	8 34	5 08	7 05	8 28	5 18	6 55	8 23
31	Th	4 43	7 28	9 02	4 57	7 15	8 59	5 09	7 04	8 57	5 18	6 54	8 55

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	12 03 37	8	12 04 52	14	12 05 41	20	12 06 14	26	12 06 26
2	12 03 49	9	12 05 01	15	12 05 48	21	12 06 17	27	12 06 26
3	12 04 00	10	12 05 10	16	12 05 54	22	12 06 20	28	12 06 25
4	12 04 11	11	12 05 18	17	12 06 00	23	12 06 23	29	12 06 24
5	12 04 21	12	12 05 26	18	12 06 05	24	12 06 25	30	12 06 22
6	12 04 32	13	12 05 34	19	12 06 10	25	12 06 25	31	12 06 19
7	12 04 42								

Twilight (Local Mean Time)

Place	July	Begins	Ends	July	Begins	Ends	July	Begins	Ends
45° N. Lat..	1	h. m.	h. m.	11	h. m.	h. m.	21	h. m.	h. m.
40° N. Lat..	1	2 31	9 35	11	2 38	9 29	21	2 53	9 18
35° N. Lat..	1	3 02	9 05	11	3 09	9 00	21	3 19	8 52
30° N. Lat..	1	3 26	8 41	11	3 31	8 38	21	3 38	8 33

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Last Quarter	6	8	17 A.M.	First Quarter	22	7	10 A.M.
New Moon	14	9	11 A.M.	Full Moon	28	9	45 P.M.
Morning Stars—Mercury (Jul. 1-22); Venus; Saturn.				Evening Stars—Mercury (Jul. 22-31); Mars; Jupiter.			

8th Month

AUGUST, 1969

31 Day

Local Mean Time, A.M., light figures: P.M., black (0 designates midnight; 12 designates noon)
CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Idaho, Iowa (No.), Me., Mich. (Except Far So.), Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wis., Wyo. (No. & Cent.)			Calif. (No.), Colo., Conn., Del., D. C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Md., Mich. (Far So.), Mo. (No. & Cent.), Neb., Nev. (No. & Cent.), N. J., N. Y. City, N. Y. (So.), Ohio, Pa., R. I., Utah, W. Va., Wyo. (So.)			Alabama (No.), Ariz. (Except Far So.), Ark., Calif. (So.), Georgia (No.), Missouri (So.), Mex. (Except Far So.), Nevada (So.), N. C., Okla., S. C., Tenn., Tex. (No.), Va. (So.)			Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.)		
		Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
		h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises
1	Fr	4 45	7 27	9 21	4 58	7 14	9 23	5 09	7 03	9 24	5 19	6 54	9 25
2	Sa	4 46	7 25	9 39	4 59	7 13	9 45	5 10	7 02	9 51	5 19	6 53	9 52
3	S	4 47	7 24	9 59	5 00	7 12	10 09	5 11	7 01	10 18	5 20	6 52	10 20
4	M	4 48	7 23	10 20	5 01	7 11	10 35	5 12	7 00	10 47	5 21	6 51	10 55
5	Tu	4 49	7 22	10 47	5 02	7 10	11 05	5 12	6 59	11 21	5 21	6 50	11 33
6	W	4 51	7 20	11 19	5 03	7 08	11 41	5 13	6 58	11 59	5 22	6 50	11 59
7	Th	4 52	7 19	.....	5 04	7 07	.....	5 13	6 57	.....	5 22	6 49	0 1
8	Fr	4 53	7 18	0 01	5 05	7 06	0 25	5 14	6 56	0 44	5 23	6 48	1 0
9	Sa	4 54	7 16	0 51	5 06	7 05	1 15	5 15	6 55	1 35	5 24	6 47	1 5
10	S	4 55	7 15	1 50	5 07	7 04	2 13	5 16	6 54	2 31	5 24	6 46	2 4
11	M	4 57	7 14	2 54	5 07	7 02	3 15	5 16	6 53	3 30	5 25	6 45	3 4
12	Tu	4 58	7 12	4 01	5 08	7 01	4 18	5 17	6 52	4 30	5 25	6 44	4 4
13	W	4 59	7 10	7 36	5 09	7 00	7 27	5 18	6 51	7 20	5 26	6 43	7 1
14	Th	5 00	7 08	7 54	5 10	6 59	7 49	5 19	6 50	7 44	5 27	6 42	7 4
15	Fr	5 01	7 07	8 11	5 11	6 57	8 09	5 20	6 49	8 08	5 27	6 41	8 0
16	Sa	5 03	7 06	8 27	5 12	6 56	8 29	5 20	6 47	8 32	5 28	6 40	8 3
17	S	5 04	7 04	8 44	5 13	6 54	8 50	5 21	6 46	8 57	5 28	6 39	9 0
18	M	5 05	7 02	9 04	5 14	6 53	9 15	5 22	6 45	9 25	5 29	6 38	9 3
19	Tu	5 06	7 00	9 29	5 15	6 52	9 45	5 23	6 44	9 58	5 30	6 37	10 1
20	W	5 07	6 59	10 01	5 16	6 50	10 21	5 24	6 43	10 38	5 30	6 36	10 5
21	Th	5 09	6 58	10 46	5 17	6 49	11 10	5 24	6 41	11 29	5 31	6 35	11 4
22	Fr	5 10	6 56	11 45	5 18	6 47	.....	5 25	6 40	.....	5 31	6 34	.....
23	Sa	5 11	6 54	.....	5 19	6 46	0 10	5 26	6 39	0 30	5 32	6 33	0 4
24	S	5 12	6 52	1 00	5 20	6 44	1 23	5 27	6 38	1 41	5 33	6 32	1 5
25	M	5 13	6 50	2 24	5 21	6 43	2 42	5 27	6 37	2 59	5 33	6 31	3 1
26	Tu	5 15	6 49	3 51	5 22	6 42	4 05	5 28	6 35	4 16	5 34	6 29	4 2
27	W	5 16	6 47	7 04	5 23	6 40	6 59	5 28	6 34	6 55	5 34	6 28	6 5
28	Th	5 17	6 45	7 23	5 24	6 38	7 23	5 29	6 33	7 22	5 35	6 27	7 2
29	Fr	5 18	6 43	7 42	5 25	6 36	7 46	5 30	6 32	7 49	5 35	6 26	7 5
30	Sa	5 19	6 41	8 01	5 26	6 35	8 09	5 30	6 30	8 17	5 36	6 25	8 2
31	S	5 21	6 40	8 22	5 26	6 34	8 35	5 31	6 29	8 46	5 36	6 24	8 5

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	12 06 16	8	12 05 38	14	12 04 43	20	12 03 28	26	12 01 55
2	12 06 13	9	12 05 30	15	12 04 32	21	12 03 14	27	12 01 33
3	12 06 08	10	12 05 22	16	12 04 20	22	12 02 59	28	12 01 20
4	12 06 03	11	12 05 13	17	12 04 08	23	12 02 44	29	12 01 07
5	12 05 58	12	12 05 04	18	12 03 55	24	12 02 28	30	12 00 44
6	12 05 52	13	12 04 54	19	12 03 42	25	12 02 12	31	12 00 20
7	12 05 45								

Twilight (Local Mean Time)

Place	Aug.	Begins	Ends	Aug.	Begins	Ends	Aug.	Begins	Ends
		h. m.	h. m.		h. m.	h. m.		h. m.	h. m.
45° N. Lat..	1	2 36	9 33	11	2 58	9 11	21	3 16	8 47
40° N. Lat..	1	3 08	9 03	11	3 23	8 46	21	3 36	8 28
35° N. Lat..	1	3 30	8 41	11	3 42	8 26	21	3 52	8 12
30° N. Lat..	1	3 47	8 23	11	3 56	8 12	21	4 05	7 59

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Last Quarter	4	8	38 P.M.	First Quarter	20	3	03 P.M.
New Moon	13	0	17 A.M.	Full Moon	27	5	32 A.M.

Morning Stars—Venus; Saturn.

Evening Stars—Mercury; Mars; Jupiter.

9th Month

SEPTEMBER, 1969

30 Days

Local Mean Time, A.M., light figures; P.M., black (0 designates midnight; 12 designates noon)

CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
		<i>h. m.</i>	<i>h. m.</i>	<i>h. m. rises</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m. rises</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m. rises</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m. rises</i>
1	M	5 22	6 38	8 47	5 27	6 32	9 04	5 32	6 27	9 19	5 37	6 23	9 30
2	Tu	5 23	6 36	9 18	5 28	6 30	9 38	5 33	6 26	9 55	5 37	6 22	10 10
3	W	5 24	6 34	9 57	5 29	6 28	10 19	5 34	6 25	10 39	5 38	6 21	10 55
4	Th	5 25	6 32	10 43	5 30	6 27	11 08	5 35	6 23	11 28	5 38	6 20	11 45
5	Fr	5 27	6 31	11 39	5 31	6 26	.....	5 35	6 22	.....	5 39	6 18	.....
6	Sa	5 28	6 29	.....	5 32	6 24	0 03	5 36	6 20	0 22	5 39	6 17	0 39
7	S	5 29	6 27	0 43	5 33	6 22	1 03	5 37	6 19	1 21	5 40	6 16	1 36
8	M	5 30	6 25	1 50	5 34	6 20	2 07	5 38	6 18	2 21	5 41	6 15	2 34
9	Tu	5 31	6 23	2 57	5 35	6 19	3 10	5 38	6 16	3 21	5 41	6 14	3 32
10	W	5 33	6 21	4 05	5 36	6 18	4 14	5 39	6 15	4 21	5 42	6 12	4 29
				<i>sets</i>			<i>sets</i>			<i>sets</i>			<i>sets</i>
11	Th	5 34	6 19	6 17	5 37	6 16	6 14	5 39	6 13	6 12	5 42	6 11	6 11
12	Fr	5 35	6 17	6 34	5 38	6 14	6 35	5 40	6 12	6 36	5 43	6 10	6 38
13	Sa	5 36	6 15	6 51	5 39	6 12	6 56	5 41	6 11	7 01	5 43	6 09	7 06
14	S	5 37	6 13	7 10	5 40	6 11	7 20	5 42	6 09	7 29	5 44	6 07	7 36
15	M	5 39	6 12	7 34	5 40	6 10	7 48	5 42	6 08	8 00	5 44	6 06	8 11
16	Tu	5 40	6 10	8 03	5 41	6 08	8 22	5 43	6 06	8 37	5 45	6 04	8 51
17	W	5 41	6 08	8 43	5 42	6 06	9 06	5 44	6 05	9 24	5 45	6 03	9 41
18	Th	5 42	6 06	9 35	5 43	6 04	10 00	5 45	6 03	10 20	5 46	6 02	10 37
19	Fr	5 43	6 04	10 43	5 44	6 03	11 07	5 46	6 02	11 28	5 46	6 01	11 45
20	Sa	5 45	6 02	.....	5 45	6 02	.....	5 46	6 01	.....	5 47	5 59	.....
21	S	5 46	6 00	0 02	5 46	6 00	0 22	5 47	5 59	0 40	5 47	5 58	0 54
22	M	5 47	5 58	1 23	5 47	5 58	1 42	5 48	5 57	1 56	5 48	5 57	2 07
23	Tu	5 48	5 56	2 50	5 48	5 56	3 00	5 49	5 56	3 08	5 49	5 56	3 17
24	W	5 49	5 54	4 10	5 49	5 54	4 15	5 49	5 54	4 20	5 49	5 55	4 24
				<i>rises</i>			<i>rises</i>			<i>rises</i>			<i>rises</i>
25	Th	5 51	5 53	5 45	5 50	5 53	5 46	5 50	5 53	5 48	5 50	5 53	5 49
26	Fr	5 52	5 51	6 04	5 51	5 51	6 10	5 50	5 51	6 15	5 50	5 52	6 19
27	Sa	5 53	5 49	6 24	5 52	5 49	6 34	5 51	5 50	6 44	5 51	5 51	6 52
28	S	5 54	5 47	6 48	5 53	5 47	7 03	5 52	5 49	7 14	5 52	5 50	7 26
29	M	5 55	5 45	7 16	5 54	5 46	7 34	5 53	5 47	7 50	5 52	5 49	8 05
30	Tu	5 57	5 43	7 51	5 55	5 45	8 14	5 53	5 46	8 31	5 53	5 47	8 48

Sun on 75th Meridian (Local Mean Time)

Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>
1	12 00 09	7	11 58 11	13	11 56 07	19	11 53 59	25	11 51 52
2	11 59 50	8	11 57 51	14	11 55 46	20	11 53 38	26	11 51 32
3	11 59 30	9	11 57 30	15	11 55 24	21	11 53 17	27	11 51 11
4	11 59 11	10	11 57 09	16	11 55 03	22	11 52 55	28	11 50 51
5	11 58 51	11	11 56 49	17	11 54 42	23	11 52 34	29	11 50 31
6	11 58 31	12	11 56 28	18	11 54 21	24	11 52 13	30	11 50 11

Twilight (Local Mean Time)

Place	Sept.	Begins	Ends	Sept.	Begins	Ends	Sept.	Begins	Ends
		<i>h. m.</i>	<i>h. m.</i>		<i>h. m.</i>	<i>h. m.</i>		<i>h. m.</i>	<i>h. m.</i>
45° N. Lat..	1	3 35	8 23	11	3 49	8 00	21	4 05	7 35
40° N. Lat..	1	3 51	8 07	11	4 03	7 49	21	4 14	7 27
35° N. Lat..	1	4 04	7 56	11	4 13	7 36	21	4 22	7 24
30° N. Lat..	1	4 15	7 46	11	4 21	7 32	21	4 28	7 18

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Last Quarter	3	11	58 A.M.	First Quarter	18	9	25 P.M.
New Moon	11	3	56 P.M.	Full Moon	25	3	21 P.M.

Morning Stars—Mercury (Sept. 29-30); Venus; Saturn.

Evening Stars—Mercury (Sept. 1-29); Mars; Jupiter.

10th Month

OCTOBER, 1969

31 Days

Local Mean Time, A.M., light figures; P.M., black (0 designates midnight; 12 designates noon)

CAUTION Must be converted to ordinary clock time (STANDARD TIME)—See page 277

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Idaho, Iowa (No.), Me. Mich. (Except Far So.) Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wis., Wyo. (No. & Cent.)			Calif. (No.), Colo., Conn., Del., D. C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Md., Mich. (Far So.), Mo. (No. & Cent.), N. Car., Nev. (No. & Cent.), N. J., N. Y. City, N. Y. (So.), Ohio, Pa., R. I., Utah, W. Va., Wyo. (So.)			Alabama (No.), Ariz. (Except Far So.), Ark., Calif. (So.), Georgia (No.), Mississ. (So.), N. Mex. (Except Far So.), Nevada (So.), N. C., Okla., S. C., Tenn., Tex. (No.), Va. (So.)			Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.)		
		Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
1	W	5 58	5 41	8 35	5 56	5 43	8 59	5 54	5 44	9 20	5 53	5 46	9 36
2	Th	5 59	5 39	9 29	5 57	5 41	9 53	5 55	5 43	10 13	5 54	5 45	10 29
3	Fr	6 00	5 37	10 29	5 58	5 39	10 51	5 56	5 42	11 10	5 55	5 44	11 28
4	Sa	6 01	5 35	11 34	5 59	5 38	11 54	5 57	5 40	.....	5 55	5 43	.....
5	S	6 03	5 34	.....	6 00	5 37	.....	5 57	5 39	0 09	5 56	5 41	0 23
6	M	6 04	5 32	0 42	6 01	5 35	0 57	5 58	5 37	1 09	5 56	5 40	1 21
7	Tu	6 05	5 30	1 50	6 02	5 33	2 00	5 59	5 36	2 09	5 57	5 39	2 18
8	W	6 06	5 28	2 57	6 03	5 32	3 04	6 00	5 35	3 09	5 58	5 38	3 15
9	Th	6 07	5 26	4 05	6 04	5 30	4 07	6 01	5 33	4 09	5 58	5 37	4 11
10	Fr	6 09	5 25	5 14	6 05	5 29	5 13	6 01	5 32	5 11	5 59	5 35	5 09
11	Sa	6 10	5 23	6 25	6 06	5 27	6 19	6 02	5 30	6 14	5 59	5 34	6 08
12	S	6 11	5 21	5 40	6 07	5 26	5 50	6 03	5 29	6 01	6 00	5 33	6 11
13	M	6 12	5 19	6 05	6 08	5 24	6 22	6 04	5 28	6 37	6 01	5 32	6 50
14	Tu	6 14	5 17	6 42	6 09	5 23	7 03	6 05	5 27	7 22	6 01	5 31	7 38
15	W	6 15	5 16	7 32	6 10	5 22	7 55	6 05	5 25	8 16	6 02	5 30	8 33
16	Th	6 17	5 14	8 34	6 11	5 20	9 00	6 06	5 24	9 20	6 02	5 29	9 37
17	Fr	6 18	5 12	9 50	6 12	5 18	10 12	6 07	5 23	10 30	6 03	5 28	10 45
18	Sa	6 19	5 10	11 12	6 13	5 17	11 29	6 08	5 22	11 43	6 04	5 27	11 56
19	S	6 21	5 09	.....	6 14	5 15	.....	6 09	5 21	.....	6 04	5 26	.....
20	M	6 22	5 08	0 33	6 16	5 14	0 45	6 10	5 19	0 56	6 05	5 24	1 04
21	Tu	6 24	5 06	1 51	6 17	5 12	2 00	6 11	5 18	2 06	6 05	5 23	2 11
22	W	6 25	5 04	3 08	6 18	5 11	3 11	6 12	5 17	3 13	6 06	5 22	3 16
23	Th	6 26	5 02	4 23	6 19	5 10	4 21	6 13	5 16	4 19	6 07	5 21	4 17
24	Fr	6 27	5 01	5 36	6 20	5 08	5 31	6 14	5 15	5 25	6 08	5 20	5 19
25	Sa	6 29	5 00	6 41	6 21	5 07	6 40	6 14	5 13	6 30	6 08	5 20	6 21
26	S	6 30	4 58	5 14	6 22	5 05	5 32	6 15	5 12	5 46	6 09	5 19	5 58
27	M	6 31	4 56	5 48	6 23	5 04	6 08	6 16	5 11	6 25	6 10	5 18	6 41
28	Tu	6 32	4 55	6 28	6 24	5 03	6 52	6 17	5 10	7 11	6 11	5 17	7 28
29	W	6 34	4 53	7 18	6 25	5 02	7 42	6 18	5 09	8 02	6 12	5 16	8 18
30	Th	6 35	5 52	8 17	6 27	5 00	8 40	6 19	5 08	8 58	6 12	5 15	9 14
31	Fr	6 37	4 50	9 20	6 28	4 59	9 40	6 20	5 07	9 57	6 13	5 14	10 12

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	11 49 51	8	11 47 44	14	11 46 10	20	11 44 56	26	11 44 04
2	11 49 32	9	11 47 27	15	11 45 56	21	11 44 46	27	11 43 58
3	11 49 13	10	11 47 10	16	11 45 42	22	11 44 36	28	11 43 53
4	11 48 54	11	11 46 55	17	11 45 36	23	11 44 27	29	11 43 48
5	11 48 36	12	11 46 39	18	11 45 19	24	11 44 18	30	11 43 44
6	11 48 18	13	11 46 25	19	11 45 07	25	11 44 11	31	11 43 41
7	11 48 00								

Twilight (Local Mean Time)

Place	Oct.	Begins	Ends	Oct.	Begins	Ends	Oct.	Begins	Ends
45° N. Lat.	1	4 19	7 19	11	4 32	7 00	21	4 44	6 44
40° N. Lat.	1	4 25	7 13	11	4 35	6 58	21	4 46	6 43
35° N. Lat.	1	4 30	7 08	11	4 37	6 55	21	4 46	6 44
30° N. Lat.	1	4 34	7 05	11	4 39	6 54	21	4 45	6 44

Moon Phases, 1969 (Eastern Standard Time)

Moon						Moon					
	day	hour	min.	a.m.	or p.m.		day	hour	min.	a.m.	or p.m.
Last Quarter	3	6	05	A.M.		First Quarter	18	3	32	A.M.	
New Moon	11	4	39	A.M.		Full Moon	25	3	44	A.M.	
Morning Stars—Mercury; Venus; Jupiter (Oct. 1-31); Saturn (Oct. 1-29).						Evening Stars—Mars; Jupiter (Oct. 1-9); Saturn (Oct. 29-31).					

11th Month

NOVEMBER, 1969

30 Days

Local Mean Time, A.M., light figure: P.M., black (0 designates midnight; 12 designates noon)

CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude						40° N. Latitude						35° N. Latitude						30° N. Latitude					
		Idaho, Iowa (No.), Me., Mich. (Except Far So.), Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wis., Wyo. (No. & Cent.)						Calif. (No.), Colo., Conn., Del., D.C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Md., Mich. (Far So.), Mo. (No. & Cent.), N. J., Nev. (No. & Cent.), N. Y. City, N.Y. (So.), Ohio, Pa., R.I., Utah, W.Va., Wyo. (So.)						Alabama (No.), Ariz. (Except Far So.), Ark., Calif. (So.), Georgia (No.), Missouri (So.), N. Mex. (Except Far So.), Nevada (So.), N.C. (No.), S.C., Tenn., Tex. (No.), Va. (So.)						Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.)					
		Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
		h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises	h. m.	h. m.	h. m. rises
1	Sa	6 38	4 49	10 27	6 29	4 58	10 43	6 21	5 06	10 57	6 14	5 13	11 09												
2	S	6 39	4 48	11 34	6 30	4 57	11 46	6 22	5 05	11 56	6 15	5 12													
3	M	6 41	4 46		6 31	4 56		6 23	5 04		6 16	5 12	0 06												
4	Tu	6 42	4 45	0 41	6 33	4 54	0 49	6 24	5 04	0 55	6 16	5 11	1 02												
5	W	6 44	4 43	1 47	6 34	4 53	1 51	6 25	5 03	1 54	6 17	5 11	1 58												
6	Th	6 45	4 42	2 55	6 35	4 52	2 54	6 26	5 02	2 54	6 18	5 10	2 55												
7	Fr	6 46	4 41	4 04	6 36	4 51	4 01	6 27	5 01	3 57	6 19	5 09	3 53												
8	Sa	6 48	4 40	5 18	6 37	4 50	5 09	6 28	5 00	5 01	6 20	5 08	4 55												
9	S	6 49	4 38	6 37	6 38	4 50	6 22	6 28	4 59	6 10	6 20	5 08	6 01												
10	M	6 51	4 37	4 39	6 39	4 49	4 59	6 29	4 58	5 16	6 21	5 07	5 30												
11	Tu	6 52	4 36	5 24	6 40	4 48	5 48	6 30	4 57	6 07	6 22	5 06	6 24												
12	W	6 53	4 35	6 25	6 41	4 47	6 49	6 31	4 56	7 09	6 23	5 06	7 27												
13	Th	6 55	4 34	7 39	6 42	4 46	8 02	6 32	4 56	8 20	6 24	5 05	8 36												
14	Fr	6 56	4 33	9 01	6 44	4 45	9 19	6 33	4 55	9 34	6 25	5 05	9 48												
15	Sa	6 58	4 32	10 22	6 45	4 44	10 36	6 34	4 55	10 47	6 25	5 04	10 58												
16	S	6 59	4 31	11 42	6 46	4 43	11 57	6 35	4 54	11 58	6 26	5 04													
17	M	7 00	4 30		6 47	4 42		6 36	4 53		6 27	5 04	0 04												
18	Tu	7 01	4 29	0 58	6 48	4 42	1 01	6 37	4 53	1 05	6 28	5 03	1 07												
19	W	7 03	4 28	2 11	6 50	4 41	2 11	6 38	4 52	2 10	6 28	5 03	2 09												
20	Th	7 04	4 27	3 23	6 51	4 41	3 18	6 39	4 52	3 13	6 29	5 02	3 10												
21	Fr	7 05	4 26	4 35	6 52	4 40	4 26	6 40	4 51	4 17	6 30	5 02	4 11												
22	Sa	7 06	4 25	5 48	6 53	4 39	5 34	6 41	4 51	5 23	6 31	5 02	5 12												
23	S	7 08	4 25	7 01	6 54	4 39	6 42	6 42	4 51	6 26	6 32	5 02	6 14												
24	M	7 09	4 24	4 23	6 55	4 38	4 45	6 43	4 50	5 04	6 32	5 01	5 20												
25	Tu	7 11	4 24	5 09	6 56	4 38	5 34	6 44	4 50	5 53	6 33	5 01	6 10												
26	W	7 12	4 23	6 05	6 57	4 37	6 29	6 45	4 50	6 48	6 34	5 00	7 04												
27	Th	7 13	4 22	7 08	6 58	4 37	7 29	6 46	4 50	7 46	6 35	5 00	8 02												
28	Fr	7 14	4 22	8 14	6 59	4 36	8 30	6 47	4 50	8 46	6 36	5 00	8 59												
29	Sa	7 16	4 21	9 20	7 00	4 36	9 34	6 47	4 49	9 45	6 36	5 00	9 56												
30	S	7 17	4 21	10 26	7 01	4 35	10 36	6 48	4 49	10 44	6 37	5 00	10 50												

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	11 43 39	7	11 43 42	13	11 44 16	19	11 45 19	25	11 46 52
2	11 43 37	8	11 43 45	14	11 44 24	20	11 45 33	26	11 47 10
3	11 43 36	9	11 43 50	15	11 44 33	21	11 45 47	27	11 47 29
4	11 43 36	10	11 43 55	16	11 44 44	22	11 46 02	28	11 47 48
5	11 43 37	11	11 44 01	17	11 44 55	23	11 46 18	29	11 48 09
6	11 43 39	12	11 44 08	18	11 45 07	24	11 46 35	30	11 48 30

Twilight (Local Mean Time)

Place	Nov.	Begins	Ends	Nov.	Begins	Ends	Nov.	Begins	Ends
		h. m.	h. m.		h. m.	h. m.		h. m.	h. m.
45° N. Lat..	1	4 58	6 28	11	5 09	6 17	21	5 21	6 09
40° N. Lat..	1	4 56	6 30	11	5 06	6 21	21	5 16	6 15
35° N. Lat..	1	4 54	6 32	11	5 02	6 24	21	5 11	6 19
30° N. Lat..	1	4 52	6 34	11	4 59	6 28	21	5 06	6 25

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Last Quarter	2	2	14 A.M.	First Quarter	16	10	45 A.M.
New Moon	9	5	11 P.M.	Full Moon	23	6	54 P.M.

Morning Stars—Mercury (Nov. 1-16); Venus; Ju-

Evening Stars—Mercury (Nov. 16-30); Mars; Saturn.

12th Month

DECEMBER, 1969

31 Days

Local Mean Time, A.M., light figures: P.M., black (0 designates midnight; 12 designates noon)
CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
		<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>
1	M	7 18	4 20	11 31	7 02	4 35	11 37	6 49	4 49	11 41	6 38	5 00	11 45
2	Tu	7 19	4 20	.....	7 03	4 35	.....	6 50	4 49	.....	6 39	5 00	.....
3	W	7 20	4 20	0 37	7 04	4 35	0 38	6 51	4 49	0 39	6 40	5 00	0 40
4	Th	7 21	4 19	1 44	7 05	4 35	1 42	6 52	4 48	1 39	6 40	5 00	1 37
5	Fr	7 22	4 19	2 55	7 06	4 35	2 48	6 53	4 48	2 41	6 41	5 00	2 36
6	Sa	7 23	4 19	4 09	7 07	4 35	3 57	6 54	4 48	3 48	6 42	5 00	3 39
7	S	7 24	4 19	5 28	7 08	4 35	5 12	6 55	4 48	4 57	6 43	5 00	4 46
8	M	7 25	4 19	6 51	7 09	4 35	6 30	6 56	4 48	6 12	6 44	5 00	6 07
9	Tu	7 26	4 18	4 07	7 10	4 35	4 31	6 56	4 49	4 51	6 44	5 01	5 08
10	W	7 27	4 18	5 18	7 11	4 35	5 42	6 57	4 49	6 01	6 45	5 01	6 18
11	Th	7 28	4 18	6 41	7 12	4 35	7 01	6 58	4 49	7 18	6 46	5 01	7 32
12	Fr	7 29	4 18	8 05	7 13	4 35	8 22	6 59	4 49	8 34	6 47	5 01	8 45
13	Sa	7 30	4 18	9 29	7 13	4 35	9 39	6 59	4 49	9 47	6 48	5 01	9 56
14	S	7 30	4 19	10 47	7 14	4 36	10 52	7 00	4 50	10 58	6 48	5 02	11 03
15	M	7 31	4 19	.....	7 14	4 36	.....	7 00	4 50	.....	6 49	5 02	.....
16	Tu	7 32	4 19	0 03	7 15	4 36	0 03	7 01	4 50	0 03	6 49	5 02	0 06
17	W	7 33	4 19	1 15	7 16	4 36	1 11	7 02	4 50	1 08	6 50	5 03	1 06
18	Th	7 33	4 20	2 27	7 17	4 37	2 18	7 03	4 51	2 11	6 50	5 03	2 04
19	Fr	7 34	4 20	3 38	7 17	4 37	3 25	7 03	4 51	3 14	6 51	5 04	3 04
20	Sa	7 34	4 21	4 50	7 18	4 38	4 32	7 04	4 52	4 18	6 51	5 04	4 06
21	S	7 35	4 21	6 00	7 18	4 38	5 39	7 04	4 52	5 21	6 52	5 05	5 07
22	M	7 35	4 22	7 04	7 18	4 39	6 41	7 04	4 53	6 22	6 52	5 05	6 05
23	Tu	7 36	4 22	3 56	7 19	4 39	4 21	7 05	4 54	4 40	6 53	5 06	4 57
24	W	7 36	4 23	4 57	7 19	4 40	5 19	7 05	4 54	5 38	6 53	5 06	5 54
25	Th	7 37	4 23	6 02	7 20	4 40	6 21	7 06	4 55	6 37	6 54	5 07	6 51
26	Fr	7 37	4 24	7 09	7 20	4 41	7 24	7 06	4 55	7 36	6 54	5 07	7 48
27	Sa	7 37	4 25	8 15	7 20	4 42	8 26	7 06	4 56	8 35	6 54	5 08	8 44
28	S	7 37	4 26	9 20	7 21	4 42	9 27	7 07	4 57	9 33	6 55	5 09	9 38
29	M	7 38	4 26	10 25	7 21	4 43	10 26	7 07	4 57	10 30	6 55	5 09	10 32
30	Tu	7 38	4 27	11 29	7 22	4 43	11 28	7 08	4 58	11 27	6 56	5 10	11 26
31	W	7 38	4 28	.....	7 22	4 44	.....	7 08	4 58	.....	6 56	5 10	.....

Sun on 75th Meridian (Local Mean Time)

Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>	Day	<i>h. m. s.</i>
1	11 48 52	8	11 51 42	14	11 54 27	20	11 57 23	26	12 00 21
2	11 49 15	9	11 52 09	15	11 54 56	21	11 57 52	27	12 00 51
3	11 49 38	10	11 52 36	16	11 55 25	22	11 58 21	28	12 01 20
4	11 50 01	11	11 53 03	17	11 55 54	23	11 58 52	29	12 01 50
5	11 50 26	12	11 53 31	18	11 56 23	24	11 59 22	30	12 02 19
6	11 50 51	13	11 53 59	19	11 56 53	25	11 59 53	31	12 02 48
7	11 51 16								

Twilight (Local Mean Time)

Place	Dec.	Begins	Ends	Dec.	Begins	Ends	Dec.	Begins	Ends
		<i>h. m.</i>	<i>h. m.</i>		<i>h. m.</i>	<i>h. m.</i>		<i>h. m.</i>	<i>h. m.</i>
45° N. Lat..	1	5 32	6 05	11	5 41	6 04	21	5 47	6 08
40° N. Lat..	1	5 25	6 11	11	5 34	6 12	21	5 40	6 16
35° N. Lat..	1	5 20	6 19	11	5 27	6 19	21	5 32	6 23
30° N. Lat..	1	5 13	6 25	11	5 20	6 26	21	5 25	6 31

Moon Phases, 1969 (Eastern Standard Time)

Moon	day	hour	min. a.m. or p.m.	Moon	day	hour	min. a.m. or p.m.
Last Quarter	1	10	50 P.M.	First Quarter ..	15	8	09 P.M.
New Moon	9	4	42 A.M.	Full Moon	23	12	35 P.M.
				Last Quarter ..	31	5	52 P.M.

Morning Stars—Venus; Jupiter.

Evening Stars—Mercury; Mars; Saturn.

31 Days

CALCULATION—Must be converted to ordinary clock time (STANDARD TIME)—See page 211

Sun on 75th Meridian (Local Mean Time)

Twilight (Local Mean Time)

Moon Phases, 1970 (Eastern Standard Time)

Morning Stars—Mercury (Jan. 13-31); Venus (Jan. 1-24); Jupiter.

2nd Month

FEBRUARY, 1970

28 Days

Local Mean Time, A.M., light figures; P.M., black (0 designates midnight; 12 designates noon)
CAUTION—Must be converted to ordinary clock time (STANDARD TIME)—See page 277.

Day of the Month	Day of the Week	45° N. Latitude			40° N. Latitude			35° N. Latitude			30° N. Latitude		
		Idaho, Iowa (No.), Me., Mich. (Except Far So.), Minn., Mont., N. H., N. Y. (upstate), N. D., Ore., S. D., Vt., Wash., Wis., Wyo. (No. & Cent.).			Calif. (No.), Colo., Conn., Del., D.C., Ill., Ind., Iowa (So. & Cent.), Kans., Ky. (No. & Cent.), Mass., Md., Mich. (Far So.), Mo. (No. & Cent.), Nebr., Nev. (No. & Cent.), N.J., N.Y. City, N.Y. (So.), Ohio, Pa., R.I., Utah, W.Va., Wyo. (So.).			Alabama (No.), Ariz. (Except Far So.), Ark., Calif. (So.), Georgia (No.), Missouri (So.), N. Mex. (Except Far So.), Nevada (So.), N.C., Okla., S.C., Tenn., Tex. (No.), Va. (So.).			Alabama (So.), Ariz. (Far So.), Fla., Georgia (So.), La., Miss. (So.), N. Mex. (Far So.), Tex. (So. & Cent.).		
		Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.	Sun Rises	Sun Sets	Moon R. & S.
1	S	7 21	5 07	3 16	7 09	5 18	2 54	6 59	5 28	2 36	6 51	5 37	2 21
2	M	7 20	5 08	4 31	7 08	5 20	4 07	6 59	5 29	3 47	6 50	5 37	3 30
3	Tu	7 18	5 10	5 37	7 07	5 21	5 13	6 58	5 30	4 53	6 50	5 38	4 36
4	W	7 17	5 12	6 32	7 06	5 22	6 09	6 57	5 31	5 50	6 49	5 39	5 36
5	Th	7 16	5 13	7 10	7 05	5 23	6 53	6 56	5 32	6 38	6 48	5 40	6 26
6	Fr	7 14	5 15	5 52	7 04	5 24	6 04	6 55	5 33	6 13	6 47	5 41	6 20
7	Sa	7 13	5 16	7 19	7 03	5 26	7 24	6 55	5 34	7 28	6 47	5 42	7 31
8	S	7 11	5 18	8 39	7 02	5 27	8 39	6 54	5 35	8 39	6 46	5 43	8 38
9	M	7 10	5 19	9 57	7 01	5 28	9 51	6 53	5 36	9 47	6 45	5 44	9 43
10	Tu	7 09	5 20	11 13	7 00	5 29	11 03	6 52	5 37	10 54	6 44	5 45	10 46
11	W	7 07	5 22	.....	6 59	5 30	.....	6 51	5 38	.....	6 43	5 46	11 50
12	Th	7 06	5 23	0 29	6 57	5 32	0 13	6 50	5 39	0 01	6 43	5 46	.....
13	Fr	7 04	5 25	1 40	6 56	5 33	1 21	6 49	5 40	1 06	6 42	5 47	0 52
14	Sa	7 03	5 26	2 50	6 55	5 34	2 28	6 48	5 41	2 09	6 41	5 48	1 55
15	S	7 02	5 27	3 51	6 54	5 35	3 28	6 47	5 42	3 07	6 40	5 49	2 51
16	M	7 00	5 29	4 43	6 52	5 36	4 20	6 46	5 43	4 00	6 39	5 50	3 43
17	Tu	6 59	5 30	5 26	6 51	5 38	5 05	6 44	5 44	4 46	6 39	5 50	4 30
18	W	6 57	5 32	5 58	6 49	5 39	5 40	6 43	5 45	5 24	6 38	5 51	5 11
19	Th	6 56	5 33	6 25	6 48	5 40	6 09	6 42	5 46	5 57	6 37	5 52	5 47
20	Fr	6 54	5 34	6 46	6 47	5 41	6 36	6 41	5 47	6 26	6 36	5 53	6 18
21	Sa	6 52	5 36	6 08	6 46	5 42	6 13	6 40	5 48	6 17	6 35	5 53	6 21
22	S	6 51	5 37	7 11	6 44	5 44	7 14	6 38	5 49	7 15	6 34	5 54	7 15
23	M	6 49	5 39	8 17	6 43	5 45	8 15	6 37	5 50	8 12	6 33	5 54	8 10
24	Tu	6 47	5 40	9 24	6 42	5 46	9 17	6 36	5 51	9 11	6 32	5 55	9 05
25	W	6 45	5 41	10 43	6 40	5 47	10 23	6 35	5 52	10 13	6 31	5 56	10 04
26	Th	6 44	5 43	11 46	6 39	5 48	11 30	6 34	5 53	11 17	6 30	5 57	11 06
27	Fr	6 43	5 44	.....	6 38	5 49	.....	6 32	5 53	.....	6 29	5 57	.....
28	Sa	6 41	5 46	1 00	6 36	5 50	0 41	6 31	5 54	0 24	6 28	5 58	0 10

Sun on 75th Meridian (Local Mean Time)

Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.	Day	h. m. s.
1	12 13 33	7	12 14 10	13	12 14 18	19	12 13 59	25	12 13 15
2	12 13 41	8	12 14 13	14	12 14 17	20	12 13 53	26	12 13 05
3	12 13 49	9	12 14 16	15	12 14 15	21	12 13 47	27	12 12 55
4	12 13 55	10	12 14 18	16	12 14 12	22	12 13 39	28	12 12 44
5	12 14 01	11	12 14 19	17	12 14 08	23	12 13 32		
6	12 14 06	12	12 14 19	18	12 14 04	24	12 13 23		

Twilight (Local Mean Time)

Place	Feb.	Begins	Ends	Feb.	Begins	Ends	Feb.	Begins	Ends
45° N. Lat..	1	5 44	6 44	11	5 30	7 01	21	5 16	7 15
40° N. Lat..	1	5 38	6 51	11	5 28	7 02	21	5 17	7 14
35° N. Lat..	1	5 33	6 54	11	5 26	7 02	21	5 17	7 13
30° N. Lat..	1	5 29	6 58	11	5 24	7 06	21	5 16	7 12

Moon Phases, 1970 (Eastern Standard Time)

Moon	day	hour	min. a.m.	or p.m.	Moon	day	hour	min. a.m.	or p.m.
New Moon	6	2	13	A.M.	Full Moon	21	9	19	A.M.
First Quarter	12	11	10	P.M.	Last Quarter	28	9	33	P.M.

Morning Stars—Mercury; Jupiter.

Evening Stars—Venus; Mars; Saturn.

Standard Time Calendar for U. S. Cities

How to find the ordinary clock time (STANDARD TIME) in various U. S. cities corresponding to the LOCAL MEAN TIME on daily calendar of each month, pages 263-276.

Example: To find time of sunrise at New York City Jan. 1, 1969, see page 263, column headed 40° N. Latitude, where sunrise on that date is 7:22 a.m., Local Mean Time. Now turn to page 277, which you are now reading.

In the 40° column below you find New York City sub 4Ea. This means to subtract 4 minutes, the result being 7:18 a.m. The "E" means Eastern Standard Time. The small "a" means that a correction for latitude is advisable. In the table at the bottom of this page under the column headed by small "a" you find that between Jan. 1 and Jan. 16 you should add 2 minutes. Thus sunrise at New York City Jan. 1, 1969, is at 7:20 a.m. EST. A conversion to Standard Time must also be made for sunset, etc.

A similar procedure is followed for other cities, but the Correction for Latitude table is used only where a small letter appears with that city. Example below: Springfield, Ill., "sub 1C." Sunrise there on Jan. 1, 1969, is at 7:21 a.m. CST; no further correction is needed.

E designates Eastern Standard Time, C Central, M Mountain, and P Pacific.

Use Calendar for 45° N. Latitude	Use Calendar for 40° N. (Continued)	Use Calendar for 40° N. (Continued)	Use Calendar for 35° N. (Continued)
Idaho Boise.....add 45 Mg Idaho Falls.....add 28 Mb	Connecticut Bridgeport.....sub 7 Eb Hartford.....sub 9 Ec	Pennsylvania Allentown.....add 2 Ea Altoona.....add 14 Ea Erie.....add 20 Ec Harrisburg.....add 8 E Philadelphia.....add 1 E Pittsburgh.....add 20 Ea Scranton.....add 3 Eb	Oklahoma Oklahoma City.....add 30 Ca Tulsa.....add 24 Cb
Maine Bangor.....sub 25 E Portland.....sub 19 Eg Mich. (except Far So.) Ft. La. ....add 35 El Grand Rapids.....add 43 El Lansing.....add 38 El Saginaw.....add 36 Eh	Delaware Wilmington.....add 2 E Dist. of Col. Washington.....add 8 Eg Illinois Chicago.....sub 9 Ce Peoria.....sub 2 Ca Rockford.....add 4 Cd Springfield.....sub 1 C	Rhode Island Providence.....sub 14 Ec Utah Ogden.....add 28 Mb Salt Lake City.....add 28 Ma	South Carolina Charleston.....add 20 Eh Columbia.....add 24 Ef Tennessee Chattanooga.....add 41 E Knoxville.....add 36 Ea Memphis.....0 C Nashville.....sub 13 Cb
Minnesota Duluth.....add 8 Ce Minneapolis.....add 13 C	Indiana Evansville.....sub 10 Ch Fort Wayne.....add 41 Eb Indianapolis.....add 45 E South Bend.....sub 15 Ce	West Virginia Charleston.....add 27 Eg Huntington.....add 30 Eg Wyoming (So.) Cheyenne.....sub 1 Mb	Texas (No.) Amarillo.....add 47 C Fort Worth.....add 29 Ch Lubbock.....add 47 Cg Wichita Falls.....add 34 Cf
Montana Billings.....add 14 Ma Great Falls.....add 25 Me	Iowa (So. & Cent.) Cedar Rapids.....add 7 Ce Davenport.....add 2 Cb Des Moines.....add 14 Cb Sioux City.....add 26 Cd	Alabama (No.) Birmingham.....sub 13 Cg Ariz. (Except Far So.) Phoenix.....add 28 Mg	Virginia (So.) Norfolk.....add 5 Eb Richmond.....add 10 Ec Roanoke.....add 20 Ec
New Hampshire Manchester.....sub 14 El New York (Upstate) Albany.....sub 5 El Buffalo.....add 15 El Syracuse.....add 5 Eh Utica.....add 1 Eh	Kansas Topeka.....add 23 Cf Wichita.....add 29 Ch Kentucky (No. & Cent.) Lexington.....add 38 Eh Louisville.....add 43 Eh	California (So.) Fresno.....sub 1 Pb Los Angeles.....sub 7 Pf San Bernar- dino.....sub 11 Pf San Diego.....sub 11 Ph San Jose.....add 8 Pe	Florida Jacksonville.....add 27 E Miami.....add 21 Ej Tampa.....add 30 Eg West Palm Beach.....add 20 Ei
North Dakota Bismarck.....add 43 Ce Fargo.....add 27 Cd	Massachusetts Boston.....sub 16 Ed Springfield.....sub 10 Ec Worcester.....sub 13 Ed	Georgia (No.) Atlanta.....add 38 Eg Augusta.....add 28 Eg	Georgia (So.) Columbus.....add 40 Ec Savannah.....add 24 Eb
Oregon Eugene.....add 12 Pg Portland.....add 11 Pa	Maryland Baltimore.....add 6 Ef Michigan (Far So.) Detroit.....add 32 Ed	Missouri (No. & Cent.) Kansas City.....add 18 Cf St. Joseph.....add 19 C St. Louis.....add 1 Cg	Louisiana Baton Rouge.....add 5 Ca New Orleans.....0 C Shreveport.....add 15 Ce
South Dakota Rapid City.....sub 7 Mg Sioux Falls.....add 27 Ch	Nebraska Lincoln.....add 27 Ca Omaha.....add 24 Cb Nevada (No. & Cent.) Reno.....sub 1 Pf	Missouri (So.) Springfield.....add 13 Ce N. Mex. (Except Far So.) Albuquerque.....add 7 M Roswell.....sub 2 Mg	Mississippi (So.) Gulfport.....sub 4 C Jackson.....add 1 Ce
Vermont Burlington.....sub 7 Ef	Washington Seattle.....add 9 Pe Spokane.....sub 10 Pb Yakima.....add 2 Pb	Nevada (So.) Las Vegas.....sub 19 Pb	Texas (So. & Cent.) Austin.....add 31 C Beaumont.....add 16 C Corp. Christi.....add 30 Cg El Paso.....add 6 Mb Houston.....add 21 C San Antonio.....add 34 Cf Waco.....add 29 Cb
Wisconsin Green Bay.....sub 8 Cf Madison.....sub 2 Ch Milwaukee.....sub 8 Ch Wyoming (No. & Cent.) Casper.....add 5 Mi	New Jersey Trenton.....sub 1 E New York (So.) Binghamton.....add 4 Ec New York City.....sub 4 Ea	Ohio Akron.....add 26 Eb Cincinnati.....add 38 Ef Cleveland.....add 27 Eb	
Use Calendar for 40° N. Latitude	Use Calendar for 40° N. (Continued)	Use Calendar for 40° N. (Continued)	Use Calendar for 35° N. (Continued)
California (Northern) Sacramento.....add 6 Pg San Fran.....add 10 Ph Stockton.....add 5 Ph	Colorado Denver.....0 M Pueblo.....sub 2 Mh		

CORRECTION FOR LATITUDE

For cities with which a small letter appears, greater accuracy can be obtained by using the corresponding table below. The directions below are for corrections to sunrise; for sunset the figures should be used in the opposite way, subtracted instead of added and vice versa.

Date	a	b	c	d	e	f	g	h	i	j
Jan	1	add 2	add 4	add 6	add 8	add 10	sub 2	sub 4	sub 6	sub 8
Feb	16	add 2	add 4	add 5	add 7	add 9	sub 2	sub 4	sub 5	sub 7
Mar	1	add 1	add 3	add 4	add 6	add 7	sub 1	sub 3	sub 4	sub 6
Apr	16	add 1	add 2	add 3	add 4	add 5	sub 1	sub 2	sub 3	sub 4
May	1	add 0	0	0	0	0	sub 1	sub 1	sub 2	sub 3
Jun	16	sub 1	sub 2	sub 3	sub 3	sub 4	add 1	add 2	add 3	add 4
Jul	1	sub 1	sub 3	sub 4	sub 5	sub 6	add 1	add 3	add 4	add 5
Aug	16	sub 2	sub 3	sub 5	sub 7	sub 8	add 2	add 3	add 5	add 6
Sept	1	sub 2	sub 4	sub 6	sub 8	sub 10	add 2	add 4	add 6	add 8
Oct	16	sub 2	sub 4	sub 6	sub 9	sub 11	add 2	add 4	add 6	add 9
Nov	1	sub 2	sub 4	sub 6	sub 8	sub 10	add 2	add 4	add 6	add 8
Dec	16	sub 2	sub 4	sub 6	sub 8	sub 10	add 2	add 4	add 6	add 8
Jan	1	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Feb	16	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Mar	1	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Apr	16	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
May	1	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Jun	16	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Jul	1	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Aug	16	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Sept	1	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Oct	16	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Nov	1	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6
Dec	16	sub 2	sub 3	sub 5	sub 6	sub 8	add 2	add 3	add 5	add 6

PERPETUAL CALENDAR

(1800-2059)

1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31											
JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31										
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31										
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31										
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31										
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																									

Standard Time, Daylight Saving Time and Others

Source: U. S. Naval Oceanographic Office; Department of Transportation; National Bureau of Standards and U. S. Naval Observatory

STANDARD TIME

Standard time is reckoned from Greenwich, England, recognized as the Prime Meridian of Longitude. The world is divided into 24 zones, each 15° of arc, or one hour in time apart. The meridian of Greenwich (0°) extends through the center of the initial zone, and the zones to the eastward are numbered from 1 to 12 with the prefix "minus" indicating the number of hours to be subtracted to obtain Greenwich Time.

Zones westward are similarly numbered, but prefixed "plus" showing the number of hours that must be added to get Greenwich time. While these zones apply generally to sea areas, it should be noted that the Standard Time maintained in many countries does not coincide with zone time. A graphical representation of the zones is shown on the Standard Time Chart of the World (Chart 5192) published by the U. S. Naval Oceanographic Office, Washington, D. C.

The United States and possessions are divided into eight Standard Time zones, as set forth by the Uniform Time Act of 1966, which also provides for the use of Daylight Saving Time therein. Each zone is approximately 15° of longitude in width. All places in each zone use, instead of their own local time, the time counted from the transit of the "mean sun" across the Standard Time meridian which passes near the middle of that zone.

These time zones are designated as Atlantic, Eastern, Central, Mountain, Pacific, Yukon, Alaska-Hawaii, and Bering and the time in these zones is basically reckoned from the 60th, 75th, 90th, 105th, 137th, 141st, 157th meridians west of Greenwich. The line wanders to conform to local geographical reasons. The time in the various zones is slower than Greenwich Time by 4, 5, 6, 7, 8, 9, 10, and 11 hours respectively.

High Precision Time and Frequency are broadcast by U. S. Navy Stations which are maintained on frequency with the aid of Atomic Clocks (Cesium beam and atomic hydrogen masers). The stations are as follows: NBA: NSS: NLK/NPG. NAA: NPM: Omega.

Loran-C navigational transmissions at 100 KC/S of the East Coast, Hawaiian, North Atlantic, North Pacific and the Norwegian sea chains may be used for time and frequency comparisons. These can be made to one microsecond.

STANDARD FREQUENCY STATIONS

The National Bureau of Standards' radio stations WWV at Fort Collins, Colo., and WWVH on the island of Maui, Hawaii, broadcast six technical services continuously night and day. The services are: (1) standard radio frequencies, 2.5, 5, 10, 15, 20 and 25 MHz (WWV) and 2.5, 5, 10 and 15 MHz (WWVH), (2) standard audio frequencies 440 and 600 cycles per second (3) standard musical pitch, A above middle C (4) standard time intervals of 1 second, 1 minute and longer (5) time signals in voice and telegraphic code each 5 minutes (6) radio propagation forecasts, in telegraph code, every 5 minutes from WWV just preceding the voice announcement for the North Atlantic Area.

WWV is interrupted for about 4 minutes each hour commencing at approximately 45 minutes past the hour. . . . WWVH broadcast is interrupted about four minutes each hour commencing

approximately 15 minutes past the hour.

WWV and WWVH have no tone modulation during the last two minutes of each five-minute period commencing on the hour. During the third minute of each five-minute period, except the first and tenth, WWV transmits a special 36-bit, binary coded, 100-pulse/sec. time code, carried on 1,000 c/s modulation which contains time-of-year information (Universal Time) in seconds, minutes, hours, and day of year.

WWVL (20kHz), Fort Collins, Colo., and WWVB (60kHz), Fort Collins, Colo., also transmit standard frequency signals that provide accuracies one to three parts better than is possible at HF (WWV/WWVH).

The reference standard for the broadcast is the frequency provided by a carefully built and tested atomic beam machine (atomic clock) whose accuracy is plus or minus 1.1 parts in 100,000 million. Inquiries concerning WWV, WWVH, WWVL and WWVB should be addressed Frequency-Time Broadcast Services, National Bureau of Standards, Boulder, Colo.

DAYLIGHT SAVING TIME

Under the Uniform Time Act, which became effective in 1967, all states, the District of Columbia and U. S. possessions must observe Daylight Saving Time beginning at 2 a.m. on the last Sunday in April and ending at 2 a.m. on the last Sunday in October. Any state, by legislative action, can exempt itself from the law; Hawaii did so in 1967 and Arizona in 1968. The Dept. of Transportation, which oversees the act, is planning to modify some boundaries due to local problems. Daylight Saving Time is achieved by advancing the clock one hour.

Since 1916 the British had moved their clocks ahead an hour in the spring for British summer time and back an hour in the fall for Greenwich Mean Time. On Feb. 18, 1968, however, the British moved their clocks ahead an hour to stay permanently. Thus what was British summer time will extend throughout the year and be known as British standard time. Greenwich Mean Time will live on only as a standard for navigators, geographers and astronomers.

24-HOUR TIME

24-hour time is widely used in scientific work throughout the world. In the United States it is used also in operations of the Armed Forces. In Europe it is used in preference to the 12-hour a.m. and p.m. system. With the 24-hour system the day begins at midnight and hours are numbered consecutively through 24. Thus 8 a.m. is 0800, and 8:25 a.m. is 0825; 4 p.m. is 1600, and 7:52 p.m. is 1952, or 19 hours and 52 minutes past midnight.

DATE LINE

The Date Line is a zig-zag line that approximately coincides with the 180th meridian, and it is where each calendar day begins. The date must be advanced one day when crossing in a westerly direction and set back one day when crossing in an easterly direction. The line is deflected between north latitude 45° and 80°, so that all Asia lies to the west of it and all North America, including the Aleutian Islands, to the east; between south latitude 12° and 56° the line is deflected so that Chatham Island and the Tonga group lie to the west.

Chronological Eras, 1969

The year 1969 of the Christian Era comprises the latter part of the 193rd and the beginning of the 194th year of the independence of the United States of America.

Corresponding years of various ancient chronological eras are shown in the table below, together with the date in 1969 on which each year begins according to the Gregorian calendar.

Era	Year	Begins in 1969	Era	Year	Begins in 1969
Byzantine	7478	Sept. 14	Grecian (Seleucidæ)	2281	Sept. 14
Jewish	5730	Sept. 13			or Oct. 14
Olympiads	2745	July 1			(different sects)
(First year of Olympiad 687)			Indian (Saka)	1891	Mar. 22
Roman (Ab Urbe Condita)	2722	Jan. 14	Diocletian	1686	Sept. 11
Nabonassar (Babylonian)	2718	May 1	Mohammedan (Hegira)	1389	Mar. 20
Japanese (44th year of Showa)	2629	Jan. 1			

Chronological Cycles, 1969

Domical letter	E	Solar Cycle	18
Epaet	11	Roman Indiction	7
Lunar Cycle or Golden Number	13	Julian Period	6082

Standard Time Differences—United States Cities

Source: Dept. of Transportation

At 12 o'clock noon Eastern Standard Time, the standard time in U. S. cities is as follows:

Akron, Ohio.....	12.00 NOON	Fort Worth, Texas.....	11.00 A.M.	Philadelphia, Pa.....	12.00 NOON
Albuquerque, N. Mex.....	10.00 A.M.	Frankfort, Ky.....	12.00 NOON	Phoenix, Ariz.....	10.00 A.M.
Atlanta, Ga.....	12.00 NOON	Galveston, Tex.....	11.00 A.M.	Pierre, S. Dak.....	11.00 A.M.
Austin, Tex.....	11.00 A.M.	Grand Rapids, Mich.....	12.00 NOON	Pittsburgh, Pa.....	12.00 NOON
Baltimore, Md.....	12.00 NOON	Hartford, Conn.....	12.00 NOON	Portland, Me.....	12.00 NOON
Birmingham, Ala.....	11.00 A.M.	Helena, Mont.....	10.00 A.M.	Portland, Oreg.....	9.00 A.M.
Bismarck, N. Dak.....	11.00 A.M.	Honolulu, Hawaii.....	7.00 A.M.	Providence, R. I.....	12.00 NOON
Boise, Idaho.....	10.00 A.M.	Houston, Tex.....	11.00 A.M.	Reno, Nev.....	9.00 A.M.
Boston, Mass.....	12.00 NOON	Indianapolis, Ind.....	12.00 NOON	Richmond, Va.....	12.00 NOON
Buffalo, N. Y.....	12.00 NOON	Jacksonville, Fla.....	12.00 NOON	Rochester, N. Y.....	12.00 NOON
Butte, Mont.....	10.00 A.M.	Juneau, Alaska.....	9.00 A.M.	Sacramento, Calif.....	9.00 A.M.
Charleston, S. C.....	12.00 NOON	Kansas City, Mo.....	11.00 A.M.	St. Louis, Mo.....	11.00 A.M.
Charleston, W. Va.....	12.00 NOON	Knoxville, Tenn.....	12.00 NOON	St. Paul, Minn.....	11.00 A.M.
Charlotte, N. C.....	12.00 NOON	Lexington, Ky.....	12.00 NOON	Salt Lake City, Utah.....	10.00 A.M.
Chattanooga, Tenn.....	12.00 NOON	Lincoln, Neb.....	11.00 A.M.	San Antonio, Tex.....	11.00 A.M.
Cheyenne, Wyo.....	10.00 A.M.	Little Rock, Ark.....	11.00 A.M.	San Diego, Calif.....	9.00 A.M.
Chicago, Ill.....	11.00 A.M.	Los Angeles, Calif.....	9.00 A.M.	San Francisco, Calif.....	9.00 A.M.
Cincinnati, Ohio.....	12.00 NOON	Louisville, Ky.....	12.00 NOON	Santa Fe, N. M.....	10.00 A.M.
Cleveland, Ohio.....	12.00 NOON	Memphis, Tenn.....	11.00 A.M.	Savannah, Ga.....	12.00 NOON
Colorado Springs, Colo.....	10.00 A.M.	Miami, Fla.....	12.00 NOON	Seattle, Wash.....	9.00 A.M.
Columbus, Ohio.....	12.00 NOON	Milwaukee, Wis.....	11.00 A.M.	Shreveport, La.....	11.00 A.M.
Dallas, Tex.....	11.00 A.M.	Minneapolis, Minn.....	11.00 A.M.	Sioux Falls, S. Dak.....	11.00 A.M.
Dayton, Ohio.....	12.00 NOON	Mobile, Ala.....	11.00 A.M.	Spokane, Wash.....	9.00 A.M.
Denver, Colo.....	10.00 A.M.	Nashville, Tenn.....	11.00 A.M.	Tacoma, Wash.....	9.00 A.M.
Des Moines, Iowa.....	11.00 A.M.	Newark, N. J.....	12.00 NOON	Tampa, Fla.....	12.00 NOON
Detroit, Mich.....	12.00 NOON	New Haven, Conn.....	12.00 NOON	Toledo, Ohio.....	12.00 NOON
Duluth, Minn.....	11.00 A.M.	New Orleans, La.....	11.00 A.M.	Topeka, Kan.....	11.00 A.M.
El Paso, Tex.*.....	11.00 A.M.	New York, N. Y.....	12.00 NOON	Tucson, Ariz.....	10.00 A.M.
Erie, Pa.....	12.00 NOON	Nome, Alaska.....	7.00 A.M.	Tulsa, Okla.....	11.00 A.M.
Evansville, Ind.....	11.00 A.M.	Norfolk, Va.....	12.00 NOON	Washington, D. C.....	12.00 NOON
Fairbanks, Alaska.....	7.00 A.M.	Okla. City, Okla.....	11.00 A.M.	Wichita, Kan.....	11.00 A.M.
Flint, Mich.....	12.00 NOON	Omaha, Nebr.....	11.00 A.M.	Wilmington, Del.....	12.00 NOON
Fort Wayne, Ind.....	12.00 NOON	Peoria, Ill.....	11.00 A.M.		

*Actual local observance differs from the official time given above as follows: El Paso, 10:00 A.M.

Standard Time Differences—Foreign Cities

Source: U. S. Naval Oceanographic Office

By government decree or proclamation Great Britain, Ireland, Spain, France, Netherlands, and Belgium have advanced their time from the standard meridian by one hour throughout the year. The time indicated in table is fixed by law and is called the legal time, or, more generally, Standard Time.

At 12 o'clock noon Eastern Standard Time, the standard time in foreign cities is as follows:

Alexandria.....	7.00 P.M.	Copenhagen.....	6.00 P.M.	Liverpool.....	6.00 P.M.	Seoul.....	2.00 A.M.*
Amsterdam.....	6.00 P.M.	Dawson.....	8.00 P.M.	London.....	6.00 P.M.	Shanghai.....	1.00 A.M.*
Athens.....	7.00 P.M.	(Yukon).....	8.00 A.M.	Madrid.....	6.00 P.M.	Singapore.....	12.30 A.M.*
Auckland.....	5.00 A.M.*	Delhi.....	10.30 P.M.	Manila.....	1.00 A.M.*	Stockholm.....	6.00 P.M.
Baghdad.....	8.00 P.M.	Djakarta.....	12.00 MID.	Melbourne.....	3.00 A.M.*	Sydney.....	3.00 A.M.*
Bangkok.....	12.00 MID.	Dublin.....	6.00 P.M.	Mexico City.....	11.00 A.M.	(Australia).....	3.00 A.M.*
Belfast.....	6.00 P.M.	Gdansk.....	6.00 P.M.	Montevideo.....	2.00 P.M.	Teheran.....	8.30 P.M.
Berlin.....	6.00 P.M.	Geneva.....	6.00 P.M.	Montreal.....	12.00 NOON	Tel Aviv.....	7.00 P.M.
Bogota.....	12.00 NOON	Haiti.....	1.00 P.M.	Moscow.....	8.00 P.M.	Tokyo.....	2.00 A.M.*
Bombay.....	10.30 P.M.	Havana.....	12.00 NOON	Oslo.....	6.00 P.M.	Valparaiso.....	1.00 P.M.
Bremen.....	6.00 P.M.	Hong Kong.....	1.00 A.M.*	Paris.....	6.00 P.M.	Vancouver.....	9.00 A.M.
Brussels.....	6.00 P.M.	Istanbul.....	7.00 P.M.	Peking.....	1.00 A.M.*	Vienna.....	6.00 P.M.
Bucharest.....	7.00 P.M.	Jerusalem.....	7.00 P.M.	Rangoon.....	11.30 P.M.	Warsaw.....	6.00 P.M.
Budapest.....	6.00 P.M.	Johannesburg.....	7.00 P.M.	Rio de Janeiro.....	2.00 P.M.	Wellington.....	5.00 A.M.*
Buenos Aires.....	1.00 P.M.	Le Havre.....	6.00 P.M.	Rome.....	6.00 P.M.	Winnipeg.....	11.00 A.M.
Calcutta.....	10.30 P.M.	Leningrad.....	8.00 P.M.	Saigon.....	1.00 A.M.*	Yokohama.....	2.00 A.M.*
Cape Town.....	7.00 P.M.	Lima.....	12.00 NOON	Santiago (Chile).....	1.00 P.M.	Zurich.....	6.00 P.M.
Caracas.....	1.00 P.M.	Lisbon.....	6.00 P.M.				

*Indicates morning of the following day.

Julian and Gregorian Calendars; Leap Year

Calendars based on the movements of sun and moon have been used since ancient times, but none has been perfect. The Julian calendar, under which western nations measured time until 1582 A. D., was authorized by Julius Caesar in 46 B.C., the year 709 of Rome. His expert was a Greek, Sosigenes. The Julian calendar, on the assumption that the true year was 365 $\frac{1}{4}$ days long, gave every fourth year 366 days. The Venerable Bede, an Anglo-Saxon monk, announced in 730 A.D. that the 365 $\frac{1}{4}$ -day Julian year was 11 min. 14 sec. too long, making a cumulative error of about a day every 128 years, but nothing was done about it for over 800 years.

By 1582 the accumulated error was estimated to have amounted to 10 days. In that year Pope Gregory XIII decreed that the day following Oct. 4, 1582, should be called Oct. 15, thus dropping 10 days.

However, with common years 365 days and a 366-day leap year every fourth year, the error in the length of the year would have recurred at the rate of a little more than 3 days every 400 years. So 3 of every 4 centesimal years (ending in 00) were made common years, not leap years. Thus 1600 was a leap year, 1700 was not. Leap years are those divisible by 4 except centesimal years, which are common unless divisible by 400.

The Gregorian calendar was adopted at once by most predominantly Roman Catholic countries, but many Protestant countries did not accept it until the 18th Century.

The British Government imposed the Gregorian calendar on all its possessions, including the American colonies, in 1752. The British decreed that the day following Sept. 2, 1752, should be called Sept. 14, a loss of 11 days. All dates preceding were marked O.S., for Old Style. George Washington was born Feb. 11, 1732, O.S., and after 1752 his birthday fell on Feb. 22.

In 1793 the French Revolutionary Government adopted a calendar of 12 months of 30 days each, with 5 extra days in September of each common year and a 6th extra day every 4th year. Napoleon reinstated the Gregorian calendar in 1806.

Japan adopted the Gregorian calendar in 1873, the Chinese Republic in 1912, Greece and Greek Orthodox communities in 1924, and Turkey (predominantly Moslem) in 1927.

To change from the Julian calendar to the Gregorian calendar, add 10 days to dates Oct. 5, 1582, through Feb. 28, 1700; 11 days from Feb. 29, 1700, through Feb. 28, 1800; 12 days from Feb. 29, 1800, through Feb. 28, 1900; and 13 days from Feb. 29, 1900, through Feb. 28, 2100.

Astronomical Constants; Speed of Light

The following astronomical constants were adopted in 1968, in accordance with the resolutions and recommendations of the International Astronomical Union (Hamburg 1964): Velocity of light, 299,792.5 kilometers per second, or about 186,282 statute miles per second; solar parallax, 8".794; constant of nutation, 9".210; and constant of aberration, 20".496.

The Sun; Project Stratoscope Adds to Knowledge

SPHERES AND CORONA

Telescopic cameras have been sent to heights between 80,000 and 100,000 feet above the surface of the earth to photograph the sun without interference from the densest level of the earth's atmosphere. This was called Project Stratoscope. Many photographs were thus obtained which are the clearest and best ever taken of the detail of the sun's surface. These pictures showed plainly the complicated and turbulent structure of the sun's surface, where small islands of superheated gases, called granules, rise from the interior, radiate their energy into space, cool and sink. These granules, only a few hundred miles in diameter, have lifetimes of only a few minutes. They are surrounded by cooler borders and where several granules touch each other, these borders form more extensive cooler areas called oases. Much was also learned about the appearance and structure of sun-spots, although the causes of sun-spots is still not certainly known.

The sun, the controlling body of our solar system, is a star whose dimensions cause it to be classified among stars as average in size, temperature and brightness. Its proximity to the earth makes it appear to us as tremendously large and bright, and a series of thermo-nuclear reactions involving the atoms of the elements of which it is composed produces the heat and light that make life possible on the earth.

The sun has a diameter of 864,000 miles and is distant, on the average, 92,900,000 miles from the earth. It is 1.41 times as dense as water. The light of the sun reaches the earth in 498.6 seconds or slightly more than 8 minutes. The average solar surface temperature has been measured by several indirect methods which agree closely on a value of 6,000° Centigrade or about 10,000° Fahrenheit. The interior temperature of the sun is about 35,000,000° Fahrenheit.

When sunlight is analyzed with a spectroscope, it is found to consist of a continuous spectrum composed of all the colors of the rainbow in order, crossed by many dark lines. The "absorption lines" are produced by gaseous materials in the atmosphere of the sun. Of these materials, almost all have been identified. More than 60 of the natural terrestrial elements have been thus identified in the sun, all in vaporous form because of the intense heat of the sun.

The radiating surface of the sun is called the photosphere, and just above it is the chromosphere, which is a layer of solar atmosphere in a constant state of agitation as if stirred by spouting gases. The chromosphere is visible to the naked eye only at times of total solar eclipses, appearing then to be a pinkish-violet layer with great, swiftly-moving spoutings called prominences projecting above its general level. With proper instruments the chromosphere can be seen or photographed whenever the sun is visible without waiting for a total eclipse. Above the chromosphere is the corona, also visible to the naked eye only at times of total eclipse. Instruments also permit the brighter portions of the corona to be studied whenever conditions are favorable. The pearly light of the corona surges millions of miles from the sun. Iron, nickel and calcium are believed to be principal contributors to the composition of the corona, all in a state of extreme attenuation and high excitation that indicates temperatures on the order of a million degrees, Fahrenheit.

SUN SPOTS

There is an intimate connection between sunspots and the corona. At times of low sunspot activity, the fine streamers of the corona will be much longer above the sun's equator than over the polar regions of the sun, while during high sunspot activity, the corona extends fairly evenly outward from all regions of the sun, but to a much greater distance in space. Sunspots are dark, irregularly-shaped regions whose diameters may reach hundreds of thousands of miles. The average life of a sunspot group is from two to three weeks, but there have been spots that have lasted for more than a year, being carried repeatedly around as the sun rotated upon its axis. The record for the duration of a sunspot is 18 months. Sunspots reach a low point every 11.3 years, with a peak of activity occurring irregularly between two successive minima.

The sun is 400,000 times as bright as the full moon and gives the earth 6 million times as much light as do all the other stars put together. Actually, most of the stars that can be easily seen on any clear night are brighter than the sun.

The Zodiac

The sun's apparent yearly path among the stars is known as the ecliptic. The zone 16° wide, 8° on each side of the ecliptic, is known as the zodiac. Inside of this zone are the apparent paths of the sun, moon, earth and major planets. Beginning at the point on the ecliptic which marks the position of the sun at the vernal equinox, and thence proceeding eastward, the zodiac is divided into twelve signs of 30° each, as shown herewith.

These signs are named from the twelve constella-

- | | |
|------------------|-------------------------|
| Spring
Signs. | 1. ♈ Aries. The Ram. |
| | 2. ♉ Taurus. The Bull. |
| | 3. ♊ Gemini. The Twins. |
| Summer
Signs. | 4. ♋ Cancer. The Crab. |
| | 5. ♌ Leo. The Lion. |
| | 6. ♍ Virgo. The Virgin. |

tions of the zodiac with which the signs coincided in the time of the astronomer Hipparchus, about 2,000 years ago. Owing to the precession of the equinoxes, that is to say, to the retrograde motion of the equinoxes along the ecliptic, each sign in the zodiac has, in the course of 2,000 years, moved backward 30° into the constellation west of it; so that the sign Aries is now in the constellation Pisces, and so on. The signs of the zodiac with their Latin and English names are as follows:

- | | |
|------------------|-----------------------------------|
| Autumn
Signs. | 7. ♎ Libra. The Balance. |
| | 8. ♏ Scorpius. The Scorpion. |
| | 9. ♐ Sagittarius. The Archer. |
| Winter
Signs. | 10. ♑ Capricornus. The Goat. |
| | 11. ♒ Aquarius. The Water Bearer. |
| | 12. ♓ Pisces. The Fishes. |

The Moon

The moon completes a circuit around the earth in a period whose mean or average duration is 27 days 7 hours 43.2 minutes. This is the moon's sidereal period. Because of the motion of the moon in common with the earth around the sun, the mean duration of the lunar month—the period from one new moon to the next new moon—is 29 days 12 hours 44.05 minutes. This is the moon's synodical period.

The mean distance of the moon from the earth according to the American Ephemeris is 238,857 miles. Because the orbit of the moon about the earth is not circular but elliptical, however, the maximum distance from the earth that the moon may reach is 252,710 miles and the least distance is 221,463 miles.

All distances are from the center of one object to the center of the other. The moon's diameter is 2,160 miles. If we deduct the radius of the moon, 1,080 miles, and the radius of the earth, 3,963 miles from the minimum distance, or perigee, given above, we shall have for the nearest approach of the bodies' surfaces 216,420 miles.

The moon rotates on its axis in a period of

time exactly equal to its sidereal revolution about the earth—27.321666 days. The moon's revolution about the earth is irregular because of its elliptical orbit. The moon's rotation, however, is regular and this produces what is called "libration in longitude" which permits us to see first farther around the east side and then farther around the west side of the moon. The moon's variation in altitude from season to season permits us to see farther over first one pole and then the other of the moon and this is "libration in latitude." These two libration effects permit us to see a total of about 60% of the moon's surface over a period of time. The hidden side of the moon was photographed in 1959 by the Soviet space vehicle Lunik III. Since then many excellent pictures of this portion of the moon's surface have been transmitted to earth by Lunar Orbiters launched by the U. S.

The tides are caused mainly by the moon, because of its proximity to the earth. The ratio of the tide-raising power of the moon to that of the sun is 11 to 5.

The Moon's Phases, 1969 (Standard Time)

A.M. light figures; P.M. black (0 designates midnight; 12 designates noon)

1969	Phase	Day	Eastern Std. Time Boston, New York, Etc.	Central Std. Time St. Louis, New Orleans, Etc.	Mountain Std. Time Denver, Salt Lake City, Etc.	Pacific Std. Time San Francisco, Los Angeles, Etc.	Alaska- Hawaii Std. Time Fairbanks Etc.
Jan.	Full Moon.....	3	h. m. 1 28	h. m. 12 28	h. m. 11 28	h. m. 10 28	h. m. 8 28
	Last Quarter.....	11	9 00	8 00	7 00	6 00	4 00
	New Moon.....	17	11 59	10 59	9 59	8 59	6 59
	First Quarter.....	25	3 23	2 23	1 23	0 23	24d 10 23
Feb.	Full Moon.....	2	7 56	6 56	5 56	4 56	2 56
	Last Quarter.....	9	7 08	6 08	5 08	4 08	2 08
	New Moon.....	16	11 25	10 25	9 25	8 25	6 25
	First Quarter.....	23	11 30	10 30	9 30	8 30	6 30
Mar.	Full Moon.....	4	0 17	3d 11 17	10 17	9 17	7 17
	Last Quarter.....	11	2 44	1 44	0 44	10d 11 44	9 44
	New Moon.....	17	11 51	10 51	9 51	8 51	6 51
	First Quarter.....	25	7 48	6 48	5 48	4 48	2 48
Apr.	Full Moon.....	2	1 45	12 45	11 45	10 45	8 45
	Last Quarter.....	9	8 58	7 58	6 58	5 58	3 58
	New Moon.....	16	1 16	12 16	11 16	10 16	8 16
	First Quarter.....	24	2 45	1 45	12 45	11 45	9 45
May	Full Moon.....	2	0 13	1d 11 13	10 13	9 13	7 13
	Last Quarter.....	8	3 12	2 12	1 12	12 12	10 12
	New Moon.....	16	3 28	2 28	1 28	0 28	10 26
	First Quarter.....	24	7 15	6 15	5 15	4 15	2 15
June	Full Moon.....	31	8 18	7 18	6 18	5 18	3 18
	Last Quarter.....	6	10 39	9 39	8 39	7 39	5 39
	New Moon.....	14	4 09	5 09	4 09	3 09	1 09
	First Quarter.....	22	6 44	7 44	6 44	5 44	4 44
July	Full Moon.....	29	3 04	2 04	1 04	12 04	10 04
	Last Quarter.....	6	8 17	7 17	6 17	5 17	3 17
	New Moon.....	14	9 11	8 11	7 11	6 11	4 11
	First Quarter.....	22	7 10	6 10	5 10	4 10	2 10
Aug.	Full Moon.....	28	9 45	8 45	7 45	6 45	4 45
	Last Quarter.....	4	8 38	7 38	6 38	5 38	3 38
	New Moon.....	13	0 17	12d 11 17	10 17	9 17	7 17
	First Quarter.....	20	3 03	2 03	1 03	12 03	10 03
Sept.	Full Moon.....	27	5 32	4 32	3 32	2 32	0 32
	Last Quarter.....	3	11 58	10 58	9 58	8 58	6 58
	New Moon.....	11	2 56	1 56	12 56	11 56	9 56
	First Quarter.....	18	9 25	8 25	7 25	6 25	4 25
Oct.	Full Moon.....	25	3 21	2 21	1 21	12 21	10 21
	Last Quarter.....	3	6 05	5 05	4 05	3 05	1 05
	New Moon.....	11	4 39	3 39	2 39	1 39	10d 11 39
	First Quarter.....	18	3 32	2 32	1 32	0 32	17d 10 32
Nov.	Full Moon.....	25	3 44	2 44	1 44	0 44	24d 10 44
	Last Quarter.....	2	2 14	1 14	0 14	1d 11 14	9 14
	New Moon.....	9	5 11	4 11	3 11	2 11	12 11
	First Quarter.....	16	10 45	9 45	8 45	7 45	5 45
Dec.	Full Moon.....	23	6 54	5 54	4 54	3 54	1 54
	Last Quarter.....	1	10 50	9 50	8 50	7 50	5 50
	New Moon.....	9	4 42	3 42	2 42	1 42	8d 11 42
	First Quarter.....	15	8 09	7 09	6 09	5 09	3 09
Dec.	Full Moon.....	23	12 35	11 35	10 35	9 35	7 35
	Last Quarter.....	31	5 52	4 52	3 52	2 52	12 52

Moon's Perigee and Apogee, 1969

Eastern Standard Time (M is midnight; N is noon)

Perigee 1969				Apogee 1969			
Day	Hour	Day	Hour	Day	Hour	Day	Hour
January.....16	7 P.M.	July.....28	4 A.M.	January.....1	10 A.M.	July.....13	1 P.M.
February.....13	11 P.M.	August.....25	10 A.M.	January.....28	10 P.M.	August.....9	8 P.M.
March.....12	9 P.M.	September.....22	6 A.M.	February.....25	5 P.M.	September.....6	10 A.M.
April.....6	7 P.M.	October.....17	11 P.M.	March.....25	1 P.M.	October.....4	4 A.M.
May.....4	6 A.M.	November.....12	9 P.M.	April.....22	9 A.M.	November.....1	1 A.M.
June.....1	10 A.M.	December.....10	7 P.M.	May.....20	12 M.	November.....29	8 P.M.
June.....29	7 P.M.			June.....16	10 A.M.	December.....26	12 N.

Each month the Moon is said to be in perigee when nearest to the Earth and in apogee when farthest from the Earth. The average time from perigee to perigee or from apogee to apogee is 27d. 13h. 18m. 33s., known as the anomalistic month.

Aurora Borealis and Aurora Australis

The Aurora Borealis, also called the Northern Lights, is a broad display of rather faint light in the northern skies at night. The Aurora Australis, a similar phenomenon, appears at the same time in southern skies. The aurora appears in a wide variety of forms. Sometimes it is seen as a quiet glow, almost foglike in character; sometimes as vertical streamers in which there may be considerable motion; sometimes as a luminous series of expanding arcs. There are many colors, with white, yellow and red predominating.

The auroras are most vivid and most frequently seen at about 20 degrees from the magnetic poles, along the northern coast of the North American continent and the eastern part of the northern coast of Europe. They have been seen as far south as Key West and as far north as Australia and New Zealand, but such occasions are rare.

While the cause of the auroras is not known beyond question, there does seem to be a definite correlation between auroral displays and the sunspot activity. Is it thought that atomic or sub-

atomic particles expelled from the sun by the forces that cause solar flares speed through space at velocities of 400 to 600 miles per second. If and when such streams of particles reach the earth, their impact upon the atmosphere excites the gases in the upper regions of the atmosphere into the activity we see as the aurora. The earth is a tiny target as compared to the sun and receives only a minute fraction of the material thus expelled. These particles are deflected from their original course by the lines of force of the earth's magnetic field and are guided around the earth in such a way as to account for their appearance. They are most vivid where these lines of forces converge near the magnetic poles.

The auroral displays appear at heights ranging from 50 to about 600 miles and have given us a means of estimating the extent of the earth's atmosphere.

The auroras are often accompanied by magnetic storms whose forces, also guided by the lines of force of the earth's magnetic field, cut across and disrupt electric and radio communication.

Star Tables, 1969

These tables include stars of visual magnitude 2.5 and brighter. Co-ordinates are for the epoch June 28.0, 1969. Where no parallax figures are given, the trigonometric parallax figure is smaller and the margin for error and the distance given is obtained by indirect methods. Stars of variable magnitude designated by var.

To find the time when star is on meridian, subtract R. A. M. S. of the sun table on page 285 from the star's right ascension, first adding 24h to the latter, if necessary; mark this result P. M., if less than 12h, but if greater than 12h subtract 12h and mark the remainder A. M.

Star	Mag- ni- tude	Par- al- lax	Light Yrs.	Right Ascen.	Decli- nation	Star	Mag- ni- tude	Par- al- lax	Light Yrs.	Right Ascen.	Decli- nation
					° ' "						° ' "
α Andromedae (Alpheratz)	2.06	0.02	90	0 06.8	+28 55	γ Leonis.....	1.99	0.03	90	10 18.3	+20 00
β Cassiopeiae...	2.25	0.07	45	0 07.6	+58 59	β Ursae Majoris	2.37	0.04	78	11 00.0	+56 33
α Phoenixis...	2.39	0.03	93	0 24.8	-42 28	α Ursae Majoris	1.81	0.03	105	11 01.9	+61 55
α Cassiopeiae (Schedir)...	2.16	0.01	150	0 38.8	+56 22	β Leonis (Denebola)...	2.14	0.08	43	11 47.5	+41 44
β Ceti.....	2.02	0.06	57	0 42.1	-18 09	γ Ursae Majoris	2.44	0.02	90	11 52.2	+53 52
γ Cassiopeiae...	var.					α Crucis.....	1.39		370	12 24.9	-62 55
	2.13	0.03	96	0 54.9	+60 33	γ Crucis.....	1.69		220	12 26.5	-56 57
β Andromedae...	2.02	0.04	76	1 08.0	+35 28	γ Centauri...	2.17		160	12 39.9	-48 48
α Eridani (Achernar)...	0.51	0.02	118	1 36.6	-57 23	β Crucis.....	1.28		490	12 46.0	-59 32
γ Andromedae...	2.14		260	2 02.1	+42 11	ϵ Ursae Majoris (Alioth)....	1.79	0.04	68	12 52.7	+56 07
α Ursae Min- (Pole Star)...	var.					ζ Ursae Majoris (Mizar)....	2.26	0.04	88	13 22.7	+55 05
α Arietis.....	2.00	0.04	76	2 05.5	+23 19	α Virginis...	var.				
β Persei.....	var.					ϵ (Spica).....	0.91		220	13 23.6	-11 00
(Algol).....	2.06	0.03	105	3 06.0	+40 50	ϵ Centauri....	2.33		570	13 38.0	-53 19
α Persel.....	1.80		570	3 22.2	+49 45	η Ursae Majoris (Alkaid)....	1.87		210	13 46.4	+49 28
α Tauri.....	var.					β Centauri....	0.63		490	14 01.7	-60 13
(Aldebaran)...	0.86	0.05	68	4 34.2	+16 27	θ Centauri....	2.04	0.06	55	14 04.9	-36 14
β Orionis.....	var.					α Bootis (Arcturus)...	-0.06	0.09	36	14 14.3	+19 20
(Betelgeuse)...	0.14		900	5 13.1	-8 14	η Centauri....	var.				
α Aurigae (Capella)...	0.05	0.07	45	5 14.5	+45 58		2.30		390	14 33.5	-42 01
γ Orionis (Bellatrix)...	1.64		470	5 23.5	+6 19	α Centauri....	0.01	0.75	4.3	14 37.1	-60 43
β Tauri (El Nath)...	1.85		300	5 24.4	+28 35	α Lupi.....	2.32		430	14 39.8	-47 16
δ Orionis.....	var.					β Ursae Minoris	2.04	0.03	105	14 50.8	+74 16
	2.20		1500	5 30.5	-0 19	α Coronae...	var.				
ϵ Orionis.....	1.70		1600	5 34.7	-1 13	Borealis....	2.23	0.04	76	15 33.4	+26 49
γ Orionis.....	1.79		1600	5 39.2	-1 57	δ Scorpii....	2.34		590	15 58.6	-22 32
κ Orionis.....	2.06		2100	5 46.3	-9 41	α Scorpii....	var.				
α Orionis.....	var.					(Antares)...	0.92		520	16 27.5	-26 22
(Betelgeuse)...	0.41		520	5 53.5	+7 24	α Trianguli					
β Aurigae.....	1.86	0.04	88	5 57.3	+44 57	Australis... 1.93	0.02	82	16 45.5	-68 59	
β Canis Majoris	1.98		750	6 21.4	-17 56	ϵ Scorpii....	2.28	0.05	66	16 48.2	-34 15
α Carinae (Canopus)...	-0.72	0.02	98	6 23.3	-52 41	η Ophiuchi...	2.46	0.05	69	17 08.7	-15 41
γ Geminorum...	1.93	0.03	105	6 35.9	+16 26	λ Scorpii....	1.60		310	17 31.5	-37 05
α Canis Majoris (Sirius)....	-1.42	0.37	8.7	6 43.8	-16 41	α Ophiuchi...	2.90	0.06	58	17 33.5	+12 35
ϵ Canis Majoris	1.48		680	6 57.4	-28 56	θ Scorpii....	1.86		650	17 35.2	-42 59
δ Canis Majoris	1.85		2100	7 07.2	-26 21	κ Scorpii....	2.39		470	17 40.4	-39 01
η Canis Majoris	2.46		2700	7 22.9	-29 14	γ Draconis...	2.21	0.02	108	17 55.9	+51 20
α Geminorum (Castor)....	1.97	0.07	45	7 32.7	+31 57	ϵ Sagittarii...	1.81	0.01	124	18 22.2	+34 24
α Canis Majoris (Procyon)...	0.37	0.29	11.3	7 37.7	+5 18	α Lyrae (Vega)	0.04	0.12	26.5	18 35.9	+38 45
β Geminorum (Pollux)....	1.16	0.09	35	7 43.5	+28 06	δ Sagittarii...	2.12		300	18 53.4	-26 20
ζ Puppis.....	2.23		2400	8 02.5	-39 55	α Aquilae (Altair)....	0.77	0.20	16.5	19 49.3	+8 47
γ Velorum...	1.88		520	8 08.6	-47 16	γ Cygni.....	2.22		750	20 21.1	+40 09
ϵ Carinae.....	1.97		340	8 21.9	-59 27	α Pavonis...	1.95		310	20 23.3	-56 50
δ Velorum...	1.95	0.04	76	8 43.9	-54 36	α Cygni (Deneb)....	1.26		1600	20 40.4	+45 10
λ Velorum...	2.24		750	9 01.9	-43 19	ϵ Cygni.....	2.46	0.04	74	20 44.9	+33 51
β Carinae.....	1.67	0.04	86	9 12.9	-69 36	α Cephei....	2.44	0.06	52	21 17.9	+62 28
ϵ Carinae.....	2.25		750	9 16.3	-59 08	ϵ Pegasi....	2.31		780	21 42.7	+9 45
γ Velorum...	2.45		470	9 21.2	-54 53	α Gruis.....	1.76	0.05	64	22 06.3	-47 07
α Hydrae.....	1.98	0.02	94	9 26.1	-8 32	β Gruis.....	var.				
α Leonis (Regulus)...	1.36	0.04	84	10 06.8	+12 07	α Piscis Austrinis (Fomalhaut)	1.19	0.14	22.6	22 55.9	-29 47
						β Pegasi....	var.				
							2.50	0.01	210	23 02.3	+27 55
						α Pegasi.....	2.50	0.03	109	23 03.3	+27 02

POLAR STAR, 1969

Mean time of upper transit (at 75° W. Longitude) and Polar Distance of Polaris

Date	Upper Transit	Pole Dist.	Date	Upper Transit	Pole Dist.	Date	Upper Transit	Pole Dist.
	h. m. s.	° ' "		h. m. s.	° ' "		h. m. s.	° ' "
Jan. 1	7 16 38 P.M.	0 52 20	May. 1	11 12 08 A.M.	0 52 37	Sept. 1	3 22 02 A.M.	0 52 41
Feb. 1	5 14 03 P.M.	0 52 17	June 1	9 21 40 A.M.	0 52 45	Oct. 1	1 24 35 A.M.	0 52 31
Mar. 1	3 23 22 P.M.	0 52 20	July 1	7 24 21 A.M.	0 52 48	Nov. 1	11 18 59 P.M.	0 52 20
Apr. 1	1 21 25 P.M.	0 52 28	Aug. 1	5 23 12 A.M.	0 52 47	Dec. 1	9 20 52 P.M.	0 52 09

Upper transit of Polaris occurs, on the average, 3m. 56s. earlier each day. The interval between lower and upper transit of Polaris is 11h. 58m. 2s. The greatest Eastern elongation of Polaris occurs 5h. 56m. before upper transit and 6h. 2m. after lower transit, while the greatest Western elongation occurs 5h. 56m. after upper transit and 6h. 2m. before lower transit.

Planetary Configurations, 1969

Eastern Standard Time. A.M., light figures; P.M., black figures

(0 designates midnight; 12 designates noon)

	d.	h.	m.			d.	h.	m.		
Jan.	3	—	—	⊕ in perihelion		17	12	—	♀ gr. elong. W. 46°	
	10	07	—	♂ 2° N.		21	08	55	⊙ enters ♄ summer com.	
	12	05	—	♂ 5° N.		22	03	—	♂ 2° N.	
	13	10	—	♂ gr. elong. E. 19°		23	05	—	♂ gr. elong. W. 23°	
	19	03	—	♂ 5° N.		27	08	—	♂ 2° N.	
	06	—	—	♂ stationary in R. A.		July	5	—	⊕ in aphelion	
	20	10	—	♂ stationary in R. A.			8	05	♂ stationary in R. A.	
	21	11	—	♂ 1° N. Occn.			08	—	♂ 6° S.	
	24	01	—	♂ 4° S.			10	11	♂ 8° S.	
	26	05	—	♂ gr. elong. E. 47°			13	09	♂ 4° S.	
Feb.	29	04	—	inferior			20	03	♂ 2° N.	
	6	12	—	♂ 2° N.			22	10	♂ superior	
	9	09	—	♂ stationary in R. A.			24	07	♂ 2° N.	
	10	01	—	♂ 6° N.		Aug.	4	06	♂ 7° S.	
	14	01	—	♂ 6° N.			9	09	♂ 7° S.	
	19	09	—	♂ 2° N.			14	09	♂ 0°3' S. Occn.	
	20	02	—	♂ 5° S.			16	06	♂ 3° N.	
	23	06	—	♂ gr. elong. W. 27°			21	07	♂ 2° N.	
Mar.	3	05	—	♂ gr. brilliancy			08	—	♂ stationary in R. A.	
	5	02	—	♂ 2° N.			27	06	♂ eclipse	
	10	03	—	♂ 6° N.		Sept.	1	02	♂ 7° S.	
	16	11	—	♂ 0°05' S. Occn.			2	11	♂ gr. elong. E. 27°	
	17	02	—	♂ stationary in R. A.			7	11	♂ 5° S.	
	18	00	—	♂ eclipse			8	02	♂ 3° S.	
	20	02	—	♂ 6° N.			11	03	♂ eclipse	
	05	—	—	♂ 5° S.			13	11	♂ 3° N.	
	02	08	—	♂ enters ♄ spring com.			02	—	♂ 2° S.	
	21	06	—	♂ 2° N.			16	03	♂ stationary in R. A.	
Apr.	1	04	—	♂ 2° N.			19	02	♂ 2° N.	
	2	02	—	♂ eclipse			03	—	♂ 6° S.	
	6	11	—	♂ 6° N.			23	00	♂ enters ♄ autumn com.	
	8	10	—	inferior			25	03	♂ eclipse	
	06	—	—	♂ superior			28	10	♂ 7° S.	
	15	11	—	♀ 5° N.			29	05	♂ inferior	
	18	03	—	♂ stationary in R. A.		Oct.	7	12	♂ stationary in R. A.	
	26	11	—	♂ stationary in R. A.			9	02	♀ 1° N.	
	27	02	—	♂ 1° N.			9	05	♂ 2° N.	
	28	08	—	♂ 4° N.			09	—	♂ 2° N.	
May	4	10	—	♂ gr. elong. E. 21°			14	05	♂ gr. elong. W. 18°	
	5	06	—	♂ 1° S. Occn.			17	02	♂ 2° N.	
	12	08	—	♂ gr. brilliancy			25	03	♂ 7° S.	
	14	04	—	♂ 5° S.			26	05	♂ 0°8' N.	
	10	—	—	♂ 4° S.			28	09	♂ 0°5' N.	
	17	01	—	♂ stationary in R. A.		Nov.	3	07	♂ 4° N.	
	18	00	—	♂ stationary in R. A.			8	01	♂ 5° N.	
	23	05	—	♂ 1° N.			10	—	♂ 2° N.	
	26	04	—	♂ inferior			15	06	♂ superior	
	29	05	—	♂ 3° N.			16	03	♂ 7° S.	
	31	09	—	♂ stationary in R. A.			21	07	♂ 2° N.	
June	11	—	—	♂ 6° S.		Dec.	5	09	♂ 5° N.	
	10	08	—	♂ 6° S.			14	01	♂ 0°3' N. Occn.	
	09	—	—	♂ 6° S.			18	10	♂ 7° S.	
	09	—	—	♂ 0°3' S.			21	08	♂ enters ♄ winter com.	
	11	09	—	♂ 9° S.			27	04	♂ gr. elong. E. 20°	

Planetary Configurations, 1970

As a service to those who consult the planetary configurations for early 1970 in the preceding fall, the WORLD ALMANAC publishes the configurations for January, February, March and April 1970.

	d.	h.	m.				d.	h.	m.		
Jan.	1	—	—	⊕ in perihelion		Mar.	7	11	—	♂ eclipse	
	3	07	—	♂ stationary in R. A.			17	03	—	♂ 3° N.	
	4	03	—	♂ stationary in R. A.			20	07	57	♂ enters ♄ spring com.	
	13	04	—	♂ inferior			23	10	—	♂ superior	
	24	09	—	♂ stationary in R. A.		Apr.	11	08	—	♀ 2° N.	
	03	—	—	♂ superior			12	05	—	♂ 5° N.	
Feb.	5	03	—	♂ gr. elong. W. 26°			18	03	—	♂ gr. elong. E. 20°	
	20	02	—	♂ stationary in R. A.			21	10	—	♂ stationary in R. A.	
	03	—	—	♂ eclipse			28	04	—		

Right Ascension of Mean Sun, 1969

75° West Longitude—Noon—E.S.T.

Date	h.	rg.	Date	h.	m.	Date	h.	m.	Date	h.	m.	Date	h.	m.	Date	h.	m.						
Jan.	1	18	44.2	Mar.	1	22	36.7	May	10	3	12.6	July	9	7	09.4	Sept.	7	11	05.9	Nov.	6	15	02.2
	11	19	23.9		11	23	16.2		20	3	52.0		19	7	48.4		17	11	45.3		16	15	41.6
	21	20	02.7		21	23	55.6		30	4	30.7		29	8	28.0		27	12	24.7		26	16	21.0
	31	20	42.2		31	0	35.0																
				Apr.	10	1	14.4	June	9	5	10.6	Aug.	8	9	07.5	Oct.	7	13	04.1	Dec.	6	17	00.3
Feb.	10	21	21.7		20	1	53.8		19	5	50.2		18	9	46.9		17	13	43.5		16	17	39.7
	20	22	01.2		30	2	33.2		29	6	29.6		28	10	26.4		27	14	22.9		26	18	19.1

The Right Ascension of Mean Sun increases 3.943 minutes daily.

The Planets and the Solar System

Name of Planet	Mean Daily Motion	Sidereal Revolution Days	Dist. from Sun in Miles Maximum Minimum	Approx. Dist. from Earth Millions of Miles Maximum Minimum
Mercury.....	14732.420	87.9686	43,355,000 28,566,000	136 50
Venus.....	5767.668	224.7007	67,653,000 66,738,000	161 25
Earth.....	3548.193	365.2564	94,452,000 91,342,000	— —
Mars.....	1886.519	686.9804	154,760,000 128,830,000	248 35
Jupiter.....	298.122	4332.5870	459,940,000 600 367	600 744
Saturn.....	119.683	10759.2025	935,570,000 836,700,000	1023 1606
Uranus.....	42.382	30685.93	1,866,800,000 1,698,800,000	1960 2677
Neptune.....	21.562	60187.64	2,817,400,000 2,769,600,000	2910 2670
Pluto.....	14.432	90737.	4,600,000,000 2,760,000,000	4700 2670

Jupiter has 4 large and 8 small satellites, or moons, revolving around it; Saturn has 10; Uranus, 5; Neptune, 2; Mars, 2; the Earth, 1.

Name of Planet	Eccentricity of Orbit*	Synodical Revolution—Days	Inclination of Orbit to Ecliptic*	Orbital Velocity Miles per Second
Mercury.....	0.205 628	116	7 00 14.4	29.73
Venus.....	0.006 788	584	3 23 39.6	21.75
Earth.....	0.016 730	—	0 00 00.0	18.50
Mars.....	0.093 377	780	1 56 25.7	14.98
Jupiter.....	0.048 161	399	1 18 31.9	8.11
Saturn.....	0.053 921	378	2 29 18.8	5.99
Uranus.....	0.051 373	370	0 46 21.4	4.22
Neptune.....	0.004 978	367	1 46 22.8	3.40
Pluto.....	0.253 265	367	17 08 09.7	3.00

Name of Planet	Mean Longitude at the Epoch*	Mean Longitude of the Peri'el'n*	Annual Sidereal Motion	Mean Long. of the Ascending Node	Annual Sidereal Motion	Light at Perihelion	Light at Aphelion
Mercury.....	341 15 58.8	76 58 50.6	+ 5.7	47 58 10.6	- 7.5	10.58	4.59
Venus.....	326 22 05.3	131 08 30.4	+ 0.5	76 24 18.5	-17.8	1.94	1.91
Earth.....	276 07 13.7	102 26 45.3	+11.7	— — — —	— — — —	1.03	0.97
Mars.....	265 04 54.1	335 29 50.5	+10.1	49 15 19.5	-22.5	0.52	0.36
Jupiter.....	188 34 02.9	13 41 06.0	+ 7.7	100 08 20.8	-13.8	0.41	0.034
Saturn.....	31 04 52.1	93 49 41.2	+20.4	113 26 27.6	-18.8	0.012	0.010
Uranus.....	183 13 35.7	171 30 45.7	+ 8.0	73 54 56.2	-31.8	0.003	0.0025
Neptune.....	237 34 50.3	52 16 29.3	+18.8	131 23 50.3	-10.4	0.001	0.001
Pluto.....	174 25 42.6	222 53 38.0	+ 0.0	109 52 12.7	0.0	0.001	0.001

*Epoch—1969, June 28, 0 hours, Greenwich Mean Time.

Sun and Planets	Semi-Diameter		In Miles (Mean S.-D.)	Volume $\oplus=1$	Mass. $\oplus=1$	Density $\oplus=1$	Axial Rotation	Gravity at Surface $\oplus=1$	Re-reflecting Power	Probable Temperature
	At Unit Distance	At Mean Least Dist.								
Sun.....	15 59.63	—	432000	1300000	332000.	0.26	d. h. m. s.	27.9	—	+10,000
Mercury.....	3.34	5.45	1505	0.056	0.0543	0.68	59	0.38	0.07	+ 600
Venus.....	8.41	30.40	3805	0.910	0.8136	0.94	247 (R)	0.88	0.76	+ 100
Earth.....	—	—	3959	1.000	1.000	1.00	23 56 4	1.00	0.39	+ 50
Moon.....	15 32.58	—	1080	0.020	0.0120	0.60	27 7 43 12	0.16	0.07	+ 215
Mars.....	4.68	8.94	2070	0.150	0.1069	0.71	24 37 23	0.39	0.15	— 0
Jupiter.....	1 35.19	22.60	43450	1312.	318.35	0.24	9 50	2.65	0.51	— 150
Saturn.....	1 18.95	9.24	35750	763.	95.3	0.12	10 02	1.17	0.50	— 250
Uranus.....	34.28	1.88	14750	53.	14.54	0.28	10 45	1.05	0.66	— 350
Neptune.....	36.56	1.26	13400	34.	17.2	0.45	15 48	1.24	0.62	— 400

The planet Pluto was located by C. W. Tombaugh of Lowell Observatory March 13, 1930. Its mass is about 0.06 of the mass of the earth. Its average distance from the sun is 3,664,000 miles. On June 1, 1969, its predicted position in the sky will be 12 hours 06 minutes 30 seconds of astronomic right ascension and +16 degrees 18 minutes astronomic declination, in Leo. (R) Venus is in retrograde motion, rotating in opposite direction from other planets.

New Astronomical Enigma Found by Radio Astronomy

Radio telescopes in recent years have picked up signals from space of such a nature that the forces producing them from stellar distances must have been incredibly powerful. In photographs obtained by optical telescopes these objects appear to be ordinary stars. Because they produce energy impossible in ordinary stars they are called "quasi-stellar objects," or "quasars." They remain a puzzle.

More recently, another baffling phenomenon has been added to the many unknowns of astronomy. British radio astronomers have detected 4 sources of radiation of such a nature that they were first thought to be signals originating in highly advanced civilizations on planets around stars other than the sun at vast distances. One of these sources has been examined by the 1,000-foot radio telescope at Arecibo in Puerto Rico. The radio emanations from this object occur at intervals measured at 1.337 seconds, continue for about one minute and then vanish for about 3 minutes. This source is in the small constellation of Vulpecula, The Little Fox, in late summer. These objects have been named "pulsars" in analogy to quasars.

The first theory of artificially produced radiation is not fully accepted because of the tremendous power which would be needed to broadcast such signals. They were also believed to come from

stars in the final stages of stellar evolution. When the hydrogen content of a star is virtually exhausted, internal pressure ceases. It is this internal pressure which combats the never-ceasing force of gravity and maintains the volume of the stars, keeping them distended sometimes to hundreds of times the volume of the sun. When internal pressure ceases, the star collapses to the smallest possible compass, ending its career as an object smaller than a planet, so condensed that one cubic inch of its material would weigh thousands of tons. The sub-atomic particles of such a star would be smashed together until only neutrons were left. This could produce the strange pulsations.

Astronomers also believe that the pulsars may be neutron stars, tiny bodies of densely packed neutrons which are atomic particles having no electrical charge. They are planet size and seem to be as close as 50 to 400 light years.

Both quasars and pulsars, together with other so-called "radio stars," emit x-radiation—energy in waves far shorter than ultra-violet radiation. Quasars radiate incredible energy from objects which appear to be relatively small. Pulsars, smaller than the earth, are keeping time in a sort of synchopation with their radio pulses and their light. Astronomers declare that it will be hard to make any theory of physics and cosmology fill the bill.

Rising and Setting of Planets, 1969

Local Mean Time. A.M., light figures; P.M., black
(0 designates midnight; 12 designates noon)

		45° N. Latitude		40° N. Latitude		35° N. Latitude		30° N. Latitude	
		Rise h.m.	Set h.m.	Rise h.m.	Set h.m.	Rise h.m.	Set h.m.	Rise h.m.	Set h.m.
VENUS	Jan. 1	10 13	8 13	10 03	8 23	9 55	8 31	9 48	8 38
	15	9 47	8 41	9 41	8 47	9 36	8 52	9 33	8 55
	Feb. 1	9 08	9 08	9 06	9 10	9 07	9 09	9 07	9 09
	15	8 28	9 24	8 32	9 20	8 36	9 16	8 40	9 12
	Mar. 1	7 44	9 28	7 52	9 20	8 00	9 12	8 06	9 06
	15	6 46	9 08	6 58	8 54	7 08	8 44	7 16	8 36
	Apr. 1	5 25	7 41	5 36	7 30	5 46	7 20	5 53	7 13
	15	4 21	5 55	4 29	5 47	4 36	5 40	4 41	5 35
	May 1	3 31	4 23	3 35	4 19	3 46	4 15	3 42	4 12
	15	2 59	3 45	3 02	3 42	3 06	3 38	3 08	3 36
	June 1	2 28	3 34	2 34	3 28	2 39	3 33	2 42	3 20
	15	2 07	3 41	2 15	3 33	2 22	3 26	2 27	3 21
MARS	Jan. 1	1 46	4 00	1 57	3 49	2 08	3 38	2 14	3 32
	15	1 39	4 19	1 52	4 16	2 03	3 55	2 13	3 45
	Aug. 1	1 39	4 45	1 55	4 29	2 08	4 16	2 19	4 05
	15	1 53	4 59	2 09	4 43	2 22	4 30	2 33	4 19
	Sept. 1	2 24	5 04	2 37	4 51	2 45	4 40	2 58	4 30
	15	2 53	4 59	3 03	4 49	3 12	4 40	3 20	4 32
	Oct. 1	3 32	4 46	3 38	4 40	3 44	4 34	3 48	4 30
	15	4 08	4 46	4 10	4 26	4 11	4 25	4 12	4 24
	Nov. 1	4 50	4 46	4 47	4 07	4 43	4 13	4 41	4 15
	15	5 28	3 50	5 20	3 58	5 13	4 05	5 07	4 11
	Dec. 1	6 13	3 39	6 00	3 52	5 49	4 03	5 39	4 13
	15	6 49	3 39	6 33	3 55	6 20	4 08	6 08	4 20
JUPITER	Jan. 1	1 57	12 21	1 50	12 38	1 44	12 44	1 38	12 50
	15	1 44	11 54	1 34	12 04	1 26	12 12	1 20	12 18
	Feb. 1	1 25	11 11	1 14	11 22	1 04	11 32	0 57	11 39
	15	1 06	10 36	0 54	10 48	0 44	10 58	0 35	11 07
	Mar. 1	0 46	10 00	0 32	10 14	0 20	10 26	0 11	10 35
	15	0 18	9 24	0 04	9 38	11 52	9 50	11 41	10 01
	Apr. 1	11 41	8 35	11 26	8 50	11 12	9 04	11 02	9 14
	15	11 02	7 46	10 46	8 02	10 32	8 16	10 20	8 28
	May 1	10 04	6 44	9 48	7 00	9 33	7 15	9 21	7 27
	15	9 04	5 38	8 57	5 56	8 32	6 10	8 19	6 23
	June 1	7 32	4 02	7 15	4 19	7 00	4 34	6 46	4 38
	15	6 17	2 47	6 00	3 02	5 45	3 14	5 31	3 33
SATURN	Jan. 1	4 59	1 31	4 42	1 48	4 28	2 02	4 14	2 16
	15	4 06	0 36	3 49	0 53	3 34	1 08	3 20	1 22
	Aug. 1	3 18	11 42	3 00	0 00	2 44	0 16	2 31	0 29
	15	2 49	11 05	2 30	11 24	2 14	11 40	2 00	11 51
	Sept. 1	2 22	10 30	2 03	10 49	1 46	11 06	1 31	11 21
	15	2 05	10 09	1 45	10 29	1 27	10 46	1 13	11 01
	Oct. 1	1 43	9 51	1 34	10 10	1 08	10 27	1 04	10 42
	15	1 25	9 21	1 06	10 22	12 50	10 18	12 36	10 32
	Nov. 1	12 57	9 39	12 41	9 55	12 26	10 10	12 15	10 21
	15	12 29	9 39	12 15	9 53	12 03	10 05	11 53	10 15
	Dec. 1	11 57	9 39	11 46	9 50	11 36	10 00	11 28	10 08
	15	11 26	9 40	11 17	9 49	11 10	9 56	11 04	10 02
SATURN	Jan. 1	11 42	11 34	11 41	11 35	11 41	11 35	11 40	11 28
	15	10 39	10 41	10 38	10 42	10 38	10 42	10 37	10 43
	Feb. 1	9 42	9 34	9 41	9 35	9 41	9 35	9 40	9 36
	15	8 42	8 38	8 42	8 38	8 41	8 39	8 31	8 39
	Mar. 1	7 40	7 40	7 40	7 40	7 40	7 40	7 40	7 40
	15	6 37	6 41	6 37	6 41	6 38	6 40	6 38	6 40
	Apr. 1	5 14	5 26	5 15	5 25	5 16	5 24	5 16	5 24
	15	4 11	4 27	4 12	4 26	4 13	4 25	4 14	4 24
	May 1	3 01	3 19	3 03	3 19	3 04	3 18	3 05	3 17
	15	2 01	2 25	2 03	2 23	2 01	2 21	2 06	2 20
	June 1	12 55	1 19	12 58	1 16	12 59	1 15	1 00	1 14
	15	12 04	0 24	12 06	0 22	12 07	0 21	12 08	0 20
SATURN	Jan. 1	11 08	11 24	11 09	11 23	11 10	11 22	11 11	11 21
	15	10 23	10 31	10 29	10 30	10 24	10 30	10 25	10 29
	Aug. 1	9 30	9 30	9 30	9 30	9 30	9 30	9 30	9 30
	15	8 48	8 40	8 47	8 41	8 47	8 41	8 46	8 42
	Sept. 1	7 17	7 40	7 57	7 41	7 55	7 43	7 54	7 44
	15	7 17	6 15	7 15	6 53	7 13	6 55	7 12	6 56
	Oct. 1	6 33	5 55	6 30	5 58	6 29	5 59	6 25	6 03
	15	5 54	5 10	5 10	5 10	5 47	5 13	5 44	5 16
	Nov. 1	5 06	4 08	5 02	4 12	4 55	4 17	4 54	4 20
	15	4 27	3 19	4 21	3 25	4 15	3 31	4 13	3 33
	Dec. 1	3 41	2 23	3 34	2 30	3 29	2 35	3 29	2 40
	15	2 58	1 34	2 51	1 41	2 49	1 48	2 40	1 52
SATURN	Jan. 1	12 07	0 47	12 10	0 44	12 13	0 41	12 15	0 39
	15	11 13	11 54	11 16	11 52	11 20	11 48	11 22	11 46
	Feb. 1	10 12	10 52	10 10	10 50	10 14	10 46	10 16	10 44
	15	9 16	10 04	9 20	10 00	9 23	9 57	9 36	9 54
	Mar. 1	8 23	9 17	8 27	9 13	8 31	9 09	8 34	9 06
	15	7 32	8 30	7 36	8 26	7 40	8 22	7 44	8 18
	Apr. 1	6 28	7 34	6 34	7 23	6 39	7 23	6 42	7 20
	15	5 37	6 49	5 43	6 43	5 48	6 38	5 52	6 34
	May 1	4 29	5 59	4 36	5 50	4 51	5 45	4 56	5 40
	15	3 48	5 10	3 55	5 03	4 01	4 57	4 06	4 22
	June 1	2 47	4 13	2 53	4 07	3 00	4 00	3 05	3 55
	15	1 56	3 26	2 03	3 19	2 10	3 12	2 15	3 07
	July 1	0 54	2 30	1 04	2 22	1 11	2 15	1 16	2 10
SATURN	Jan. 1	0 03	1 41	0 11	1 33	0 18	1 26	0 24	1 20
	15	10 59	12 37	11 07	12 29	11 14	12 22	11 20	12 16
	Aug. 1	10 06	11 44	10 14	11 36	10 21	11 29	10 27	11 23
	15	8 58	10 06	9 06	10 28	9 13	10 21	9 19	10 15
	Sept. 1	8 03	9 39	8 11	9 31	8 18	9 24	8 23	9 19
	15	6 58	8 32	7 06	8 24	7 13	8 17	7 18	8 12
	Oct. 1	6 01	7 31	6 08	7 24	6 15	7 17	6 20	7 12
	15	4 46	6 14	4 53	6 07	5 00	6 00	5 05	5 55
	Nov. 1	3 49	5 11	3 56	5 06	4 02	5 00	4 07	4 55
	15	2 43	4 04	2 50	3 58	3 01	3 57	3 01	3 47
	Dec. 1	1 45	3 07	1 52	3 00	1 58	2 54	2 03	2 49

U. S. Weather Bureau: Environmental Science Services Administration

The Weather Bureau is now a component of the Environmental Science Services Administration (ESSA), an agency of the U. S. Department of Commerce. Created in 1965 by merging the Weather Bureau, the Coast and Geodetic Survey, and the Central Radio Propagation Laboratory, ESSA provides a single focus for national efforts to describe, understand, and predict man's natural environment.

Some former Weather Bureau activities have been transferred to other parts of ESSA, but the Weather Bureau continues to provide meteorological service to the nation.

Weather service for the public safety, welfare, recreation, and convenience consists of current weather information, warnings of hurricanes, tornadoes, winter storms, and other weather hazards, regularly scheduled weather forecasts up to 48 hours, extended forecasts up to five days, and outlook for 30 days. This information reaches the general public through the cooperation of radio, television, and the newspapers. *See also Weather Bureau Watches and Warnings, page 289.*

The River and Flood Forecasting Service is conducted through 82 river district offices and 11 river forecasting centers and issues river stage and flood warnings for all the principal rivers and tributaries of the United States. The Water Supply Forecasting Service is conducted through 6 Water Supply Forecasting Centers for the Western and Northeastern United States on a water year or seasonal basis. Rainfall studies conducted in cooperation with the Army Corps of Engineers and the Department of Agriculture Soil Conservation Service assist in planning engineering works for flood control, water utilization, water-shed protection and local drainage design.

Weather Service to aviation involves the responsibilities of providing current measurements and of forecasting conditions pertinent to conducting safe and efficient flight operations at airport terminals and along flight routes. Aviation weather forecasts and briefings are provided for transoceanic and domestic operations extending upward from the surface to include operational levels of civil jet aircraft.

The agricultural weather service program pro-

vides weather observations from representative agricultural areas, specialized forecasts of weather factors directly affecting agricultural production and a teletypewriter network for rapid and efficient dissemination of weather information to the farmers. In addition, technical studies of the influence of weather on agriculture are coordinated jointly with agricultural experiment station personnel.

U. S. Department of Agriculture and the Weather Bureau cooperate in issuing local weather-crop bulletins on an area basis.

The Fruit-frost Service provides detailed and localized forecasts and warnings to fruit growers on a cooperative basis in those states where winter and spring fruit and vegetable production is a major activity. The Fire-Weather Service warns against atmospheric conditions conducive to disastrous fires in the forest areas of the nation.

The marine weather service provides specialized weather forecasts, warnings, and data essential to the conduct of marine operations on the high seas and on coastal and inland waterways. In addition, it supplies forecasts for related phenomena, such as seiches and storm surges, for the protection of life and property.

The Weather Bureau also provides weather support for the U. S. manned space flight program and assists in the weather support to the Nation's other space programs.

The climatological service for the United States, Puerto Rico, and the oceans, is managed by the ESSA Environmental Data Service. In the field, climatologists are responsible for applications of climatology to problems of the national economy in their geographical areas. This work is supported in each state by State Climatologists who (a) direct liaison with state interests and (b) carry out certain state responsibilities such as those of Crop-Weather Services and severe storm investigation. The work depends basically on observations taken at about 12,000 substations (mostly manned by unpaid cooperative observers) and about 300 regular Weather Bureau stations. The facilities for all American weather records and repositories for large-scale tabulation, processing, and publication are maintained in the National Weather Records Center, Asheville, N. C.

Wind Chill Table

Source: Environmental Science Services Administration

Degrees (Fahrenheit)	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
	Wind Chill Index: (Equivalent temperature) Equivalent in cooling power on exposed flesh under calm conditions.																
MPH 0	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	33	27	21	16	12	7	1	-6	-11	-15	-20	-26	-31	-35	-41	-47	-54
10	21	16	9	2	-2	-9	-15	-22	-27	-31	-38	-45	-52	-58	-64	-70	-77
15	16	11	1	-6	-11	-18	-25	-33	-40	-45	-51	-60	-65	-70	-78	-85	-90
20	12	3	-4	-9	-17	-24	-32	-40	-46	-52	-60	-68	-76	-81	-88	-96	-103
25	7	0	-7	-15	-22	-29	-37	-45	-52	-58	-67	-75	-83	-89	-96	-104	-112
30	5	-2	-11	-18	-26	-33	-41	-49	-56	-63	-70	-78	-87	-94	-101	-109	-117
35	3	-4	-13	-20	-27	-35	-43	-52	-60	-67	-72	-83	-90	-98	-105	-113	-123
40	1	-4	-15	-22	-29	-36	-45	-54	-62	-69	-76	-87	-94	-101	-107	-116	-128
45	1	-6	-17	-24	-31	-38	-46	-54	-63	-70	-78	-87	-94	-101	-108	-118	-128
50	0	-7	-17	-24	-31	-38	-47	-56	-63	-70	-79	-88	-96	-103	-110	-120	-128

(Wind speeds greater than 40 mph have little additional chilling effect)

How Cold is Cold? Temperature and wind both affect the heat loss from the surface of the body. The effect of these two factors is expressed as an still-air temperature which would have the same combination. For example, from the table above, with a temperature of 20°F. and a wind of 20 mph., the effect on exposed flesh is the same as -9°F. with no wind.

Dew Point Explained

The dew point is the temperature to which air must be cooled to become saturated. When this temperature is below freezing, it is sometimes called the frost point.

The higher the air temperature, the more water vapor air can hold before saturation is reached and condensation occurs (fog, snow or rain). Thus,

unsaturated air containing a given amount of water vapor will become saturated if its temperature decreases sufficiently.

The difference between the actual air temperature and the dew point temperature is an indication of how close the air is to saturation. Relative humidity increases as this difference decreases, reaching 100% when the spread is zero degrees.

Temperature-Humidity Index

The purpose of the temperature-humidity index (THI) is to measure or estimate human discomfort in the summertime resulting from the combined effects of temperature and humidity. The THI is calculated by adding wet bulb and dry bulb temperature readings, multiplying the sum by 0.4 and adding 15. The theory is that more than half the people will be uncomfortable when the THI passes 75. Almost all will be uncomfortable when it reaches 80 or above, and many will be miserable.

Weather Bureau Watches and Warnings

Weather Bureau forecasters issue a **TORNADO WATCH** for a specific area where it is reasonably possible that tornadoes may occur during the next several hours. A **WATCH** is to alert people to watch for tornado activity and listen for a **TORNADO WARNING**. A **TORNADO WARNING** means that a tornado has been sighted and that safety precautions should be taken at once. The terms **HURRICANE WATCH** and **HURRICANE WARNING** are used similarly during hurricane season.

Definitions

Tornado—A violent rotating column of air pendant from a thundercloud, usually recognized as a funnel-shaped vortex accompanied by a loud roar. With rotating winds est. over 200 mph., it is the most destructive storm. Tornado paths have varied in length from a few feet to nearly 300 miles (avg. 13 mi.); diameter 9 feet to over a mile (avg. 250 yds.); forward speed up to 68 mph. (avg. 25-40 mph.). Persisting from a few minutes to a few hours, they usually move from SW to NE, but can come from any direction.

Cyclone—An atmospheric circulation of winds rotating counterclockwise in the northern hemisphere and clockwise in the southern hemisphere. Tornadoes, hurricanes and the **LOWS** shown on weather maps are all examples of cyclones having various sizes and intensities. Cyclones are usually accompanied by precipitation or stormy weather.

Hurricane—A severe cyclone originating over

tropical ocean waters and having winds over 73 miles an hour. (In the western Pacific, such storms are known as typhoons.) The area of strong winds takes the form of a circle or an oval, sometimes as much as 500 miles in diameter. Hurricanes usually move toward the west or northwest at 10 to 15 m.p.h. When the center approaches 25° to 30° North Latitude, direction of motion often changes to northeast, with increased forward speed.

Blizzard—A severe weather condition characterized by low temperatures and by strong winds bearing a great amount of snow (mostly fine, dry snow picked up from the ground). The U. S. Weather Bureau specifies, for blizzard, a wind of 35 miles an hour or higher, low temperatures, and sufficient snow in the air to reduce visibility to less than 500 feet; and for "severe blizzard" wind speeds of 45 miles an hour or more, temperature near or below 10°F., and visibility reduced by snow to near zero.

Monsoon—A name for seasonal winds (derived from Arabic "mausim," a season). It was first applied to the winds over the Arabian Sea, which blow for six months from northeast and six months from southwest, but it has been extended to similar winds in other parts of the world. The monsoons are strongest on the southern and eastern sides of Asia.

Flood—The condition that occurs when water overflows the natural or artificial confines of a stream or other body of water, or accumulates by drainage over low-lying areas.

Weather Bureau Coastal Warnings

Source: Weather Bureau, National Weather Records, ESSA; Dept. of Commerce

Small Craft Warning: One red pennant displayed by day and a red light over a white light at night to indicate winds up to 33 knots and/or sea conditions dangerous to small craft are forecast.

Gale Warning: Two red pennants displayed by day and a white light above a red light at night to indicate that winds ranging from 34 to 47 knots are forecast for the area.

Storm Warning: A single square red flag with a black center displayed during daytime and two red lights at night to indicate that winds above 48 knots are forecast for the area.

Hurricane Warning: Two square red flags with black centers displayed by day and a white light between two red lights at night to indicate that winds 64 knots and above are forecast for the area.

Speed of Winds in the United States

Miles per hour—Average thru 1967. High thru 1967.

Source: Weather Bureau. Wind velocities in true values

Stations	Avg.	High	Stations	Avg.	High	Stations	Avg.	High
Albany, N. Y.	8.8	71	Helena, Mont.	7.9	73	Pensacola, Fla.	7.9	(b) 91
Albuquerque, N. M.	8.8	90	Jacksonville, Fla.	8.9	82	Philadelphia, Pa.	9.5	73
Atlanta, Ga.	9.2	70	Key West, Fla.	11.5	122	Pittsburgh, Pa.	9.4	58
Bismarck, N. D.	10.8	72	Knoxville, Tenn.	7.5	73	Portland, Ore.	7.7	88
Boston, Mass.	13.0	65	Little Rock, Ark.	8.2	61	Rochester, N. Y.	9.7	73
Buffalo, N. Y.	12.6	91	Louisville, Ky.	8.3	61	St. Louis, Mo.	9.4	(b) 91
Cape Hatteras, N. C.	11.5	(b) 110	Memphis, Tenn.	9.3	56	Salt Lake City, Utah	8.7	71
Chattanooga, Tenn.	6.3	82	Miami, Fla.	9.0	(a) 80	San Diego, Calif.	6.5	51
Chicago, Ill.	10.2	60	Minneapolis, Minn.	10.7	92	San Francisco, Calif.	10.4	62
Cincinnati, Ohio	7.1	49	Mobile, Ala.	9.7	(b) 98	Savannah, Ga.	8.4	66
Cleveland, Ohio	11.0	74	Montgomery, Ala.	6.9	60	Spokane, Wash.	8.3	56
Denver, Colo.	9.3	56	Nashville, Tenn.	7.7	73	Toledo, Ohio	9.5	72
Detroit, Mich.	10.1	77	New Orleans, La.	8.5	(b) 98	W. Washington, D. C.	9.5	78
Fort Smith, Ark.	7.7	58	New York, N. Y. (c)	9.6	70	Mt. Wash'ton, N. H.	35.6	231
Galveston, Texas.	11.0	(d) 100	Omaha, Nebr.	11.1	73			

(a) Highest velocity ever recorded in Miami area was 132 mph, at former station in Miami Beach in September, 1926. (b) Previous location. (c) Data for Central Park. Battery Place data through 1960, avg. 14.5, high 113. (d) Recorded before anemometer blew away. Estimated high 120.

WINDS, THEIR FORCE AND OFFICIAL DESIGNATIONS

Designation	Miles per hour	Designation	Miles per hour	Designation	Miles per hour	Designation	Miles per hour
Calm.	Less than 1	Moderate breeze.	13 to 18	Near gale.	32 to 38	Storm.	55 to 63
Light air.	1 to 3	Fresh breeze.	19 to 24	Gale.	39 to 46	Violent storm.	64 to 73
Light breeze.	4 to 7	Strong breeze.	25 to 31	Strong gale.	47 to 54	Hurricane.	74 and above
Gentle breeze.	8 to 12						

Explanation of Normal Temperatures

Normal temperatures listed in the tables on pages 291 and 292 are based on records of the Weather Bureau for the 30-year period from 1931 to 1960 inclusive.

To obtain the average maximum temperature for any month, the daily maximum temperatures are added; the total is then divided by the number of days in that month. The average minimum temperature for the month is obtained by adding the daily minimum temperatures during that month and dividing by the number of days in that month.

The normal maximum temperature for January, for example, is obtained by adding the average

maximums for January, 1931, January 1932, etc., through January, 1960. The total is then divided by 30. The normal minimum temperature is obtained in a similar manner by adding the average minimums for each January in the 30-year period and dividing by 30. The normal temperature for January is one-half of the sum of the normal maximum and minimum temperatures for that month.

The mean temperature for any one day is one-half the total of the maximum and minimum temperatures for that day.

Annual Climatological Data

Source: Environmental Science Services Administration, National Weather Records Center

Station	Elevation (ft.)	Temperature				Precipitation				Wind		No. of days					
		Highest		Lowest		Snow or Sleet		Fastest		Clear*	Cloudy*	Precip. ⁰¹ inch or more	Snow, sleet ¹ inch or more				
		Date	Date	Date	Date	Total (in.)	Greatest in 24 hrs.	Date ¹	Date					MPH	Date		
1967																	
Albany, N. Y.	275	96	6 16	-14	2 8	33.28	1.76	10 25	78.3	12.2	12 28	45	4 23	50	216	139	20
Albuquerque, N. M.	5311	99	7 1	1	1 8	8.04	1.22	8 11	6.1	1.4	12 15	57	12 13	157	85	58	5
Anchorage, Alaska	114	78	7 11	-18	2 14	19.16	0.79	9 5	79.6	8.3	12 7	44	1 28	79	226	131	21
Asheville, N. C.	2140	88	4 6	-2	2 25	52.11	4.12	8 22	7.6	3.2	12 9	40	5 30	95	156	118	4
Atlanta, Ga.	1010	90	7 25	0	2 25	54.84	3.30	8 23	2.0	2.0	12 9	38	7 26	100	155	125	1
Baltimore, Md.	148	96	6 16	-1	2 8	36.93	2.91	7 23	36.0	10.6	12 6	49	2 16	100	153	105	9
Barrow, Alaska	31	61	8 17	-38	1 3	4.70	0.35	7 14	37.6	2.6	12 30	43	3 12	46	212	108	0
Birmingham, Ala.	620	94	6 20	12	2 25	66.84	4.64	12 14	0.8	0.8	12 30	41	3 6	108	178	119	6
Blairmore, N. D.	1647	102	7 31	-43	12 31	13.54	1.22	5 30	69.4	11.0	5 30	52	5 7	82	171	93	27
Boise, Idaho	2838	107	7 12	2	12 16	7.68	0.62	4 19	17.8	6.0	4 19	34	6 21	130	161	85	6
Boston, Mass.	15	94	6 16	-3	2 13	47.60	3.64	5 25	67.1	10.8	3 6	50	5 25	95	178	135	14
Buffalo, N. Y.	705	91	6 21	-7	2 8	34.60	3.63	9 27	74.1	8.3	11 6	62	2 16	47	223	179	27
Burlington, Vt.	332	91	6 4	-27	2 13	32.22	2.05	7 21	73.9	11.4	12 28	40	10 19	51	222	155	24
Charleston, S. C.	40	97	8 7	14	2 26	43.65	6.23	5 22	T	T	12 13	60	5 31	95	144	105	0
Charleston, W. Va.	939	93	6 23	0	2 8	41.68	2.86	3 6	43.2	11.2	12 28	37	2 16	61	177	144	10
Chicago, Ill.	607	93	5 26	-10	12 31	41.10	2.95	6 10	68.5	19.8	1 26	51	2 15	73	175	133	16
Cincinnati, Ohio	761	94	7 25	-3	2 25	32.48	1.90	5 6	18.6	9.0	3 6	47	2 15	61	208	156	13
Cleveland, Ohio	777	93	6 17	-2	2 8	26.79	1.10	5 7	39.9	4.3	2 5	53	2 16	61	208	156	13
Columbus, Ohio	812	92	6 15	-2	3 13	33.96	1.59	9 27	41.5	6.6	3 6	54	2 16	62	187	137	12
Concord, N. H.	342	92	6 16	-23	2 13	34.19	2.16	7 4	96.5	10.4	3 7	36	4 10	87	175	127	24
Dallas, Texas	481	105	7 31	23	1 8	27.76	2.27	4 20	T	T	12 27	53	6 1	123	139	81	0
Denver, Colo.	5283	93	8 24	-12	12 31	23.31	3.25	4 13	51.7	6.2	11 2	42	12 6	104	134	107	18
Des Moines, Iowa	938	98	5 25	-13	1 18	21.82	2.20	6 9	13.4	2.4	10 26	50	4 17	91	173	96	4
Detroit, Mich.	633	93	6 16	-5	12 31	33.83	2.17	12 21	29.8	4.0	1 26	52	2 16	76	190	133	10
Dodge City, Kan.	2582	102	5 24	2	1 12	31.20	2.14	8 31	8.7	2.2	1 25	54	6 28	125	139	86	2
Duluth, Minn.	1428	87	7 21	-30	1 18	21.43	1.87	6 13	58.5	13.0	1 6	63	4 30	80	187	128	13
Fairbanks, Alaska	436	91	6 18	-44	1 29	17.33	3.42	8 12	94.7	7.6	3 30	36	3 12	60	236	140	39
Fort Worth, Texas	537	104	7 31	20	2 7	27.30	2.47	4 20	T	T	12 27	39	4 13	130	143	81	0
Fresno, Calif.	328	108	8 15	21	12 14	12.98	1.22	4 18	T	T	12 12	29	5 31	175	106	50	0
Galveston, Texas	7	93	8 10	34	2 8	35.24	2.90	7 23	0	0	1 26	57	10 30	62	209	160	31
Grand Rapids, Mich.	784	91	7 22	-16	2 12	40.75	2.53	6 7	86.6	12.6	1 26	54	4 16	62	209	160	31
Helena, Mont.	3828	99	9 5	-26	12 31	14.40	1.11	5 10	91.5	12.5	5 10	54	1 15	100	178	111	21
Honolulu, Hawaii	92	10 3	59	12 28	34.34	4.33	12 17	0	T	T	1 9	34	1 10	81	124	138	0
Houston, Texas	50	99	6 26	26	1 4	36.45	3.12	9 4	T	T	1 9	35	12 2	86	150	92	0
Huron, S. D.	1282	101	7 31	-25	2 18	15.17	5.48	6 17	32.7	6.7	2 14	57	1 16	102	169	96	10
Indianapolis, Ind.	792	93	7 11	-9	12 31	34.75	1.96	10 16	23.3	4.1	2 27	49	2 15	73	186	126	9
Jackson, Miss.	310	96	6 19	-7	2 8	45.71	3.26	5 21	T	T	12 28	40	5 31	113	159	93	0
Jacksonville, Fla.	20	100	6 13	22	2 26	49.68	3.67	8 21	0	0	1 26	76	6 30	102	128	102	0
Juneau, Alaska	12	80	6 17	-4	3 26	50.07	1.92	9 17	110.4	9.0	2 24	48	9 18	50	272	218	37
Kansas City, Mo.	742	99	7 22	-15	12 31	48.69	3.22	4 29	16.8	7.5	1 25	41	6 7	100	165	92	5
Lander, Wyo.	5563	90	7 22	-15	12 31	18.98	1.22	4 29	154.6	21.9	4 29	73	1 22	80	158	107	32
Los Angeles, Calif.	257	95	8 9	11	1 18	50.75	4.05	9 7	2.7	1.6	1 17	36	2 15	101	155	103	2
Louisville, Ky.	477	93	7 25	0	2 25	43.92	2.40	8 9	20.2	9.3	3 6	61	2 15	87	165	132	32
Marquette, Mich.	677	92	7 21	-12	2 12	27.13	1.48	10 24	99.6	8.7	1 6	41	3 30	74	199	163	32
Memphis, Tenn.	258	94	6 21	13	1 18	46.44	2.92	12 2	0.9	0.6	1 17	42	8 3	98	164	99	0
Miami, Fla.	7	94	6 22	36	2 26	66.22	4.74	6 12	0	0	1 17	38	12 23	57	137	132	0
Millford, Utah	5028	100	7 28	16	12 26	11.67	1.24	7 22	57.9	9.1	1 23	45	7 23	90	178	131	15
Milwaukee, Wisc.	672	91	7 22	16	1 18	28.85	2.02	6 10	50.0	10.3	2 5	45	7 23	90	178	131	15
Minneapolis, Minn.	834	91	7 22	-31	1 18	25.44	1.45	4 1	65.6	8.5	2 15	63	8 6	95	171	108	19
Mobile, Ala.	211	100	6 26	25	2 26	61.34	6.58	9 6	T	T	2 9	28	10 30	100	141	110	0
Moline, Ill.	582	94	5 25	-17	12 31	42.36	5.02	6 6	41.0	11.7	1 26	50	5 18	90	179	120	4
Nashville, Tenn.	590	95	6 18	5	2 25	45.22	3.65	3 6	9.6	4.9	12 31	36	2 15	85	163	124	4
New Haven, Conn.	6	86	7 12	-3	2 13	40.63	2.24	3 6	63.9	10.1	2 7	41	1 16	87	173	130	0
New Orleans, La.	3	78	6 27	30	12 24	53.43	5.58	2 3	0	0	1 17	38	12 23	124	126	100	0
New York, N. Y.	132	96	6 16	4	2 13	43.12	3.18	18 51	11.3	12.5	2 7	42	4 27	68	229	134	13
Nome, Alaska	13	79	8 7	-33	2 13	12.59	1.40	8 11	41.3	1.4	4 4	54	1 7	106	141	69	8
Norfolk, Va.	22	94	7 12	-36	2 25	45.21	4.14	8 23	11.3	5.1	2 9	42	7 3	109	168	109	3
North Platte, Nebr.	2775	98	7 22	-25	12 31	17.45	2.10	7 7	25.2	4.3	1 6	51	6 14	106	141	69	8
Oklahoma City, Okla.	1285	103	8 2	9	3 8	25.81	3.11	4 12	2.9	1.2	11 2	45	12 2	115	152	80	1
Omaha, Nebr.	977	97	5 25	-11	12 31	30.48	2.20	6 4	17.2	4.5	12 26	56	7 9	108	146	102	7
Philadelphia, Pa.	5	93	7 24	4	2 13	44.82	2.53	6 22	36.0	9.8	2 7	40	7 31	84	187	116	9
Phoenix, Ariz.	1117	110	8 26	21	1 7	8.34	1.89	12 14	T	T	12 13	47	12 19	199	85	36	0
Pittsburgh, Pa.	1137	93	6 17	-6	2 8	36.38	1.57	3 5	64.7	13.6	3 6	58	2 16	46	220	143	18
Portland, Me.	47	92	6 16	-22	2 13	44.16	5.58	6 20	114.0	17.1	2 23	11	2 16	93	187	127	31
Portland, Ore.	21	102	8 28	13	12 20	29.24	1.46	3 14	5.7	3.3	12 21	70	10 7	103	179	134	16
Providence, R. I.	51	93	6 16	-5	2 13	46.50	3.76	5 25	70.7	10.5	3 15	46	3 15	115	145	105	2
Raleigh, N. C.	434	93	7 21	8	2 25	39.58	3.44	6 17	11.0	9.1	2 9	44	3 15	115	145	105	2
Rapid City, S. D.	3162	100	8 24	19	12 31	22.39	2.06	30 4	30.7	11.0	9 1	65	1 22	111	145	117	13
Reno, Nev.	1404	101	7 2	2	12 15	9.47	0.86	1 21	38.2	11.2	1 24	70	1 20	143	135	63	10
Richmond, Va.	164	94	8 19	3	2 10	37.64	2.39	8 23	20.9	6.1	2 9	38	7 20	96	165	100	7
Rochester, N. Y.	547	91	6 16	-7	2 13	29.84	1.76	9 27	73.5	7.3	2 25	57	2 16	56	205	152	24
St. Louis, Mo.																	

Monthly Normal Temperature and Precipitation

Source: Weather Bureau, United States Department of Commerce

These normals are based on records for the thirty-year period 1931 to 1960 inclusive. See explanation on page 289. For stations that did not have continuous records from the same instrument site for the entire 30 years, the means have been adjusted to the record at the present site.

AP indicates airport station; those not so marked are city office stations.

T, Temperature in Fahrenheit; P, precipitation in inches; L, less than .05 inch.

Stations	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	T. P.	T. P.	T. P.	T. P.	T. P.	T. P.	T. P.	T. P.	T. P.	T. P.	T. P.	T. P.
Albany, N. Y. (AP)...	23.2.5	24.2.2	33.2.7	46.2.8	58.3.5	67.3.3	72.3.5	70.3.1	62.3.6	51.2.8	39.2.7	27.2.8
Albuquerque, N. M. (AP)...	35.4.0	40.4.7	46.5.5	56.6.5	65.7.5	67.7.5	67.7.9	1.27	1.76	1.30	1.05	8.44
Anchorage, Alaska (AP)...	12.8.9	19.4.7	25.5.3	37.4.7	55.10.5	58.1.9	56.2.4	48.2.5	36.1.9	19.2.10	14.9	9
Asheville, N. C. (AP)...	38.4.2	39.4.0	45.4.8	55.4.0	63.3.7	70.3.5	72.5.2	72.4.9	66.3.6	56.3.1	45.2.8	35.3.6
Atlanta, Ga. (AP)...	45.4.4	46.4.5	51.5.4	60.4.5	69.3.2	77.3.8	79.4.7	78.6.7	73.3.2	64.3.1	54.4.4	44.4.4
Baltimore, Md. (AP)...	35.3.4	36.2.9	43.3.5	54.3.6	64.4.0	73.4.3	77.4.2	75.5.8	63.3.7	52.4.6	31.3.0	26.3.0
Barrow, Alaska (AP)...	-16.2.8	-2.15	1.0	18.1.3	43.4.9	58.8.38	9.31	6.17	5.1	-2.11	-2.11	-2.11
Birmingham, Ala. (AP)...	47.5.0	49.5.3	55.6.0	63.4.5	72.3.4	79.4.0	82.5.2	81.4.9	76.3.6	63.5.3	47.5.0	47.5.0
Bismarck, N. D. (AP)...	10.4.14	14.4.26	26.4.4	1.25	1.56	2.05	3.4	7.2	2.69	1.57	9.29	6.18
Boise, Idaho (AP)...	29.1.3	34.1.3	41.1.3	50.1.2	58.1.3	65.1.3	75.1.2	72.1.2	63.1.3	53.1.3	39.1.2	32.1.3
Boston, Mass. (AP)...	30.3.9	30.3.3	38.4.2	48.3.8	58.3.9	63.6.8	5.74	2.72	3.37	3.55	3.55	3.3.6
Buffalo, N. Y. (AP)...	25.2.8	24.2.7	32.3.2	44.3.0	55.3.0	65.2.5	70.2.6	68.3.1	61.3.1	51.3.0	39.3.6	28.3.0
Burlington, Vt. (AP)...	16.2.0	17.1.8	27.2.1	41.2.6	51.3.0	64.3.5	69.3.9	67.3.4	58.3.3	48.3.0	35.2.2	22.2.1
Caribou, Maine (AP)...	11.2.1	13.2.2	23.2.4	36.2.6	50.3.0	64.3.5	69.3.9	67.3.4	58.3.3	48.3.0	35.2.2	22.2.1
Charleston, S. C. (AP)...	50.1.5	52.3.3	57.3.9	65.2.9	73.3.6	79.4.0	82.5.2	81.4.9	76.3.6	63.5.3	47.5.0	47.5.0
Chicago, Ill. (AP)...	26.1.9	28.1.6	36.2.7	46.3.0	56.3.7	67.7.1	74.7.3	71.7.3	63.6.2	54.5.1	44.4.4	44.4.4
Cincinnati, Ohio (AP)...	36.3.7	37.2.9	43.3.6	53.4.6	63.5.8	73.7.5	79.7.5	77.7.5	71.7.5	61.7.5	51.7.5	41.7.5
Cleveland, Ohio (AP)...	28.2.7	29.2.3	35.3.1	47.3.4	58.3.5	68.3.4	72.3.7	70.3.3	64.3.4	53.4.1	41.2.6	31.2.3
Columbus, Ohio (AP)...	32.3.2	33.2.3	41.3.2	52.3.7	63.4.0	73.4.3	78.4.3	75.4.3	68.4.2	57.4.2	43.2.5	34.2.3
Dallas, Texas (AP)...	46.2.3	50.2.6	56.2.9	65.4.0	73.4.8	81.3.2	85.1.9	85.1.9	78.2.8	68.2.7	55.2.7	48.2.7
Denver, Colo. (AP)...	29.6.32	7.7.32	16.2.46	2.1.56	2.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67
Des Moines, Iowa (AP)...	20.1.3	23.1.1	34.2.1	49.2.5	61.4.1	71.4.7	76.3.1	74.3.7	65.2.9	54.2.1	37.1.8	25.1.1
Detroit, Mich. (AP)...	26.1.9	27.2.0	34.2.4	47.3.1	58.3.5	68.3.3	72.3.7	71.3.7	63.6.2	53.5.2	39.3.3	29.1.9
Dodge City, Kansas (AP)...	31.6.35	7.7.32	16.2.46	2.1.56	2.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67
Duluth, Minn. (AP)...	9.1.12	11.1.10	21.1.6	37.2.4	49.3.3	59.4.0	66.3.5	64.3.5	54.3.5	44.3.5	34.3.5	24.3.5
Eureka, Calif. (AP)...	47.6.7	48.5.5	49.5.3	50.5.2	51.5.2	52.5.2	53.5.2	54.5.2	55.5.2	56.5.2	57.5.2	58.5.2
Fairbanks, Alaska (AP)...	-11.9	-3.5	9.4.29	3.4.7	7.58	14.0	1.54	2.24	4.1	1.26	9.4	-8.5
Ft. Worth, Tex. (AP)...	46.2.0	49.2.2	56.2.5	65.3.6	73.4.3	81.3.2	85.1.9	85.1.9	78.2.8	68.2.7	55.2.7	48.2.7
Fresno, Calif. (AP)...	46.2.0	51.2.2	55.2.0	61.1.6	68.3.7	75.4.8	81.3.2	85.1.9	85.1.9	78.2.8	68.2.7	55.2.7
Galveston, Texas (AP)...	55.3.5	57.2.9	61.2.9	69.2.6	76.2.8	82.7.8	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8
Grand Junction, Colo. (AP)...	26.6.33	7.7.32	16.2.46	2.1.56	2.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67
Gr. Rapids, Mich. (AP)...	24.1.9	24.1.8	33.2.3	46.2.9	57.3.5	68.3.3	72.3.7	71.3.7	63.6.2	53.5.2	39.3.3	29.1.9
Helena, Mont. (AP)...	19.5.23	4.4.4	3.1.7	4.3.8	5.3.10	6.2.14	7.1.18	8.1.22	9.1.26	10.1.30	11.1.34	12.1.38
Honolulu, Hawaii (AP)...	73.3.8	72.3.3	73.2.9	74.1.3	76.1.0	78.1.0	79.1.0	79.1.0	78.1.0	76.1.0	74.1.0	72.1.0
Houston, Tex. (AP)...	54.3.8	56.3.4	61.2.7	69.2.3	76.2.4	82.3.7	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8
Huron, S. D. (AP)...	13.5.17	1.6	29.1.1	45.1.8	58.2.4	68.3.1	75.1.8	73.2.1	62.1.5	49.1.3	31.1.7	21.1.7
Indianapolis, Ind. (AP)...	29.3.1	31.3.9	39.4.4	51.3.7	61.4.0	71.4.6	75.3.5	74.3.7	67.3.2	56.3.1	45.3.1	34.3.1
Jacksonville, Fla. (AP)...	56.2.5	58.2.9	63.2.9	69.2.6	76.2.8	82.7.8	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8
Janeau, Alaska (AP)...	25.4.0	27.3.1	30.3.3	38.2.9	46.3.2	52.3.4	58.3.5	54.3.5	49.3.6	42.3.3	34.3.1	28.2.2
Kansas City, Mo. (AP)...	32.1.4	36.1.2	43.2.5	56.3.6	66.4.4	76.4.6	82.3.7	80.3.8	71.3.3	60.2.9	45.1.8	36.1.5
Knoxville, Tenn. (AP)...	41.4.9	43.4.8	50.4.7	59.3.7	68.3.5	76.3.3	78.3.7	77.3.7	72.3.5	61.2.6	49.3.2	42.2.2
Lander, Wyo. (AP)...	19.5.24	7.7.32	16.2.46	2.1.56	2.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67
Little Rock, Ark. (AP)...	41.5.2	44.4.3	52.4.8	62.4.9	71.5.3	79.6.8	82.3.7	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8
Los Angeles, Calif. (AP)...	56.3.1	57.3.3	59.2.3	62.1.6	65.2.6	68.3.3	71.3.7	70.3.3	64.3.4	53.4.1	41.2.6	31.2.3
Louisville, Ky. (AP)...	53.4.1	56.3.3	63.4.6	73.4.8	83.4.9	93.4.9	103.4.9	113.4.9	123.4.9	133.4.9	143.4.9	153.4.9
Marquette, Mich. (AP)...	20.1.9	20.1.7	27.1.9	39.2.7	50.3.0	60.3.6	69.3.7	77.3.8	83.7.8	83.7.8	83.7.8	83.7.8
Memphis, Tenn. (AP)...	42.1.9	44.7.7	51.5.1	61.6.3	70.7.4	79.8.5	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8
Miami, Fla. (AP)...	67.2.0	68.2.9	73.2.9	79.2.6	86.2.8	93.2.9	99.2.9	106.2.9	113.2.9	120.2.9	127.2.9	134.2.9
Midford, Utah (AP)...	25.6.30	7.7.32	16.2.46	2.1.56	2.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67
Milwaukee, Wisc. (AP)...	21.1.8	22.1.4	31.2.3	44.2.5	53.3.2	63.3.6	73.3.7	83.3.8	93.3.9	103.3.9	113.3.9	123.3.9
Minneapolis, Minn. (AP)...	12.7.16	8.8	27.1.5	44.2.3	57.3.2	67.4.0	72.3.3	73.3.3	66.2.4	54.1.3	41.1.8	28.1.9
Mobile, Ala. (AP)...	53.4.6	55.4.6	60.2.7	68.2.4	76.4.9	82.6.2	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8
Moline, Ill. (AP)...	23.1.6	26.1.4	35.2.4	46.3.0	56.3.8	66.4.4	76.4.6	82.3.7	80.3.8	71.3.3	60.2.9	45.1.8
Nashville, Tenn. (AP)...	40.5.5	42.4.5	49.5.2	60.3.7	69.3.7	77.3.3	80.3.8	79.3.7	73.3.5	62.3.4	49.3.3	41.2.2
Newark, N. J. (AP)...	32.3.3	33.2.8	41.4.1	51.3.5	62.3.7	71.4.0	74.3.7	73.4.4	67.3.8	56.3.3	44.3.4	35.3.2
New Haven, Conn. (AP)...	30.4.0	30.3.2	37.4.6	47.3.9	57.3.7	66.3.5	72.3.7	71.4.0	64.3.4	53.3.3	41.2.2	32.3.2
New Orleans, La. (AP)...	55.3.8	57.4.0	61.5.3	68.4.7	74.4.8	80.4.4	82.3.7	83.7.8	83.7.8	83.7.8	83.7.8	83.7.8
New York City, N. Y. (AP)...	38.3.1	39.3.6	46.3.9	54.4.3	62.4.7	70.5.1	78.5.5	86.5.9	94.6.3	102.6.7	110.7.1	118.7.5
Nome, Alaska (AP)...	4.1.0	6.9	8.2	11.8	15.3	18.7	22.1	25.5	28.9	32.3	35.7	39.1
Norfolk, Va. (AP)...	41.3.3	42.2.3	48.3.5	58.3.8	68.3.8	76.3.4	79.3.7	78.3.7	72.3.5	61.2.6	50.1.3	43.2.7
Oklahoma City, Okla. (AP)...	37.1.3	41.1.4	49.2.0	61.3.1	71.3.5	81.3.9	91.3.9	101.3.9	111.3.9	121.3.9	131.3.9	141.3.9
Omaha, Nebr. (AP)...	31.1.8	25.1.0	35.1.5	46.2.0	56.2.6	66.3.1	76.3.4	86.3.8	96.4.2	106.4.6	116.5.0	126.5.4
Parkersburg, W. Va. (AP)...	25.3.3	36.2.8	43.3.5	54.3.8	64.3.3	73.3.7	83.3.7	93.3.7	103.3.7	113.3.7	123.3.7	133.3.7
Philadelphia, Pa. (AP)...	32.3.3	33.2.8	41.4.1	51.3.5	62.3.7	71.4.0	74.3.7	73.4.4	67.3.8	56.3.3	44.3.4	35.3.2
Phoenix, Ariz. (AP)...	50.7.54	9.59	7.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67	1.7.67
Pittsburgh, Pa. (AP)...	29.3.0	29.2.2	37.3.4	49.3.3	60.3.9	69.3.7	78.3.3	87.3.3	96.3.3	105.3.3	114.3.3	123.3.3
Portland, Me. (AP)...	22.4.4	23.3.8	31.4.3	43.3.7	53.3.4	63.3.2	73.3.2	83.3.2	93.3.2	103.3.2	113.3.2	123.3.2
Portland, Ore. (AP)...	38.4.4	42.2.2	52.1.7	62.1.2	72.1.2	82.1.2	92.1.2	102.1.2	112.1.2	122.1.2	132.1.2	142.1.2
Providence, R.I. (AP)...	29.3.8	30.3.1	37.4.1	47.3.8	58.3.4	68.3.6	78.3.7	88.3.7	98.3.7	108.3.7	118.3.7	128.3.7
Raleigh, N. C. (AP)...	42.3.2	43.3.2	50.4.4	59.3.5	68.3.5	77.3.5	86.3.5	95.3.5	104.3.5	113.3.5	122.3.5	131.3.5
Rapid City, S. D. (AP)...	22.4.24	5.5	31.10.45	1.7.56	2.7.65	3.1.74	1.8.72	1.2.12	1.0.50	8.35	4.27	3.3
Reno, Nevada (AP)...	30.1.2	36.1.0	42.7.48	5.54	5.60	4.68	3.66	2.59	2.49	3.58	6.32	11.1
Richmond, Va. (AP)...	39.3.5	40.2.9	48.3.4	58.3.8	68.3.8	76.3.4	79.3.7	78.3.7	72.3.5	61.2.6	50.1.3	43.2.7
Roseburg, Ore. (AP)...	40.5.5	42.4.5	49.5.2	60.3.7	69.3.7	77.3.3	80.3.8	79.3.7	73.3.5	62.3.4	49.3.3	41.2.2
St. Louis, Mo. (AP)...	32.2.0	35.2.0	43.3.1	55.3.7	64.3.7	74.3.7	83.3.					

Normal Temperatures, Highs, Lows; Precipitation

Source: National Weather Records, ESSA, Dept. of Commerce

These normals are based on records for the thirty-year period 1931 to 1960 inclusive. See explanation on page 289.

Extreme temperatures are based on records for the present and prior locations thru 1967. If the station is now at an airport, one or both extremes may have occurred at other than the airport location.

AP indicates airport station; those not so marked are city office stations.

The minus (—) sign indicates temperatures below zero. Fahrenheit thermometer registration.

State	Station	Normal temperature				Extreme temperature		Normal annual precipitation (inches)
		January		July		Highest	Lowest	
		Max.	Min.	Max.	Min.			
Alabama.....	Mobile (AP).....	62	44	92	73	104	-1	68.13
Alabama.....	Montgomery (AP).....	59	38	92	72	107	-5	50.69
Alaska.....	Juneau (AP).....	30	20	63	48	89	-20	54.62
Arizona.....	Phoenix (AP).....	64	35	105	75	118	16	7.20
Arkansas.....	Little Rock (AP).....	51	31	93	71	110	-14	48.66
California.....	Los Angeles.....	65	47	83	63	110	28	14.68
California.....	San Francisco (AP).....	55	42	72	54	106	20	18.69
Colorado.....	Denver (AP).....	42	15	88	57	105	-30	14.81
Connecticut.....	New Haven (AP).....	37	22	81	63	101	-15	46.02
Delaware.....	Wilmington (AP).....	41	26	86	66	107	-15	44.56
Dist. of Col.....	Washington (AP).....	44	30	87	69	106	-15	40.78
Florida.....	Jacksonville (AP).....	67	45	92	73	105	10	53.36
Florida.....	Key West (AP).....	74	65	87	79	100	41	39.99
Florida.....	Miami (AP).....	76	58	89	75	100	28	59.76
Georgia.....	Atlanta (AP).....	52	37	87	71	103	-9	47.14
Hawaii.....	Honolulu (AP).....	79	66	85	73	93	54	21.89
Idaho.....	Boise (AP).....	36	22	91	59	112	-28	11.43
Illinois.....	Chicago (AP).....	33	19	84	67	105	-23	33.18
Indiana.....	Indianapolis (AP).....	37	21	86	64	107	-25	39.25
Iowa.....	Des Moines (AP).....	29	11	87	65	110	-30	30.37
Iowa.....	Dubuque (AP).....	27	11	84	62	110	-32	35.71
Kansas.....	Wichita (AP).....	42	22	92	69	114	-22	28.41
Kentucky.....	Louisville (AP).....	44	27	89	67	107	-20	41.32
Louisiana.....	New Orleans (AP).....	64	45	91	73	102	7	62.96
Maine.....	Portland (AP).....	32	12	80	57	103	-39	42.85
Maryland.....	Baltimore (AP).....	44	25	87	66	107	-7	43.05
Massachusetts.....	Boston (AP).....	37	23	82	65	104	-18	42.77
Michigan.....	Detroit, City (AP).....	33	21	84	65	105	-24	30.95
Michigan.....	Sault Ste. Marie.....	23	8	76	54	98	-37	31.32
Minnesota.....	Minn.-St. Paul (AP).....	22	2	84	61	108	-34	24.78
Mississippi.....	Vicksburg.....	57	41	90	73	104	-1	49.50
Missouri.....	St. Louis (AP).....	40	24	89	67	115	-23	35.31
Montana.....	Helena (AP).....	29	8	84	52	103	-42	10.85
Nebraska.....	Omaha (AP).....	32	13	90	67	114	-32	27.56
Nevada.....	Winnemucca (AP).....	40	15	92	50	108	-36	8.63
New Hampshire.....	Concord (AP).....	32	11	83	56	102	-37	38.80
New Jersey.....	Atlantic City (AP).....	43	27	84	66	104	-9	42.36
New Mexico.....	Albuquerque (AP).....	46	24	91	66	104	-16	8.13
New Mexico.....	Roswell (AP).....	55	21	95	62	110	-29	11.62
New York.....	Albany (AP).....	31	14	84	61	104	-26	35.08
New York.....	New York.....	40	27	85	68	106	-15	42.37
No. Carolina.....	Charlotte (AP).....	51	34	89	70	104	-5	43.38
No. Carolina.....	Raleigh (AP).....	52	31	88	68	105	-2	43.58
No. Dakota.....	Bismarck (AP).....	20	0	86	58	114	-45	15.15
Ohio.....	Cincinnati.....	41	26	88	66	109	-17	39.51
Ohio.....	Cleveland (AP).....	35	20	83	60	103	-19	35.35
Oklahoma.....	Oklahoma City (AP).....	46	28	93	72	113	-17	30.82
Oregon.....	Portland.....	44	33	79	56	107	-3	42.37
Pennsylvania.....	Harrisburg (AP).....	39	24	87	65	107	-14	37.65
Pennsylvania.....	Philadelphia (AP).....	40	24	86	65	106	-11	42.48
Rhode Island.....	Block Island (AP).....	38	26	76	63	91	-4	40.45
So. Carolina.....	Charleston (AP).....	61	38	89	72	104	7	49.16
So. Dakota.....	Huron (AP).....	23	2	90	60	112	-43	17.33
So. Dakota.....	Rapid City (AP).....	34	10	88	60	109	-33	14.71
Tennessee.....	Nashville (AP).....	49	31	91	70	107	-15	45.11
Texas.....	Amarillo (AP).....	50	24	94	67	108	-16	19.67
Texas.....	Galveston.....	61	49	87	79	101	8	41.81
Texas.....	Houston (AP).....	64	44	92	74	108	5	45.26
Utah.....	Salt Lake City (AP).....	37	18	94	60	107	-30	13.90
Vermont.....	Burlington (AP).....	25	7	82	56	101	-30	33.21
Virginia.....	Norfolk (AP).....	50	32	88	70	105	2	44.94
Washington.....	Seattle-Tacoma (AP).....	44	33	76	54	99	0	38.94
Washington.....	Spokane (AP).....	31	19	86	55	108	-30	17.19
West Virginia.....	Parkersburg.....	43	26	86	65	106	-27	38.77
Wisconsin.....	Madison (AP).....	26	9	82	60	107	-37	30.16
Wisconsin.....	Milwaukee (AP).....	28	13	79	58	105	-35	29.51
Wyoming.....	Cheyenne (AP).....	37	14	85	55	100	-38	15.06
Puerto Rico.....	San Juan (AP).....	81	67	87	74	94	60	64.21

Mean Annual Snowfall (Inches) based on record thru 1967—Denver, Colo. (AP) 58.3; Boston, Mass. (AP) 42.4; Sault Ste. Marie, Mich. (AP) 103.6; Minn.-St. Paul, Minn. (AP) 43.3; Albany, N. Y. (AP) 63.3; Rochester, N. Y. (AP) 81.9; Cleveland, Ohio (AP) 50.5; Burlington, Vt. (AP) 70.9; Cheyenne, Wyo. (AP) 52.6; Juneau, Alaska (AP) 103.0.

Wettest Spot: Mount Waialeale, Hawaii, on the island of Kauai, is the rainiest place in the world, according to the National Geographic Society, with an average annual rainfall of 471.68 inches.

Highest Temperature: A temperature of 136° F. observed at Azizia, Tripolitania in Northern Africa on Sept. 13, 1922 is generally accepted as the world's highest temperature recorded under standard conditions.

The record high in the United States was 134° in Death Valley, Calif., July 10, 1913.

Lowest Temperature: A record low temperature of -128.9°F (-88.3°C.) was recorded at the Soviet Antarctic station Vostok on Aug. 24, 1960.

The record low in the United States was -76° at Tanana, Alaska, Jan. 1886.

The lowest official temperature on the North American continent was recorded at 81 degrees below zero in February, 1947, at a lonely airport in the Yukon called Snag.

These are the meteorological champions—the official temperature extremes—but there are plenty of other claimants to thermometer fame. However, sun readings are unofficial records, since meteorological data to qualify officially must be taken on instruments in sheltered and ventilated location.

Low and High Temperature Records of U. S. Weather Bureau

Data through 1967

State	Temperature °F		Latest Date	Station (* Approximate elevation)	Elevation Feet
	Lowest	Highest			
Alabama.....	-24		Jan. 30, 1966	Russellville 2.....	880
		112	Sept. 5, 1925	Centerville.....	345
Alaska.....	-76		Jan. 1886	Tanana.....	*230
		100	June 27, 1915	Fort Yukon.....	*419
Arizona.....	-37		Jan. 13, 1963	Maverick.....	7,800
		127	July 7, 1905	Parker.....	345
Arkansas.....	-29		Feb. 13, 1905	Pond.....	1,250
		120	Aug. 10, 1936	Ozark.....	396
California.....	-45		Jan. 20, 1937	Boca.....	5,532
		134	July 10, 1913	Greenland Ranch.....	-178
Colorado.....	-60		Feb. 1, 1951	Taylor Park.....	9,206
		118	July 11, 1888	Bennett.....	5,484
Connecticut.....	-32		Jan. 22, 1961	Cowenry.....	480
		105	July 22, 1926	Waterbury.....	409
Delaware.....	-17		Jan. 17, 1893	Millsboro.....	535
		110	July 21, 1930	Millisboro.....	20
Dist. of Col.....	-15		Feb. 11, 1899	Washington.....	112
		106	July 20, 1930	Washington.....	112
Florida.....	-2		Feb. 13, 1899	Tallahassee.....	193
		109	June 29, 1931	Monticello.....	207
Georgia.....	-17		Jan. 27, 1940	CCC Camp F-16.....	1,000
		112	July 24, 1952	Louisville.....	337
Hawaii.....	18		Feb. 20, 1962	Mauna Loa Slope Obs.....	11,416
		100	Apr. 27, 1931	Paia.....	850
Idaho.....	-60		Jan. 18, 1943	Island Park Dam.....	6,285
		118	July 28, 1934	Orofino.....	1,027
Illinois.....	-35		Jan. 22, 1930	Mouat Carroll.....	817
		117	July 14, 1954	E. St. Louis.....	410
Indiana.....	-35		Feb. 2, 1951	Greensburg.....	954
		116	July 14, 1936	Collegeville.....	672
Iowa.....	-47		Jan. 12, 1912	Washta.....	1,157
		118	July 20, 1934	Keokuk.....	614
Kansas.....	-40		Feb. 13, 1905	Lebanon.....	1,818
		121	July 24, 1936	Atoka (near).....	1,551
Kentucky.....	-34		Jan. 24, 1963	Bonnville 4, N.....	474
	-34		Jan. 28, 1963	Cynthiana 2.....	895
		114	July 28, 1930	Greensburg.....	581
Louisiana.....	-16		Feb. 13, 1899	Minden.....	194
		114	Aug. 10, 1936	Plain Dealing.....	268
Maine.....	-48		Jan. 19, 1925	Van Buren.....	510
		105	July 10, 1911	North Bridgton.....	450
Maryland.....	-40		Jan. 13, 1912	Oakland.....	2,461
		109	July 10, 1936	Cumberland and Frederick.....	623-325
Massachusetts.....	-34		Jan. 18, 1957	Bech Hill Dam.....	840
		106	July 4, 1911	Lawrence.....	51
Michigan.....	-51		Feb. 9, 1934	Vanderbilt.....	785
		112	July 13, 1936	Mio.....	963
Minnesota.....	-59		Feb. 16, 1903	Pokegama Dam.....	1,280
		114	July 6, 1936	Moorhead.....	940
Mississippi.....	-19		Jan. 30, 1966	Corinth + SW.....	420
		115	July 29, 1930	Holly Springs.....	600
Missouri.....	-40		Feb. 13, 1905	Warsaw.....	700
		118	July 14, 1954	Warsaw.....	687
Montana.....	-70		Jan. 20, 1954	Rogers Pass.....	5,470
		117	July 5, 1937	Medicine Lake.....	1,950
Nebraska.....	-47		Feb. 12, 1899	Camp Clarke.....	3,700
		118	July 24, 1936	Minden.....	2,169
Nevada.....	-50		Jan. 8, 1937	San Jacinto.....	5,200
		122	June 23, 1954	Overton.....	1,240
New Hampshire.....	-46		Jan. 28, 1925	Pittsburg.....	1,575
		106	July 4, 1911	Nashua.....	125
New Jersey.....	-34		Jan. 5, 1904	River Vale.....	70
		110	July 10, 1936	Riverton.....	673
New Mexico.....	-50		Feb. 1, 1951	Gavilan.....	7,350
		116	July 14, 1934	Orogrande.....	4,171
New York.....	-52		Feb. 9, 1934	Stillwater Reservoir.....	1,670
		108	July 22, 1926	Troy.....	35
North Carolina.....	-26		Jan. 30, 1966	Grandfather Mtn.....	5,300
		109	Sept. 7, 1954	Weldon.....	81
North Dakota.....	-60		Feb. 15, 1936	Parshall.....	1,929
		121	July 6, 1936	Steele.....	1,857
Ohio.....	-39		Feb. 10, 1899	Milligan.....	800
		113	July 21, 1934	Gallipolis (near).....	673
Oklahoma.....	-27		Jan. 18, 1930	Watts.....	958
		120	July 26, 1943	Tishmouingo.....	670
Oregon.....	-54		Feb. 10, 1933	Seneca.....	4,700
		119	Aug. 10, 1898	Pendleton.....	1,074
Pennsylvania.....	-42		Jan. 5, 1904	Smethport.....	*1,500
		111	July 10, 1936	Phoenixville.....	100
Rhode Island.....	-23		Jan. 11, 1942	Kingston.....	100
		102	July 30, 1949	Greenville.....	420
South Carolina.....	-13		Jan. 26, 1940	Lancreek (near).....	1,631
		111	June 28, 1954	Camden.....	170
South Dakota.....	-58		Feb. 17, 1936	McIntosh.....	2,277
		120	July 5, 1936	Gannaville.....	1,750
Tennessee.....	-32		Dec. 30, 1917	Mountain City.....	2,471
		113	Aug. 9, 1930	Perryville.....	377
Texas.....	-24		Jan. 19, 1963	Orange Gulf States Utilities.....	10
		120	Aug. 12, 1936	Seymour.....	1,291
Utah.....	-50		Jan. 5, 1913	Strawberry Tunnel.....	7,650
		116	June 28, 1892	Saint George.....	2,880
Vermont.....	-50		Dec. 30, 1933	Bloomfield.....	915
		105	Feb. 4, 1911	Vernon.....	810
Virginia.....	-29		July 10, 1899	Monterey.....	*3,008
		110	July 15, 1954	Balcony Falls.....	725
Washington.....	-42		Jan. 20, 1937	Deer Park (near).....	2,090
		118	Aug. 5, 1961	Ice Harbor Dam.....	475
West Virginia.....	-37		Dec. 30, 1917	Lewisburg.....	2,200
		112	July 10, 1936	Martinsburg.....	435
Wisconsin.....	-54		Jan. 24, 1922	Danbury.....	908
		114	July 13, 1936	Wisconsin Dells.....	900
Wyoming.....	-63		Feb. 9, 1933	Moran.....	6,770
		114	July 12, 1900	Basin.....	3,500

Tides and Their Causes

Source: U. S. Coast and Geodetic Survey, ESSA
See index for tide tables

The tides are a natural phenomenon involving the alternating rise and fall in the large fluid bodies of the earth caused by the combined gravitational attraction of the sun and moon. The combination of these two variable force influences, as modified by certain factors such as depth of the water, configuration of the shoreline, and geographic location, produce the complex recurrent cycle of the tides. Tides may occur in both oceans and seas, to a limited extent in large lakes, the atmosphere, and, to a very minute degree, in the earth itself. The period between succeeding tides varies as the result of many factors and force influences.

The tide-generating force represents the difference between (1) the centrifugal force produced by the revolution of the earth around the common center-of-gravity of the earth-moon system and (2) the gravitational attraction of the moon acting upon the earth's overlying waters. Similar tide-producing forces exist in the earth-sun system. Since, on the average, the moon is only 238,857 miles from the earth compared with the sun's much greater distance of 93,000,000 miles, this closer distance outranks the much smaller mass of the moon compared with that of the sun, and the moon's tide-raising force is, accordingly, $2\frac{1}{2}$ times that of the sun.

The effect of the tide-generating forces of the moon and sun acting tangentially to the earth's surface (the so-called "tractive force"), tends to cause a maximum accumulation of the waters of the oceans at two diametrically opposite positions on the surface of the earth and to withdraw compensating amounts of water from all points 90° removed from the positions of these tidal bulges. The presence of the continents, as well as other factors, prevent the total free movement of water. However, as the earth rotates beneath the maxima and minima of these tide-generating forces, a sequence of two high tides, separated by two low tides, ideally is produced each day.

Twice in each lunar month, when the sun, moon, and earth are directly aligned, with the

moon between the earth and the sun (at new moon) or on the opposite side of the earth from the sun (at full moon), the sun and the moon exert their gravitational force in a mutual or additive fashion. Higher high tides and lower low tides are produced. These are called *spring tides*. At two positions 90° in between, the gravitational forces of moon and sun—imposed at right angles—tend to counteract each other to the greatest extent, and the range between high and low tides is reduced. These are called *neap tides*. This semi-monthly variation between the spring and neap tides is called the *phase inequality*.

The inclination of the moon's orbit to the equator also produces a difference in the height of succeeding high tides and in the extent of depression of succeeding low tides which is known as the *diurnal inequality*. In extreme cases, this phenomenon can result in only one high tide and one low tide each day. The changing distance of the moon from the earth in each lunar month due to the elliptical orbit of the moon, produces a difference in the height of the tides known as the *lunar parallax inequality*. The changing distance of the earth from the sun during the earth's annual revolution around the sun similarly introduces the *solar parallax inequality*.

The actual amount of uplift of the waters in the deep ocean may amount to only one or two feet. However, as this tide approaches shoal waters and its effects are augmented, the tidal range may be greatly increased. In Nova Scotia, along the narrow channel of the Bay of Fundy, the range of tides, or difference between high and low waters, may reach 43½ feet or more (under spring tide conditions) due to resonant amplification.

At New Orleans, the periodic rise and fall of the tide varies with the stage of the Mississippi River being about 10 inches at low river stage and zero at high river stage. The Canadian Tide Tables for 1968 give a maximum range of nearly 50 feet at Leaf Basin, Ungava Bay, Canada. The mean range at Calais, Maine, is 20 feet but a range in excess of 23 feet can be expected each month.

U. S. Weather Satellite System Views Entire Globe Daily

Source: Environmental Science Services Administration

Since the successful launching of ESSA 1 and ESSA 2 (Environmental Survey Satellites) in Feb. 1966, the United States has had an operational weather satellite system providing both global and local cloud-cover pictures at least once every day. The TOS (TIROS Operational Satellite) system is composed of two ESSA spacecraft, one with automatic-picture-transmission capability and one with picture-storage capability. These satellites are similar to the earlier TIROS spacecraft, but are redesigned so that all pictures are taken when the camera is looking directly at the earth. They view the entire earth at least once every 24 hours.

Additional spacecraft are launched as needed to maintain the operational capability of the system. Picture-storage satellites ESSA 1 (Feb. 1, 1966), ESSA 3 (Oct. 2, 1966), and ESSA 5 (Apr. 20, 1967) record photographs for transmission to a major command and data acquisition station. These global pictures are used in preparing charts for transmission by facsimile, teletypewriter, and radio to weather stations in the United States and other nations. Automatic-picture-transmission (APT) spacecraft ESSA 2 (Feb. 28, 1966), ESSA 4 (Jan. 26, 1967) and ESSA 6 (Nov. 10, 1967) carry special cameras which send pictures within seconds after they are taken directly to simple receiving stations on the ground. More than 400 APT ground stations are in operation around the world. The TOS system is managed and operated by the National Environmental Satellite Center of the Environmental Science Service Admin. The space-

craft are launched by National Aeronautics & Space Admin.

The era of weather observation by satellite was inaugurated on April 1, 1960, with the successful launching and operation of the 270-lb. TIROS I. This satellite, equipped with two television cameras, obtained many thousand pictures of the cloud cover over large portions of the earth, including oceans and sparsely settled land regions where there are few fixed observation stations. TIROS I was followed by nine more equally successful satellites: TIROS II launched in November 1960, TIROS III in July 1961; IV in February 1962, V in June 1962, VI in September 1962, VII in June 1963, VIII in December 1963, IX in January 1965, and X in July 1965. Larger and more complex meteorological satellites, Nimbus I and Nimbus II, were launched by NASA on August 28, 1964 and May 15, 1966, respectively, as research and development experiments.

The Applications Technology Satellites, ATS I and III, launched respectively by NASA on Dec. 6, 1966, and November 5, 1967, carried experimental cloud cameras that can photograph a circular area of the earth 3600 nautical miles in radius. These cameras can take a picture once every 24 minutes from their geostationary location 22,300 miles above a point on the equator. These pictures, received on the ground by a television system, can be made into time-lapse motion pictures from which cloud motions and wind information can be extracted.

Hurricanes' Names in 1969-70

The Weather Bureau has used girls' names to identify hurricanes in the Atlantic, Caribbean and Gulf of Mexico since 1953. A semi-permanent list of 4 sets of names in alphabetical order was established in 1960. Hurricane season begins June 1.

Names assigned to potential hurricanes: 1969—Anna, Blanche, Carol, Debbie, Eve, Francella, Gerda, Holly, Inga, Jenny, Kara, Laurie, Martha, Netty, Orva, Peggy, Rhoda, Sadie, Tanya, Virgy, Wenda. 1970—Alma, Becky, Celia, Dorothy, Ella, Felice, Greta, Hallie, Inez, Judith, Kendra, Lois,

Marsha, Noreen, Orpha, Patty, Rena, Sherry, Thora, Vicki and Wilna.

Hurricanes and typhoons in the Eastern North Pacific (U. S. West Coast) are also identified by girls' names. Names assigned are: 1969—Ava, Bernice, Claudia, Doreen, Emily, Florence, Glenda, Hazel, Irah, Jennifer, Katherine, Lillian, Mona, Natalie, Odessa, Prudence, Roslyn, Sylvia, Tillie, Victoria, Wallie. 1970—Adele, Bianca, Celine, Dolores, Eileen, Francesca, Gretchen, Helga, Ione, Joyce, Kirsten, Lorraine, Maggie, Norma, Oriene, Patricia, Rosalie, Selma, Toni, Vivian and Winona.

MEMORABLE DATES

Consult also Chronology, Aviation Records, Polar Explorations, Fast Ocean Passages, Train Records, Marine Disasters, Political Assassinations, Earthquakes, Tornadoes, Amendments to the Constitution, Noted Personalities, Astronomical Data, Sporting Records and other classifications.

B. C.

3000

Indus Valley Civilization, sites at Mohenjo-Daro and Harappa in West Pakistan. Civilization had complex form of government, elaborate irrigation and drainage system, writing, well laid out streets, and houses of several stories. End came about 1500 B.C.

Pyramids begun by kings of Egypt at Sakkarah. Cheops built great pyramid at Giza; Chephren second largest. Sphinx built about 2900 B.C.

c. 1792-1750

Hammurabi ruled west Semitic kingdom of Babylon; wrote great code of laws. Ruled Canaan in days of Abraham.

1450

Moses led the Israelites out of Egypt (approx.).

1360

Ikhnoton introduced monotheistic worship of Aten, or sun, in Egypt. A successor, Tutankhamen revived polytheistic orthodox. 1350 B.C. Tutankhamen buried at Thebes, 1344 B.C., tomb opened by Howard Carter and Lord Carnarvon, 1923-24 A.D.

1184

Troy fell to Greeks after 10-year siege, according to Homer. While poem is legendary, numerous battles were waged on site at northwest corner of Asia Minor, three miles from Hellespont (Dardanelles). Later town of Ilium was visited by Xerxes and exploited by Alexander the Great. Romans, glorifying their legendary descent from Aeneas, who escaped from Troy, built up Ilium.

In 1871 A.D. Henry Schliemann, German archaeologist, excavated site of Troy on hill of Hissarlik and found deposits of seven cities. Dorpfeld found two more. Schliemann identified second city with Homer's Troy, but objects found in sixth city correspond better with Greek remains of 1200 to 1100 B.C. found at Agamemnon's Mycenae.

1000

On death of King Saul, c. 1000 B. C., David became king of Israel but ruled only the southern kingdom of Judah. Thereafter he ruled all Israel, made Jerusalem capital. Solomon, son of David and Bathsheba, ruled c. 973-933 B.C.

753

Romulus founded Rome, according to legend. Hitties occupied for centuries by Indo-Europeans and Sabines, sheep herders. 613

Babylonians destroyed Nineveh, Assyrian capital. Nebuchadnezzar's Babylonians defeated Egyptians at Carchemish 605 B. C. Built hanging gardens. Destroyed Solomon's temple. 589 B.C.

563

Gautama (Sakyamuni) Buddha, "the Enlightened," born near Himalayas; died 483 B.C., aged 80. Taught that painful life is caused by desire. End desire to end pain in life.

551

Confucius (Latinized form of K'ung-fu-tze) Chinese social philosopher, born; died 478 B.C. Taught: "Do not do to others what you do not wish done to you."

490

King Darius' Persian army landed at Marathon to march on Athens. Athenian infantry numbering 10,000 routed 30,000 Persians.

481-480

Persian King Xerxes assembled a great host at Sardis to invade Greece. His Phoenicians and Egyptians built two ship bridges across Hellespont from Abydos (Nagara) to Sestos, 2,000 yards long. One bridge of planks and darts rested on 360 ships; the other on 314. Herodotus says army crossed for seven days and seven nights.

At Thermopylae, 480 B. C., Leonidas and 300 Spartans, supported by 700 Thespians and 400 Thebans, held off Persians in pass until overcome. Persians took Athens and Attica. Athenians under Themistocles destroyed Persian fleet at Salamis under eyes of Xerxes, won land battle. Rallying about 70,000 from Greek states, they routed Persians at Platea 479 B. C.

438

Parthenon completed at Athens, 101'4" by 228'2". Doric columns 33' tall, roof height 60'. Ictinus and Callicrates, designers; Phidias, chief sculptor.

431

Peloponnesian War began between Athens and Sparta. War ended 404 B.C. with Sparta victorious.

399

Socrates, Greek philosopher, condemned by Athenian state, drank hemlock (dropwort). Plato, his disciple, recorded 35 dialogues, great philosophical work Dialogues recommended: Gorgias, Apology, Crito, Phaedo, Republic, Phaedrus, Banquet. Xenophon, another disciple, recorded memorabilia.

Alexander "the Great" of Macedon, born. Ruthless and energetic military leader, defeated Persians at Granicus, Issus, Arbela; conquered Asia Minor and Egypt, burned Persian capital, Persepolis, carried war to the Punjab. Founder of Alexandria. Died of fever at Babylon, 323 B. C.

323

Aristotle, Greek philosopher with scientific mind, disciple of Plato, died. 62. Demosthenes, Greek statesman, died.

300

Invention of Mayan calendar in Yucatan—approximate date—giving solar year 365.24 days and lunar month 29.52 days. Considered more exact than older calendars of Babylon, Assyria, Egypt, Greece.

264

Rome began first Punic war against Carthage, rich commercial seaport on Bay of Tunis. In 241 B.C., Carthage ceded Sicily and Lipari islands; in 239 B.C., Rome annexed Sardinia and Corsica.

218-146

Hannibal, young Carthaginian, started a campaign against Rome during the Second Punic War. Crossed from Spain to Italy via Mount Genevre in Alps with 20,000 infantry, 6,000 cavalry, and elephants. Defeated Romans at Lake Trasimene, 217 B.C., and Cannae, 216 B.C. Victories nullified by Fabius, "the delayer," hence "Fabian retreat." War closed with defeat of Carthage in Africa by Publius Scipio 202 B.C. Hannibal, after career in Asia Minor, committed suicide in Bithynia upon betrayal to Romans, c. 183 B.C.

Third Punic war, 149-146 B. C., ended with total destruction of Carthage. Later Roman colony built there; city eventually destroyed by Saracens, 698 A. D.

60-27

Julius Caesar formed first triumvirate with Pompey and Crassus 60 B. C.; defeated Helvetii, Belgae 58-57 B. C.; entered Britain 55 and 54 B. C. Crossed river Rubicon to fight Pompey, defeated him at Pharsalus 48 B. C. Defeated Pharnaces at Zela, Asia Minor, 47 B. C., sent "veni, vidi, vici" message: "I came, I saw, I conquered," to Roman Senate. Lived with Cleopatra, queen of Egypt, in Rome 46-44 B. C. Was dictator but refused crown.

Caesar assassinated in Roman Senate by group led by Cassius and Brutus, 44 B. C. Caesar's will made his grand-nephew, Gaius Octavius, successor; he formed new triumvirate, Octavius ruling West, Mark Antony East and Lepidus Africa. At Philippi, 42 B. C., Antony defeated Cassius and Brutus; both committed suicide. Antony joined Cleopatra in Alexandria; they had 3 sons. Octavius defeated their fleet at Actium, 31 B. C.; they committed suicide. Octavius received title of Augustus (venerated) 27 B. C., called first Roman emperor. Pax Romana began. Romans victorious until 9 A.D., when Germans under Arminius defeated Varus. Augustus died 14 A.D.

1

Birth of Jesus Christ in Bethlehem.

1 B. C. and 1 A. D.

The year 1 B. C. is the first year before the beginning of the Christian era. The year 1 A. D. is the first year of the Christian Era. Jan. 1, 1 B. C. is just one year before Jan. 1, 1 A. D. The elapsed number of years between a date B. C. and the same date A. D. is one less than the sum of the years. The Christian era was calculated by the monk Dionysius Exiguus in the 6th century after Christ. He placed Jesus' birth on Dec. 25 in the year 753 of Rome, and decided 754 should be the first year of the Christian era. Biblical scholars find his calculations in error and place the birth of Jesus at 4 B. C. or earlier.

A. D.

THE CHRISTIAN ERA

29

Crucifixion of Jesus in reign of Roman emperor, Tiberius; Pontius Pilate procurator in Judea. The Roman Catholic church gives the date of the crucifixion as April 7, 30 A. D.

43

Roman Emperor Claudius subdued Britons; occupation of 300 years begun.

64

Persecution of Christians by Nero; burning of Rome. Apostles Paul and Peter martyred, c. 67.

70

Jerusalem destroyed by Titus, Christians persecuted, worship in catacombs of Rome.

79

Pompeii, Herculaneum, Stabii, destroyed by eruption of Mt. Vesuvius.

180
Death of Marcus Aurelius: onset of Roman decline. 311

Emperor Galerius, on deathbed, agreed to tolerance of Christians, Emperor Constantine, 313 promulgated Edict of Milan, made Christianity legal. 325

Council of Nicaea called by Constantine in Bithynia, Asia Minor, to get churchmen to define orthodox Christian belief, Divinity of Christ and Holy Trinity endorsed; minority view of Arius rejected. 330

Constantine dedicated Byzantium capital of Eastern Empire, henceforth called Constantinople, now Istanbul. Baptized a Christian on his deathbed by Eusebius, 337 A.D. 380

Theodosius, Roman emperor, made Christianity based on Nicene creed official religion, banned pagan gods. 410

Rome sacked by Alaric, the Goth; by Genseric, the Vandal, 455. 432

Bishop Patrick, native of Severn valley, sent as missionary to Ireland; labored 30 years, converting natives to Christianity. In 563 Columba founded church on Iona. In 597 Augustine arrived, founded church at Canterbury. All three were canonized. 449

Anglo-Saxon migrations from continent to Britain begin at Dover. 483

Justinian I, Byzantine emperor, born; died 565. During reign had Tribonian prepare Justinian Code (Corpus Juris Civilis) which became basic Roman law used later as a model by many modern European states. Santa Sophia built. 570

Mohammed, born in Mecca; Hegira, flight from Mecca, 622. Year 1 of Moslem calendar. Saracens crossed to Spain 711, established Moorish kingdom, lasted until 1492. 731

Great period of Mayan empire began, closed 987. 732

Charles Martel, Frankish ruler, defeated 90,000 Moors at Tours, France; highwater mark of Moslem invasion of Western Europe. 800

Charlemagne, king of Franks, proclaimed Holy Roman Emperor by Pope Leo III on Christmas Day in St. Peter's. Charlemagne fought Saxons, Lombards, Saracens 30 years to Christianize them; extended empire from Atlantic to eastern boundaries of Hungary. Died 814, aged 72, was buried in his cathedral at Aix. His empire broke apart. 1000

Leif Ericsson's Norsemen reach Vinland, land of grape vines. Various identified as Labrador, New England coast and Martha's Vineyard. 1014

Brian Boru, Irish king, defeated Danes at Clontarf. 1027

New empire of Mayas extended north to Mexico. Disintegration accelerated by pestilence, 1480. Destruction of Tayasal, Guatemala, Itza capital, by Spanish governor of Yucatan, 1697, ended Mayan millennium. 1054

Final break between Eastern (Orthodox) and Western (Roman) church came when Pope Leo IX excommunicated Michael Cerularius and his followers. Eastern Orthodox Church became established religion of Russia under the Czars. Russian patriarchate formed 1589. 1066

William of Normandy conquered England at Hastings, Oct. 14; Harold II, last Saxon king of England, slain. 1096

First crusade, preached by Peter of Amiens, supported by Pope Urban II, raised 100,000 men. Captured Jerusalem, 1099. Acre, 1104. Second, 1146, lost Jerusalem to Saladin. Third, 1189, Richard I of England took Jaffa. Fourth, 1200, besieged Constantinople, 1204. Fifth, 1216, achieved 10-year truce. Sixth, 1238, lost ground. Seventh, 1245, led by Louis IX (St. Louis) of France, who was captured, 1250. Eighth, 1270, led by Louis, who died near Tunis, 1270. Children's crusade, 1212, 50,000 children (est.) disbanded in Italy or lost. 1162

Genghis Khan, Mongol chief, born; died 1227. Captured Peking, 1215, defeated Russians, 1223, conquered most of Central Asia, and massacred population of Herat, Afghanistan. By 1241, Mongols under Batu had burned Moscow and Kiev and invaded Poland, Hungary, and the Danube Valley. 1215

Magna Carta, the great charter of England, signed by King John at Runnymede at insistence of 2,000 English barons who refused to fight on foreign

soil and demanded end of illegal levies by king. Charter guaranteed privileges of nobility, church free from secular interference, right of freemen to legal protection. Freemen were privileged class; common people were villein farmers, practically serfs. But 400 years later Edward Coke and Puritans demanded protection for the common people under these rights of freemen. Also invoked Clause 39, out of which trial by jury developed. It reads: No freeman shall be taken or imprisoned, or disseised, or outlawed, or banished, or in any way destroyed, nor will we go upon him, nor send upon him, except by the legal judgment of his peers or by the law of the land. 1271

Marco Polo started with father and uncle for Cathay (China) Mongol kingdom of Kublai Khan. Served under Khan, returned to Venice 1295. Wrote Travels. 1272

Thomas Aquinas, greatest scholastic philosopher, died. 1300

Dante and Giotto flourished: Dawn of Renaissance. 1309

Clement V, French pope, made Avignon seat of church; Urban V returned to Rome, 1367, abandoned it; Gregory XI finally reentered St. Peter's, 1377. During the Great Schism, 1378-1417, French and Italian factions chose popes for Avignon and Rome; breach healed by Martin V, 1417. 1346

Battle of Crecy (Dept. of Somme, France) Aug. 26, Edward III of England defeated Philip VI of France. Possibly first use of cannon. 1348

Black Death (bubonic plague) hit Venice, rapidly spreading to rest of Europe by 1349. An estimated one-fourth of European population killed. 1382

John Wycliffe, Oxford forerunner of Reformation, (1320-1384) directed translation of Vulgate Bible into English vernacular. Supported bill in parliament declaring it sinful for clergy to hold property. By elevating Scriptures above church authority he anticipated Lutheran doctrine by 150 years. 1415

John Huss, Bohemian preacher, follower of Wycliffe, agitator of ecclesiastic reforms, burned at stake in Constance July 6 for heresy after German Emperor Sigismund revoked his safe-conduct. 1429

Joan of Arc, maid of Domremy, France, obeying voices of her saints, rallied French against English, raised siege of Orleans, effected coronation of Charles VII at Reims. Through carelessness or treachery she was captured by Burgundians May 24, 1430, and sold to English for 10,000 livres. Placed on trial before Bishop of Beauvais at Rouen for (1) magic, (2) disobeying parents, (3) wearing male attire, and (4) heresy, she admitted all after 14 days to escape perjury, was given life imprisonment. Tricked to resume male attire, she was condemned to death and burned at Rouen by English May 30, 1431. Sentence revoked 25 years later. Joan has been canonized as saint. 1453

Constantinople captured by Ottoman Turks. End of 100-years' war between England and France, begun 1338. England lost all except Calais, which French captured 1558. 1456

Johann Gutenberg (Gansfleisch) completed first Bible printed from movable type; 2 vols., folio, 42 lines 2 columns to page. Printing took five years. Date established by note in Mazarin copy. 1457

Johann Fust and Peter Schoeffer produced first book printed in colors, and having printers' name, date and place, a Psalter. 1475

William Caxton printed first book in English, translation of a French history of Troy, at Bruges, Belgium. He moved to Westminster, London, printed first book in England, 1477. 1492

Christopher Columbus, Genoese navigator, after years of agitation in Spain gained support of Queen Isabella for westward voyage. Left Palos Aug. 3 with Santa Maria, 100 tons, 52 men; Pinta, 50 tons, 18 men; Nina, 40 tons, 18 men. On Oct. 12 at 2 a.m., Rodrigo de Triana on Pinta discovered land. Columbus landed on Guanahani, Bahamas, called it San Salvador. Discovered Cuba and Hispaniola (Haiti or San Domingo); built first fort, La Navidad, there. Made Admiral of the Ocean Sea. For later voyages see index. 1497

John Cabot, Venetian employed by English, reached Canada. His son Sebastian joined second voyage, 1498. English claim to Canada based on their discoveries.

Amerigo Vespucci, Italian-born Spanish navigator, asserted he reached American mainland (New World) year before Columbus. Martin Waldsee-

muller of St. Die in book, 1507, asked land be called America "because Americus discovered it."

1498

Savonarola, preacher against luxury and power of clergy, burned as heretic in Florence, May 23.

Vasco da Gama, Portuguese navigator, reached India, discovered all sea route from W. Europe.

1506

Pope Julius II (della Rovere) started new St. Peter's; employed Michelangelo, Bramante, Raphael.

1509

Henry VIII became king of England. Defeated Scots at Flodden Field, 1513. Named defender of the Faith by Pope Leo X for attacking Luther, 1521. When pope refused to annul his marriage to Catherine of Aragon for lack of male issue, Henry divorced Catherine, married Anne Boleyn, 1533. Act of Supremacy abrogated pope's authority, made king head of church in England, 1534. He ordered monasteries closed, 1536.

Queen Anne Boleyn was tried for adultery on order of Henry VIII in 1536 and beheaded. Henry married Jane Seymour, who died 1537, after giving birth to son who became Edward VI. Henry married Anne of Cleves, divorced her 1540. Next Catherine Howard, beheaded 1542. Next, Catherine Parr, 1543, who survived him.

1513

Juan Ponce de Leon, veteran of one Columbus voyage, searched for Bimini, found and named Florida. Died in Cuba, 1521.

Vasco Nunez de Balboa left Spanish town of Santa Maria la Antigua del Darien on isthmus of Panama, discovered South Sea, later called Pacific by Magellan.

1517

Martin Luther, Augustinian monk, preaching faith over works, attacked abuse of selling papal indulgences by posting 95 theses (propositions) on Wittenberg church-door, Oct. 31. Diet of Worms, under Charles V, January, 1521, ordered recantation. Luther, backed by German princes, refused; put Scriptures above papal authority. Defended stand in Rome. Translated Greek New Testament into German, 1522. Became head of German evangelical movement, broke with Rome, married. Augsburg Confession, basic Lutheran creed, presented to Diet there by Melancthon, 1530.

1519

Hernando Cortes began conquest of Mexico.

1520

Fernando Magellan discovered Strait of Magellan. Tierra del Fuego, Ladrones, and Philippines, 1521, for Spain.

1524

Giovanni da Verrazano, Italian employed by French, explored New England coast, probably New York bay.

1526

William Tyndale produced in Cologne first printed version of New Testament in English, suppressed in England. Tyndale executed for heresy, Oct. 6, 1536, at Vilvorde, near Brussels, Belgium.

1529

Turks failed in siege of Vienna: Apex of Ottoman European expansion.

1531-35

Francisco Pizarro conquered Peru for Spain.

1534

John Calvin, French-born religious reformer, published his Institutes of the Christian Religion, influential Protestant doctrine. Rejected Lutheran doctrine of consubstantiation; believed in religious base of citizenship, original sin, infant damnation. Influence extended to Scotch Presbyterians, English Puritans and Puritan New England.

Jacques Cartier, sent by Francis I of France, in two voyages (1534-36) discovered St. Lawrence, reached site of Montreal. Third voyage 1541. Basis of French claims to Canada.

1535

Miles Coverdale published first complete Bible in English. Also worked on first authorized Bible, "the Great Bible," completed 1539. Other editions: Whittingham's New Testament, with Calvin's introduction, 1557; Geneva Bible, 1560; Bishops' Bible, 1568.

1540

Francisco Coronado, searching for gold and "Seven cities of Cibola," explored Southwest north of Rio Grande with 70 horse, 30 foot soldiers. Hernando de Alarcon discovered Colorado river. Don Garcia Lopez de Cardenas discovered Grand Canyon.

1541

Hernando de Soto discovered Mississippi River.

1545

Council of Trent, in Austrian Tyrol, urged on Pope Paul III by Emperor Charles V, to define Catholic dogma and remedy ecclesiastical abuses, opened Dec. 13; continued intermittently until 1563; reiterated supreme papal authority, outlined faith.

1555

Bishops Ridley and Latimer burned at Oxford, Oct. 16; Archbishop Cranmer of Canterbury burned Mar. 21, 1556; 277 other religious leaders

burned in attempt of Queen Mary Tudor to restore Catholic authority. Elizabeth became queen, 1558, made Anglican communion official church.

1560

1200 Huguenots hanged at Amboise. Catherine de Medici, Regent of France for son, Charles IX, by Edict of January, 1562, granted Huguenots right to worship outside walled towns. Infraction of edict led to massacre of Huguenots at Vassy, Mar. 1, 1562, beginning of eight wars of religion. Massacre of St. Bartholomew, Aug. 24, 1572, encouraged by Charles IX on marriage of sister, Marguerite de Valois to Henry of Navarre (non-Catholic). Henry III caused assassination of Catholic leaders, Duc de Guise and Cardinal of Lorraine, was himself murdered Aug. 1, 1589. Henry IV (of Navarre) first Bourbon king, promulgated Edict of Nantes, April 13, 1598, giving Huguenots and Catholics equality before law. Henry converted to Catholicism, assassinated, May 14, 1609. Revocation of edict by Louis XIV, Oct. 23, 1685, led to large Huguenot emigration to England and America.

1564

William Shakespeare born; traditional date. Apr. 23; baptismal record, Apr. 26.

1565

St. Augustine, Florida, founded by Menendez Spaniard. Attacked by Sir Francis Drake, 1586.

1566

Duke of Alva persecuted Protestants in Netherlands.

1568

Ivan the Terrible of Russia executed hundreds accused of plot to kill crown prince.

1579

Sir Francis Drake claimed west coast (California) for Queen Elizabeth. Left metal plate, found in Marin county, 1936.

1582

First Catholic New Testament in English issued at Reims: Old Testament translated at Douai, 1609.

1587

Mary, Queen of Scots, executed for treason; actually, threat to throne of Queen Elizabeth.

Virginia Dare, first child born of English parents in the New World, on Roanoke Isl., N. C., Aug. 18, 7 days after Sir Walter Raleigh's second expedition with 117 persons, landed. (First, 1585 returned to England 1586.) By 1590 all trace of settlement had vanished except for a tree inscribed enigmatically "Croatatan."

1588

Spanish Armada, 132 ships, 33,000 soldiers and crews, sent by Philip II of Spain against England, destroyed by Drake's attacks and storms. July 21-29. Only 50 ships returned to Spain. Fading of Spanish power; flourishing of Elizabethan England.

1590

Edmund Spenser began The Faerie Queen. First Shakespeare poem, Venus and Adonis, registered 1593. First play to appear in quarto, Titus Andronicus, registered 1594. Romeo and Juliet performed, 1597.

1600

Shakespeare's most productive decade opened. Included Henry V, Midsummer Night's Dream, Twelfth Night, Merry Wives of Windsor, Hamlet, Othello, Macbeth, King Lear, Tempest, etc. Shakespeare retired to Stratford 1610; died Apr. 23, 1616, the same date that Cervantes died. First folio of 36 plays published 1623; second, 1632; third, 1663; fourth, 1675.

1602

Capt. Bartholomew Gosnold, English navigator, landed on Cape Cod, to which he gave the name it still bears.

1605

Gunpowder Plot of Guy Fawkes to blow up King James I and parliament foiled when 36 barrels of gunpowder were found in cellar under Parliament, Nov. 4.

1607

Capt. John Smith and 105 cavaliers in 3 ships landed at Virginia and started first permanent English settlement in New World at Jamestown, May 13. Virginia was first of the 13 colonies.

1609

Henry Hudson, English explorer of Northwest Passage, employed by Dutch East India Co.; sailed sloop Half Moon into New York harbor, Sept., and up river to Albany. In 1610, in English ship Discovery, 55 tons, explored Hudson Bay. On return, 1611, was put into open boat with his son and 8 others by mutinous sailors. All were lost. Spaniards settled Santa Fe, erected presidio.

1611

King James version (authorized version) of English Bible published; ordered by James I in 1604, it reconciled earlier versions and became basic Protestant Bible.

1618

Thirty Years' War opened in Bohemia between Catholic and Protestant armies; ended 1648 with Peace of Westphalia. Alsace given to France.

Holland and Switzerland received independence.

Sir Walter Raleigh, convicted of conspiring in 1603 to remove James I.; beheaded Oct. 29.

1619

House of Burgesses, first representative legislature, elected by popular vote at Jamestown, established principle of self-government for royal colony.

First Negro slaves in English N. American colonies, landed by Dutch at Jamestown, August.

1620

Plymouth Pilgrims, Puritan separatists from Church of England, some living in Leyden, Holland, since 1609, left Plymouth, England, Sept. 16, in Mayflower, 101 passengers, 48 crew. Original destination Virginia, they reached Cape Cod Nov. 9-19, explored coast, landed Dec. 21 (Dec. 11, Old Style) at Plymouth, so named for Plymouth Co. on map made 1614 by Capt. John Smith. Mayflower Compact, signed on shipboard, was agreement to form a local government and abide by its laws. Started first common house, Dec. 25. Half of colony perished during hard winter.

Gov. Bradford's comment, "They knew they were pilgrims" (on religious journey), later led them to be called Pilgrims, as distinct from Puritans of Massachusetts Bay Colony (1630).

1624

Dutch landed eight men from ship, New Netherland, on Manhattan, May. Proceeded to Albany.

1626

Peter Minuit bought Manhattan from Indians May 6 for trinkets worth \$24.

1636

Harvard College founded Oct. 28.

1637

Colonials destroyed Pequot fort at Mystic, Conn., killed 600 Indians, June 5.

1638

Peter Minuit landed two shiploads of Swedes and Finns at site of Wilmington, Del.

1642

King Charles I of England started war against Puritan parliament at York, Aug. 22. His tax exactions and attempts to force Anglican ceremonies on Scotch and Puritan clergy had wrecked his regime. Called first parliament in 11 years, 1640.

Oliver Cromwell led army of Roundheads for parliament, defeated Charles' Cavaliers at Marston Moor, 1644, and Naseby, 1645. Charles was delivered to parliament by the Scots, 1648.

Galileo died, Newton was born, 100 years after

Copernicus published heliocentric theory. Galileo defended theory: "Holy Spirit intended to teach us in the Bible how to go to Heaven, not how the heavens go." But in 1616 the Inquisition at Rome declared the assertion of earth's motion to be heretical and placed works of Copernicus, Kepler and Galileo on the Index until 1822.

1648

Taj Mahal outside Agra, India, completed by Mogul Emperor Shah Jahan for his wife. 20,000 workers used in construction.

1649

Charles I condemned by House of Commons, sitting as High Court; beheaded Jan. 30.

Commonwealth ruled by Commons and Council of State (John Milton, Latin secretary) with Cromwell at head. Cromwell annihilated Scots at Worcester, 1651. Cromwell made protector for life, actually dictator, 1653. Admiral Blake took Jamaica from Spain, 1655.

Cromwell died 1658. His son, Richard, resigned rule. Puritan government collapsed and parliament called Charles II.

1656

Anne Hibbins hanged as witch in Salem, Mass.

1660

John Bunyan, a tinker, imprisoned at Bedford, England, Nov., for unlawful preaching, released 1672, after writing part of Pilgrim's Progress.

Restoration under Charles II, "Merry Monarch." Charles' Cavalier parliament restored Anglican church and refused freedom of worship to dissenters, promised by King in Declaration of Breda.

1664

King Charles II ordered Col. Nicolls and 300 men to seize New Netherland (Manhattan and environs) from Dutch, granted territory to his brother James, Duke of York. Petrus Stuyvesant, Dutch Director General, yielded peacefully; province of New Netherland and city of New Amsterdam became New York. The Dutch recaptured both Aug. 9, 1673; ceded all by treaty to Britain Nov. 10, 1674.

1665

Great Plague in London killed 68,000. In 1666 great fire destroyed 13,200 houses, 89 churches.

1676

Nathaniel Bacon led planters, oppressed by taxes, against Gov. Berkeley at Jamestown; burned town, Bacon died suddenly; 23 followers executed.

Bloody Indian war in New England ended Aug. 12. King Philip, Wampanog chief, and many Narragansett Indians killed.

American Revolution and War of Independence;

Great Britain, after acquiring Canada from France in 1763, tightened up colonial administration in North America. The Thirteen Colonies, used to self-government, resented duties on commerce and objected to paying for troops now quartered on them. The Sugar Act, 1764, placed duties on lumber, foodstuffs, molasses and rum. The Stamp Act, 1765, required revenue stamps to help defray cost of royal troops. The colonists formed Sons of Liberty groups and rejected British goods. Nine colonies, led by New York and Massachusetts at Stamp Act Congress in New York Oct. 7-25, 1765, adopted Declaration of Rights, opposing taxation without representation in parliament and trial without jury by admiralty courts. In the Virginia House of Burgesses Patrick Henry warned King George III of consequences, with "If this be treason make the most of it." Parliament repealed Stamp Act Mar. 17, 1766.

Townshend Acts, 1767, levied taxes on glass, painter's lead, paper and tea imports. In 1770 all duties except tax on tea were repealed, but principle of right to levy was maintained. British troops fired into a mob Mar. 5, 1770, killed 5 including Crispus Attucks, reportedly a Negro leader of the group; it was called the Boston Massacre. Tea ships of East India Co. turned back at Boston, New York, Philadelphia, May, 1773. Cargo ship burned at Annapolis, Oct. 14. Cargo thrown overboard at Boston Tea Party, Dec. 16. Parliament ordered port closed until tea was paid for, sent 4 regiments to Boston, suppressed town meetings and elective representation in Massachusetts.

Samuel Adams, Boston, began untiring patriot leaders by Committees of Correspondence, Virginia called for first Continental Congress, Philadelphia, Sept. 5-Oct. 26, 1774. On Mar. 23, 1775, Patrick Henry addressed revolutionary convention, Richmond, Va., with famous speech: "Give me liberty or give me death!"

BATTLES OF 1775

Paul Revere and Wm. Dawes, on night of Apr. 18 on horseback aroused Sam Adams and John Hancock at Lexington and others that 700 British were on way to Concord to destroy arms. At Lexington, Apr. 19, Minutemen lost 8 killed, 10 wounded. On return from Concord the harassed British lost 273.

Col. Ethan Allen (joined by Col. Benedict

Arnold) captured Ft. Ticonderoga, May 10; also Crown Point. Colonials headed for Bunker Hill, fortified Breed's Hill, Charlestown, repulsed British under Gen. Wm. Howe twice before retreating June 17; British casualties 1,000; called Battle of Bunker Hill. Continental Congress June 15 named Gen. Washington commander-in-chief; he took command in Cambridge July 3. Maj. Gen. Richard Montgomery led troops against Canada via New York, Col. Arnold marched via Maine wilderness; captured Montreal Nov. 13, attacked Quebec Dec. 30-31; Montgomery killed. Colonials returned to New York state June, 1776.

Mecklenburg Declaration of Independence adopted at Charlotte, Mecklenburg County, N.C., May 20 (a disputed tradition).

DECLARATION OF INDEPENDENCE

Virginia voted for independence May 15. In Continental Congress June 7, 1776, Richard Henry Lee (Va.) moved "that these united colonies are and of right ought to be free and independent states." Resolutions adopted July 2. Declaration of Independence July 4. See article.

Col. Moultrie's batteries at Charleston, S. C. repulsed British sea attack June 28. Washington, with 10,000 lost Battle of Long Island to Howe and Gen. Sir Henry Clinton with 15,000 Aug. 27, evacuated New York.

Nathan Hale, executed as spy by British Sept. 22, said: "I regret that I have but one life to lose for my country."

Washington repulsed Howe at Harlem Heights Sept. 16, retreated to White Plains, N. Y. Brig. Gen. Arnold's Lake Champlain fleet was defeated at Valcour Oct. 11, but British returned to Canada. Howe failed to destroy Washington's army at White Plains Oct. 28. Hessians captured Ft. Washington, Manhattan, and 3,000 Nov. 16; Ft. Lee, N. J., Nov. 18.

Washington in New Jersey recrossed Delaware River Dec. 25-26, defeated 1,400 Hessians at Trenton N. J., Dec. 26.

BRANDYWINE AND SARATOGA, 1777

Washington defeated Lord Cornwallis at Princeton Jan. 3. Continental Congress adopted Stars and Stripes June 14. See article on Flag. Maj. Gen. John Burgoyne with 8,000 from Canada captured Ft. Ticonderoga June 27. Brig. Gen. Nicholas Herkimer, to raise St. Leger's siege of Ft.

1682
Robert Caveller, Sieur de la Salle, took lower Mississippi river country for Louis XIV. called it Louisiana, Apr. 9. Had built French outposts in Illinois. Established fort at Lavaca, Texas, 1684. with 400 men. Was killed by his own men on Trinity river, Texas Mar. 19, 1687.

1683
William Penn signed treaty with Indians.

1689
King William's War, British in America vs. French and Indians. Ended 1697.

1692
Witchcraft delusion at Salem, Mass., inspired by preaching: 19 persons hanged, 1 man crushed to death. Executions in Europe of women for witchcraft between 1484 and 1782 believed to have reached 300,000. Last in England 1716; in Scotland, 1722.

1696
Capt. William Kidd, American, hired by British king and nobles to fight pirates and take booty, became pirate. Returned to New York with treasure, 1698, buried it on Gardiner's Island. Arrested by Earl of Bellamont, governor of province, and sent to England for trial, he was hanged, 1701, for killing sailor. Treasure of gold and gems given Bellamont by Lord of Gardiner's island.

1704
Indians attacked Deerfield, Mass., Feb. 28-29, killed 40, carried off 100.

Gibraltar taken by England from Spain, July 24; formally ceded by Treaty of Utrecht, 1713.

Boston News Letter, first regular newspaper, started by John Campbell, postmaster. (Publick Occurrences, 1690, was suppressed after one issue.)

1709
British-Colonial troops captured French fort, Fort Royal, Nova Scotia, in Queen Anne's War (1701-1713). France yielded Nova Scotia by treaty, 1713.

1712
Slaves revolted in New York April 6. Six committed suicide, 21 were executed. Second rising, 1741; 13 slaves hanged, 13 burned, 71 transported.

1720
"Mississippi Bubble," John Law, Scot, compottor of finance in France, issued paper currency without security to back trading scheme. Shares reached \$4,000 before collapse. Many ruined; France assumed debt of \$340,000,000.

Origins, Battles, Results, 1763-1783

Stanwix, routed Indians at Oriskany, N. Y. Aug. 6. Burgoyne's Hessians defeated by Brig. Gen. John Stark and the Green Mountain Boys at Bennington, Vt., Aug. 16. Arnold raised siege of Ft. Stanwix.

Howe defeated Washington at Chad's Ford on the Brandywine (Pa.) Sept. 11 and occupied Philadelphia. Congress moved to Lancaster, Pa. Inconclusive battle of Germantown, Pa., Oct. 4. Washington's army wintered at Valley Forge.

Americans massed at Bemis Heights on Hudson under Maj. Gen. Horatio Gates, attacked by Burgoyne Sept. 19. At Freeman's Farm. Gen. Arnold and Col. Daniel Morgan's riflemen repulsed British, inflicting great loss. Gen. Clinton took Ft. Clinton and Montgomery below West Point Oct. 6, but did not support Burgoyne. Americans beat back Burgoyne at Bemis Heights Oct. 7 and cut off British escape route. Burgoyne surrendered 5,000 at Saratoga Oct. 17.

Marquis de la Fayette (Lafayette), aged 20, made major general.

Articles of Confederation and Perpetual Union adopted by Continental Congress Nov. 15.

HELP FROM FRANCE

France recognized independence of 13 Colonies, signed treaty of aid with Benj. Franklin, Silas Deane, Arthur Lee, Feb. 6, 1778. Sent fleet under Adm. d'Estaing. British evacuated Philadelphia in consequence, June 18. Washington harassed British at Monmouth, N. J., June 28. Indian massacre at Wyoming, Pa., July 3. British overran Georgia, December.

George Rogers Clark, who took Cahokia and Kaskaskia, (Ill.) 1778, took Vincennes Feb., 1779. Maj. Gen. Anthony Wayne, July 15, stormed Stony Point, on Hudson, but withdrew after victory.

John Paul Jones in Bonhomme Richard defeated Serapis on the Atlantic Sept. 23, 1779. French fleet and Maj. Gen. Benj. Lincoln's men were repulsed at Savannah Oct. 9.

BENEDICT ARNOLD'S TREASON

Three Continental soldiers, Paulding, Williams and Van Wart, captured Major John Andre, adjutant general of the British army, in disguise at Tarrytown, N. Y., Sept. 23, 1780, finding papers betraying West Point, signed by Gen. Arnold, in his socks. He had lost way after rendezvous with Arnold at Haverstraw, N. Y. Arnold, informed of

1728
Pennsylvania Gazette, founded by Samuel Kellmer, Philadelphia. Benj. Franklin bought interest, 1729.

1735
Freedom of the press recognized in New York by acquittal of John Peter Zenger, editor Weekly Journal, on charge of libelling British governor, Cosby, by criticizing conduct in office.

1740-1741
Capt. Vitus Bering, Dane employed by Russians, discovered Alaska.

1743
King George's War. British and American colonials vs. French. Siege of Louisbourg, Cape Breton Isl. led by Gov. Wm. Shirley of Mass. Surrendered to British June 17, 1745. Returned to France by Treaty of Aix la Chapelle 1748.

1746
English defeated Scots at Culloden, April 16, routing Stuart pretender, Prince Charles.

1751
Publication of the Encyclopédie began in France, great popularizer of the Enlightenment.

1752
Benjamin Franklin, flying kite in thunderstorm, proved lightning is electricity June 15.

Gregorian calendar adopted by Great Britain and American colonies, dropping 11 days after Sept. 2; next day Sept. 14.

1754
French and Indian War started after French occupied uncompleted British post, called it Ft. Duquesne (site of Pittsburgh). Col. Geo. Washington with Virginia troops clashed with French at Great Meadows, dug in at Ft. Necessity; capitulated and withdrew July 3, 1754. Boston's 3,000 provincial troops took Nova Scotia. French forts June 16, 1755. French and Indians ambushed Gen. Wm. Braddock's expedition 10 mi. from Ft. Duquesne (now Braddock, Pa.) July 9; Washington helped retreat; Braddock fatally wounded, 714 killed. Gen. Sir Wm. Johnson defeated French and Indians under Baron Dieskau at Lake George Sept. 8. British moved Acadian French out of Canada. Nov. Britain formally declared war May 18, 1756. Surrendered Ft. Wm. Henry (Lake George) to Montcalm; Indians massacred many unarmed British, Jan. 1, 1757. Montcalm at Ft. Ticonderoga repulsed 17,000 British July 8. French gave up Louisburg, Ft. Frontenac, Ft. Duquesne, 1758; Niagara,

Andre's capture, escaped from headquarters in Highlands, near present Garrison, N. Y., by barge to British sloop Vulture off Verplanck's Point.

Andre was found guilty by board of American officers at Tappan, N. Y., hanged as spy Oct. 2. Washington refused to intercede. Arnold made brigadier general in British army. Burned New London, Conn., 1781. His wife, Peggy Shippen of Philadelphia adjudged innocent by Washington, since proved implicated. Arnold died in London. Andre's body removed to Westminster Abbey, 1821.

ROAD TO YORKTOWN

Charleston fell to the British May 12, 1780, but a segment of Lord Cornwallis's forces led by Maj. Patrick Ferguson was defeated near Kings Mountain, N. C. Oct. 7 by militiamen commanded by Colo. John Sevier, Isaac Shelby, Wm. Campbell and Benj. Cleveland. Operations in South under Cornwallis and Col. B. Tarleton in 1781 were checked by Maj. Gen. Nathanael Greene and Brig. Gen. Daniel Morgan. Cowpens, S. C., Jan. 17, was a victory, but Guilford Court House, N. C., Mar. 15 was a British gain. Greene's harassments caused Cornwallis to retire to Wilmington, N. C., and thence to Yorktown, Va.

While Lafayette waited near Yorktown, Adm. De Grasse defeated 3,000 French and stopped Adm. Thos. Graves's British fleet in Hampton Roads. Adm. Barras joined De Grasse. Washington and Rochambeau joined forces and leaving 2,000 to mislead Sir Henry Clinton in New York, marched to Annapolis and took boats to James River near Williamsburg, arriving Sept. 26. When siege of Cornwallis began Oct. 6, British had 6,000, Americans 8,846. French 7,800. Clinton decided too late to relieve Cornwallis. Graves sailed from New York with 7,000 Oct. 17, too late to reach Cornwallis, who surrendered Oct. 19, 1781.

INDEPENDENCE, 1782

A new British cabinet agreed to recognize independence, March, 1782. Preliminary agreement signed in Paris Nov. 30; treaty Sept. 3, 1783. (Congress ratified it Jan. 14, 1784.) Washington ordered army disbanded Nov. 3, 1783. British evacuated New York Nov. 25. Washington bade farewell to his officers at Fraunce's Tavern, New York, Dec. 4; resigned Dec. 23, retired to Mount Vernon, Va. For casualties see index.

Ticonderoga, Crown Point, 1759. British captured Quebec, Sept. 18, 1759, in battles in which Montcalm and Gen. Jas. Wolfe (Br.) died. Peace signed Feb. 10, 1763 (hence "Seven Years' War"). French lost Canada and American Midwest.

1755

Great earthquake, Nov. 1, in Lisbon, Portugal, 60,000 died; 12,000 in Fez, Morocco; half of Madeira levelled; 2,000 houses lost in Mitylene; Oporto, Braga, Malaga damaged.

Samuel Johnson issued English Dictionary.

1756

Black Hole of Calcutta. Nawab of Bengal, attacking British East India Co., threw 146 British prisoners into room less than 20 ft. square, June 20; only 23 survived overnight. Lord Robert Clive with 3,000 British troops defeated the Nawab's force of 50,000, June, 1757.

1769

Napoleon Bonaparte born Aug. 15, Ajaccio, Corsica; died at Longwood, St. Helena, May 5, 1821.

1772

First Partition of Poland by Austria, Prussia, and Russia. Second and third partitions of 1793 and 1795 erased Poland from map of Europe, not to re-emerge until after World War I.

1781

Bank of North America incorporated in Philadelphia, May 26. First chartered bank, Bank of Pennsylvania (Mar. 1, 1780) operated 1782-1784.

1783

Massachusetts Supreme Court outlawed slavery because of the words in the State Bill of Rights, "all men are born free and equal."

First balloon sent up June 5 by Joseph and Jacques Montgolfier, J. A. C. Charles and the Robert brothers sent up first hydrogen-filled balloon, Aug. 27, J. F. Pilatre de Rozier made first human ascent in captive balloon, Oct. 15. De Rozier and Marquis d'Arlandes made first voyage in free Montgolfier hydrogen gas balloon, Paris, Nov. 21.

1784

Peter Carnes, Baltimore, using de Rozier model, sent up captive balloon with 13-year-old Edward Warren in it, June 23.

First successful daily newspaper, Pennsylvania Packet & General Advertiser, formed from tri-weekly, Sept. 21.

1785

First steamboat experiment by John Fitch. New Jersey granted him rights to rivers, 1786. Fitch demonstrated steamboat with 12 mechanical oars on Delaware river, 3 miles an hour, Aug. 22, 1787. Pennsylvania, Delaware, Virginia, New York gave him river rights, 1787. He operated steamboat between Trenton and Philadelphia, 1790. Allegedly ran boat on Collect Pond, now Foley Sq., New York, 1796. Died 1798.

1786

Delegates from 5 states at Annapolis asked Congress to call convention in Philadelphia to write practical constitution for the 13 states.

1787

Shays' rebellion in Massachusetts, led by Capt. Daniel Shays; the attempt to seize U. S. Arsenal in Springfield failed Jan. 25.

Northwest Ordinance, adopted July 13 by Continental Congress, made effective Ordinance of 1784, drafted by Jefferson. Determined government of Northwest Territory, north of Ohio river, west of New York; 5,000 male voters could establish legislature; 60,000 inhabitants could get statehood. Guaranteed freedom of religion, support for schools, no slavery.

James Rumsey, encouraged by Washington, ran steamboat with power pump on Potomac Dec. 3 and 11. Patented 1791. He died 1792.

Constitutional convention opened at Philadelphia May 14, George Washington presiding; Constitution adopted by delegates Sept. 17; Ratification by 9th state, New Hampshire, June 21, 1788, meant adoption. See Constitution of U. S.

1788

Warren Hastings, Gov. Gen. of India, tried for treason in London; acquitted 1795.

First British settlement in Australia, a penal colony at Port Jackson, now Sydney.

1789

George Washington chosen President by all electors voting (73 eligible, 69 voting, 4 absent); John Adams Vice President, 34 votes, Feb.; First U. S. Congress called Mar. 4, Federal Hall, New York; regular sessions began Apr. 6. Washington inaugurated there Apr. 30. Supreme Court created by Federal Judiciary Act, Sept. 24.

The French Revolution began June 20, when the delegates to the Third Estate (Commons) met in the tennis court and took an oath not to disband until the King had granted France a constitution; Bastille stormed, July 14, and prisoners of state released. France was declared a limited monarchy, under Louis XVI; Mirabeau died April 2, 1791; the King and family arrested June 21, 1791; Revolutionary Tribunal set up on Aug. 19, 1792. National Convention opened Sept. 17, 1792, and a republic

was established on Sept. 22. King Louis was beheaded Jan. 21, 1793; the Reign of Terror began May 31, 1793; Charles Corday stabbed Marat July 12, 1793; the Queen was beheaded Oct. 16, 1793. Danton on April 5, 1794, Robespierre on July 28, 1794. Revolutionary Tribunal abolished Dec. 15, 1794; Louis XVII died in prison, June 8, 1795, peace was made with Prussia, the great revolution ended. Napoleon was declared First Consul Dec. 24, 1799, and was made Consul for life Aug., 1802.

Mutiny on the British ship *Bounty*, April 28; Capt. William Bligh and 18 sailors set adrift in a launch. They rowed 3,618 miles to Timor, near Java. The *Bounty*, in command of Fletcher Christian, rebel mate, sailed to Tahiti, where some of crew and 18 Polynesians of whom 12 were women, went to Pitcairn Island, arriving there 1790. They burned the vessel after landing the food and tools.

1791

Continued attacks on settlements north of Ohio River by Indians armed by British, led Washington to send Gen. Arthur St. Clair and Gen. Wilkinson to area with 1,400. St. Clair was surprised near Wabash River in Ohio Nov. 4, lost 630 killed.

1792-94

Gen. Anthony Wayne made commander, took 2 years to train American Legion. Established Ft. Washington (Cincinnati), Ft. Recovery, O., 1793; Ft. Greenville, Ft. Deposit, Ft. Defiance, 1794. Routed Indians (Ottawas, Shawnees, Miamis, Iroquois) with bayonet at Fallen Timbers on Maumee River Aug. 20, 1794, checkmated British at Ft. Miamis.

Whiskey Rebellion, west Pennsylvania protesting whiskey tax, suppressed by U. S. Sept. 1794.

1795

Gen. Wayne built Ft. Wayne; signed peace with Indians at Fort Greenville.

Triple Alliance formed by Great Britain, Russia, and Austria, Sept. 28.

U. S. bought peace from Algiers and Tunis by paying \$800,000, supplying a frigate and annual tribute of \$25,000. Nov. 28.

1796

Washington's Farewell Address as President delivered Sept. 19. Gave strong warnings against permanent alliance with foreign powers, partiality toward favorite nation, big public debt, large military establishment and devices of "small artful, enterprising minority" to control or change government; praised reciprocal checks of Constitution; stressed need for enlightened public opinion; declared religion and morality lead to political prosperity.

Vaccination discovered by Edward Jenner May 14, announced 1798.

1797

U. S. frigate *United States* launched at Philadelphia, July 10; Constellation at Baltimore, Sept. 7; Constitution (Old Ironsides) at Boston, Sept. 20.

France ordered capture of all neutral ships carrying British cargoes.

1798

War with France threatened over French raids on U. S. shipping and rejection of U. S. diplomats. Congress voided all treaties with France, ordered Navy to capture French armed ships. Navy (45 ships) and 365 privateers captured 84 French U. S. Constellation took Fr. warship *Insurgente*, 1799. Napoleon, becoming First Consul, stopped French raids.

1801

Tripoli declared war, June 10, against U. S., which refused added tribute to commerce-raiding corsairs. U. S. frigate *Philadelphia* captured in Tripoli harbor Oct., 1803, burned by Stephen Decatur Feb. 16, 1804. Expedition under William Eaton forced Tripoli to conclude peace June 4, 1805.

1803

Robert Emmet convicted of treason by British in Ireland; executed in Dublin, Sept. 19.

Louisiana Purchase. President Jefferson sent James Monroe to Paris to join Robert R. Livingston, American minister, in offering up to \$10,000,000 for the sale of Orleans (New Orleans) and West Florida. Napoleon, who had recovered Louisiana from Spain by secret treaty, offered all of Louisiana for \$11,250,000 in bonds, plus \$3,750,000 indemnities to American citizens with claims against France. U. S. took title Dec. 20.

Robert Fulton operated experimental steamboat unsuccessfully on Seine, Paris, France.

1804

Lewis and Clark Expedition ordered by Pres. Jefferson to explore what is now northwest U. S. Started from St. Louis May 14; ended Sept. 23, 1806.

Alexander Hamilton (ex-Secretary of the Treasury) and Vice President Aaron Burr (former U. S. Senator from N. Y. State) but a native of Newark, N. J.), fought a duel, July 11, on the Hudson Palisades, Weehawken, N. J. Hamilton, who had fired in the air, was fatally shot.

Code Napoleon systematized French law under the auspices of Napoleon Bonaparte. It became a model for many countries.

John Stevens, Hoboken, operated experimental steamboat with twin-screw propellers, 9 mi.

1803

Napoleon, emperor since May 18, 1804, defeated Austrians at Ulm, Oct. 17; Russo-Austrians at Austerlitz ("masterpiece of battles") Dec. 2. Dissolved Holy Roman Empire. Made brothers Joseph, king of Naples, Louis, king of Holland.

Lord Nelson defeated French-Spanish fleet at Cape Trafalgar, Oct. 21; lost his own life.

1806

Napoleon defeated Prussians at Jena, Oct. 14. In 1807 he defeated Russians at Eylau; signed peace of Tilsit with Czar Alexander I. Made brother Jerome king of Westphalia; allotted Finland to Russia.

1807

Robert Fulton made first practical steamboat trip on Clermont (open boat, 140 by 13 ft., 7 ft. draft, side paddle wheels). Left New York Aug. 17, reached Albany, 150 mi., in 32 hrs.

Aaron Burr was arrested in Mississippi on a federal charge of treason and was put on trial in Richmond, Va., May 22, and was acquitted. Sept. 1. He was charged with having organized an expedition of 100 men, who embarked in flatboats on the Ohio River, and made their way to New Orleans, to establish an empire that was to comprise the Louisiana Territory, a large section of the Western States and Mexico.

1808-09

French occupied Madrid, March; Rome, April; Napoleon made brother Joseph king of Spain. French defeated in Spain and Portugal; Peninsular War begun by British. Napoleon defeated Austrians at Wagram, July 6, 1809. Annexed Papal States.

Phoenix, world's first ocean-going steamboat, built by John Stevens, left New York for Philadelphia, June 8, 1809.

War of 1812 between United States and Great Britain

The War of 1812 coming only 30 years after end of the Revolution, had 3 major causes: (1) Britain, blockading France, seized American ships trading with France; (2) Britain, refusing to recognize naturalized American sailors, seized 4,000 by 1810 and impressed two-thirds into British service; (3) British armed Indians who raided western border. H.M.S. Leopard attacked U. S. Chesapeake, 1807, killed 3 Americans, seized 4. Under President Jefferson U. S., 1807 and 1809, stopped trade with Europe, which ruined American ships. Under President Madison, 1810, trade with Britain only was stopped.

War might have been averted. The British raised the blockade for American ships June 16, 1812, but the news did not reach U. S. by June 18, when Congress by a small majority voted a declaration of war. Congress voted to raise Army from 11,744 to 44,500 and to use militia. The Navy had 20 major ships of 500 guns. The West favored war; New England opposed it. The British were handicapped by war with France.

WAR ON LAND

This was full of blunders caused by inefficient leaders and refusal of regulars to work with militia. U. S. lost Ft. Michilimackinac (Mich.) and Ft. Dearborn (Ill.). Brig. Gen. Wm. Hull surrendered Detroit Aug. 16, 1812, to Maj. Gen. Isaac Brock. Maj. Gen. Stephen van Rensselaer with 2,300 took Queenston Heights, Canada, Oct. 13, but retired when regulars did not support. Brig. Gen. Wm. H. Harrison had 1,000 casualties near Ft. Malden. Brig. Gen. Zebulon M. Pike (disc. Pike's Peak) took York, (Toronto), Apr. 27, 1813, killed in explosion. Brig. Gen. Jacob Brown May 27 repulsed Sir Geo. Prevost, Canadian Governor General. Gen. Henry Dearborn May 27 took Ft. George and Queenston Heights aided by amphibious assault led by Col. Winfield Scott and Comm. Oliver Hazard Perry. British defeated 2,000 Americans a few days later.

Battle of the Thames, Ontario, Can., Oct. 5, 1813. Harrison with 3,500 took Ft. Malden, pursued British 85 mi. Cavalry charge by Kentucky riflemen routed British and Indians, killing Shawnee chief, Tecumseh. Detroit frontier was safe for U. S. In the fall both Brig. Gen. Wade Hampton with 4,000 and Maj. Gen. Jas. Wilkinson, with 6,000 mismanaged attempts to invade Canada; Wilkinson was defeated at Ogdensburg. British recaptured Fts. George and Niagara, burned Buffalo; Americans burned Newark and Queenston.

Battle of Lundy's Lane. Brig. Gen. Winfield Scott (promoted) led fighting of Brown's army at Lundy's Lane, on road to Burlington, July 25, 1814; result a draw with heavy losses. Scott was wounded.

Burning of Washington. In August British landed 4,000 under Adm. Sir Geo. Cockburn and Maj.

1810

Napoleon annulled marriage with the Empress Josephine, who retired to Malmaison. Married Austrian Archduchess Maria Louisa, March. Son born Mar. 20, 1811, called King of Rome. As Duke of Reichstadt, he died in Vienna July 22, 1832. Called L'Aiglon (the Eagle) by French, he inspired Edmond Rostand's drama.

1811

William Henry Harrison, gov. of Indiana territory, defeated Indians under the Prophet, brother of Tecumseh in battle of Tippecanoe, Nov. 7.

1812

Napoleon invaded Russia with conscript army of 500,000; defeated Russians at Borodino, Sept. 7; took Moscow, Sept. 14. Russians burned 30,800 houses in Moscow. Napoleon ordered retreat Oct. 19, meeting huge losses from cold and guerrillas.

1813

Napoleon with 180,000 French decisively defeated at Leipzig by 200,000 allied Prussians, Austrians, Russians, under Austrian Gen. Schwarzenberg in Battle of the Nations, Oct. 16-19.

1814

Allies entered Paris, March 21; Napoleon abdicated, April 11; Louis XVIII restored to throne, May 3; Congress of Vienna opened, Nov. 3. Napoleon exiled to Elba.

1815

Napoleon re-entered France Mar. 1, assumed command, ruled 100 days, Mar. 20-June 22. Defeated at Waterloo, Belgium, June 18, by Duke of Wellington (British), Count von Blücher (Prussian) and allies. Deported to St. Helena Isl., died there May 5, 1821.

Holy Alliance, formed by Russia, Austria and Prussia; signed in Paris, Sept. 26; promulgated in Frankfurt, Feb. 2, 1816, and acceded to 1818 by the rulers of Great Britain and France.

Gen. Robt. Ross. At Bladensburg Aug. 24, 1814, Ross routed 5,000 ill-assorted U. S. troops, then burned Capitol and White House, Maryland militia defeated British Sept. 12 from reaching Baltimore, Ross was killed.

Battle of New Orleans. Maj. Gen. Andrew Jackson, who had defeated the Creek Indians at Horseshoe Bend on the Tallapoosa, Mar. 29, 1814, and captured British base at Pensacola, Fla., Nov. 8, 1814, engaged 2,000 British east of New Orleans, then retired to earthworks built with cotton bales. On Jan. 8, 1815, 5,300 British under Maj. Gen. Sir Edward Pakenham attacked American entrenchments at Chalmette. Jackson had 3,500, a reserve of 1,000, 20 guns and an armed schooner. British had over 2,000 casualties, Pakenham was killed; Americans lost 71. British routed an American battery on the West bank, but withdrew and left by sea Jan. 18. On Feb. 8 they took Mobile. Word came Feb. 14 that a treaty of peace had been signed at Ghent Dec. 24, 1814. U. S. ratified it Feb. 17, 1815.

WAR AT SEA

Brilliant American gunnery brought naval victories. US Essex captured Alert Aug. 13, 1812. US Constitution, 44 guns, Capt. Isaac Hull, destroyed Guerriere Aug. 19; thereafter nicknamed Old Ironsides. US Wasp took Frolic Oct. 18. US United States, Capt. Stephen Decatur, defeated Macedonian off Azores Oct. 25. Constitution took Java Dec. 29, 1812. US Chesapeake captured by Shannon, June 1, 1813; Capt. Jas. Lawrence, dying, called out: "Don't give up the ship!" US Enterprise took Boxer Sept. 5.

Battle of Lake Erie. Commodore Perry, using Lawrence's words as slogan defeated British fleet near Put-in-Bay Sept. 10, 1813. Perry, transferred from disabled flagship Lawrence to Niagara during battle, sent message to Harrison: "We have met the enemy and they are ours: 2 ships, 2 brigs, 1 schooner, 1 sloop."

Essex, Capt. David Porter, first US warship to sail around South America, was defeated off Valparaiso, Chile, Mar. 28, 1814.

Bombardment of Ft. McHenry, Baltimore, for 25 hours, Sept. 13-14, 1814, by British fleet failed. Francis Scott Key, on board ship, wrote words for Star Spangled Banner. See article.

Battle of Lake Champlain. Commodore Thos. Macdonough defeated fleet of Sir Geo. Prevost near Plattsburg, Sept. 11, 1814, while Brig. Gen. Thos. Macomb held 4,500 ready to oppose 11,000. British withdrew to Canada.

U. S. frigate President was captured Jan., 1815. Constitution captured Cyane and Levant, Feb. 20, 1815. Hornet captured Penguin, Mar. 23.

The War of 1812 was costly, but inspired national unity, gave recognition to men of the western border, made Andrew Jackson political power.

1817

Rush-Bagot treaty signed, April 28-29, limiting naval armaments of the United States and Canada on the Great Lakes.

First poems by John Keats.

1820

Henry Clay's Missouri Compromise bill passed by Congress, March 3. Slavery was allowed in Missouri, but not elsewhere west of the Mississippi river north of 36° 30' Latitude (the southern line of Missouri). Repealed 1854.

1822

Revolution in Portugal. Separation of Brazil which proclaimed independence Sept. 7. Dom Pedro was crowned emperor Dec. 1; he abdicated 1831; succeeded by his son; a republic proclaimed 1888.

Mexico separates from Spain, makes Iturbide emperor, May; forms republic, Oct., 1823.

1823

Monroe Doctrine declared, Dec. 2. Mississippi River first ascended by steamboat, the Virginia, as far as Fort Snelling, Minn., April 21-May 10, 729 miles.

Gas vacuum (internal combustion) engine operated successfully by Samuel Brown, London.

1824

Marquis de Lafayette, 67, visited each of the 24 states as guest of U.S.

Simon Bolivar, ruler of Venezuela, Colombia, Ecuador, Peru; broke Spanish power in South America (Died 1830).

1825

Trade unions allowed in Great Britain. First railroad to use steam locomotive (on level grade only) Stockton-Darlington Ry. opened in Eng., Sept. 27, with Stephenson's engine "Locomotion." First public railroad to use steam exclusively for passenger and freight traffic, Liverpool & Manchester, opened Sept. 15, 1830.

Erie Canal opened, first boat left Buffalo, Oct. 26, and reached New York City, Nov. 4.

First iron steamboat built in America, the Coderus, at York, Pa., by John Elgar.

1827

Slavery in New York State abolished July 4.

Steamship Curacao, first European built oceanic vessel to use steam power alone, crossed the Atlantic April from Antwerp to Paramaribo, Dutch Guiana. The Royal William launched in Montreal, April 29, 1831, left there Aug. 18, 1833, crossed to Europe in 25 days, using only steam.

1828

First passenger railroad in U. S., Baltimore & Ohio, was begun July 4, first 14 miles opened to horse-drawn, railcar traffic May 24, 1830.

1830

Mormon church organized by Joseph Smith, in Fayette, Seneca County, N. Y., Apr. 6.

Revolution in France. Charles X abdicated, Aug. 2, and was succeeded by the Duke of Orleans as Louis Philippe I. There were revolts in Brunswick, Saxony and Belgium. Belgium became independent kingdom.

First regularly scheduled passenger train service in U. S. using steam power opened at Charleston on South Carolina Railroad Dec. 25 with 3½-ton U. S.-built locomotive, Best Friend of Charleston.

1831

Nat Turner, a Negro slave from Virginia, led a band of men in a wild escape, killed 57 whites, Aug. Army called in, Turner caught and hanged.

1832

Black Hawk War (Ill.-Wis.) April-Sept., pushed Sac & Fox Indians across Mississippi.

Ordinance of nullification of the tariff passed by South Carolina convention Nov., 1832, declaring that if the Federal government attempted to enforce the law the state would consider itself no longer a member of the Union. Congress, Feb. 1833, passed a compromise tariff act, whereupon South Carolina repealed act.

First British Reform Bill: Middle class enfranchised; step toward political democracy.

1833

Slavery in British Empire outlawed Aug. 28 as of Aug. 1, 1834. About 700,000 were liberated at a cost of £20,000,000. Slavery was abolished in Britain June 22, 1772. Slave trade was suppressed 1807.

Oberlin College, first in U. S. to adopt co-education, 1835. Oberlin refused to bar students on account of race.

1835

Texas proclaimed independence of Mexico in convention Nov. 1. Provisional govt. formed. Stephen Austin and Sam Houston leaders.

Fire in New York City, Dec. 16-17, destroyed 674 buildings.

Gold discovered on Cherokee land in Georgia; Indians forced to cede lands for \$5,000,000 Dec. 20, and to cross Mississippi.

1836

Texans besieged in Alamo (San Antonio) by Mexicans under Santa Anna Feb. 23-Mar. 6, garrison

massacred, including W. B. Travis and David Crockett. At Goliad Mar. 27 Capt. Fannin and 371 Texans who had surrendered were massacred by Mexicans. At San Jacinto Apr. 21 Sam Houston and 800 Texans defeated 3,000 Mexicans. Santa Anna signed treaties ending hostilities, promised to recognize Texan independence, but Mexican congress repudiated treaties.

Marcus Whitman, H. B. Spaulding and wives reached Fort Walla Walla on Columbia River, Oregon. First white women to cross plains.

Seminole Indians in Florida under Ocoela attacked whites Nov. 1 in protest against removal. After massacres and battles, war ended Aug. 14, 1842, with Indian defeat.

1837

Victoria, 18, niece of William IV, became queen of England. Married her first cousin, German Prince Albert of Saxe-Coburg, 1840. He died 1861.

1838

The Great Western, a steamship, 236 ft. long, 450 horsepower, 1340 gross tons, left Bristol, England, Apr. 8, and arrived in New York City, Apr. 23. The Sirius, 178 ft. long, 703 tons, left Liverpool Mar. 28, and Queenstown, Apr. 4, and reached N. Y. C. Apr. 22, using only steam power.

1839

Belgium and the Kingdom of the Netherlands were separated by treaties signed by those two countries and by Great Britain, France, Austria, Prussia, and Russia, at London, April 19. To the treaties was annexed a document declaring Belgium independent and perpetually neutral.

Opium War broke out between China and Britain. China tried to prohibit opium trade in Canton. British resist and take Canton. War ended with Treaty of Nanking, Aug. 1842.

1840

Antarctic Continent found by Comdr. Charles Wilkes of First U. S. Exploring Expedition; named Wilkes Land, Jan.-Feb.

1841

First emigrant train for California, 47 persons, left Independence, Mo. May 1, reached Stanislaus River Nov. 4.

First passenger train on Erie R.R. June 30.

First use of anaesthetic (sulphuric ether gas) by Dr. Crawford W. Long, Jefferson, Ga. Dr. Wm. T. G. Morton, dentist, used ether for painless extraction of tooth, Sept. 30, 1846; administered ether in tumor operation, Oct. 16, 1846, at Mass. General Hospital, Boston.

1844

First message over first telegraph line (authorized 1843) sent from U. S. Supreme Court room in Capitol, May 24, to Baltimore by inventor S. F. B. Morse: "What hath God wrought!"

Jos. Smith, Mormon leader, and brother Hyrum killed in Carthage, Ill., jail by mob June 27.

1845

Texas voted for annexation to U. S. July 4. Congress admitted Texas as 28th state Dec. 29.

1846

Mexican War. President James K. Polk ordered Gen. Zachary Taylor to seize disputed Texan land settled by Mexicans. After border clash U. S. declared war, May 13; Mexico, May 23.

Bear flag of republic of California raised by American settlers at Sonoma June 14. Gen. J. C. Fremont took charge July 5. Commodore J. S. Sloat took Monterey July 7, declared California annexed to U. S. Commodore Robt. F. Stockton succeeded Sloat, was ordered to recognize Gen. Kearny as governor and commander in chief in California. Kearny was defeated by Mexicans Dec. 6, retreated to San Diego.

Gen. Taylor defeated Mexicans at Buena Vista, Feb. 23, 1847. Gen. Winfield Scott with 12,000 troops (est.) took Vera Cruz Mar. 27; Mexico City, Sept. 17, captured Dictator Santa Anna. Serving during war were Col. Jefferson Davis, Capt. Robert E. Lee, Capt. Geo. B. McClellan, Lieut. U. S. Grant. By treaty, Feb., 1848, Mexico ceded claims to Texas, California, Arizona, New Mexico, Nevada, Utah, part of Colorado. U. S. assumed \$3,000,000 American claims, paid Mexico \$15,000,000.

Treaty with Great Britain, June 15, set boundary in Oregon at 49th parallel (extension of existing line). Water boundary settled 1873. Expansionists in U. S., seeking boundary farther north, used slogan "54° 40' or fight!"

Mormons, after violent clashes with settlers over polygamy, left Nauvoo, Ill., for west under Brigham Young. Settled, July 1847, at Salt Lake City, Utah.

1847

First adhesive U. S. postage stamps on sale July 1; Benjamin Franklin 5c, Washington 10c.

Great period of Victorian writing opened. Jane Eyre (C. Bronte); Wuthering Heights (E. Bronte); Vanity Fair (Thackeray); 1848: Penderesis (Thackeray); 1849: David Copperfield (Dickens); Seven Lamps of Architecture (Ruskin); 1850: Sonnets (Rossetti); In Memoriam (Tennyson); 1851: Laver-

gro (Borrow), 1852; Bleak House (Dickens); Henry Esmond (Thackeray), 1853; The Newcomes (Thackeray), 1854; Hard Times (Dickens), 1855; Little Dorrit (Dickens), 1856; History of England (Macaulay).

1848

Gold discovered Jan. 24 by James W. Marshall, who was erecting sawmill in partnership with Capt. John A. Sutter on American River, branch of the Sacramento, near Coloma, Calif. Small finds of gold were reported 45 mi. nw of Los Angeles, 1841-44.

Louis Philippe dethroned in France; Second Republic set up, Feb. 26.

In Austria, Ferdinand I abdicated, Dec. 2, in favor of his nephew, Franz Josef; in Hungary, freedom was declared under Kossuth; revolts in Ireland, Lombardy, Venice, Denmark, and Schleswig-Holstein.

Communist Manifesto written by Karl Marx (1818-1883) and Friedrich Engels (1820-1895). Work is still a basic doctrine of the Communist world.

1849

Astor Place riots in New York City against Macready, English actor, 34 killed, May 10. The outbreak was in retaliation for the treatment of Edwin Forrest, American actor, in London, 1845.

1850

Senator Henry Clay's Compromise of 1850 passed; admitted California as 31st state. Sept. 9, slavery forbidden; made Utah and New Mexico territories, without decision on slavery; amended Fugitive Slave Law punishing those who aided fugitive and abolished jury trial for fugitive and the slave trade in District of Columbia.

President Zachary Taylor died July 9, 65; Millard Fillmore 13th president, July 10. John C. Calhoun died Mar. 31, 68.

Jenny Lind's first concert, Castle Garden, New York, Sept. 11, P. T. Barnum manager.

Taiping Rebellion, led by Hung Hsiu-ch'uan, began in Kwangsi province, China. One of the largest civil wars in history, it resulted in the death of an estimated 20 to 40 million, devastated entire provinces, and nearly toppled the Manchu dynasty. The Taiping movement, pseudo-Christian in nature, was finally suppressed, 1864, by Tseng Kuo-fan with the help of the "Ever Victorious Army" of Gen. Charles G. ("Chinese") Gordon.

1851

Gold found in Australia.
Cornerstones of wings of U. S. Capitol laid.
New York & Hudson River R. R., New York to Albany, opened Oct.

Panic in Public School 26, New York City, Nov. 20 caused deaths of 45 pupils, 60 injured.

1852

Louis Napoleon crowned emperor of the French.
Uncle Tom's Cabin, by Harriet Beecher Stowe, published.

1853

Commodore Matthew C. Perry, U.S.N., received by Lord of Toda, Japan, July 14; negotiated treaty to open Japan to U. S. ships. Ratified Mar. 8, 1854.

Crimean War. A dispute between Greek orthodox and Roman monks over holy shrines held by Turkey led Russian Czar Nicholas I to extend protection to Greeks. Turkey declared war Oct. 4, 1853. Britain and France, fearing expansion of Russia, declared war May 28, 1854. Russia occupied Moldavia and Wallachia. Fighting concentrated in the Crimea and included famous Charge of the Light Brigade at Balaklava, Oct. 25, 1854, 400 out of 607 killed; Russian defeat at Inkerman, Nov. 5, 1854; fall of Sebastopol, Sept. 11, 1855. Sardinia sent 15,000 troops to Allies; Prussia and Sweden cooperated. Florence Nightingale established first dressing stations. By treaty of Paris, Mar. 30, 1856, Russia ceded part of Bessarabia to Moldavia, freed Danube for navigation. Black Sea closed to warships (renegated, 1870).

James Gadsden negotiated purchase of 29,640 sq. mi. of land down to Rio Grande from Mexico, Dec. 30, for \$10,000,000.

1854

Republican party started at Ripon, Wis., Feb. 28; first state organization, Jackson, Mich., July 6. Opposed Kansas-Nebraska Act (became law May 30) which left issue of slavery in Kansas and Nebraska to vote of settlers.

Henry D. Thoreau wrote Walden.

1855

Walt Whitman issued Leaves of Grass; Henry W. Longfellow wrote Song of Hiawatha.
First cable, Nova Scotia to Newfoundland, laid by Cyrus W. Field.

1856

First railroad train crossed Mississippi at Rock Island, Ill.—Davenport, Ia., April 21.

Republican party's first nominee for President, John C. Fremont, June-Nov., defeated by James Buchanan. Lincoln made 50 speeches for Fremont.

Lawrence, Kan., sacked May 21 by slavery party; Abolitionist John Brown led anti-slavery men against Missourians at Osawatimie; Federal troops ousted Missourians.

1857

Dred Scott decision of U. S. Supreme Court, 6-3. Roger B. Taney ch. jus., that Negro slave did not become free when taken into free state and had no rights as citizen. Abraham Lincoln denounced decision. Minnesota outlawed slavery.

Great Mutiny in India (Sepoy Rebellion) began in Meerut, May 10, when Indian soldiers revolted against British officers. First major Indian rebellion against English rule, crushed 1858. British East India Company abolished and India placed under crown rule as a result of mutiny.

John D. Lee, a Mormon, led raid against wagon train at Mountain Meadows Sept. 11, killed 120, spared only 17 children under 7. U. S. Army supplies burned. Govt. sent 6,000 troops to suppress "rebellion." Mormon Church unjustly accused.

1858

First Atlantic cable completed by Cyrus W. Field Aug. 5. Queen Victoria and President Buchanan exchanged greetings but cable failed Sept. 1. Field tried again in 1865, succeeded in 1866.

Lincoln-Douglas debates, Ill., Aug. 21-Oct. 15, 1859

Dixie composed by Dan D. Emmett (1815-1904) minstrel.

First commercially productive oil well, 69½ ft., drilled near Titusville, Pa., by Edwin L. Drake, Aug. 27, started boom.

John Brown, abolitionist, with 21 men seized U. S. Army at Harpers Ferry (then Va.) Oct. 16. U. S. Marines under Lt. Col. R. E. Lee captured raiders, killing 11. Five civilians, one Marine also killed. Brown was hanged for treason by Virginia, Dec. 2, as were 5 of his band, at Charlestown (now Charles Town, West Va.).

Darwin's Origin of Species published. His theory of evolution caused revolution in scientific, intellectual and religious thinking.

1860

Abraham Lincoln, Republican, elected president by 1,866,452 popular and 180 electoral votes; Stephen A. Douglas had 1,375,157 and 12; John C. Breckinridge, 847,953 and 72; John Bell 590,631 and 39. Lincoln took office Mar. 4, 1861; Breckinridge and Bell supported secession.

First Pony Express between Sacramento, Calif., and St. Joseph, Mo., 1,980 miles apart, started from each place at 5 p.m., Apr. 3; 80 men each rode 75 miles on 429 horses changed every 10 miles. There were 190 relay stations. The service ended Oct. 24, 1861, when first transcontinental telegraph line was completed.

Giuseppe Garibaldi led 1,000 volunteers to Sicily, May, to unify Italy by force; deposed Francis II of Naples; hailed Victor Emmanuel of Sardinia as King of Italy.

1861-65—Civil War. See Article Pages 304-305

1861

Emancipation of Russian serfs by Czar Alexander II. Paved the way for later reforms by Alexander.

1863

Draft riots in N. Y. City killed an estimated 1,000 including Negroes who were hung by mobs, July 13-16. More than 50 buildings were burned.

1866

Ku Klux Klan formed secretly in South to terrorize Negroes who voted. Disbanded, 1869. Not to be confused with Ku Klux Klan, Inc., organized 1915.

First post of the Grand Army of the Republic formed at Decatur, Ill. April 6. First national encampment met Nov. 2 in Indianapolis, Ind. For years this Union veterans organization was a political force in the nation. Last encampment held Aug. 31, 1949, in Indianapolis; 6 of the 16 surviving veterans attended.

1867

Alaska sold to U. S. by Russia for \$7,200,000 (\$2 an acre) Mar. 30, through efforts of Sec. of State Wm. H. Seward and Sen. Charles Sumner.

Emperor Maximilian of Mexico executed by Juarez party, June 19. He was an Austrian archduke placed on throne Apr. 10, 1864, by French.

Dominion of Canada established July 1.

Abolition of the Shogunate and restoration of the Mikado marked beginning of Meiji reforms that industrialized and modernized Japan; feudalism abolished, 1871; Constitution promulgated, 1889.

1868

The World Almanac, a publication of the New York World newspaper, appeared for the first time.

Thomas D'Arcy McGee, a "Father of Confederation," shot in only Canadian political assassination.

President Andrew Johnson, blocked by Senate in attempt to remove Edwin M. Stanton, secretary of war for opposing his policies, was impeached for violation of tenure of office act by radical Senators, tried and acquitted. March-May, Stanton resigned.

Memorial Day first observed officially May 30 on order by Gen. John A. Logan, Commander G.A.R.

1869

Financial "Black Friday" in New York, Sept. 24; caused by gold corner.

Transcontinental railroad completed; golden spike driven at Promontory, Utah, May 10, marking the junction of Central Pacific and Union Pacific.

Woman's suffrage law passed in territory of Wyoming, Dec. 10.

1870

Franco-Prussian War. Napoleon III, French emperor, tricked into declaring war on Prussia by Bismarck, Prussian chancellor, over Spanish succession issue, surrendered with large army at Sedan, Sept. 4. Nationalists declared republic, Sept. 4.

For origins of the Civil War see Confederate States and Secession.

South Carolina, Georgia, Alabama, Mississippi, Louisiana and Florida formed the Confederate States of America Feb. 8, chose Jefferson Davis provisional president; were joined later by Texas, North Carolina, Arkansas and Virginia.

FIRST YEAR OF WAR—1861

South Carolina, through Gen. Beauregard demanded surrender of Ft. Sumter in Charleston harbor Apr. 11, Major Robert Anderson, USA, refused. Bombardment started at 4:30 a.m. April 12. Anderson surrendered Apr. 14.

President Lincoln called for 75,000 militia from states by quotas, April 15. New York state voted to enlist 30,000 militia for 2 years and \$3,000,000 for defense.

U. S. troops evacuated Harpers Ferry Apr. 18. On Apr. 19 the 6th Mass. Infantry en route to Washington was attacked in the streets of Baltimore; 4 soldiers were killed.

Col. Robert E. Lee resigned from the U. S. Army April 20, became commander of Virginia troops April 23, brigadier general May 14, full general of the Confederacy June 14.

Brig. Gen. Geo. B. McClellan, Dept. of the Ohio, made major general May 14, cleared western Virginia of Confederates. Made general in chief, USA, Nov. 1, on retirement of Gen. Winfield Scott.

In Missouri Brig. Gen. Nathaniel Lyon drove Confederates under Gen. Sterling Price out of Jefferson City and Boonville, June 17. Col. Franz Sigel was forced back at Carthage July 5. At Wilson's Creek Lyon was killed in losing battle with Price Aug. 10.

Battle of Bull Run or Manassas. Brig. General Irvin McDowell attacked Beauregard's forces on the Warrenton Road, July 21, pushed them back to Henry House hill, Confederates were based on Manassas Junction, Va. Gen. Jos. E. Johnston's army from Winchester, including forces commanded by Col. Thomas J. Jackson and Gen. E. Kirby Smith reinforced Confederates, and with help of Gen. Jubal Early's brigade routed Federals. Brig. Gen. B. E. Bee, CSA, said: "Look, there is Jackson standing like a stone wall!" McDowell had 28,455 troops, 18,500 engaged, 2,708 casualties; Confederates had 32,072 available, 18,000 engaged, 1,967 casualties. Congress July 22 authorized 500,000 for army.

EVENTS OF 1862

Forts Henry and Donelson—Maj. Gen. Henry W. Halleck, Western Dept., sent Brig. Gen. U. S. Grant with 17,000 on river craft of Flag Officer Andrew H. Foote vs. Ft. Henry on Tennessee River; it fell Feb. 6. Grant rushed troops across 10 mi. of bogs to Ft. Donelson on the Cumberland, sent his "unconditional surrender" message to Brig. Gen. Simon B. Buckner, CSA, who gave up with 11,500 Feb. 16. At Pea Ridge, Ark., Mar. 6-8 Gen. Saml. R. Curtis, USA, defeated Gens. Van Dorn and Price. Casualties: USA, 1,351; CSA, 1,300.

New Madrid, Mo., captured Mar. 14, by Gen. John Pope. Island No. 10 surrendered to Pope and Foote with 7,000 men Apr. 7.

Gen. Albert Sidney Johnston, CSA, 40,000 from Corinth, Miss., surprised Grant at Shiloh Church near Pittsburg Landing, Tenn. Apr. 6; Johnston was killed. Gen. Beauregard retreated Apr. 7 after Brig. Gen. Don Carlos Buell reinforced Grant with about 20,000. U. S. had 44,895 engaged, with 1,734 killed out of 13,047 casualties; CSA, 1,728 killed out of 10,699 casualties.

Fighting ships and gunboats under Flag Officer David G. Farragut, Comm. D. D. Porter, in Mississippi silenced Chalmette batteries; with Gen. Benj. F. Butler took forts; New Orleans surrendered Apr. 25 to Farragut who turned it over to Butler May 1.

Leon Gambetta, bitter-ender, escaped from Paris in balloon Oct. 7 to carry on war.

The troops of Victor Emmanuel II, under Gen. Cadorna, took possession of Rome, Sept. 20, in the name of the Kingdom of Italy. Rome and the rest of the Papal States then were annexed by a plebiscite, taken Oct. 2.

1871

Court of Arbitration awarded United States damages of \$15,500,000 gold against Britain because British equipped Alabama and 12 other Confederate raiders. After sinking 65 U. S. ships Alabama was destroyed by Kearsarge off Cherbourg, 1864.

William I of Hohenzollern, proclaimed German emperor at Versailles, Jan. 18. Paris "red republicans," supporting internationale, organized commune, Mar. 18-May 29; burned Hotel de Ville.

Major Events of Civil War, 1861-1865;

Farragut made rear admiral, July.

Monitor and Merrimack—Confederates rebuilt scuttled US frigate Merrimack into ironclad Virginia. Sank Cumberland, USN, destroyed Congress, USN, at Hampton Roads, Va., Mar. 8. Three other US ships ran aground, including Minnesota. Monitor, flat-decked ironclad, 900 tons, 172 ft. long, with revolving turret and 2 11-in. guns, built by John Ericsson at \$275,000 cost; Lt. John L. Worden commander, crew of 58, badly damaged Virginia. Mar. 9, which withdrew. Monitor did not resume fighting. After Federals took Virginia's base Confederates scuttled ship May 11.

Peninsular Campaign—McClellan moved Army of the Potomac by sea to Fort Monroe, Va., 70 mi. from Richmond. Confederates sent Stonewall Jackson up Shenandoah Valley to divert Federals; Jackson lost at Kernstown, Va., but routed Federals at McDowell, Front Royal, Winchester, Cross Keys, Fort Republic, Mar. 23-June 9. McClellan's advance troops clashed with Maj. Gen. James Longstreet at Williamsburg May 5. On May 25 2 US corps crossed to south side of Chickahominy leaving 3 on north side. Gen. Jos. E. Johnston attacked south side May 30, Battle of Fair Oaks or Seven Pines, was repulsed. Johnston was wounded and Lee took over Army of Northern Virginia. Gen. J. E. B. Stuart, CSA, June 13-15, led his cavalry on scout around McClellan.

Gen. Lee started **Seven Days' Battles** at Mechanicsville June 26. McClellan withdrew to Gaines Mill (1st Cold Harbor) where Lee with 57,000 assaulted Brig. Gen. Fitz John Porter's 34,000 June 27. McClellan held off Lee at Savage Station June 29, Frayser's Farm or Glendale June 30; stopped Stonewall Jackson at White Oak Swamp June 30. At Malvern Hill July 1 Confederates had 5,000 casualties from U. S. guns. Despite this success McClellan withdrew army to Harrison's Landing. With over 115,000 available against Confederates' 95,000, McClellan from June 25-July 1 had 1,734 killed, 8,062 wounded, 6,053 missing; CSA had 3,478 killed, 18,261 wounded, 875 missing. In July Halleck became general in chief. McClellan was succeeded by Maj. Gen. John Pope.

Second Bull Run (Manassas). Stonewall Jackson and Maj. Gen. A. P. Hill, CSA, attacked Maj. Gen. Nath. P. Banks (part of Maj. Gen. John Pope's Army of Virginia) at Cedar Mountain, Va., Aug. 9. Jackson destroyed Pope's supplies at Manassas Aug. 26. Major battle was fought Aug. 30. Pope, checked by Jackson and Longstreet, withdrew; was relieved.

Antietam (Sharpsburg). Lee with 50,000 crossed Potomac Sept. 4 to Frederick, Md., moved across South Mountain to Hagerstown, Md. McClellan, after finding Lee's orders fought Longstreet and D. H. Hill at South Mountain, Sept. 14. Lee dropped back to Antietam creek near Sharpsburg, Md., Sept. 15; Jackson took Harpers Ferry, where only 1,300 cavalry of 12,000 USA escaped. McClellan attacked Sept. 17; stopped Lee, but failed to use reserve and let Lee withdraw across Potomac. USA had 70,000 engaged, 13,000 casualties; CSA had 50,000 engaged, 13,000 cas. Maj. Gen. Stuart, CSA cavalry raided Chambersburg, Pa., Oct. 10. **Fredericksburg, Va.** Lincoln relieved McClellan, gave Army of the Potomac to Maj. Gen. Ambrose E. Burnside. Burnside crossed Rappahannock, made frontal attacks on Marye's Heights above Fredericksburg Dec. 13. Lee, Longstreet and Jackson with 75,000 repulsed him. USA lost 12,653; CSA 5,377.

In Tennessee Maj. Gen. Wm. S. Rosecrans, USA, pushed back Gen. Braxton Bragg at battle of Stones River-Murfreesboro Dec. 31-Jan. 3. US 12,000 casualties; CSA 11,000.

Preliminary proclamation, Sept. 22, by President Lincoln announced that Jan. 1, 1863, slaves would be declared free in territory then in rebellion.

Tuileries palace, executed 67 hostages. Communards overcome by French army; deaths est. 20,000.

Treaty of Frankfurt, May 23, ended Franco-Prussian War. France ceded Alsace, most of Lorraine, paid 5 billion francs indemnity.

The Law of Guarantees, passed by the Italian Parliament May 13, granted the Pope and his successors possession of the Vatican, the Lateran and the villa of Castel Gandolfo and a yearly allowance of 3,225,000 lire, or about \$645,000. The money was not claimed.

Great fire destroyed heart of Chicago, Oct. 8-11; loss est. \$196,000,000. Started in Mrs. O'Leary's barn, 559 De Koven St. by cow kicking over lantern according to legend.

Henry M. Stanley, sent by James Gordon Bennett, owner of New York Herald, to find David

Livingstone, missionary, greeted him Nov. 10 at Ujiji, in Central Africa, now Tanzania, with "Dr. Livingstone, I presume?"

First U. S. postal card issued, May 1.

1872

Col. James Fisk, Jr., shot in New York City by Edward S. Stokes, Jan. 6; he died two days later; Stokes got four years in prison.

1873

Panic in New York City began with bank failures, Sept. 20.

1874

Charley Ross, 4, kidnapped in Germantown, Pa., July 1, caused national sensation.

"Boss" W. M. Tweed in New York City, convicted of fraud, Nov. 19, and sentenced to 12 years

Emancipation and Lincoln's Assassination

EVENTS OF 1863

Lincoln's Emancipation Proclamation, Jan. 1, declared free forever the slaves in Arkansas, Texas, Louisiana (certain parishes already occupied excepted); Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, and Virginia (West Virginia and other portions excepted). About 3,000,000 slaves were thus declared free.

Chancellorsville, Va.—Maj. Gen. Jos. E. Hooker succeeded Burnside and with 90,000 available, attempted to envelop Lee May 2. Jackson led 32,000 around US Army, drove in right of Maj. Gen. O. O. Howard. Jackson wounded by own troops May 2, died May 10; succeeded by Maj. Gen. J. E. B. Stuart. Shell stunned Hooker May 3. Maj. Gen. John Sedgwick forced Confederates out of Marye's Heights; was pushed back May 4. Against consensus Hooker withdrew across Rappahannock. US casualties 17,197; CSA 13,000. Lincoln called for 100,000 for 6 mos. June 15.

Gettysburg—Lee with 76,224 and 272 guns, invaded Penn. Army of the Potomac had 115,256, about 90,000 effective, 362 guns. Maj. Gen. Jubal A. Early, CSA, levied on York, Pa. for \$100,000 supplies June 27. Lincoln gave Maj. Gen. Geo. G. Meade top command June 28. 1st US Cavalry (Buford) pushed back at Gettysburg by Lt. Gen. A. P. Hill, CSA, July 1. Lt. Gen. Richard S. Ewell, CSA, forced US back to Cemetery Hill; Maj. Gen. Reynolds, USA, killed. US took Culp's Hill, extended line to Round Top, with Maj. Gens. Hancock, Sickles, Sedgwick, Howard, Slocum and Pleasanton (cavalry). Lee's attacks checked July 2. On July 3 Maj. Gen. Geo. E. Pickett, Maj. Gen. Isaac Trimble and Brig. Gen. Jas. J. Pettigrew with 12,400 made assault on foot from Seminary Ridge vs. US center (Hancock); were repulsed with 4,500 casualties. Lee retreated into Virginia; Meade did not pursue. Losses: US, 3,155 killed, 14,529 wounded, 5,365 missing; CSA, 3,903 killed, 12,709 wounded, 5,425 missing. Many of the missing were prisoners. Total casualties estimated at 23,049 USA, 20,451 CSA, or over 43,000.

Vicksburg—Gen. Wm. T. Sherman took Jackson, Miss., May 14, held back Jos. E. Johnston, CSA. Lt. Gen. John C. Pemberton, CSA, commanding 30,000, was defeated at Champion's Hill and Black River Bridge, shut up in Vicksburg. He surrendered July 4; Grant paroled prisoners. Gen. Banks with 15,000 captured Port Hudson July 8, giving US control of Mississippi River.

Tennessee—Maj. Gen. Wm. S. Rosecrans took Chattanooga Sept. 9. Braxton Bragg, CSA, drove him back to Chickamauga, but Maj. Gen. Geo. H. Thomas checked Bragg, Sept. 18-20; was called "Rock of Chickamauga." Grant made commander of all armies there; Sherman of Grant's Army of the Tennessee; Thomas replaced Rosecrans. Longstreet reinforced Bragg; Hooker supported Thomas. Hooker took Lookout Mt., fought Battle Above the Clouds, Nov. 24. Sherman and Thomas dislodged Bragg at Missionary Ridge, Nov. 25. Bragg retreated to Georgia.

Brig. Gen. John H. Morgan, CSA, raided Indiana and Ohio; captured at New Lisbon, O., escaped from prison at Columbus, Nov. 27. Killed at Greenville, Tenn., Sept. 4, 1864.

EVENTS OF 1864

Grant made lieutenant general Mar. 1, gen. in chief Mar. 12. Sherman succeeded him in West. Halleck made chief of staff. Draft for 500,000 to serve 3 yrs. or duration begun Mar. 10; 200,000 more Mar. 14.

Rear Adm. David G. Farragut won naval battle, Mobile Bay, Aug. 5.

Wilderness; Spotsylvania—Bloody battles followed when Grant crossed the Rapidan and was attacked by Lee at Wilderness, May 5. Longstreet was wounded by his own men. Grant attacked Lee at Spotsylvania Court House May 10 (2nd Wil-

derness). Maj. Gen. Franklin G. Barlow took Spotsylvania salient, including Bloody Angle, May 12 (3rd Wilderness). Maj. Gen. Sedgwick killed. US killed and wounded May 5-12 est. 26,813; missing 4,183. Maj. Gen. Sheridan's cavalry defeated Maj. Gen. J. E. B. Stuart at Yellow Tavern, Va., May 11; Stuart was fatally wounded, died May 12 in Richmond.

Cold Harbor—Lee took strong position near the Chickahominy. Grant made frontal attacks June 3, lost 7,000 casualties in 30 minutes, 11,000 June 1-3. US S. Kearns, Capt. John A. Winslow, defeated CSS Alabama, Capt. Rafael Semmes, off Cherbourg, France, June 19; Alabama surrendered and sank.

Siege of Petersburg—Grant assaulted Confederate positions June 15-18 with 7,851 casualties. Exploded a mine under Confederate works July 30; during fight in crater US lost 898 killed, 660 wounded, 3,110 missing; CSA 400 killed, 600 wounded, 200 missing.

Early vs. Sheridan—Lee sent Maj. Gen. Jubal A. Early to hold Shenandoah Valley. Early went through Maryland to outskirts of Fort Stevens near Washington, July 11. Sheridan defeated Early at Winchester Sept. 19. Fisher's Hill, Sept. 22. Early surprised Wright at Cedar Creek Oct. 19; Sheridan's famous ride from Winchester rallied troops, brought victory.

Sherman's Campaign for Atlanta—Sherman defeated Johnston at Resaca, Ga., May 14-15. Hooker repulsed at New Hope Church, Ga., May 25. Johnston repulsed Sherman at Kennesaw Mtn., June 27 (US casualties 3,000, CSA 600), evacuated post, was superseded by Gen. J. B. Hood, CSA, July 17. Lt. Gen. Wm. J. Hardee, CSA, defeated at Peach Tree Creek, July 20. Hardee defeated in battle of Atlanta, July 22, by Gen. J. B. McPherson, who was killed. Sherman occupied Atlanta Sept. 2, burned it Nov. 15, started March to the Sea, reached Savannah Dec. 21. Thomas defeated Hood at Nashville, Tenn.

Gen. Nathan B. Forrest, CSA, captured Fort Pillow, Tenn., Apr. 12, inflicting heavy loss on U. S. Negro troops.

EVENTS OF 1865

Confederates evacuated Columbia, S. C., and Charleston, S. C., Feb. 17. Cape Fear River forts captured Feb. 20-21. Brig. Gen. Geo. A. Custer defeated Early at Waynesboro, Va., Mar. 2. Confederates evacuated Petersburg and Richmond Apr. 2-3. Lee surrendered 27,805 to Grant at Appomattox Court House, Va., Apr. 9. Johnston surrendered 31,243 to Sherman at Durham Sta., N.C., Apr. 18.

MURDER OF LINCOLN

Lincoln was shot by John Wilkes Booth, an actor, in Ford's Theatre, in Washington, April 14, died, April 15; Booth was shot to death in the pursuit, April 26, at a burning barn, on a farm near Port Royal, Va. Those hanged for complicity were Mrs. Mary E. Surratt, David E. Herold, George A. Atzerodt and Lewis Payne (Powell), July 7. Also convicted of conspiracy were Dr. Samuel A. Mudd, who set Booth's broken ankle, Samuel Arnold, Michael O'Laughlin, and Edward Spangler. All were sentenced to life imprisonment except Spangler, who received a 6-year sentence. They were sent to Dry Tortugas Prison, off Key West, where O'Laughlin died during an 1867 outbreak of yellow fever. Dr. Mudd's unselfish services as a physician during the outbreak won him a pardon; Arnold and Spangler were freed from Dr. Mudd in 1869. John H. Surratt, son of Mary E., fled to Europe, was brought back, tried and freed. Booth's body was buried under the stone floor of a naval prison in Washington, later reburied in the Booth family plot in Baltimore.

Slavery was abolished by adoption of the 13th amendment to the Constitution, Dec. 18.

in prison; the court released him from Blackwells Island prison June, 1875, on a technicality; he was committed to Ludlow St. jail in a civil suit; escaped, Dec. 4, 1875, and went to Cuba, then to Spain, bringing back to New York City, Nov. 1876; he died in Ludlow St. jail, April 12, 1878.

1876

Samuel J. Tilden, Democrat, received majority of 250,000 popular votes for President over Rutherford B. Hayes, Republican, and had 184 electoral votes against 163, with returns from South Carolina, Florida, Louisiana and Oregon, 22 electoral votes, in dispute. Bitter contest for delegates with charges of corruption, left issue to Congress, which appointed electoral commission, 8 Republicans, 7 Democrats. Hayes given Presidency by strict party vote.

Gen. George A. Custer and 264 soldiers of the Seventh Cavalry killed June 25 in Battle of the Little Big Horn, Mont., in Sioux Indian war; massacred by Indian tribes united by Sitting Bull, prophet; fighting led by Chiefs Gall and Crazy Horse.

James Butler (Wild Bill) Hickok, shot dead from behind by Jack McCall, a desperado, in Deadwood, S. D., Aug. 2. A vigilance committee acquitted McCall but the United States Court in Yankton, S. D., found him guilty and he was hanged.

1877

Russia declared war on Turkey, April 24; peace treaty signed, March, 1878.

Molly Maguires, Irish terrorist secret society in Pennsylvania, broken up by hanging of 11 leaders for murders.

1878

First commercial telephone exchange opened, New Haven, Conn., Jan. 28, 1878. First private exchange, used by physicians, reported in use July, 1877, Hartford, Conn.

1879

F. W. Woolworth opened his first five-and-ten store, Utica, N. Y., Feb. 22.

Henry George published *Progress & Poverty*, advocating single tax on land.

1881

President James A. Garfield shot in Washington July 2; died in Elberon, N. J., Sept. 19.

Federation of Organized Trades and Labor Unions formed, Aug. 2, at Terre Haute, Ind. The organization later joined with 25 independent unions to form the American Federation of Labor at Columbus, Ohio, Dec., 1886.

1882

Prof. Robert Koch announced, in Berlin, discovery of the tuberculosis germ, March 24.

Triple Alliance of Germany, Austria and Italy formed. Denounced by Italy, 1914.

1883

Brooklyn Bridge opened, May 24; panic on it, May 30; twelve trampled to death.

1884

Panic in New York, May 5-7. U. S. Grant ruined by failure of Grant & Ward. To gain nest-egg for family he wrote his "Personal Memoirs," while ill of cancer. Marketed after his death (July 23, 1885) by Mark Twain's firm, book yielded \$450,000.

1885

Gen. Charles G. ("Chinese") Gordon, British governor of the Sudan, was slain, Jan. 26, by a Mohammedan soldier, who stuck the head on a spear, at Khartoum. Several thousand whites were massacred by the Mahdi's troops. Gen. Kitchener defeated the Mahdi's army Sept. 2, 1898.

First electric street railway in United States, in Baltimore, opened by Leo Darr, Aug. 10.

Canadian rebel Louis Riel hanged for treason at Regina, following crushing of Northwest Rebellion.

1886

Haymarket riot, evening of May 4, followed bitter labor battles for 8-hour day in Chicago, attacks on strike-breakers, police violence and attempts of anarchists to incite workers. A bomb killed seven police and wounded 68. Eight anarchists found guilty; August Spies, Adolph Fischer, George Engel and Albert R. Parsons were hanged; Louis Lingg committed suicide. Samuel Fielden, Michael Schwab, Oscar Neebe, sent to prison, were pardoned seven years later by Gov. John P. Altgeld who denounced trial as unfair. Bomb believed thrown by Rudolph Schnaubelt, who disappeared.

Gerónimo, Apache Indian, surrendered Mar. 27 to U. S. Gen. George Crook in Sonora, Mex., but fled the next day and finally surrendered Sept. 4 to U. S. Gen. Nelson A. Miles in Arizona.

Dr. A. Conan Doyle invented famous detective Sherlock Holmes, in story, *A Study in Scarlet*. Published in Beeton's Christmas Annual, 1887.

1887

Flood in Hwang-ho River, China; 900,000 persons perished.

Opera Comique, Paris, burned May 25; 200 lives lost.

Last spike driven in Canadian Pacific Railway at

Craigellachie, B. C., giving Canada transcontinental railway system.

1888

Great blizzard in eastern U. S. Mar. 11-14. Roscoe Conkling, victim of exposure, died April 18.

1888

Crown Prince Rudolf of Austria and Baroness Maria Vetsera found slain in his hunting lodge, Mayerling, near Vienna, Jan. 29.

Johnstown, Pa., flood, May 31; 2,200 lives lost. Universal Exhibition in Paris, May 6 through Nov. 6. Eiffel Tower (984.25 ft.) opened. (Height with TV antenna 1,052 ft.) First automobile exhibited, a Benz.

Dom Pedro II, emperor of Brazil, forced off throne by plotters after he freed slaves. Died in Paris, 1891, last emperor on American soil.

1890

First execution by electrocution; Wm. Kemmler, Aug. 6 at Auburn prison, Auburn, N. Y., for murder.

Castle Garden closed as immigration depot and Ellis Island opened Dec. 31 (Closed 1954).

1891

Park Place disaster, New York City, 64 killed, Aug. 22, by the collapse of upper floor.

1892

Homestead, Pa., strike at Carnegie steel mills, near Pittsburgh; conflict between 300 Pinkerton guards and strikers; seven guards and 11 strikers and spectators shot to death, many wounded July 6. Henry C. Frick, ch., wounded in Pittsburgh, July 23, by Alexander Berkman, anarchist.

1893

Ford's Theater building, Washington, where Lincoln was shot, used by Pension Bureau, collapsed June 9, killing 22.

1894

Chinese-Japanese War began, July 25. Battle of Yalu, Sept. 17, treaty of Shimonoseki, April 17, 1895, gave Japan Liaotung Peninsula, Formosa and the Pescadores.

Jacob S. Coxey led 20,000 unemployed from the Mid-West into Washington, April 29. Coxey died May 18, 1951, aged 97.

Strike of employees of Pullman Co., South Chicago, Ill., June, led Eugene V. Debs to call sympathetic strike of American Railway Union. President Cleveland called out Federal troops over protest of Gov. Altgeld (Illinois). Debs and 3 others were imprisoned 6 mos. for contempt of court. Strike called off Aug. 7.

Thomas A. Edison's Kinetoscope given first public showing at 1155 Broadway, New York, April 14. Was patented 1891 for U. S. only.

Capt. Alfred Dreyfus found guilty of betraying French army secrets Dec. 22, in sensational frame-up; real culprit, Major Esterhazy, acquitted; Dreyfus condemned to Devil's Island, off French Guiana. Recalled for second trial by efforts of Emile Zola and Clemenceau, again condemned Sept. 9, 1899. Public clamor led to pardon, Sept. 19. Further proofs of innocence led to complete rehabilitation, 1906, with rank of major. He served as lieutenant in World War I.

1895

Cuban Revolution resumed Feb. 20; Gen. Antonio Maceo, leader of the insurrection, was killed in action, Dec. 7, 1896.

X-rays discovered by Wilhelm Konrad Roentgen, a German physicist; Nobel prize winner, 1901.

1896

President Cleveland intervened in boundary dispute between Venezuela and British Guiana on basis of Monroe Doctrine; appointed arbitration commission, which settled it Feb. 2, 1897.

Guglielmo Marconi received first wireless patent from Britain June 2.

William Jennings Bryan delivered "Cross of Gold" speech at Democratic National Convention in Chicago, July 8. Bryan nominated for president but defeated by Republican Wm. McKinley.

1897

Eugene V. Debs formed Social Democratic party.

1898

Radium discovered by Pierre Curie, Mme. Curie and G. Bemont, Paris.

1898—Spanish-American War.

See Article Page 307

1899

South African (Boer) war began Oct. 11; Ladysmith relieved Feb. 28, 1900; Pretoria fell June 5, 1900; war ended, May 31, 1902, with loss of independence of Boer republics, Transvaal and Orange Free State, now in Union of South Africa. British losses: 5,773 killed; 16,171 died of wounds or disease; 22,829 wounded. Boers engaged est. 65,000, losses unknown.

Filipino insurgents (est. 12,000 under arms) unable to get recognition of independence from

U. S. A., started guerrilla war, Feb. 4. Crushed with capture, Mar. 23, 1901, of leader, Emilio Aguinaldo, by Brig. Gen. Frederick Funston.

Open Door Policy of U. S. Secy. of State John Hay, supported by 6 nations. Policy was to make China an open market for international commerce and to preserve its integrity as a nation. Boxer anti-foreign uprising started in China; missionaries and Christian Chinese murdered.

1900

Carry Nation, Kansas anti-saloon agitator, began raiding with hatchet. Died June 9, 1901. Boxers in China killed German minister June 20. Foreigners besieged in Peking legations. Relief expedition of 18,000 American, British, French, Japanese and Russian troops took Tientsin July 13; Peking Aug. 14. U. S. had 2,500 under Maj. Gen. A. R. Chaffee, including two infantry regts., one troop of cavalry, one light battery, two batts. of Marines. Germans arrived and Field Marshal Count Alfred von Waldersee led army of occupation. Russia refused to yield parts of Manchuria. Ravager Empress of Russia 28th allied terms Sept., 1901. All except U. S. exacted large concessions and indemnity of \$333,000,000, payable in 39 years. U. S. accepted \$25,000,000, returned half in 1908 to provide student exchange fund.

Campaign begun, June 26, by Drs. Walter Reed, Aristides Agramonte, Jesse Lazear and James Carroll to wipe out yellow fever in Cuba.

Galveston hurricane and tidal wave, Sept. 8; 5,000 lives estimated lost.

1901

President Wm. McKinley was shot at the Pan-American Exposition in Buffalo, N. Y., Sept. 6, by Leon Czolgosz, an anarchist; died Sept. 14. Theodore Roosevelt, vice pres., became 26th President. Czolgosz was executed. McKinley tomb in Canton, Ohio. Marconi signalled letter "S" across Atlantic from Cornwall, Eng., to Newfoundland, Dec. 12.

1902

Anglo-Japanese alliance formed Jan. 30 to protect Japan against encroaching Russians.

Cuban Republic inaugurated. American occupation under Gen. Leonard Wood, ended May 20.

First International Arbitration Court opened in The Hague, Holland, October.

1903

First automobile trip across U. S., San Francisco to New York, May 23-Aug. 1.

Henry Ford, having withdrawn from the Detroit Automobile Co. in 1901, organized Ford Motor Co. Treaty between U. S. and Colombia to have U. S. dig Panama Canal signed Jan. 22, 1903, rejected by Colombia. Panama declared independence Nov. 3, recognized by President Theodore Roosevelt Nov. 6. See *Canal Zone and Panama*.

First successful flight in heavier-than-air mechanically propelled airplane, by Orville Wright (1871-1948) on Dec. 17, 1903, rising from base of Kill Devil hill, four miles south of Kitty Hawk, N. C., 120 ft. in 12 secs., in 27 mph wind. Fourth

flight, same day by Wilbur Wright (1867-1912) 852 ft., in 59 secs. Plane patented May 22, 1906.

Fire killed 602 in Iroquois Theater, Chicago, Dec. 30. Many were trampled to death.

1904

Russo-Japanese War began, Feb. 6. Port Arthur surrendered to Japanese, Jan. 2, 1905. Peace treaty signed in U. S. Navy Yard, Portsmouth, N.H., Sept. 5, 1905. See *Marine Disasters*.

New York subway opened, Oct. 27. Steamer Gen. Slocum burned, Hell Gate, N. Y., June 15; 1,030 dead.

1905

Russian Revolution crushed by Czar Nicholas II. Resulted in creation of Duma (parliament) to placate liberals. First meeting of Duma, May 10; dissolved July.

Norway dissolved union with Sweden.

1906

San Francisco earthquake and fire, April 18-19. Dead: 452. Loss: \$350,000,000.

Harry K. Thaw, Pittsburgh millionaire, shot and killed Stanford White, famous architect, on the roof of Madison Square Garden (26th and Madison, N. Y.) June 25, on ground of avenging honor of wife, Evelyn Nesbit. Prosecuted by Wm. Travers Jerome, D. A., he was committed to Matteawan State hospital, 1907. Escaped 1913. Declared sane and freed, he was indicted, 1917, for kidnapping; pronounced insane; declared sane, 1924. Died, Miami, Feb. 22, 1947.

1907

Financial panic in the United States. Standard Oil of Indiana fined \$29,240,000 by Judge K. M. Landis in U. S. Court, Chicago, for accepting freight rebates Apr. 3. Set aside July 22, 1908. Railroads found guilty of giving rebates. First round-world cruise of U. S. Fleet; 16 battleships, Adm. Robley D. Evans, 12,000 men.

1908

In fire and panic at Collinwood, Ohio, 174 children and two teachers in Lake View School lost their lives Mar. 4.

Chelsea (Mass.) destroyed by fire; loss more than \$6,000,000, April 12.

1909

Admiral Robert E. Peary reached North Pole April 6 on sixth attempt, accompanied by Matthew Henson, Negro, and 4 Eskimos.

Louis Bleriot flew across the English Channel, Calais to Dover, 31 mi. in 37 min., July 25.

Budget in Britain: "Soak the Rich" taxation financed social security measures.

1910

Boy Scouts of America incorporated Feb. 8 following visit to England by Wm. D. Boyce, Chicago publisher; while there he met Sir Robert Baden-Powell, founder of the Scouting movement, and was inspired to take the lead in transplanting the idea to the United States.

Glenn H. Curtiss won \$10,000 offered by the World, N. Y., for first continuous flight, Albany to

Spanish-American War of 1898; United States Becomes Naval Power

Spanish misrule in Cuba led to repeated attempts by Cuban patriots to gain rights of citizenship, abolition of slavery, and finally independence. When South America broke from Europe in the 1820s pro-slavery influence in the U. S. blocked movements to free Cuba and Puerto Rico. But in 1852 President Fillmore refused to join Great Britain and France in guaranteeing Spanish authority in Cuba. In 1854 the Ostend Manifesto written largely by Jas. Buchanan, urged the U. S. to buy Cuba or seize it to abolish oppression. Grant's administration offered to buy Cuba, but Spain refused.

In Cuba revolts led by Marciso Lopez and Joaquin de Aguiro, 1848-1851, were suppressed and the leaders executed. In 1868 a major revolt led by Carlos de Cespedes and Manuel de Quesada lasted 10 years. In 1873 the Virginus expedition, flying the American flag, was seized by the Spaniards and Americans and Cubans aboard were shot. This did not stop supplying of arms from the U. S. In 1895 the insurrection had spread so widely under Generals Calixto Garcia, Maximo Gomez and Antonio Maceo that Spain landed 150,000 troops, but by 1896 over half of the island was in the hands of the patriots. The U. S. offered to mediate but was repulsed. The country was laid waste by Spanish troops and the accounts of suffering increased sentiment in the U. S. in favor of Cuba.

The battleship Maine, Capt. C. D. Sigbee, sent to Havana in January on goodwill tour, was blown up Feb. 15, 1898; 264 men, 2 officers killed. U. S. inquiry, Capt. Wm. T. Sampson ch., blamed external explosion Mar. 21. Spanish inquiry Mar. 28 blamed internal explosion. Congress Mar. 9 voted \$50,000,000 for defense. President McKinley Mar. 27 demanded Spain grant armistice for negotiation with Cuba via U. S., and reconcentration. Spain Mar. 31 offered to arbitrate Maine, end reconcentration, but wanted Cubans to ask for armistice. After appeal by foreign ministers Spain

granted armistice Apr. 9. President Apr. 11 asked Congress for authority to intervene in Cuba. Congress Apr. 20-25 debated joint resolution recognizing independence of Cuba, asked Spain to withdraw and empowered President to enforce it; adopted it with statement war existed since Apr. 21. Spain had declared war Apr. 24.

Commodore Geo. Dewey, with 6 warships, 1 revenue cutter, destroyed the Spanish fleet (10 ships) in Manila Bay May 1, occupied Cavite, Spain, 167 dead; U. S., 7 wounded. Spanish Admiral Cervera with 4 cruisers, 3 torpedo boats reached Santiago without interference May 19. Battleship Oregon made 16,000 mi. trip around Cape Horn, joined squadron of Acting Rear Adm. Sampson May 26. Collier Merrimac ineffectively sunk at mouth of Santiago harbor by Lieut. Richard H. Henson May 31. Marines landed at Guantanamo May 11. Maj. Gen. Wm. R. Shafter landed 10,000 men at Daiquiri and Siboney, including 1st U. S. Volunteer Cavalry (Rough Riders) recruited by Lt. Col. Theodore Roosevelt, commanded by Col. Leonard Wood. Brig. Gen. H. W. Lawton, Brig. Gen. Adna R. Chaffee with 6,654 men attacked El Caney, defended by 500 Spaniards, July 1. Maj. Gen. Jos. Wheeler, Brig. Gen. J. R. Kent carried San Juan hill with 8,336, same day.

Admiral Cervera's fleet left Santiago harbor July 3, was destroyed by ships of Acting Rear Adm. Sampson and Commodore Winfield S. Schley; 353 Spaniards killed, 151 wounded; 1 American killed. Santiago surrendered July 17. Maj. Gen. Nelson A. Miles took Puerto Rico July 25-28. Armistice signed, Aug. 12. Peace treaty signed in Paris Dec. 10, eliminated Spain from lands discovered by Columbus. U. S. acquired Puerto Rico, Guam and Philippines, paying \$20,000,000 for all Spanish claims in latter; guaranteed Cuban independence. (Ratified Feb. 6, 1899.) U. S. had treaty rights in Cuba until 1934; granted Philippine independence July 4, 1946.

New York, 137 mi., 152 min., May 29.

Dynama explosion at Los Angeles Times Oct. 1 caused fire, killing 21. Aiding contractors, in labor strife with structural iron workers, hired William J. Burns to find perpetrators. In sensational trial J. B. and J. J. McNamara pleaded guilty through Clarence Darrow, defense attorney, and were sentenced to San Quentin. Darrow tried twice for suborning juror, juries disagreed. Lincoln Steffens, "muckraking" journalist, conciliator.

1911

Italian-Turkish War began, Sept. 29.

First transcontinental airplane flight (interrupted by landings) by C. P. Rodgers, New York to Pasadena, Sept. 17-Nov. 5; time in air 82 hrs., 4 mins.

Capt. Roald Amundsen, Norwegian explorer, reached South Pole, Dec. 14.

Mexican Revolution. Porfirio Diaz, president of Mexico since 1877 (except 1880-1884), resigned May 25, after successful revolt by Francisco L. Madero, who succeeded him. People living in poverty wanted restoration of communal lands (ejidos), better conditions. In 1912 Madero, supported by Gen. Huerta, put down revolts by Gens. Orozco, Reyes and Felix Diaz. In Feb., 1913, Reyes was killed; Huerta helped depose Madero. Madero, his brother and Vice President Suarez were murdered. President Wilson refused recognition to Huerta and "government by assassination." Venustiano Carranza, rallying Maderos, was opposed by Gen. Francisco (Pancho) Villa in north. When American sailors were arrested at Tampico, April 9, 1914, U. S. sent Atlantic fleet to Vera Cruz. Marines landed and snipers killed 19. Brig. Gen. Frederick Funston was sent Apr. 27. Huerta resigned July 14, 1914. Carranza occupied Mexico City Aug. 20. Villa, supported by Zapata, forced Carranza to leave for Vera Cruz. U. S. recognized Carranza, Oct. 19, 1915, placed embargo on arms to other generals. Villa raided Santa Isabel, Jan. 10, killing 18; Columbus, N. M., Mar. 9, 1916, killing 17. Gen. John J. Pershing with 12,000 sent into Mexico, May 15. Fight at Cuernavaca, Durango, April 12. Carranza's troops attacked June 21. U. S. troops withdrawn Feb. 4, 1917. Carranza called constitutional convention. Feb. 15, 1917, became legal president May 1, 1917. He restored some of the land, nationalized coal and oil, expropriated some foreign holdings. Discontent caused new rising and he was ambushed and killed. Oregon became president Dec. 1, 1920. Villa was killed in ambush at Parral, July 18, 1923.

Chinese Revolution led by Sun Yat-sen overthrew Manchu dynasty. Republic formed Feb. 12, 1912; Yuan shih-K'ai elected president, Feb. 15. **Parliament Act of 1911** reduced the power of British House of Lords to a suspensory veto, to delay but not deny bills.

1912

Capt. Robert F. Scott and 4 companions reached South Pole Jan. 17; died on return journey.

White Star liner Titanic wrecked on maiden trip, from Southampton to New York, by iceberg off Newfoundland, April 14-15; U. S. reported 1,517 lost; British Board of Trade reported 1,503 lost. Passengers and crew were 2,207. The ship was 882½ ft. long, and cost \$7,500,000.

Herman Rosenthal, gambler, killed in New York. Four thugs convicted, executed at Sing Sing Apr. 13, 1914. **Police Lieut. Chas. Becker,** convicted of complicity, executed July 30, 1915.

War in Balkans, against Turkey by Montenegro, Bulgaria, Serbia and Greece, Oct. 8-Dec. 3.

1913

Sixteenth Amendment proclaimed in effect Feb. 25, empowering Congress to levy and collect income taxes.

Act creating Federal Reserve System became law Dec. 23.

1914

Ford Motor Co. raised basic wage rates from \$2.40 for 9-hr. day to \$5 for 8-hr. day, Jan. 5.

First ship passed through Panama Canal, Aug. 15.

Second International; Brussels meeting of International Socialist Bureau July. Members included five men later heads of government: Lenin (Russia); Ebert (German Republic); Stauning (Denmark); Branting (Sweden); MacDonald (Britain).

Principal Events of World War I, 1914-1918;

ORIGINS. Since the defeat of France by Prussia in 1870-71 major powers of Europe had kept peace by diplomatic negotiations and a balance of power. Triple Alliance, of Germany, Austria and Italy was defensive, with reservations; Triple Entente was an understanding between Britain, France and Russia. Nationalist aspirations in the Balkans had resulted in several wasteful wars and Italy had fought with Turkey and Ethiopia. Austria annexed Bosnia, Herzegovina, former Turkish Balkan provinces, 1908. Russia backed Serbia's efforts to get a port on the Adriatic. Germany's industrial expansion led to building of powerful navy, which Britain matched two for one for its own security. Germany's universal military service led France to adopt three-year training.

On June 28, 1914, Archduke Francis Ferdinand, heir to Austrian throne, was assassinated, with his wife, by Gavrillo Princip, Bosnian Serb terrorist, in Sarajevo, Bosnia. Austria-Hungary, through Count Berchtold, Austrian foreign minister, made 10 demands on Serbia for suppression of anti-Austrian agitation. Serbia conceded all but two, which called for Austrian enforcement police inside Serbia. It asked reference to The Hague peace tribunal. Austria demanded all or nothing.

Russia warned Austrian action was aimed at Russia, supported Serbia. Germany, allied with Austria, backed Austria. Britain, France, Italy proposed mediation. Sir Edward Grey, Br. foreign minister, July 26 proposed conference of four major powers; Germany refused to join.

Austria declared war on Serbia July 28. Germany, citing Russian mobilization, declared war on Russia Aug. 1; on France, Aug. 3. Germans entered Belgium in violation of treaty, of which Britain was cosigner. Britain asked Germany to guarantee neutrality of Belgium by midnight Aug. 4; Germany refused; British declared war Aug. 4. Italy, declaring German aggression made Triple Alliance inoperative, proclaimed neutrality. Japan declared war on Germany Aug. 23 because of Anglo-Japanese treaty on Far East. Turkey joined Central Powers Nov. 23.

Lord Kitchener became British secy. for war. Belgian forts at Liege stopped Germans until Aug. 7, delayed Ger. schedule. Germans entered Brussels Aug. 20; pushed back British Expeditionary Force (Sir John French) at Mons Aug. 23-24; burned most of Louvain Aug. 25. Von Hindenburg and Ludendorff defeated Russians at Tannenberg, East Prussia, Aug. 26-31; at Masurian Lakes Sept. 5-10.

In first Battle of the Marne, Sept. 5-10, French

under Joffre, Foch and Gallieni, stopped German advance of Von Kluck and Von Bulow, toward Paris, forced them back to Aisne, where trench warfare began. British repulsed Germans at Ypres, Oct. 16-Nov. 24. Belgians lost Antwerp Oct. 9. Russians forced Austrians back in Galicia. Austrians took and lost Belgrade Dec. 2-15.

British bombarded Dardanelles forts Nov. 3; declared war on Turkey, annexed Cyprus Nov. 5. Japan took Tsingtau Nov. 6.

Of many warships and merchantmen sunk, only major events are listed here. For others see Marine Disasters.

1915—SUBMARINE WAR BEGINS

In 1915 the war became a desperate battle of attrition on land and sea. British sank Ger. cruiser Bluecher Jan. 24. Germany ordered submarine blockade of Britain to start Feb. 18. U. S. held Germany to "strict accountability" for American losses. Germans used liquid fire in Vosges Mar. 3. Roving cruiser Dresden sunk in Pacific Mar. 15. Three Br.-Fr. battleships sunk at Dardanelles Mar. 18. Ger. sank Falaba Mar. 28, 1 American lost. Turks sank Br. battleship Lord Nelson Apr. 6. Ger. introduced poison gas at Ypres, Apr. 22. Canadians saved the line. Allies landed at Gallipoli, Apr. 25. Ger. torpedoed Gulfight, U. S. tanker, Apr. 30, 2 Americans lost.

German sub sank Cunard liner Lusitania off Old Head of Kinsale, Ireland, May 7, of 1,959 aboard, including 702 crew, 1,198, including 124 Americans, died. This started a series of protests by U. S. to Germany. W. J. Bryan, secy. of state, resigned June 8; considered Wilson's Lusitania note too severe. After sinking Arabic Aug. 19 Ger. agreed not to sink liners without warning, but U. S. considered promises inadequate. U. S. dismissed Austrian ambassador Dumba and Germans Boy-Ed and Von Papen for illegal activities.

South Africans under Gen. Botha captured German S. W. Africa. Italy declared war on Austria-Hungary May 23, on Turkey Aug. 20, on Germany Aug. 27. Bulgaria declared war on Serbia Oct. 14; Allies against Bulgaria Oct. 15-19. Germans occupied Russian Baltic ports, took Vilna, with Austrians occupied Serbia. Allies landed at Salonika Oct. 5. Edith Cavell, Br. nurse, executed by Germans in Brussels Oct. 12 for aiding escapes. Sir John French replaced by Sir Douglas Haig on British front Dec. 15. Allies began evacuation of Gallipoli (Dardanelles) Dec. 19.

1916—GREAT BATTLES

Germany announced Feb. 10 that armed merchant ships would be considered warships and

1915

First telephone talk, New York to San Francisco, Jan. 25, by Alexander Graham Bell and Thomas A. Watson.

First successful wireless from moving Lackawanna train to station, Feb. 7.

Twenty-one Demands presented by Japan to China. Demands asked for almost complete control of China.

1916

Gregory Rasputin, confessor to Czarina, killed in Petrograd (Leningrad) December.

Bomb exploded during San Francisco Preparedness Day Parade, July 22, killing 10, wounding 40. Thomas J. Mooney, 33, labor organizer; Mrs. Mooney, Warren K. Billings, shoe worker; Israel Weinberg and Edward D. Nolan were charged with murder. Mooney was sentenced to death, Billings to life imprisonment; others went free. President Wilson interceded for Mooney, who got life, 1918. Mooney was pardoned by Gov. C. L. Olson, Jan. 7, 1939. Billings freed Oct. 16, 1939.

Black Tom explosion at munitions docks, Jersey City, N. J., July 30; 2 killed, \$40,000,000 damages. Traced to German saboteurs.

1917

The 18th (Prohibition) Amendment to the Constitution was submitted to the States by Congress, Dec. 18. The first State (Mississippi) ratified it Jan. 8, 1918, and Jan. 16, 1919, the 36th State (Nebraska) ratified it, whereupon, by proclamation of the Secretary of State, Jan. 23, 1919, it became effective one year from that date, Jan. 16, 1920. By Feb. 25, 1919, the Legislatures of 45 States had ratified it; the 46th State, New Jersey ratified it March 9, 1922. It was not ratified by Connecticut and Rhode Island. The Volstead (Prohibition Enforcement) Act was passed by Congress Oct., 1919, vetoed by President Wilson, passed over his veto, in effect Jan. 17, 1920. New York, Montana and Wisconsin cancelled their enforcement acts by 1929. Franklin D. Roosevelt, presidential candidate, 1932, endorsed repeal; 21st amendment, re-

pealing 18th, but guaranteeing dry states against liquor importation, became law, Dec. 5, 1933.

Balfour Declaration, Nov. 2, favored establishment of a national homeland in Palestine for Jewish people.

1918

Romanovs killed. Czar Nicholas of Russia, the Empress Alexandra; the daughters, Olga, Tatiana, Marie, Anastasia; the son, Alexis; Prince Dolgorokoff, Dr. Botkin, a lady-in-waiting and a nurse were shot by Bolshevik orders in Ekaterinburg, July 16; in Perm, also, July 12, the Bolsheviks assassinated the Czar's brother, Grand Duke Michael, and in Alapalevsky north of Ekaterinburg, they killed the Grand Dukes Sergius Mikhailovitch, Igor Constantinovich and Ivan Konstantinovich.

Influenza epidemic killed estimated 20,000,000 throughout world, 548,000 in U. S. and American armed forces.

Malbone St., Tunnel subway wreck (Brighton line, Brooklyn): 97 killed, 100 hurt, Nov. 2.

1919

Rosa Luxemburg and Karl Liebknecht, leading German Communists and founders of the Spartacus Party, shot and killed Jan., by soldiers who were taking them to prison.

Peace conference opened in Paris, Jan. 18; treaty signed in palace at Versailles June 28, between German representatives and Allied powers and U. S. President Wilson submitted treaty to Senate July 10. Ratified by Germany July 10, Britain, July 26, Italy, Oct. 7, France, Oct. 13, Japan, Oct. 27. Not signed by China. Rejected by U. S. Senate, Nov. 19, which considered American sovereignty not properly safeguarded in League of Nations. Never ratified by U. S.

In Amritsar, India, Gen. Dyer led a group of Gurkha soldiers to the entrance of a walled-in garden where a crowd was listening to anti-British speeches. Dyer had soldiers fire into crowd, killing 379 and wounding 1,208.

Three U. S. Navy seaplanes left Trepassy, Newfoundland, May 16; one, the N-C 4, reached

Why United States Intervened

sunk without warning. U. S. retorted Feb. 15 international law permitted self-defense of commercial ships. Ger. made huge effort vs. Verdun Feb. 21, took Ft. Douaumont Feb. 25. Ger. declared war on Portugal Mar. 8. Russians invaded Persia, Mar. 10. Channel str. Sussex torpedoed, 80 casualties, Mar. 24. Wilson threatened Apr. 18-19 to break relations unless Germany revised sub warfare; Ger. met most of U. S. demands.

Rising in Ireland Apr. 24-May 1. Patrick Pearse et al. executed; Sir Roger Casement hanged Aug. 3. Br. adopted conscription May 24. Jutland naval battle, May 31-June 1. Admirals Jellicoe and Beatty, Br., lost 5 major cruisers, 8 destroyers, 6,091 men; Admirals Scheer and von Hipper, Ger., lost 2 major ships, also cruisers & destroyers, 2,545 men, 3rd battle of Ypres, June 2. Lord Kitchener drowned when Hampshire sunk off Orkneys June 5. Battle of the Somme, July 1-10; second battle, July 11-Aug. 3. Rumania joined Allies Aug. 16, was defeated by January, 1917. U. S. Nov. 29 protested deportation of Belgian workers into Germany.

On Dec. 12, 1916, Germany and its allies called for peace negotiations, to halt bloodshed. Germany told the Vatican it was fighting for the integrity of its frontiers and development in peaceful competition. On Dec. 13, 1916, President Wilson asked the belligerents to state their aims and terms; in order to end rival leagues he asked formation of a league of nations and protection of "weak peoples." The Allies called the German offer "empty and insincere." They also told President Wilson they wanted "restorations, reparations, indemnities."

1917—U. S. ENTERS WAR

When Germany began unrestricted submarine war United States Feb. 3 broke relations, refused negotiations until order was rescinded. Wilson Feb. 26 asked Congress to order arming of merchant ships; when Senate refused Wilson armed them by executive order Mar. 12. Intercepted note of Ger. foreign secy. Zimmerman to Ger. minister in Mexico suggested Mexico be asked to enter war to recover U. S. Southwest, Feb. 28. U. S. declared war on Germany Apr. 6, adopted selective conscription May 18, registered men aged 21-30 June 5. First of American Expeditionary Force (AEF) landed in France June 26; Gen. John J. Pershing, c.-in-c., Adm. Wm. S. Sims, chief Naval Operations, Europe. U. S. declared war on Austria-Hungary Dec. 7.

Collapse of Russian Empire. When Navy and Army revolted Mar. 11-15 Czar Nicholas II abdicated. Provisional govt. made Kerensky premier

July 20. Offensive in Galicia failed. Aug. Germans moved Lenin and associates from Switzerland to Russia via Sweden to disrupt war. Bolsheviks overthrew Kerensky Nov. 7, formed socialist republic of workers and peasants with Lenin president of Council of Commissars. Armistice Dec. 15, made peace with Germany, Austria-Hungary, Bulgaria and Turkey at Brest-Litovsk Mar. 3, 1918, withdrawing from Lithuania, Estonia, Latvia, Ukraine, Poland, Finland, Aland Isls., Erivan, Kars, Batum.

Other Fronts. Huge losses by Allies at Vimy, Arras, Cambrai, Passchendaele, Verdun. Petain succeeded Nivelle as French c.-in-c. British took Jaffa, Baghdad, Jerusalem. Germans forced back Italians to Piave, Brenta; sank many ships.

1918—VICTORY FOR U. S. & ALLIES

German submarine war, Feb. 1, 1917-Feb. 1, 1918, cost U. S. 69 ships (171,061 tons); U. S. seized 686,494 German-Austrian tonnage. British lost 1,169 ships. Allies & neutrals lost 6,617,000 tons.

President Wilson presented his 14 points for peace to Congress Jan. 8. Asked open diplomacy; freedom of seas; restoration of Alsace-Lorraine to France; independence for Poland and Austrian minorities; "a general association of nations" to guarantee political and economic independence.

Collapse of Russian front released German troops for powerful thrusts on West front. Battle of the Somme, Mar. 21-Apr. 6. Gen. Ferdinand Foch made supreme commander Mar. 26. Battle of the Aisne, May 27-June 5; AEF took Cantigny, May 28. Germans reached Marne, AEF fought at Chateau Thierry, Belleau Woods. Ger. retreat began July 19. AEF took St. Mihiel salient, Sept. 12-20, fought at Meuse-Argonne, Sept. 20-Nov. 11. British broke Hindenburg line Sept. 27.

Bulgaria gave up Sept. 30, Czar Ferdinand abdicated. Turkish armistice, Oct. 30. Italians defeated Austrians at Vittorio Veneto; Austria and Hungary formed separate republics Nov. 1, Austria surrendered Nov. 4.

Germans accepted President Wilson's terms and recalled submarines, Oct. 20; United States troops reached Sedan, Nov. 7; revolution in Kiel and Hamburg, Nov. 7; Bavaria proclaimed a republic, Nov. 8; Kaiser abdicated, Nov. 9, fled to Holland. Armistice signed in Marshal Foch's railway coach, near Compiègne, France, Nov. 11; bugles sounded "cease firing" at 11 a.m. German fleet surrendered to British, Nov. 21; AEF entered Mainz, Dec. 6; crossed Rhine, Dec. 13.

See Casualties, World War I.

the Azores, May 17; Lisbon, May 27; Plymouth, England, May 31; Harry G. Hawker and McKenna Grieve fell in mid-ocean on an attempted flight, May 18, from Newfoundland to Ireland, but were rescued; John Alcock and A. W. Brown made, June 14-15, a non-stop air flight from Newfoundland to Ireland; a British dirigible balloon, R-34, left Scotland, July 2, and descended in Mineola, N. Y., July 6. It left for England, July 10, and arrived there July 13. A round-trip transcontinental air race, New York to San Francisco, was won by Lt. W. B. Maynard and Lt. Alex Pearson, Oct. 8-18.

1920

League of Nations began at Geneva, Switzerland, Jan. 10; dissolved Jan. 19, 1946.

Nicola Sacco, 29, shoe factory employee and philosophical anarchist and Bartolomeo Vanzetti, 32, fish peddler and radical agitator, accused of killing two men in payroll holdup at Braintree, Mass., Apr. 15. Found guilty 1921, they became objects of six-year campaign for release on grounds of want of conclusive evidence and prejudice of court. Sensational appeals failing, they were executed at Charlestown, Mass., prison Aug. 22, 1927. Trial sharply criticized by Wickersham Commission on law procedure.

Wall St., New York City, bomb explosion, killed 30; injured 100; did \$2,000,000 damage. Sept. 16, 1921.

Joint Congressional resolution declaring peace with Germany and Austria signed July 2 by President Harding. Treaty signed Aug. 25 in Berlin, ratified by Senate Oct. 18.

Limitation of Armaments Conference met in Washington, Nov. 12, 1921-Feb. 6, 1922. U. S., Britain, France, Italy, Japan agreed to curtail naval construction. Nine powers outlawed poison gas and restricted submarine attack on merchantmen. U. S., Britain, France, Japan agreed on integrity of China. Ratified Aug. 5, 1925.

1922

Roof of Knickerbocker (movie) Theatre collapsed in Washington, D. C., Jan. 28; 98 dead.

Violence during coal-mine strike at Herrin, Ill., June 22-23; cost 36 lives, 21 non-union miners.

Fascist march in Rome, Oct. 30: Mussolini's power in Italy began.

1923

Occupation of Ruhr by French and Belgian troops to enforce reparations began Jan. 11.

First sound-on-film talking pictures (vaudeville shorts) shown by Lee de Forest at Rivoli Theatre, New York, N. Y., beginning April.

Beer Hall Putsch in Munich, led by Gen. Ludendorff and Adolf Hitler, Nov. 8-9. Several supporters killed in street clashes. Ludendorff was arrested and paroled; Hitler was wounded. He was arrested Nov. 12 and imprisoned at Landsberg, where he wrote Mein Kampf.

1924

Dawes Reparation Plan accepted by Allies and Germany, in Agreement of London, Aug. 16; Owen D. Young put in charge. French troops began evacuation of the Ruhr Aug. 18.

Nellie Tayloe Ross elected Governor of Wyoming Nov. 9 after death of her husband Oct. 2; installed Jan. 5, 1925; first woman so honored. Miriam (Ma) Ferguson elected Governor of Texas Nov. 9; installed Jan. 20, 1925.

1925

Floyd Collins unable to extricate himself from Sand Cave, near Cave City, Ky., which he discovered, died within 300 ft. of entrance, Feb.

John T. Scopes, in court in Dayton, Tenn., was found guilty of having taught evolution in the local high school and was fined \$100 and costs, July 24. William Jennings Bryan, chief counsel for the prosecution, died in Dayton July 26. Clarence Darrow, chief defense counsel, died March 13, 1938.

Pickwick Club, Boston night club, collapsed July 4, killing 44.

By treaty of Locarno, Oct. 16, Germany agreed to demilitarization of Rhineland and security of Franco-German and Belgo-German frontiers.

1926

Dr. Robert H. Goddard demonstrated the practicality of rockets Mar. 16 at Auburn, Mass., with the first liquid fuel rocket flight; the rocket traveled 184 feet in 2.5 seconds.

General strike paralyzed Britain May 3 to 12. Parliament passed act making general strike criminal conspiracy against nation.

Germany admitted to the League of Nations Sept. 8. Locarno treaties with Germany (1925) went into effect, Sept. 14.

1927

600 U. S. Marines sent to Nicaragua, Jan. 6, to protect U. S. interests. Withdrawn 1933.

6,000 U. S. Marines landed in China, Mar. 5, to protect property in civil war. U. S. and British consulates looted by Nationalists Mar. 24.

Albert Snyder, art editor, killed Mar. 20, by his wife, Ruth Brown Snyder, and Henry Judd Gray, corset salesman. Both confessed and were executed at Sing Sing, Jan. 12, 1928.

Capt. Chas. A. Lindbergh, U. S. air mail pilot, left Roosevelt Field, L. I., N. Y., at 7:52 A.M. May 20 alone in monoplane, Spirit of St. Louis, competing for Raymond Orteig's offer of \$25,000 for first New York-Paris non-stop flight. Reached Le Bourget air field, Paris, 5:21 P.M. (10:21 P.M. Paris time) May 21; 3610 miles in 33 hrs 29 mins., 30 secs. Returned on cruiser Memphis, U.S.N., with plane; welcomed by President Coolidge in Washington, June 11, with rank of colonel. Tremendous demonstration, New York, June 13.

The Jazz Singer, with Al Jolson, demonstrated part-talking pictures in New York City Oct. 6.

1928

The St. Francis water-supply dam, 40 miles north of Los Angeles, Calif., collapsed; 450 lives lost, 700 houses swept away, March 13.

First all-talking picture, Lights of New York, presented at Strand, New York City, July 6.

Times Square subway wreck, New York City (IRT line) Aug. 24, killed 18, injured 97.

Kellogg-Briand Peace Pact signed, Aug. 27, by 62 nations. Condemned the use of war as an instrument of national policy.

Dirigible Graf Zeppelin, Capt. Hugo Eckner, with 20 passengers and 38 crew, flew from Friedrichshafen, Germany to Lakehurst, N. J., Oct. 11-15; returned Oct. 29-31. Made round the world trip from Friedrichshafen with 20 passengers, Aug. 14-Sept. 4, 1929, via Tokyo, Los Angeles, Lakehurst, N. J.

Arnold Rothstein, N. Y. gambler, died of gun shot Nov. 6; killer never found.

Stalin issued first year plan: Rapid, ruthless industrialization of Russian economy.

1929

"St. Valentine's Day massacre" in Chicago Feb. 14, when gangsters killed 7 rivals.

The Papal State, extinct since 1870, revived as State of Vatican City, at Rome June 7.

Albert B. Fall, former Secretary of the Interior, was convicted of accepting a bribe of \$100,000 from Edward L. Doheny in the leasing of the Elks Hills (Teapot Dome) naval oil reserve. He was sentenced Nov. 1, to \$100,000 fine and a year in prison. He died Nov. 30, 1944.

Stock Market crash Oct. 29 marked end of post-war prosperity when 16,000,000 shares changed hands, including unrestricted short selling. Decline in value estimated at \$15,000,000,000 by end of 1929; stock losses, 1929-1931, estimated at \$50,000,000,000. Worst American depression began.

1930

London Naval Reduction Treaty signed by U. S., Britain, Italy, France and Japan, April 22; in effect Jan. 1, 1931. Provided for the proportional reduction of the navies of each country. Its terms expired Dec. 31, 1936.

Joseph F. Crater, a justice of the State Supreme Court in New York City, vanished Aug. 6.

1931

British Parliament enacted Statute of Westminster, giving legal status to declaration of Imperial Conference of 1926 proclaiming Britain and the dominions, including Canada, completely equal "in no way subordinate one to another."

Knute Rockne, Notre Dame football coach was killed in plane crash near Bazaar, Kans., March 31.

Mukden Incident occurred, Sept. 18, when Japanese troops attacked Mukden garrison and then overran Manchuria. China protested to League of Nations.

1932

Japanese Buddhist priest slain in Shanghai, Jan. 15. Japan used incident to land marines, Jan. 27.

Manchuria became Manchukuo (Japanese puppet State), Feb. 18; Henry Pu Yi, Manchurian emperor who abdicated in 1912, installed as ruler, Mar. 9, at Changchun, called Hsingsheng.

Charles A. Lindbergh, Jr., kidnapped for ransom Mar. 1.

Bonus March on Washington, May 29, by World War I veterans demanding Congress pay their bonus in full. Army disbanded the marchers on President Hoover's order.

James J. Walker resigned Sept. 1 as mayor of New York City, thus ending inquiry into corruption in conduct of his office before Gov. F. D. Roosevelt by a state legislative committee under Samuel Seabury. Walker died Nov. 18, 1946, 66.

1933

Adolf Hitler, German Chancellor Jan. 30.

Gov. W. A. Comstock of Michigan Feb. 14 ordered all banks in that state closed for eight days. All banks in the United States were ordered closed by President Roosevelt March 6.

First "fireside chat" broadcast by President Franklin D. Roosevelt, March 12.

German Reichstag building, Berlin, destroyed Feb. 27 by fire believed set by Nazis. Marinus van der Lubbe, Dutch Communist, found guilty; beheaded Jan. 10, 1934, Leipzig.

Spain, by Parliamentary edict, May 17, disestablished the Church.

Germany, Oct. 14, quit the League of Nations

and withdrew from the disarmament conference.

President Roosevelt accorded diplomatic recognition to the Soviet Union, Nov. 16.

Prohibition ended in the United States as Utah, 36th State, ratified 21st Amendment to Constitution, Dec. 5, repealing 18th (prohibition).

1934

Bank robbers John Dillinger, Charles Mackley, Russell Clark and Harry Pierpont captured in Tucson, Ariz., Jan. 25 with \$36,000. Dillinger was jailed at Crown Point, Ind., and the others at Lima, O. Dillinger and Herbert Youngblood escaped Mar. 3, Dillinger was shot to death July 22, outside a movie house in Chicago by FBI agents, Youngblood in Port Huron, Mich.

The Dionne sisters, first quintuplets to survive beyond infancy, were born May 28 in Callender, Ont., Canada, to Mr. and Mrs. Oliva Dionne. Engelbert Dollfuss, 41, chancellor of Austria, was shot to death by Nazi conspirators July 25.

2. Adolf Hitler consolidated offices of president and chancellor, became Fuehrer.

Long March by Chinese Communists started Oct. Mao Tse-tung led 100,000 in 6,000-mile trek from south to north China; only 20,000 completed journey and reached Yenan, Oct., 1935.

Italy refused to arbitrate disputes on Italian Somaliland border between Italian and Ethiopian troops, demanded reparations, apology, Dec. 19.

1935

Hitler rejected Versailles Treaty, ordered conscription in Germany Mar. 10.

3. Will Rogers, 56, comedian, and Wiley Post, 36, aviator, were killed Aug. 15 when Post's airplane crashed in a fog near Point Barrow, Alaska.

Social Security Act passed by Congress, Aug. 14. Ethiopia appealed to League of Nations against Italy. Italy invaded Ethiopia Oct. 2-4.

Economic sanctions against Italy went into effect Nov. 18, supported by 52 nation-members of the League of Nations, and by one non-member, Egypt. The sanctions ended July 15, 1936.

1936

King George V, 70, died, Jan. 20 on his estate at Sandringham, England, and was succeeded by his eldest son, Prince of Wales, 42, who took the title of King Edward VIII, abdicated Dec. 11, 1936, and was succeeded by his brother, the Duke of York, who became King George VI. The ex-ruler was created Duke of Windsor with the title of His Royal Highness which was not extended to his wife. He gave up the throne, he said, because he could not marry "the woman I love." Mrs. Wallis Warfield of Baltimore, Md., who, Oct. 27, obtained a divorce in Ipswich, Eng., from Edna A. Simpson, an insurance agent. The decree became absolute May 3, 1937. The couple was married June 3, 1937, in Monte, France.

Reoccupation of demilitarized Rhineland zone, in violation of the Locarno pact, begun by German troops Mar. 7.

Emperor Haile Selassie of Ethiopia escaped Italian advance by boarding British cruiser for Palestine, May 1. Premier Mussolini of Italy announced end of war May 5, proclaimed annexation of Ethiopia with King Victor Emmanuel Emperor.

Adolf Hitler signed treaty with Austria July 11 guaranteeing Austrian freedom.

Revolt against Spain's Republican Government began July 17 in Morocco and spread to Spain, included much of the Army and Air Force and half of the Navy; Jose Giral became Loyalist premier; July 18, Loyalists defeated Insurgents in Madrid and July 19 Insurgents gained control in Cadiz, Huelva, Seville, Cordoba and Granada; Insurgents set up own government July 24; Insurgents took Badajoz Aug. 16; began aerial bombing of Madrid Aug. 24; captured Irun Sept. 4; took San Sebastian and Tolosa Sept. 17. Gen. Francisco Franco proclaimed head of the Nationalist (Insurgent) government, Oct. 1; siege of Madrid begun by Insurgents, Oct. 21; Loyalist Government moved from Madrid to Valencia, Nov. 6.

Japan and Germany signed an anti-Comintern pact Nov. 25. Italy joined Nov. 6, 1937.

1937

Spanish Insurgents took Malaga Feb. 8. Warships of Great Britain, France, Italy and Germany, March 13, began to police the coasts of Spain under the 27-nation neutrality agreement. Gen. Franco, Apr. 19, set up a one-party state, dissolving the Fascist and Carlist organizations. New Loyalist Government formed May 17 under Premier Juan Negrin; Loyalists shifted government to Barcelona, Oct. 28; Insurgents proclaimed blockade of all Loyalist ports Nov. 28.

The Army-supported Japanese Cabinet of Hayashi resigned May. Fighting in China, west of Peiping, was renewed by Japanese, July; Tungchow was attacked July 27; the Japanese July 29, bombed Tientsin, destroying Nankai University; Aug. 9, they took formal possession of Peiping; Aug. 13, they landed marines at Shanghai and shelled Nankow, Nanking, Canton, and many other places in the eastern provinces of China were

attacked by Japanese planes. Oct. 23, Suiyuan Province declared independence from China. The Chinese abandoned Shanghai and the Japanese took control Nov. 8. Premier Chiang Kai-shek moved to Hankow Dec. 12.

Japanese shells sank the U. S. gunboat Panay, Dec. 12, with loss of two lives; and several American oil carriers (the captain of one died) on the Yangtze river above Nanking. Several British craft were hit by the shells. Several lives were lost. The Japanese apologized and paid.

Hitler repudiated war guilt clause of Versailles Treaty, Jan. 30. Treaty blamed Germany for World War I. Hitler stated that from this time onward Germany was free from obligations imposed upon her by the Treaty.

Amelia Earhart Putnam, aviator, and co-pilot, lost July 2 near Howland Isl. in the Pacific.

Italy gave notice Dec. 11 of withdrawal from the League of Nations.

1938

Spanish insurgent planes from Majorca began daily bombing of Barcelona Jan. 16. Insurgent cruiser, Baleares, sunk off Cartagena March 6 by Loyalist forces; air raids killed 1,000 in Barcelona March 7; Insurgents took Lerida; they reached the sea at Lerida cutting Loyalist Spain in two, April 15. Italy began token withdrawal of 10,000 troops, Oct. 10; Insurgents began final campaign Dec. 23 against Barcelona, which fell Jan. 10, 1939.

Hitler invaded Austria March 11. After resignation of Chancellor Kurt von Schuschnigg and President Wilhelm Miklas, March 13, the new Chancellor, Arthur Seyss-Inquart, proclaimed the political and geographic union of Germany and Austria. This was ratified by a popular vote, excluding Jews, in Austria, April 10. The Italian Grand Council, headed by Premier Benito Mussolini, voted approval.

Mexico nationalized oil industry, Mar. 18.

Douglas G. Corrigan of Los Angeles flew from Brooklyn to Dublin, July 17-18. Having no permit or passport, he jokingly said he flew the "wrong way."

At a conference in Munich, Bavaria; Britain and France yielded Sept. 30 to Nazi demands for the cession of the Sudetenland to Germany by Czechoslovakia, thus ending a 15-day international crisis during which British Prime Minister Neville Chamberlain made two flying visits to Chancellor Adolf Hitler. Premier Mussolini of Italy backed Hitler's territorial demands. Hitler signed a "Peace Declaration" with Britain, Sept. 30, occupied Sudetenland Oct. 1-10. President Roosevelt asked Hitler to preserve the peace. Eduard Benes, president of Czechoslovakia, resigned Oct. 5.

About 4,000 sq. mi. of Czech land was awarded to Hungary Nov. 2 by German-Italian arbitrators (For. Mins. Joachim von Ribbentrop and Galeazzo Ciano) meeting in Vienna. The area was populated by Hungarians and contained 860,000 persons. With the new cessions to Poland agreed on between Prague and Warsaw, the partition of Czechoslovakia was completed.

1939

Uranium atom split in U. S. at Columbia Univ., Jan. 23. Later, 1940, Uranium 235, a rare isotope, proved to be prime fissionable form of uranium.

The Loyalist Spanish government surrendered Barcelona to the Insurgents, Jan. 26. Madrid surrendered Mar. 24; war ended Mar. 29 with Franco victor.

The Republic of Czechoslovakia was dissolved, March 14; Hungarian troops seized Carpatho-Ukraine, March 14; Nazis occupied Bohemia and Moravia, which became a German protectorate, March 16. Hitler annexed Memel March 22.

Germany and Italy announced military and political alliance, May 7; signed 10-year military pact in Berlin May 22.

Japanese troops in Manchukuo and Soviet and Mongol troops near Lake Bor opened 6-month border fight May 11; 20,000 killed.

Nazi Germany and Soviet Union signed a 10-yr. non-aggression treaty Aug. 24, following a trade agreement of Aug. 19.

N. Y. World's Fair opened, Apr. 30, closed, Oct. 31; reopened May 11, 1940, and finally closed Oct. 21.

President Roosevelt proclaimed a limited national emergency, Sept. 8, an unlimited emergency May 27, 1941. Both ended by President Truman, Apr. 28, 1952.

1939-1945 World War II
See Article Pages 312-313

1940

Finnish-Russian peace signed in Moscow Mar. 12. Estonia, Latvia and Lithuania annexed by Union of Soviet Socialist Republics July 14.

1941

The Four Freedoms termed essential by Pres. Franklin D. Roosevelt in a speech to Congress Jan. 6 were freedom of speech and expression, freedom

of worship, freedom from want and freedom from fear.

United States Marines occupied Iceland, July 7, on invitation from that country.

The Atlantic Charter, an 8-point joint U.S.-British declaration of principles, was signed by President Roosevelt and Prime Minister Winston Churchill Aug. 14 aboard the British battleship Prince of Wales, off Newfoundland.

President Roosevelt and Secretary of State Hull Nov. 17 received special Japanese envoys, Saburo Kurosu and Admiral Nomura, for conference on the Far Eastern situation.

Japan attacked U. S. fleet at Pearl Harbor Dec. 7, as first act of war. See World War II.

Hitler ordered policy of genocide as the "final solution" to the Jewish "problem." By end of war an estimated 4,500,000 to 6,000,000 Jews had been exterminated in Nazi concentration camps. Many other groups also suffered with the Jews.

1942

Fire swept through Cocoanut Grove, a Boston night club, Nov. 28, killing 491 and injuring scores.

First nuclear chain reaction (fission of uranium isotope, U-235) at Univ. of Chicago, under physicists Arthur Compton, Enrico Fermi, et al., Dec. 2.

1943

President Roosevelt signed June 10 the pay-as-you-go income tax bill. Starting July 1, wage and salary earners were subject to a 20% withholding tax, including 3% Victory tax.

Race riot in Detroit, June 21; 34 dead, 700 injured. Riot in Harlem section of New York; 6 Negroes killed.

1944

Deadly coal fumes from locomotive in Italian railway tunnel near Balvano, killed 521, Mar. 2.

Ringling Brothers and Barnum & Bailey Circus fire in Hartford, Conn., caused a stampede in the main tent; 168 killed, 487 injured, July 6.

Principal Events of World War II, 1939-1945;

in the field of human conflict was so much owed by so many to so few."

Major Belligerents—Germany (Adolf Hitler, Fuehrer) invaded Poland Sept. 1, 1939; Norway and Denmark, April 9, 1940; the Netherlands, Belgium and Luxemburg, May 10, 1940. King Leopold of Belgium surrendered 500,000 May 28. Occupied France (Vichy) signed an armistice with Germany June 22, 1940. Germany invaded Russia June 22, 1941, unoccupied France and Italy Nov. 11, 1942, surrendered unconditionally to Great Britain, the United States and the USSR at Reims, France, May 7, 1945 (May 6 EST). War with Germany formally declared ended by Britain, France, Australia, New Zealand, July 9, 1951; by U. S. Oct. 19, 1951.

Great Britain declared war on Germany Sept. 3, 1939, as did Australia and New Zealand. Union of South Africa declared war Sept. 6; Canada, Sept. 10, 1939. Britain declared war on Italy June 11, 1940; on Finland, Hungary and Rumania, Dec. 7, 1941; on Japan, Dec. 8, 1941; on Bulgaria, Dec. 13, 1941; on Thailand, Jan. 25, 1942.

France declared war on Germany Sept. 3, 1939; on Italy June 11, 1940. Free French (De Gaulle) declared war on Japan Dec. 8, 1941.

Italy (Benito Mussolini, Duce) declared war on Great Britain and France June 10, 1940; on the U. S., Dec. 11, 1941. Surrendered unconditionally Sept. 8, 1943. Declared war against Germany Oct. 13, 1943, against Japan July 14, 1945. Signed treaty of peace, Feb. 10, 1947, in Paris, with Britain, France, U. S. and USSR.

Japan invaded French Indo-China Sept. 22, 1940; attacked Pearl Harbor naval station and the Philippines by air Dec. 7, 1941 and declared war on the United States, Great Britain, Australia, Canada, New Zealand and the Union of South Africa, Dec. 7, 1941; on the Netherlands, Jan. 11, 1942. Japan accepted the Allied terms unconditionally Aug. 14, 1945; signed surrender terms Sept. 1, 1945 (Sept. 2, Tokyo time) on board U. S. S. Missouri; signed treaty of peace with all big powers except USSR and a total of 49 nations at San Francisco, Sept. 8, 1951.

Union of Socialist Soviet Republics (Russia) signed non-aggression pact with Germany, Aug., 1939; invaded Poland, Sept. 17, 1939, and Finland, Nov. 30, 1939. Signed peace with Finland Mar. 12, 1940. Finland declared war on Russia June 25, 1941. Russia was invaded by Germany and Rumania, June 22, 1941. Signed armistice with Finland, Sept. 19, 1944, peace treaty, Feb. 10, 1947. Signed peace treaty with Poland July 30, 1941. Declared war on Japan Aug. 8, 1945, effective Aug. 9. Signed treaties of peace with Italy, Hungary, Rumania, Bulgaria and Finland Feb. 10, 1947. Did not sign treaty of peace with Japan.

U. S. declared war on Japan Dec. 8, 1941. Germany and Italy declared war on U. S. Dec. 11, 1941. A few hours later U. S. declared war on Germany and Italy. Also Bulgaria, Hungary and Rumania, June 5, 1942; signed peace treaties with Italy, Bulgaria, Hungary and Rumania Feb. 10, 1947; with Japan Sept. 8, 1951. War against the U. S. also was declared by Albania, the Japanese puppet states of Burma, Manchukuo, and Nan-king; Croatia, Slovakia and Thailand. Britain and France ended war with Germany July 9, 1951; U. S. ended it Oct. 19, 1951.

Retreat from Dunkirk by British Expeditionary Force took place May 26-June 4, 1940, when 900 vessels took 338,226 troops across the English Channel, 26,175 of them French.

Nazi bombing of Britain began July 10, 1940 and reached its height Sept. 7, Oct. 15 and Dec. 29. Coventry was damaged Nov. 14; Birmingham Nov. 19-22. Many London churches were burned Dec. 29. Desperate attacks on German aircraft by RAF stopped threat of invasion. Of this defense Prime Minister Churchill said: "Never

Pearl Harbor—Over 100 Japanese planes and a number of midget submarines attacked U. S. Pacific fleet (86 ships) at anchor at Pearl Harbor, Hawaii, Dec. 7, 1941. (7:55 A. M., Hawaiian time; 1:25 P. M. EST.) Totally lost, Battleship Arizona. Severely damaged, Battleships Oklahoma, Nevada, California, West Virginia, 3 destroyers, 1 target ship, 1 minelayer. Damaged and repaired: Battleships Pennsylvania, Maryland, Tennessee; cruisers, Helena, Honolulu, Raleigh; 1 seaplane tender, 1 repair vessel, 1 drydock. Airplanes lost, Navy 80; Army 97. Japan lost 28 planes to the Navy, 20 to the Army and 3 submarines of 45 tons each. Casualties: Navy, 2,117 officers and men killed, 960 missing, 876 wounded; Army, 226 officers and men killed, 396 wounded.

Planes Over Tokyo—Lt. Col. James H. Doolittle, with 16 B-25s and 79 pilots and crewmen, took off Apr. 18, 1942 from Carrier Hornet, 688 mi. from Tokyo by sea; 13 planes dropped 500-lb. bombs on Tokyo, 2 on Nagoya, 1 on Kobe. Eight airplanes were captured off China coast; 3 were shot, others imprisoned. Total dead, 9. One plane landed near Vladivostok and was interned by Russians; the crew escaped to Iran, but plane was never returned.

Loss and Recapture of Philippines—Japanese aircraft bombed Manila and environs Dec. 8, 1941. Far Eastern Time, destroyed 12 B-17s and damaged 5 at Clark Field. Gen. Douglas MacArthur had 15,000 U. S. troops, 40,000 in Philippine Army and 100,000 Filipino reservists. Manila and Cavite were taken by Japan (Homma) Jan. 2, 1942, Maj. Gen. Jonathan M. Wainwright commanded at Bataan, which was attacked by 200,000 Japanese Jan. 10. U. S. shot down 168 Japanese planes by Feb. 18; U. S. Army Air Force sank 3 troopships in Subic Bay, Mar. 4. Gen. MacArthur, ordered to Australia, reached Darwin Mar. 17, vowed, "I shall return." Wainwright defended Bataan until Apr. 8, 1942, sent 3,500 to Corregidor. Japan took 35,000 U. S. and Filipino troops prisoner, including 5,000 Marines, forced them into prison via the "Death March" of Bataan. Wainwright surrendered Corregidor May 6 with 11,574 troops. Gen. MacArthur returned to the Philippines near Palo on Leyte, with President Osmaña, Oct. 20, 1944. Land, naval, and air action by 738 ships, 193,841 troops defeated Japan. U. S. entered Luzon via Lingayen gulf Jan. 9, 1945. Manila was taken Feb. 3; Corregidor re-occupied Feb. 16-Mar. 1.

Germany attacked the Soviet Union June 22, 1941; took Minsk, Smolensk, Kiev, Kharkov, Orel; besieged Leningrad, fought a terrible battle in the ruins of Stalingrad August, 1942, and extended the Nazi lines to the Black Sea. Tide turned in Nov., 1942; the Russians encircled Stalingrad and the Nazi army there surrendered Jan. 31, 1943. As Russian power increased and the Nazis weakened the Germans were pushed back until the Russians reached the Oder Feb., 1945.

North African coast fighting began Aug. 6, 1941, when Marshal Graziani led the Italians against the British with some success. The first counteroffensive in December relieved Tobruk, where British had held out 8 mos. The British pushed the Nazis under Rommel back to El Agheila, but Rommel regained the lost ground. He captured Tobruk with its garrison of 25,000 British June 21, 1942, and pushed the British back to within 70 mi. of Alexandria. On Oct. 23, the British, heavily reinforced and under Lt. Gen. Bernard L. Montgomery, attacked Rommel at El Alamein and defeated the Nazi-Italians with heavy losses all the way to Tunisia.

North African expedition by U. S. and Britain landed 150,000 American and 140,000 British

1945

Yalta Conference met in the Crimea, Feb. 3-11. Pres. Roosevelt, Churchill, and Stalin arranged to get Russia into war against Japan.

President Roosevelt, 63, died of cerebral hemorrhage in Warm Springs, Ga., Apr. 12. Vice President Harry S. Truman became President. Roosevelt buried in Hyde Park, N. Y.

Mussolini caught by Partisans near Dongo on Lake Como while trying to get to Switzerland, executed Apr. 28.

Hitler committed suicide in ruined chancellery, Berlin, Apr. 30. Body burned. Goebbels and wife poisoned children, committed suicide.

United Nations Conference on International Organization of 46 nations, San Francisco, opened Apr. 25; closed June 26 with address by Truman and adoption of U.N. charter.

Potsdam, Germany, conference of President Truman, Stalin and Churchill July 17-Aug. 2.

After July 25 Attlee replaced Churchill.

First atomic bomb, produced at Los Alamos, N. M., exploded at Alamogordo, N. M., July 16. Bomb dropped on Hiroshima, Japan, by B-29, Aug. 6; on Nagasaki, Aug. 9.

United States forces entered Korea south of 38° parallel to displace Japanese, Sept. 8.

Gen. Douglas MacArthur took over supervision of Japan Sept. 9.

Vidkun Quisling, pro-Nazi premier of Norway, executed by a firing squad in Oslo, Oct. 23.

Nationalization of the Bank of France and four other major banks ordered by French, Dec. 2.

1946

The first World War II peace treaty was signed between Britain and Siam, Jan. 1.

William Joyce, "Lord Haw Haw," broadcaster for Nazis, hanged in London for treason Jan. 3.

Poland nationalized basic industries, Jan. 6.

The first General Assembly of the United Nations opened in London, Jan. 10.

Summary of Aerial, Naval and Military Actions

troops on French North Africa Nov. 8, 1942 (Nov. 7 EST), with Lt. Gen. Dwight D. Eisenhower, C. in C. French resisted briefly at Oran, Algiers, and Casablanca and Vichy govt. broke relations with U. S. The Allies began campaign against Italy by seizing Pantelleria Island June 11, 1943. U. S. 7th Army under Maj. Gen. Geo. S. Patton, Jr., and British-Canadian 8th Army landed on Sicily July 10. Mussolini was forced to resign July 25 and escaped to German lines Sept. 12. The Italian mainland was invaded and Italy surrendered Sept. 8, 1943, but heavy fighting with Nazis followed and they were not dislodged until spring of 1945.

Battle of the Coral Sea, May, 1942, took heavy toll of ships and planes on both sides, was first battle fought by naval planes from ships that had neither sight nor range of enemy. U. S. lost 66 planes, 543 men; Japan lost 80 planes, 900 men. Battle of Midway, June 3-6, 1942, U. S. lost 1 carrier (Yorktown), 1 destroyer, 150 planes, 307 men; Japan lost 4 carriers, 253 planes, 3,500 men.

Guadalcanal, in the southern Solomon Islands, site of a Japanese air base that threatened the Allied position in the southwest Pacific, was assaulted by U. S. Marines Aug. 7, 1942. In one of the most costly Allied Pacific campaigns, several major naval engagements, dozens of air battles and much bitter ground fighting followed before the island was finally won by the Allies in January, 1943. Two Marine divisions, two Army divisions and an additional Army regiment were committed to the fight by the United States before the issue was decided.

Battle for Leyte Gulf, biggest naval action ever fought, occurred Oct. 22-27, 1944, in three engagements destroying Japanese naval power. Battles were fought in Surigao strait, off Samar and off Cape Engano. Ships engaged, U. S. 166, Japanese 65. Airplanes, U. S. 1,280; Japanese 716. Losses for Philippine campaign—Japan: 3 large carriers, 14 light carriers, 1 escort carrier, 4 battleships, 14 cruisers, 32 destroyers, 11 submarines, total 68. U. S.: 1 light carrier, 3 escort carriers, 6 destroyers, 3 destroyer escorts, 1 high-speed transport, 7 submarines, total 21. U. S. lost 1 ship to a kamikaze (suicide) plane at Leyte and 5 in subsequent actions. Total airplane losses for Philippine campaign, October, 1944 through January, 1945: Japan (est.) 7,000, including 722 kamikaze; U. S. 967.

D-Day: Invasion of France—Invasion of France by Allies, June 6, 1944, 1,000 planes and gliders dropped paratroopers on Cotentin peninsula, Normandy, 5 a.m. London time, 1,000 R.A.F., 1,400 U. S. bombers attacked installations. First assault troops landed 6:30 a.m. on beaches along line Carentan-Bayeux-Caen; U. S. on West, British-Canadians on East. Total Allied strength available 2,876,439, including 17 British divisions of which 3 Canadian; 20 U. S. divisions, 1 French, 1 Polish. Also available 5,049 fighter planes, 3,467 heavy bombers, 1,645 light and medium bombers, 2,316 transport aircraft, 2,591 gliders, 698 others; 835 L.C.T., 233 L.S.T. Beachhead 60 mi. long, 10 mi. deep.

Gen. Dwight D. Eisenhower was Supreme Commander of Allied Expeditionary Forces; Gen. Sir Bernard L. Montgomery commander of Allied assault troops; Sir Bertram Ramsay of Allied naval units (4,000 ships of all kinds); Air Marshal Trafford Leigh-Mallory of Air Forces; Lt. Gen. Omar N. Bradley of U. S. troops in field. Germans had available 65 divisions, including reserves extending back to Germany. Marshal Gunther von Kluge was German commander in France.

British took Bayeux June 7; Carentan fell June 13; U. S. took Cherbourg June 27; British-Canadians took Caen July 9 after desperate fighting. Lt. Gen. George S. Patton Jr. with 3rd U. S. Army attacked south and west of St. Lo. August. Canadians took Falaise Aug. 17. The Argentan gap was closed by the 3rd Army in terrible fighting. Germans lost 12 to 14 divisions in the Falaise pocket, many taken prisoner.

Aug. 14-15, 1944, Allies invaded France east of the mouth of the Rhone with 1,000 ships (641 U. S., 316 British). On Aug. 25 the 2nd French armored division and token force of U. S. Army entered Paris.

The Ardennes Bulge was a violent counter-attack by 15 German divisions under Gen. von Model (Gen. von Rundstedt C. in C.) launched Dec. 16, 1944. By Dec. 19 the 1st U. S. Army was pushed out of Germany and the Germans penetrated 60 mi. west of Celles. Lt. Gen. Patton's 3rd U. S. Army rescued besieged Americans at Bastogne Dec. 21 and Nazi drive was stopped by Dec. 25. Allies wiped out the Bulge by Jan. 31, 1945. Near Malmédy Germans cut down captured American soldiers with machine guns and left them dead on the field. U. S. losses estimated at 40,000; Germans lost 220,000 in dead and prisoners.

Rhine Crossing—On Mar. 7, 1945, the 9th Armored Div., 3rd Corps, First Army, found Ludendorff bridge at Remagen on the Rhine intact; Gen. Eisenhower ordered Gen. Omar N. Bradley to put 5 divisions across; on 5th day Army ceased using bridge, used Treadway floating bridge, built in 10 hrs., 11 min.; Remagen bridge collapsed Mar. 17.

Iwo Jima was invaded by U. S. joint expeditionary force Feb. 19, 1945, with land action by U. S. Marines; invasion used 495 ships, including 17 aircraft carriers and 1,170 planes. U. S. troops engaged, 111,308, of which 75,144 were assault troops. Island was conquered by Mar. 16. U. S. lost 4,590 killed; Japanese deaths est. over 20,000.

Okinawa, principal Japanese base in the Ryukyu group, was invaded Apr. 1, 1945 in the final land campaign of the war. The troops needed 1,300 vessels, including airplane carriers. After 83 days of fighting the end was signaled by the formal suicide of the two Japanese generals. U. S. men engaged up to June 30, 1945 reached 176,491 army, 88,500 Marines, 18,000 Navy. Japanese strength at start was 77,199. U. S. losses were 49,151, of which 12,520 were killed or missing, 36,631 wounded. The Japanese lost 110,071 and 7,400 taken prisoner.

U. S. lost 763 aircraft; Japan lost 7,830 of which 1,020 were destroyed on the ground. U. S. had 36 ships sunk, 369 damaged; Japan had 16 sunk, including the Yamato, world's largest battleship, full load displacement 72,809 tons, 861 ft. long, 9 18-in. guns, 3,333 personnel. Hit by over 10 aerial torpedoes at Kyushu; 300 survived.

V-E Day—German armies began surrendering May 4, 1945. Unconditional surrender was signed May 7 at 2:41 a.m. in Rheims Hq. (May 6, 8:41 p.m., EWT), designating cessation of operations May 9 at 12:01 a.m. (May 8, 6:01 p.m.). Surrender also signed in Berlin.

Atomic Bombs—First atomic bomb ever used in war was dropped by U. S. plane Aug. 6, 1945, on Hiroshima, Japan (pop. 343,969). Second U. S. bomb dropped on Nagasaki (pop. 252,630) Aug. 9, 1945. Estimates of dead from bombs and radiation exposure vary: Hiroshima, 80,000 to over 200,000; Nagasaki, 39,000 to 74,000. Japan surrendered Aug. 14. Formal surrender aboard U.S.S. Missouri Sept. 2, 1945, Far Eastern Time, celebrated as V-J Day.

Radar beam reached the moon Jan. 10, U. S. Army announced Jan. 24.

League of Nations, Geneva, Switzerland, closed its work, gave physical assets to the United Nations April 13.

Gen. Draja Mikhailovitch, leader of the Chetniks, was executed by a firing squad in Belgrade, Yugoslavia, July 17, for alleged treason.

Philippine independence granted by U. S., July 4. Manuel Roxas elected first president of new Republic.

Twenty-two Nazi leaders convicted of war crimes Sept. 30 by International Tribunal in Nuremberg. Eleven Nazis were sentenced to death by hanging, Oct. 1. No. 2 Nazi Hermann Goering committed suicide by poison in Nuremberg Prison, two hours before he was scheduled to be hanged, Oct. 15. The 10 other top Nazis were hanged individually. They were: Hans Frank, Wilhelm Frick, Col. Gen. Alfred Jodl, Gestapo Chief Ernst Kaltenbrunner, Field Marshal Wilhelm Keitel, Alfred Rosenberg, Fritz Sauckel, Arthur Seyss-Inquart, Julius Streicher and Foreign Minister Joachim von Ribbentrop.

Others sentenced for war crimes: Gen. Anton Dostler, Nazi, hanged in Rome, Dec. 1, 1945, for shooting 15 U. S. soldiers without trial; Jos. Kramer, "Beast of Belsen" and 10 others hanged Dec. 14, 1945, by British for atrocities at Belsen and Oswiecim concentration camps; Gen. T. Yamashita, Japanese commander in Philippines, hanged Feb. 23, 1946; Lt. Gen. Homma, who ordered Bataan death march, shot near Manila, Apr. 3, 1946; Marshal Ion Antonescu, dictator of Rumania, hanged June 1, 1946; Karl Hermann Frank, Nazi ruler in Czechoslovakia, hanged in Prague May 22 for ordering massacre of Lidice; 48 Nazi officers and guards hanged by the U. S. Army at Landsberg, Germany, May, 1947, for mass murders at Mauthausen camp.

Archbishop Aloysius Stepinac, Roman Catholic Primate of Yugoslavia, was sentenced to 16 years at hard labor for alleged collaboration with Nazis, Oct. 1. He was released, Dec. 1951; made a Cardinal, Jan. 12, 1952; died Feb. 10, 1960.

John L. Lewis called out 400,000 soft coal miners in strike against the U. S. government, Nov. 20, ignoring strike cancellation order by Federal Judge T. Alan Goldsborough in Washington. Found guilty of contempt of court, Lewis was fined \$10,000, the United Mine Workers \$3,500,000. Supreme Court, Mar. 6, 1947, affirmed Lewis' fine, reduced union's fine to \$700,000, provided it cancelled strike notice. Strike Mar. 15, 1948. Apr. 22, 1948, for guaranteed \$100-a-month pension for retired mine workers resulted in Lewis being fined \$20,000 and the union \$1,400,000, Apr. 20, 1948.

Peace treaties for Hitler's European satellites, imposing \$1.33 billion in reparations, drafted at a 5-week meeting of Big Four Foreign Ministers that ended in New York City Dec. 12. The treaties were signed, Feb. 10, 1947.

President Truman proclaimed the cessation of hostilities of World War II, Dec. 31.

1947

British Labor government took possession of coal mines, cables and wireless communications, Jan. 1.

Truman Doctrine. President Truman asked Congress to appropriate \$400,000,000 for economic and military aid to Greece and Turkey to combat communism, Mar. 12. Approved, May 15.

The United Nations Security Council voted unanimously to place under U. S. trusteeship the Pacific Islands formerly mandated to Japan April 2.

The Senate approved the Taft-Hartley Labor Act, 68 to 24, May 13. The house concurred, June 4, by a vote of 320 to 79. The measure was vetoed by President Truman, June 20, but the House overrode the veto, 331 to 83, on the same day. The Senate overrode the veto, 68-25, June 23.

Proposals known later as the Marshall Plan, under which the U. S. would extend financial aid to any European countries "willing to assist in the task of recovery," were made by Secy. of State George C. Marshall in speech Jan. 5 at Harvard University. Congress authorized the spending in the next 3½ years of some \$12 billion on Marshall Plan aid, which was credited with restoring economic health to free Europe and halting the march of Communism in those countries cooperating in the plan. The Marshall proposals set the pattern for the vast U. S. post-war program of foreign aid.

Hindu India and Moslem Pakistan, formerly part of India, gained independence from England, Aug. 15. Lord Louis Mountbatten was the last British Viceroy of India.

1948

British Labor govt. nationalized railways, Jan. 1. Mohandas K. Gandhi, Hindu spiritual leader and champion of freedom for India, was shot and killed by a Hindu fanatic in New Delhi, Jan. 30. Communal rioting took the lives of nearly 100 leaders and members of the Mahasabha, politico-religious group to which Gandhi's assassin belonged, Jan. 30-Feb. 2.

Czechoslovakia joined the Communist bloc in Eastern Europe after President Benes yielded Feb. 25 to a Communist ultimatum to install a pro-

Soviet Cabinet. He resigned, June 7, and was succeeded by Klement Gottwald, Communist. Benes died Sept. 3. Communists reported Jan. Masaryk, Foreland mine, committed suicide Mar. 10. A land blockade of Berlin's Allied sectors was started Apr. 1 by the Soviet Military Govt., which refused to permit U. S. and British supply trains to pass through the Soviet zone of Germany. This blockade and a Western counter-blockade were lifted Sept. 30, 1949, after British and U. S. planes had airlifted 2,343,315 tons of food and coal into West Berlin.

Charter of the Organization of American States signed Apr. 30 at 9th International Conference of American States at Bogota, Colombia. The conference had been interrupted for a week by rioting following the assassination of Jorge Eliecer Gaitanar.

The Free State of Israel was proclaimed in Tel Aviv, May 14, as the British evacuated Palestine. First de facto recognition came from the United States, May 14, and Soviet Russia, May 17. Chaim Weizmann was elected first president by the Constituent Assembly, Feb. 14, 1949.

The Cominform (Communist Information Bureau), at a Prague meeting June 28, denounced Marshal Tito and other leaders of the Yugoslav Communist party as deserters from the Marxist-Leninist doctrine.

Alger Hiss, former State Department official, was indicted in New York City, Dec. 15, on two perjury charges after he had denied passing secret documents to Whittaker Chambers, a former magazine editor, for transmission to a Communist spy ring. A jury failed to reach an agreement, July 8, 1949. His second trial, Nov. 17, 1949-Jan. 21, 1950, ended with conviction on 2 counts and a sentence of 5 years in a Federal prison. Appeals to higher courts were rejected, and Hiss began his sentence Mar. 22, 1951. He denied all charges. He petitioned Federal Court, New York, for retrial on basis of new evidence of "forgery by typewriter," Jan. 24, 1952. Judge H. W. Goddard denied it, July 22, 1952. Supreme Court on Apr. 27, 1953. He was released Nov. 27, 1954.

Former Premier Hideki Tojo and six other Japanese war leaders were hanged in Tokyo, Dec. 23, as war criminals.

Joseph Cardinal Mindszenty, Roman Catholic primate of Hungary, arrested by Communist government in Budapest on charges of treason, espionage and black market dealings, Dec. 27, 1949. All persons taking part in the Cardinal's prosecution were excommunicated by Pope Plus XII. Mindszenty freed Oct. 31, 1956.

1949

Mildred E. (Axis Sally) Gillars was convicted by a Federal jury in New York City Mar. 16 of treason in broadcasting Nazi propaganda during war. She received 10 to 30 years in prison. Freed 1961.

North Atlantic Treaty adopted Mar. 18 by U. S., Canada and 10 Western European nations, agreeing that "an armed attack against one or more of them in Europe and North America shall be considered an attack against all." Signed April 4, ratified by Senate, July 21.

Ireland severed last ties with Britain by leaving Commonwealth, April 18.

End of U. S. A-bomb monopoly signaled by President Truman's announcement Sept. 23 that an atomic explosion had occurred in the USSR.

Mrs. Toguri D'Aquino, Tokyo Rose of Japanese wartime broadcasts, was sentenced in San Francisco Oct. 7 to 10 years in prison for treason. Paroled Jan. 28, 1956.

Eleven leaders of U. S. Communist party convicted Oct. 14, after 9-month trial in New York City of advocating violent overthrow of U. S. Government. Federal Judge Harold R. Medina, Oct. 21, sentenced 10 defendants to five years in prison each and the 11th, a war veteran, to 3 years. U. S. Court of Appeals upheld conviction June 1, 1950. Supreme Court upheld the convictions Aug. 4, 1951. Seven surrendered July 2, 1951; of the other 4, hunted as fugitives, one, Gus Hall, was captured Oct. 8, 1951, and given 3 additional years. Robert G. Thompson was captured Aug. 27, 1953. Five defense lawyers, cited for contempt during the trial, received sentences ranging from 1 to 6 months. Apr. 24, 1952, Supreme Court upheld sentences Mar. 10, 1952.

Angus Ward, U. S. Consul General in Mukden, Manchuria, and four consular employees were arrested by Communists Oct. 24, on charges of having beaten Chinese employee. Ward and others were sentenced to jail terms of three to six months, Nov. 22, but were released, Nov. 25, ordered to leave country after U. S. had appealed to 30 other nations to join in a protest.

Nationalist China's government fled to Formosa Dec. 7. Chinese Communists took Yunnan and Kunming as Nationalists deserted.

1950

Protesting arrest of Robert A. Vogeler, U. S. businessman, on charge of spying, U. S. Jan. 2 ordered Hungary to close its consulates in N. Y. and Cleveland. Hungary released Vogeler Apr. 28,

1951 when U. S. agreed to let consulates reopen.

Great Britain recognized Communist China Jan. 6, one day after breaking diplomatic relations with Chiang Kai-Shek's Nationalist Chinese regime.

U. S. Jan. 14 recalled all consular officials from Communist China after the latter seized the American consulate general in Peiping.

Masked bandits robbed Brink's, Inc., Boston express office, Jan. 17 of \$2,775,395.12, of which \$1,218,211.29 was in cash. Solution announced 1956 by FBI; 8 men sentenced to life.

President Truman Jan. 31 authorized AEC to produce the hydrogen bomb (H-bomb).

Dr. Klaus J. E. Fuchs, German-born atomic research physicist at Harwell, Eng., pleaded guilty Mar. 1 to violating the Official Secrets Act and received 14 years in prison. He had communicated valuable atomic information to Russian agents since 1942. At one time he worked at Los Alamos, N. M. Released June 23, 1959, went to East Germany, became citizen.

Judith Coplon, 28, former political analyst in Dept. of Justice, Washington, D. C., and Valentin A. Gubichev, 33, Russian engineer employed by United Nations, were found guilty of espionage Mar. 7 in New York and sentenced to 15 years. Gubichev's sentence was suspended when he agreed to leave the country. Miss Coplon also had been sentenced to 40 months to 10 years after 1949 Washington trial for stealing secret documents. The New York convictions were reversed by the U. S. Circuit Court of Appeals, N. Y., Dec. 5 because the FBI made the arrests without a warrant and the Government failed to show that its evidence was not obtained through wire-tapping. The indictment stood. U. S. Court of Appeals, D. C., upheld the Washington conviction June 1, 1951, but ruled the case should be retried because the Government used illegal wire-tap evidence. Miss Coplon won the right to a new trial Jan. 28, 1952, when the Supreme Court refused to review decisions on 3 appeals from lower court rulings. New trial never held. All charges dropped Jan. 6, 1967.

The Army seized all railroads Aug. 27, on orders of President Truman, to prevent a general strike after unions had rejected terms of an 18c an hour raise for yardmen but none for trainmen. Roads returned to owners May 23, 1952, after signing of new labor contract.

In an attempt to kill President Truman, two Puerto Rican fanatics, members of a nationalist movement, tried to shoot their way into the President's house, Washington, Nov. 1. Guards killed Grisello Torresola, New York; wounded Oscar

Collazo, 36, New York pocketbook frame polisher, Pvt. Leslie Coffelt, a guard, was fatally shot; 2 other guards were seriously injured. Collazo was convicted of murder Mar. 7, 1951, and sentenced to death. President Truman commuted sentence to life imprisonment, July 24, 1952.

U. S. Dec. 8 banned shipments to Communist China and to Asiatic ports trading with it. Supreme Court ruled Dec. 11, that under the 5th amendment no one could be forced to testify against himself.

1951

Ise Koch was sentenced to life imprisonment by a German court in Frankfurt Jan. 15, for inciting the murder of a Buchenwald prisoner.

William W. Remington, Commerce Dept. employe, was convicted of perjury in New York Feb. 7, and sentenced to 5 years and fined \$2,000. U. S. Court of Appeals reversed decision Aug. 23, sent case back for retrial. Remington was convicted Jan. 27, 1953 on 2 counts of a new 5-count perjury indictment, and sentenced Feb. 4, 1953 to 3 years. Conviction upheld by Court of Appeals. He died in prison Nov. 24, 1954, after a beating by convicts.

With Sen. Estes Kefauver (D-Tenn.) as chairman, the Senate Committee to Investigate Organized Crime in Interstate Commerce, exposed nation-wide criminal organizations that reaped huge illegal profits, used these funds to enter legitimate businesses, influenced politicians and bought protection. Preliminary report, Feb. 28, said gambling took over \$20 billion a year.

Julius Rosenberg; his wife, Ethel, and Morton Sobell, all U. S. citizens, were found guilty Mar. 29, of conspiracy to commit wartime sabotage. Rosenbergs sentenced to death. Sobell to 30 years. Appeals denied. David Greenglass, brother of Mrs. Rosenberg and a state witness, received 15 years in prison, Rosenbergs executed at Sing Sing prison, Ossining, N. Y., June 19, 1953.

President Truman relieved Gen. Douglas MacArthur of his command in the Far East Apr. 11. See Korean War.

William N. Oatis, Associated Press correspondent in Prague, was arrested April 26 as spy by Czechoslovakia, tried and sentenced July 4 to 10 years in prison. U. S. denounced "mock trial," defended legitimate news gathering, enacted economic reprisals. Oatis was freed May 16, 1953.

European Coal and Steel Plan proposed by French Foreign Minister Robert Schuman, May 8. British Labor Government rejected plan but six other nations, France, West Germany, Italy, Belgium, Netherlands, and Luxembourg, agreed to

Korean War and United States Intervention

Republic of Korea was invaded June 25, 1950 (June 24, EST) by over 60,000 North Korean troops spear-headed by over 100 Russian-built tanks. U. N. Security Council demanded cessation of hostilities and withdrawal to 38th parallel. On June 27 it asked U. N. members to help carry out its demand. President Truman, June 27, ordered Gen. of the Army Douglas MacArthur to aid South Korea and the 7th U. S. fleet to protect Formosa against possible aggression and keep the Chinese nationalist forces from attacking the mainland. Requested by the UN to name a commander, the President designated Gen. MacArthur July 8, 1950.

North Korean forces took Seoul, South Korean capital, June 29. U. S. ground forces entered the conflict June 30. The President termed the intervention a "police action."

The war had three phases: (1) The North Korean drive was checked by U. S. and associated troops, with help of a brilliant landing by U. S. Marines at Inchon Sept. 15. Pyongyang, North Korean capital was taken Oct. 20. U. S. 7th Division reached Manchurian border Nov. 20.

(2) Counter-attack by 200,000 Chinese Communist "volunteers," who crossed Yalu river Nov. 26, forced evacuation of 105,000 UN troops and 91,000 Korean civilians at Hungnam Dec. 24. The Chinese pushed across 38th parallel, drove 70 mi. into South Korea. The UN General Assembly, Feb. 1, named Communist China the aggressor in Korea. UN troops pushed Chinese back across parallel Apr. 3, stopped offensive by 600,000 Chinese Apr. 22-30.

(3) Removal of Gen. MacArthur from command Apr. 11, 1951 and start of negotiations for truce along 38th parallel July 10, 1951.

President Truman removed Gen. MacArthur from all Far East commands and replaced him with Gen. Matthew B. Ridgway, commander of 8th Army. MacArthur had wished to pursue Chinese across Yalu to their air depots in Manchuria and on Mar. 25 had threatened Communist China with air and naval attack. He had been warned to clear all announcements of policy through Washington.

The President opposed his views. A Senate inquiry May 3-June 27, 1951, found that MacArthur was not charged with insubordination, but had disregarded the President's order to clear policy statements through the Defense Dept.

Cease fire and Armistice talks began July 1951 and dragged on with numerous break-downs until July 27, 1953 (July 26, EST) when armistice was signed; fighting ended 12 hrs. later. A military armistice commission supervised truce; 10 joint UN-Communist teams policed demilitarized zone; Neutral Nations Supervisory Commission watched military movements in ports; voluntary repatriation of prisoners was provided and Communists had privilege of interviewing prisoners refusing repatriation. India furnished 6,000 troops as guards.

Prisoner repatriation began Aug. 6, 1953, at Panmunjon, ended Sept. 6, 1953. UN turned over 75,799 prisoners (70,159 North Koreans and 5,640 Chinese). Communists released 12,760, including 7,850 South Koreans, 3,597 Americans, 945 Britons and 228 Turks. Maj. Gen. Dean was released Sept. 4.

The troops from India departed in February, 1954. The Supervisory Commission, made up of members from Czechoslovakia, Poland, Sweden and Switzerland, was reduced one-half in Sept., 1955, on repeated complaints that the Communist members were spying in South Korea. Repeated reports indicated that the North Koreans had violated many terms of the armistice, built numerous airfields and received naval vessels. The UN Command expelled the commission from South Korea in June, 1956, on grounds that its Czech and Polish members and the North Korean government had frustrated the operation of the armistice agreement. The UN Command announced in June, 1957, that it could no longer be bound by armistice provisions controlling importation of military equipment into Korea, but would modernize UN forces "to restore the relative balance of military strength that the armistice was intended to preserve."

conference. Treaty ratified, June 16, 1952.

U.N. General Assembly voted arms embargo against Communist China May 18.

Tariff concessions by the U. S. to the Soviet Union, Communist China and all Communist-dominated lands were suspended Aug. 1.

Transcontinental television inaugurated Sept. 4, with President Truman's address at the Japanese Peace Treaty Conference in San Francisco.

Japanese Peace Treaty signed in San Francisco Sept. 8, by U.S. and 48 other nations.

War between Germany and the U.S. formally ended Oct. 19. Great Britain and France ended war with Germany July 9.

1952

Queen Elizabeth II of Britain proclaimed Queen of Canada Feb. 6, marking first time monarch was specifically enthroned in name of Canada.

U. S. seizure of nation's steel mills was ordered by President Truman Apr. 8 to avert a strike by 600,000 CIO United Steelworkers. Seizure was ruled illegal by the Supreme Court June 2; strike followed June 3, was settled July 24.

First jetliner passenger service opened May 2, British De Havilland Comet, London to Johannesburg, South Africa, 6,724 mi. in less than 24 hrs.

Peace contract between West Germany, U.S., Great Britain and France was signed in Bonn. May 26. Allied high commissions abolished.

Puerto Rico became an "associated free state" or commonwealth of the U. S., July 25, after Pres. Truman gave approval to a new constitution.

West Germany agreed Sept. 10, to pay Israel \$822,000,000 over 12 to 14 years as indemnity for Nazi and anti-Semitic acts.

Britain successfully completed its first atomic test off northwest Australia Oct. 3, detonating a bomb aboard a navy vessel.

First hydrogen device explosion Nov. 1 at AEC Eniwetok proving grounds in Pacific reported by witnesses but not officially confirmed for more than a year. President Eisenhower told Congress Feb. 2, 1954, that the 1952 test was "the first full-scale thermonuclear explosion in history . . . the first step in the hydrogen weapon program of the United States."

Vladimir Clementis, Rudolf Slansky and 9 other purged Communists were hanged in Prague Dec. 3 for espionage and treason.

Alan Nunn May, British scientist who gave atom secrets to the U.S.S.R., was released from prison Dec. 29, after serving 6 yrs. 8 mos. of his 10-yr. term.

1953

Joseph Stalin died, March 5. By 1955, Nikita S. Khrushchev emerged as dominant political leader of Soviet Union.

Mau Mau or "Hidden Ones" of Kenya's Kikuyu tribe, formed to force whites from Kenya and to regain ancestral lands from gov't, climaxed sporadic violence Mar. 26, by murdering 71 and wounding 100 fellow Kikuyus who remained loyal to colonial gov't. 500 arrests made, 17 sentenced to death. Jomo Kenyatta, tribal leader, found guilty Apr. 8 of organizing Mau Mau, sentenced to 7 years. Dec. 12, 1963 Kenya became independent and Jomo Kenyatta became Prime Minister; and on Dec. 12, 1964, President.

Mount Everest was conquered May 29, by Edmund P. Hillary of New Zealand and Tensing Norkey. Nepalese living in India. Expedition was under Col. Henry C. J. Hunt, Britain.

Demonstration by workers in East Berlin against increased work quotas June 16, erupted into an anti-Communist riot by 20,000 to 50,000 people June 17, and became a general strike involving 200,000 in East Germany. Soviet troops quelled disturbances killing 16.

Lavrenti P. Beria, chief of Soviet secret police, was dismissed July 10, as an enemy of the people. He was executed Dec. 23, along with 6 of his aides. Purge extended to Georgia, the Ukraine, Byelorussia and other Soviet states.

First U.S. announcement of H-bomb explosion Aug. 20. AEC reported explosion occurred in USSR Aug. 12.

1954

Nautilus, first atomic-powered submarine, was launched at Groton, Conn., Jan. 21.

Five members of Congress were wounded in the House of Representatives, Mar. 1, by 4 Puerto Ricans, one a woman, who fired pistols at random from a spectators' gallery, shouting for Puerto Rican independence. Representatives recovered. Attackers were sentenced to prison.

Bien Phu, French military outpost in northwest Vietnam, fell to the Vietminh army of Ho Chi Minh, May.

Geneva Conference on Far Eastern Affairs, Apr. 26-July 21, by foreign ministers of 19 nations, including Communist China. Free elections in Korea founded on Communist objections to U. N. supervision. Armistice, effective Aug. 11, ended 7½ years of war in Indo-China, with French withdrawal, Vietnam won 62,000 sq. mi. and 13,000,000 pop. in North Vietnam. Cambodia and Laos became independent countries.

Racial segregation in public schools was ruled

unconstitutional in a unanimous decision of the Supreme Court, May 17.

Southeast Asia Treaty Organization (SEATO), formed by collective defense pact signed in Manila, Sept. 8 by the U. S., Britain, France, Australia, New Zealand, Philippines, Pakistan and Thailand. Agreement signed in Paris, Oct. 23, provided for West German sovereignty, rearmament, and entrance into NATO and the Western European Union.

Condemnation of Sen. Jos. R. McCarthy (R.-Wis.) voted by Senate, 67-22, Dec. 2 for contempt of a Senate elections subcommittee, for abuse of its members and for insults to the Senate during investigation, Apr. 22-June 17, of charges brought by the Dept. of the Army vs. Sen. McCarthy, growing out of the Senator's investigation of alleged subversive activities.

1955

Afro-Asian conference of 29 nations met in Bandung, Indonesia, April. Conference gave expression to new nationalism of developing nations.

Federal Republic of West Germany became a sovereign state May 5 when ratifications were deposited in Bonn. U.S. completed ratification Apr. 21. President Eisenhower signed an order ending U. S. occupation but troops remained on a contractual basis.

The Warsaw Pact, a 20-yr. mutual defense treaty, was signed at Warsaw May 14 by USSR, Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Rumania and East Germany.

The U. S. Supreme Court May 31 reaffirmed the principle of public education without racial discrimination and said all provisions of Federal, state and local law must honor this principle. It gave local authorities the task of integrating schools.

A meeting of heads of state "at the summit" proposed by U.S., Great Britain and France, to the USSR, took place July 18-23 in Geneva, Switzerland, with President Eisenhower top negotiator for the U.S. It was followed by a meeting of the Foreign Ministers, Oct. 27-Nov. 16, with Secy. of State Dulles acting for U. S.

Juan D. Peron, president and dictator of Argentina, was deposed Sept. 19 after a military revolt began June 16 by naval and marine corps units. Maj. Gen. Eduardo Lonardi became provisional pres. Sept. 23, was displaced Nov. 13 by a military junta, which chose Maj. Gen. Pedro Aramburu prov. pres.

Merger of America's two largest labor organizations was effected Dec. 5, under the name American Federation of Labor and Congress of Industrial Organizations. Geo. Meany became pres., Walter Reuther became vice pres. in charge of the industrial dept. The merged AFL-CIO had a membership estimated at 15,000,000.

1956

At 20th Congress of Soviet Communist party in Moscow, Feb. 14-25, party chief Nikita S. Khrushchev and other leaders denounced Joseph Stalin, repudiated cruelties of Stalinism, and proclaimed a policy of peaceful co-existence with the West. New party line helped to alienate Chinese communists and hasten Sino-Soviet split. U. S. State Dept. June 4 published text of Khrushchev's 7-hr. secret speech.

Dr. Jesus de Galindez, Columbia U. lecturer, disappeared in New York City Mar. 12. Dominican officials denied he had been murdered by agents of Trujillo regime which he opposed.

Six U.S. Marine recruits drowned Apr. 8 in march through stream at Parris Island, S. C.

Workers in Poznan, Poland, revolted June 28 against Communist rule; uprising crushed with 44 killed, hundreds wounded.

Principles of Organization of American States outlined in Panama Declaration signed in Panama City July 22 by President Eisenhower and heads of 18 other Western Hemisphere states.

Egypt seized Suez Canal July 26 under nationalization decree after Pres. Gamal Abdel Nasser denounced Western withdrawal of proposed Aswan dam financing.

Army H21 helicopter landed in Washington D.C., Aug. 24 after first non-stop transcontinental helicopter flight—2,610 mi. in 37 hrs.

First trans-Atlantic telephone cable system went into use Sept. 25 between Clarenville, Newfoundland, and Oban, Scotland.

Polish Communist leaders Oct. 19-21 defied Kremlin leadership and elected Wladyslaw Gomulka to head more independent government.

Hungarian revolt against Soviet-dominated regime began Oct. 23, was crushed Nov. 4 by Soviet armed forces.

Israel invaded Egypt's Sinai peninsula Oct. 29. When Egypt rejected demand for cease-fire made by France and Britain, the two nations bombed Egypt by air Oct. 31, landed forces Nov. 5-6. U. S. condemned attack, supported cease-fire demand by UN. Egypt and Israel accepted cease-fire. Britain and France followed, fighting stopped Nov. 7.

UN Nov. 5 established first international police force to supervise truce in Middle East.

1957

Britain set off its first hydrogen bomb in Pacific test May 15.

Soviet Union announced Aug. 26 that it had successfully tested an intercontinental ballistic missile.

Sen. Strom Thurmond (D.-S.C.) held Senate floor for 24 hrs. 18 mins. Aug. 28-29, eclipsing record filibuster of 22 hrs. 26 mins. set by Sen. Wayne Morse (D.-Ore.) in 1953.

First underground nuclear explosion set off by Atomic Energy Commission in Nevada Sept. 19.

A Federal-state controversy over admission of Negroes to the previously all-white Central High School in Little Rock, Ark., reached a showdown Sept. 4 when National Guardsmen ordered out by Gov. Orval Faubus (D.) barred 9 Negro students from entering the school. A conference between Faubus and President Eisenhower brought no tangible result but Faubus complied Sept. 21 with a Federal Court order to remove the National Guardsmen. The Negroes entered school Sept. 23 but were ordered to withdraw by local authorities because of fear of mob violence. President Eisenhower sent Federal troops to Little Rock Sept. 24 to enforce the Federal Court's order and the school began operation on an integrated basis.

First man-made satellite, Sputnik I, was launched by Soviet scientists Oct. 4. The 184-lb. sphere circled the earth about every 1½ hours in an elliptical orbit at altitudes ranging from some 140 miles to 560 miles above the earth. The Russians Nov. 3 launched Sputnik II, weighing 1,120 lbs., carrying a live dog, Laika, as the world's first space passenger and orbiting the earth about every 103.7 minutes at altitudes ranging from some 160 mi. to about 1,060 miles. Soviet authorities announced the dog's death Nov. 10. Sputnik I disintegrated Jan. 4, 1958, and Sputnik II Apr. 14, 1958.

1958

First U. S. earth satellite to go into orbit, Explorer I, launched by Army Jan. 31, Cape Canaveral, Fla.

Gen. Charles de Gaulle became French Premier July 1, averting threatened civil war. De Gaulle constitution, increasing power of executive, overwhelmingly adopted Sept. 28. De Gaulle elected Dec. 21 as first president of 5th Republic.

Arab nationalist rebels seized Iraqi government July 14, killed King Faisal II and Premier Nuri as-Said, proclaimed republic. President Eisenhower sent U. S. Marines to Lebanon July 15, at Lebanese government's request, to forestall alleged effort by Soviet Union and United Arab Republic to engineer overthrow of Lebanon regime. Withdrawal of U. S. troops began Aug. 12 after calm was restored.

First airliner passenger service across Atlantic was opened Oct. 4 by British Overseas Airways Corp.

First domestic jet airline passenger service in U. S. opened by National Airlines Dec. 10 between New York and Miami.

1959

Fidel Castro assumed power in Cuba following collapse of Fulgencio Batista's government Jan. 1. Lunik I was launched by Soviet scientists Jan. 4, went into orbit around the sun as first man-made planet.

St. Lawrence Seaway opened Apr. 25; was dedicated June 26 by President Eisenhower and Queen Elizabeth II.

George Washington, first U.S. ballistic-missile submarine, launched at Groton, Conn., June 9.

N.S. Savannah, world's first atomic-powered merchant ship, launched July 21 at Camden, N. J. Lunik II hit the moon Sept. 13, about 35 hours after launching by Soviet scientists.

Soviet Premier Khrushchev paid unprecedented visit to U.S. Sept. 15-27, made transcontinental tour, conferred with President Eisenhower.

Lunik III launched Oct. 4 by Soviet scientists, circled moon and radioed to earth photographs of moon's other side.

1960

First French nuclear test explosion occurred Feb. 13 in Sahara Desert.

Caryl Chessman, who had won 3 stays of execution since his 1948 conviction on robbery, kidnapping and attempted rape charges, was put to death May 2 in the gas chamber at San Quentin Prison, near San Francisco.

A U-2 reconnaissance plane of the U. S., piloted by Francis Gary Powers, was shot down in the Soviet Union May 1. Soviet Premier Khrushchev refused to participate in the Paris summit conference scheduled for May 16 unless President Eisenhower apologized for U-2 flights over the USSR; the Big Four leaders went to Paris but the conference did not take place. Powers was convicted of espionage in Moscow Aug. 19 and sentenced to a 10-year term. Freed Feb. 10, 1962, in exchange for convicted Soviet spy Rudolf Abel, who was serving a 30-yr. term imposed by U. S. in 1957.

Adolf Eichmann's capture in Argentina by Israeli agents announced May 22; former Nazi SS general, accused of playing a major role in killing of mil-

lions of Jews. After 4-month trial in Jerusalem, sentenced by Israeli court Dec. 15, 1961, hanged for crimes against humanity May 31, 1962.

1961

The United States severed diplomatic and consular relations with Cuba Jan. 3.

Patrice Lumumba, ousted Premier of the Republic of the Congo, was murdered in the Congo's secessionist province of Katanga Jan. 17.

Maj. Yuri Gagarin of the Soviet Union became Apr. 12 the first human space traveler; he was launched into orbit from Siberia in a spacecraft called Vostok I and returned to earth safely after one circuit of the globe. A second Soviet astronaut, Maj. Gherman S. Titov, made 17 orbits of the earth Aug. 6-7 in spacecraft Vostok II and landed safely.

An invasion of Cuba Apr. 17 by Cuban exiles attempting to overthrow the regime of Premier Fidel Castro was crushed.

Commander Alan B. Shepard, Jr., was rocketed from Cape Canaveral, Fla., 116.5 miles above the earth in a Mercury capsule May 5 in the first U. S. manned sub-orbital space flight; he landed safely in the Atlantic 302 miles away. Capt. Virgil I. (Gus) Grissom made a similar flight from Cape Canaveral July 21; he landed safely but his Mercury capsule sank and was lost after a hatch opened prematurely.

East Germans closed the border between East and West Berlin Aug. 12-13 to stop the exodus of East Germans to the West; the East Germans built a wall dividing the city.

Dag Hammarskjöld, Secy. Gen. of the United Nations, was killed in a plane crash near Ndola, Northern Rhodesia, Sept. 18 while on a mission seeking a cease-fire between UN and Katanga forces in the Congo. U Thant of Burma was elected Acting Secy. Gen. Nov. 3.

Nuclear blasts of 25 megatons and over 50 megatons, largest man-made explosions to date, were set off by the Soviet Union Oct. 23 and Oct. 30, respectively, despite world protests.

1962

Lt. Col. John H. Glenn, Jr., became the first American in orbit Feb. 20 when he circled the earth 3 times in the Mercury capsule Friendship 7. Lt. Comdr. M. Scott Carpenter made a 3-orbit flight May 24 in the Mercury capsule Aurora 7. Comdr. Walter M. Schirra, Jr., orbited the earth 6 times Oct. 3 in the Mercury capsule Sigma 7.

A truce agreement Mar. 18 ended the 7-yr. Moslem revolt against French rule in Algeria. Algerians cast an overwhelming vote for independence in a referendum July 1 and French President Charles de Gaulle declared the country independent July 3.

The U. S. Supreme Court ruled in a 6-1 decision June 25 that the reciting of an official prayer in the public schools of New York State was unconstitutional.

The third Soviet astronaut was sent into orbit Aug. 11 and the fourth followed him into a nearly identical orbit Aug. 12, both descending to earth safely Aug. 15. They were Maj. Andrian G. Nikolayev, who made a record 64 orbits of the earth, and Lt. Col. Pavel R. Popovich, who made 48 orbits. They had they were close enough at times to see each other.

The largest cash robbery to date in U. S. history occurred Aug. 14 when a gang held up a U. S. mail truck near Plymouth, Mass., and stole \$1,551,277.

A Soviet offensive buildup in Cuba was revealed to the American people Oct. 22 by President Kennedy, who ordered a naval and air quarantine on shipment of offensive military equipment to the island. President Kennedy and Soviet Premier Khrushchev reached agreement Oct. 28 on a formula to end the crisis and the President said Nov. 2 that Soviet missile bases in Cuba were being dismantled.

1963

U. S. Air Force Maj. Leroy Gordon Cooper orbited the earth 22 times May 15-16 in the final and longest flight of Project Mercury. Because of failure of automatic equipment, Cooper had to control the craft manually in the closing minutes of the flight.

Lt. Col. Valery F. Bykovsky was launched into orbit in Vostok V June 14, the 5th Soviet astronaut to enter space. While Bykovsky was still circling the earth, the first woman space traveler, Soviet Jr. Lt. Valentina V. Tereshkova, was launched into orbit in Vostok VI June 16. Both landed safely by parachute June 19, the man after 81 orbits and the woman after 48.

The U. S. Supreme Court ruled, 8-1, June 17 that state and local regulations requiring recitation of the Lord's Prayer or Bible verses in public schools were unconstitutional.

A limited nuclear test-ban treaty was agreed upon July 25 by the United States, the Soviet Union and Britain, barring all nuclear tests except those conducted underground. It became formally effective Oct. 10.

Dr. Stephen Ward, British osteopath, was convicted in London July 31 of living off the earnings of prostitution by Christine Keeler and Marilyn Rice-Davies. The case grew out of the scandal involving John Profumo, former Secy. of State for War, which had rocked the government of British Prime Minister Harold Macmillan. A few hours before the verdict, Ward was found in a coma from an overdose of drugs. His death Aug. 3 was ruled a suicide.

The biggest robbery to date occurred Aug. 8 when an armed holdup gang stole more than \$7,000,000 (£2,500,000) in currency from a mail train near Cheddington, England. Some of the money was recovered and a dozen men were sentenced to long prison terms.

Washington demonstration by 200,000 persons Aug. 28 in support of Negro demands for equal rights. Highlight was speech in which Dr. Martin Luther King said: "I have a dream that this nation will rise up and live out the true meaning of its creed, 'We hold these truths to be self evident: that all men are created equal.'"

Quintuplets, all boys, were born Sept. 7 to Mr. and Mrs. Efrén Lubin Prieto in Maracaibo, Venezuela. Quintuplets, 4 girls and a boy, were born Sept. 14 to Mr. and Mrs. Andrew Fischer in Aberdeen, S. D. Only two sets of quintuplets born previously in the Western Hemisphere had survived infancy—the Diones born in Canada in 1934, and the Dilgentis, born in Argentina in 1943.

The South Vietnamese government of President Ngo Dinh Diem was overthrown Nov. 1-2 in a coup by the armed forces. Diem and his brother, secret police chief Ngo Dinh Nhu, were captured and killed.

John F. Kennedy, 35th President of the United States, was shot and fatally wounded by an assassin Nov. 22 as he rode in a motorcade through downtown Dallas, Texas. Gov. John B. Connally, Jr., riding in the same car, was also shot but not fatally injured. Vice President Lyndon B. Johnson was inaugurated President shortly afterward in Dallas. Lee Harvey Oswald, 24, was arrested and charged with the murder of the President. Oswald was shot and fatally wounded Nov. 24 by Jack Ruby, 52, a Dallas night club owner, who was convicted of murder Mar. 14, 1964, and was sentenced to death. The murder conviction was reversed by the Texas Court of Criminal Appeals. Ruby died of natural causes Jan. 3, 1967, while awaiting re-trial.

1964

Pope Paul VI toured the Holy Land Jan. 4-6, the first pope to visit there since the birth of Christianity, the first pope to travel by air, and the first to leave Italy in over 150 years.

Three civil rights workers were reported missing in Mississippi June 22. The bodies of Michael Schwerner, Andrew Goodman and James E. Chaney were found buried near Philadelphia, Miss., Aug. 4. Twenty-one white men were arrested. On Oct. 20, 1967, an all-white Federal jury convicted 7 who took part in the Ku Klux Klan conspiracy to murder the 3 young men.

U. S. spacecraft Ranger 7 relayed thousands of close-up pictures of the moon back to earth July 31 before crashing on the lunar surface.

U. S. planes bombed North Vietnamese bases and sank or damaged 25 North Vietnamese patrol boats Aug. 4 in retaliation against North Vietnamese attacks on U. S. destroyers in the Gulf of Tonkin.

The Warren Commission released Sept. 27 a report containing the conclusion that Lee Harvey Oswald was solely responsible for the killing of President Kennedy.

A spacecraft carrying 3 men was launched by the Soviet Union Oct. 12, the first spacecraft occupied by more than one person. The Voskhod (Sunrise) returned to earth safely Oct. 13 after 16 orbits of the earth. Its passengers were Col. V. M. Komarov, a cosmonaut; Dr. B. B. Yegorov, a space physician; and K. P. Feoktistov, a scientist.

Soviet Premier Khrushchev was ousted as premier and Soviet Communist party chief Oct. 14-15. Aleksei N. Kosygin replaced him as premier and Leonid I. Brezhnev took over the party leadership.

Communist China conducted a successful test explosion of its first atomic bomb Oct. 16.

1965

U. S. bombed North Vietnam, Feb. 7, after Vietcong guerrillas attacked American installations at Pleiku, Feb. 6.

Lt. Col. Aleksei A. Leonov, stepping out of Soviet spaceship Voskhod 2, became the first man to "walk in space" March 18. Maj. Edward H. White, in U. S. spaceship Gemini 4, repeated the Russian feat and remained outside the ship for 20 minutes, June 3. On Dec. 4, Air Force Lt. Col. Frank Borman and Navy Comdr. James A. Lovell, Jr., orbited in Gemini 7, stayed aloft 14 days and participated in first manned space rendezvous Dec. 15 when Gemini 6, with Navy Capt. Walter M. Schirra, Jr., and Air Force Maj. Thomas P. Stafford, came within 10 ft. of Gemini 7.

A Selma to Montgomery, Ala., civil rights march was led by Dr. Martin Luther King, March 21-25. The marchers, starting with 3,200 and swelling to 25,000, were guarded along the way by 4,000 troops dispatched by President Johnson.

U. S. armed forces sent to Dominican Republic to protect U. S. citizens and prevent a Communist revolution, Apr. 28. Later, May 23, the Organization of American States set up a peace-keeping force to maintain order.

Los Angeles riot by discontented Negroes living in the Watts area resulted in the death of 35 persons and property damage estimated at \$200,000,000, Aug. 11-16.

Pope Paul VI visited N. Y. City Oct. 4 and delivered a personal appeal for peace to the UN. It was the first time a Pope had come to America.

Massive electric power failure blacked out most of Northeastern U. S. plus parts of 2 Canadian provinces the night of Nov. 9-10. Approximately 80,000 sq. miles with a population of 30,000,000 were affected. In N. Y. City, over 800,000 were trapped in the subways for hours.

Independence proclaimed in Rhodesia by minority white regime, Nov. 11. Britain promptly declared the action illegal and announced the application of economic sanctions.

1966

First soft landing on surface of moon by an unmanned spacecraft Feb. 3, USSR Luna 9. U. S. achieved similar feat June 2 with Surveyor 1.

Kwame Nkrumah, president of Ghana since independence in 1957, was overthrown Feb. 24.

France withdrew all its armed forces from the integrated NATO military alliance July 1.

Medicare, government program to pay part of the medical expenses of citizens over 65, went into effect July 1.

Eight student nurses were slain in a Chicago apartment building July 14. Richard Speck, 24, was convicted of the killings Apr. 15, 1967.

A sniper atop the University of Texas tower in Austin, Tex., shot 44 persons Aug. 1, killing 14 of them including an unborn child. Shot to death by police, the sniper was identified as Charles J. Whitman, 25, an honor student at the university. Police later found the bodies of his wife and his mother, whom he apparently had slain the night before.

U. S. spacecraft Gemini 11 docked with a 26-foot Agena-D target vehicle Sept. 12.

President Johnson met with the leaders of 6 U. S. allies at the Manila Conference, Philippines, Oct. 24-25 to discuss the war in Vietnam.

Edward Brooke (R., Mass.) elected Nov. 8 as first Negro U. S. Senator in 85 years.

1967

Fire aboard spacecraft Apollo 1 on the ground at Cape Kennedy, Fla., Jan. 27 killed Virgil I. Grissom, 40, one of first 7 Mercury astronauts; Edward H. White, 2d, 36, first American to "walk" in space; and Roger B. Chaffee, 31. First U. S. astronauts killed in space tests.

Natl. Student Assn. disclosed Feb. 13 it had secretly received over \$3,000,000 from Central Intelligence Agency, 1952-1966, for use in exchange and other overseas programs. State Dept. admitted Feb. 14 CIA support of NSA designed to counter Communist student activities.

Rep. Adam Clayton Powell (D., N. Y.) was denied Mar. 1 his seat in 90th Congress because House of Representatives charged him with misuse of Govt. funds and nepotism. He won Apr. 11 special election to fill vacancy despite not campaigning in Harlem, where he faced possible arrest in a civil suit, but did not take seat.

In 6-day Israeli-Arab war June 5-10, Israel smashed armed forces of United Arab Republic, Syria and Jordan; Israel conquered territory 4 times its own size.

Sen. Thomas J. Dodd (D., Conn.) censured by Senate June 23 by 92-5 vote for using campaign and testimonial funds "for his personal benefit."

President Johnson and Soviet Premier Aleksei N. Kosygin met June 23 and 25 for 10 hrs. of talks at Glassboro State College in N. J. Although neither changed opposing positions on Israeli-Arab crisis, Vietnam or nuclear weapons, both agreed not to let any crisis push them into nuclear war.

Racial riots in Newark, N. J., July 12-17 killed some 26, injured 1,500, over 1,000 arrested. In Detroit, Mich., July 23-30 at least 40 died, 2,000 injured and 5,000 left homeless by rioting, looting and burning in city's Negro ghetto. Quelled by 4,700 Federal paratroopers and 8,000 National Guardsmen.

Thurgood Marshall sworn in Oct. 2; first Negro U. S. Supreme Court Justice. Nov. 7: Carl B. Stokes (D., Cleveland) and Richard H. Hatcher (D., Gary, Ind.) elected first Negro mayors of major U. S. cities. Robert G. Clark first Negro elected to Mississippi Legislature since Reconstruction.

Vietnam war protested Oct. 21-22 by some 35,000 in Washington, D. C., peace march. At least 647 arrested, most when attempting to enter Pentagon.

For Events of 1968 see Chronology

EDUCATION

AMERICAN COLLEGES AND UNIVERSITIES

STUDENT AND FACULTY FIGURES FOR SPRING TERM, 1938

Source: World Almanac questionnaires and U. S. Office of Education

See Page 345 for typical tuition fees

All coeducational unless name followed by: (M) for men only, or (W) for women only. Even though marked (M) or (W), some are coeducational at graduate level and in evening and summer divisions. (Med) has medical school; (T) has teachers' college or education department. Asterisk (*) denotes land-grant college.

Governing official is president unless otherwise designated. Year is that of founding. The word college is part of the name listed unless another designation is given.

Control: C-county; D-religious denomination; Di-district; F-federal; I-interdenominational; Mu-municipal; P-private; Pr-proprietary; S-state; T-territorial govt.; Y-YMCA.

Each institution listed has an enrollment of at least 100 students of college grade. Number of teachers is the total number of individuals on teaching staff. Enrollment and faculty figures in italics include all branches and campuses.

Senior Colleges

Name	Location	Yr.	Governing Official and Control	Stu- dents	Teach- ers
Ablene Christian.....	Ablene, Tex.....	1906	Don H. Morris..... P	2,936	172
Adams State..... (T)	Alamosa, Colo.....	1921	John A. Marvel..... S	2,500	125
Adelphi Univ.....	Garden City, N. Y.....	1896	R. G. Olmsted (Act.)... P	8,668	275
Adrian.....	Adrian, Mich.....	1859	John H. Dawson..... D	1,442	108
Agnes Scott..... (W)	Decatur, Ga.....	1889	Wallace M. Alston.... P	750	95
Air Force Inst. of Tech..... (M)	Wright-Patterson, AFB, Ohio.....	1919	Maj. Gen. E. Pinson.... F	713	202
Akron, Univ. of..... (T)	Akron, Ohio.....	1870	Norman P. Auburn.... Mu	12,878	702
Alabama A. & M..... (T)	Normal, Ala.....	1875	Richard D. Morrison... S	2,400	116
Alabama College..... (T)	Montevallo, Ala.....	1896	Kermit A. Johnson.... S	2,200	115
Alabama State..... (T)	Montgomery, Ala.....	1874	Levi Watkins..... S	1,862	87
Alabama, Univ. of..... (T) (Med.)	University, Ala.....	1831	Frank A. Rose..... S	18,370	1,596
Alaska, Methodist Univ..... (T)	Anchorage, Alaska.....	1960	Fred P. McGinnis..... D	656	55
Alaska, Univ. of*..... (T)	College, Alaska.....	1917	William R. Wood..... S	1,828	399
Albany State..... (T)	Albany, Ga.....	1903	Thomas M. Jenkins.... S	1,375	82
Albertus Magnus..... (W)	New Haven, Conn.....	1925	Sister Marie Louise... D	687	61
Albion.....	Albion, Mich.....	1835	Louis W. Norris..... D	1,654	130
Albright.....	Reading, Pa.....	1856	Arthur Schultz..... D	1,358	111
Albuquerque, Univ. of.....	Albuquerque, N. M.....	1940	Sis. M. Marilyn Dolron. D	1,390	97
Alcorn A. & M.*..... (T)	Lorman, Miss.....	1871	John D. Boyd..... S	2,290	91
Alderson-Broaddus..... (T)	Philippi, W. Va.....	1871	Richard E. Shearer.... D	809	46
Alfred Univ.....	Alfred, N. Y.....	1836	Leland Miles..... S	1,598	151
Allegheny.....	Meadville, Pa.....	1815	Lawrence L. Pelletier. P	1,520	115
Allen Univ..... (T)	Columbia, S. C.....	1870	J. W. Hairston (Act.)... D	957	57
Alliance.....	Cambridge Spgs., Pa.....	1912	Henry J. Parcsinski... P	602	44
Alma.....	Alma, Mich.....	1886	Robert D. Swanson.... D	1,078	70
Alvernia..... (W)	Reading, Pa.....	1958	Sis. M. Zygmunt..... P	236	22
Alverno..... (T) (W)	Milwaukee, Wis.....	1936	Sister M. Augustine... D	1,391	106
American Conservatory of Music.....	Chicago, Ill.....	1886	John R. Hattstaedt.... P	436	97
Amer. Inst. for Foreign Trade.....	Phoenix, Ariz.....	1946	Arthur L. Peterson.... P	515	60
American International..... (T)	Springfield, Mass.....	1885	R. Adm. John F. Hines. P	2,744	114
American Univ..... (T)	Washington, D. C.....	1893	George H. Williams... D	14,770	796
Amherst..... (M)	Amherst, Mass.....	1821	Calvin H. Plimpton.... P	1,204	137
Anderson.....	Anderson, Ind.....	1917	Robert H. Reardon.... D	1,447	85
Andrews Univ..... (T)	Berrien Spgs., Mich.....	1874	Richard Hammill.... D	1,480	125
Angelo State.....	San Angelo, Texas.....	1928	Lloyd Vincent..... Mu	2,493	106
Anna Maria..... (T) (W)	Patuxent, Md.....	1846	Sister Irene Marie... D	635	55
Annapolis..... (T) (W)	Woodstock, Conn.....	1941	Sister Cecile..... D	398	40
Antioch.....	Yellow Spgs., Ohio.....	1852	James P. Dixon, Jr.... P	1,845	145
Appalachian St. Teachers..... (T)	Boone, N. C.....	1903	William H. Plennmons. S	3,947	218
Aquinas.....	Grand Rapids, Mich.....	1922	Mssr. A. F. Bukowski. D	1,500	105
Arizona State Univ..... (T)	Tempe, Ariz.....	1885	G. Homer Durham.... S	21,037	1,432
Arizona, Univ. of*..... (T) (Med.)	Tucson, Ariz.....	1885	Richard A. Harvill.... S	21,284	1,831
Arkansas A. & M.....	College Hgts., Ark.....	1909	Claude H. Babin..... S	1,664	83
Ark. Agric., Mech. & Normal*.....	Pine Bluff, Ark.....	1873	Lawrence A. Davis.... S	2,785	182
Arkansas College.....	Batesville, Ark.....	1872	Paul M. McCain..... D	285	27
Arkansas Polytechnic..... (T)	Russellville, Ark.....	1910	George Pratt..... S	2,293	103
Arkansas State Univ..... (T)	State Univ., Ark.....	1909	Carl R. Reng..... S	6,118	252
Arkansas State Coll. of.....	Conway, Ark.....	1907	Silas D. Snow..... S	3,556	127
Arkansas, Univ. of*..... (T) (Med.)	Fayetteville, Ark.....	1871	David W. Mullins.... S	2,823	647
Armstrong.....	Berkeley, Calif.....	1918	John E. Armstrong.... Pr	400	30
Armstrong State.....	Savannah, Ga.....	1935	Henry L. Ashmore.... S	1,500	83
Arroostook State..... (T)	Presque Isle, Me.....	1903	Clifford Wieden..... S	450	28
Art Center Coll. of Design.....	Los Angeles, Calif.....	1930	Edward A. Adams..... P	1,030	93
Art Institute of Chicago.....	Chicago, Ill.....	1866	Vacant..... P	685	83
Asbury.....	Wilmore, Ky.....	1890	C. R. Hager (Act.).... P	1,039	67
Asheville-Biltmore.....	Asheville, N. C.....	1927	William E. Highsmith. S	671	54
Ashland..... (T)	Ashland, Ohio.....	1878	Gleun L. Clayton.... D	2,397	84
Athenaeum of Ohio..... (M)	Norwood, Ohio.....	1829	Mssr. R. H. Tensing.... D	432	54
Atlanta Univ.....	Atlanta, Ga.....	1865	Vacant..... P	1,010	105
Atlanta Christian..... (T)	Wilson, N. C.....	1902	Arthur D. Wenger.... D	1,040	93
Atlantic Union.....	So. Lancaster, Mass.....	1882	H. E. Douglass..... D	889	79
Auburn Univ.*..... (T)	Auburn, Ala.....	1856	Harry Philpott..... S	12,250	830
Augsburg..... (T)	Minneapolis, Minn.....	1869	Oscar A. Anderson.... D	1,676	110
Augusta.....	Augusta, Ga.....	1910	Gerald B. Robins.... S	2,285	128
Augustana..... (T)	Rock Island, Ill.....	1860	C. W. Sorensen..... D	1,833	124
Aurora..... (T)	Sioux Falls, S. Dak.....	1860	Charles L. Balcer..... D	1,858	135
Aurora, Ill.....	Aurora, Ill.....	1893	James E. Crim..... D	1,204	88
Austin Peay State Univ..... (T)	Sherman, Tex.....	1849	John D. Moseley..... D	972	96
Austin Presby. Theol. Sem.....	Clarksville, Tenn.....	1929	Joe Morgan..... S	2,779	131
Avila..... (W)	Austin, Tex.....	1902	David L. Stitt..... D	127	14
Azusa Pacific.....	Kansas City, Mo.....	1916	Sis. Olive Louise.... D	396	41
Babson Inst..... (M)	Azusa, Calif.....	1899	Cornelius Haggard.... P	790	57
Baker Univ.....	Babson Park, Mass.....	1919	Henry A. Kriebel.... P	1,004	50
Baldwin Wallace..... (T)	Baldwin City, Kan.....	1855	James E. Doty..... D	1,046	71
Baldwin Wallace..... (T)	Berea, Ohio.....	1845	Alfred B. Bonds, Jr.... D	2,668	174
Balt State Univ..... (T)	Muncie, Ind.....	1918	John Emens..... S	13,687	615
Baltimore Coll. of Commerce.....	Baltimore, Md.....	1909	William Donahoo..... Y	950	57

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Baptist Bible Sem.	Johnson City, N. Y.	1932	G. Arthur Woolsey	D	513 24
Barat Coll. of the Sacred Heart (W)	Lake Forest, Ill.	1918	Mother Margaret Burke	D	652 52
Bard	Annandale, N. Y.	1860	Reamer Kline	P	557 59
Barnard (a)	New York, N. Y.	1889	Martha E. Peterson	P	1,847 167
Barrington	Barrington, R. I.	1900	Charles Hummel	P	631 42
Barry (W)	Miami, Fla.	1940	Sister M. Dorothy	D	1,122 102
Bates	Lewistown, Me.	1864	Thomas H. Reynolds	P	975 67
Baylor Univ. (T) (Med.)	Waco, Tex.	1845	Abner V. McCall	D	6,258 360
Beaver (W)	Glenside, Pa.	1853	Edward D. Gates	D	807 81
Belhaven	Jackson, Miss.	1883	Howard J. Cleland	D	552 50
Belknap	Center Harbor, N. H.	1963	Royal M. Frye	P	440 41
Bellarmino-Ursuline (T)	Louisville, Ky.	1950	Rt. Rev. A. F. Horrigan	D	2,064 169
Belmont Abbey (T)	Belmont, N. C.	1876	V. Rev. Jude Cleary	D	852 67
Belmont (T)	Nashville, Tenn.	1951	Herbert C. Gabhart	D	1,000 62
Bemidji State	Beloit, Wis.	1846	Miller Upton	P	1,482 122
Benedict	Bemidji, Minn.	1918	John Glas (Act.)	S	3,800 230
Benedict	Columbia, S. C.	1870	Benjamin F. Payton	D	1,181 68
Benjamin Franklin Univ.	Washington, D. C.	1925	C. A. Kennedy	Pr	1,200 50
Bennett (T) (W)	Greensboro, N. C.	1873	Isaac H. Miller	D	662 67
Bennington	Bennington, Vt.	1932	Edward J. Bloustein	P	420 60
Bentley	Boston, Mass.	1917	T. L. Morison	P	1,995 114
Berea (T)	Berea, Ky.	1855	W. D. Weatherford, Jr.	P	1,364 121
Berry	Mount Berry, Ga.	1902	John R. Bertrand	P	1,074 69
Bethany Bible	Santa Cruz, Calif.	1919	Cordas C. Burnett	D	458 32
Bethany College (T)	Lindsborg, Kan.	1881	Alvin Hall	D	503 40
Bethany College	Bethany, W. Va.	1876	V. Rev. Jude Cleary	D	852 67
Bethany Nazarene	Bethany, Okla.	1899	Roy H. Cantrell	D	2,080 83
Bethel	Mishawaka, Ind.	1947	Rev. R. P. Pannabecker	P	450 50
Bethel (T)	North Newton, Kan.	1887	Orville L. Voth	D	535 51
Bethel (T)	McKenzie, Tenn.	1842	Ray N. Baker	D	804 54
Bethel (T)	St. Paul, Minn.	1871	Carl Lundquist	D	976 88
Bethune-Cookman	Daytona Beach, Fla.	1923	Richard V. Moore	P	987 57
Biola (T)	La Mirada, Calif.	1907	Samuel H. Sutherland	D	1,235 87
Birmingham-Southern (T)	Birmingham, Ala.	1856	<i>Vacant</i>	D	1,005 82
Bishop (T)	Dallas, Tex.	1881	Milton K. Curry	D	1,340 88
Black Hills State	Spearfish, S. Dak.	1883	M. M. Freeman	S	2,927 128
Blackburn (T)	Carlinville, Ill.	1857	Glenn L. McConagha	D	485 33
Bliss	Columbus, Ohio.	1869	Gerald J. Wickham	Pr	600 99
Bloomfield (T)	Bloomfield, N. J.	1868	Theodore A. Rau	D	1,376 73
Bloomburg State (T)	Bloomburg, Pa.	1839	Harvey A. Andruss	S	3,531 210
Blue Mountain (W)	Blue Mountain, Miss.	1873	E. Harold Fisher	D	349 32
Bluefield State (T)	Bluefield, W. Va.	1895	Wendell G. Hardway	S	2,876 61
Bluffton (T)	Bluffton, Ohio.	1900	Robert S. Kreider	D	733 60
Bob Jones Univ. (T)	Greenville, S. C.	1927	Bob Jones, Jr.	P	3,264 216
Boise	Boise, Idaho.	1932	John Barnes	DM	4,903 252
Borromeo Seminary (M)	Wickliffe, Ohio.	1954	Rt. Rev. R. C. Wolff	D	198 17
Boston	Christnut Hill, Mass.	1863	Rev. W. Seavey Joyce	D	9,729 969
Boston Conserv. of Music	Boston, Mass.	1867	George Bramblie	P	400 75
Boston Univ. (T) (Med)	Boston, Mass.	1869	Arland F. Christ-Janer	P	21,873 2,300
Bowdoin (M)	Brunswick, Me.	1799	A. F. Daggett (Act.)	P	600 99
Bowle State	Bowling Green, Ohio.	1867	Samuel L. Myers	S	1,091 56
Bowling Green State Univ. (T)	Peoria, Ill.	1897	T. W. Van Arsdale	P	5,649 425
Bradley Univ. (T)	Waltham, Mass.	1948	Morris B. Abram	P	1,921 374
Brandeis Univ. (W)	Gaithersville, Ga.	1878	Josiah Crudup	P	575 52
Brenau (T)	Owensboro, Ky.	1925	Sister J. Marie Lechner	D	1,075 89
Brescia (T)	Sioux City, Iowa.	1930	Sister Mary Jordan	D	1,072 87
Briar Cliff (W)	Briarcliff Manor, N. Y.	1903	Charles Adkins	P	640 60
Bridgport Eng. Inst.	Bridgport, Conn.	1924	Arthur E. Keating	P	555 91
Bridgport, Univ. of (T)	Bridgport, Conn.	1927	H. W. Littlefield	P	7,800 485
Bridgewater	Bridgewater, Va.	1880	Wayne F. Gelsert	D	863 67
Brigham Young Univ. (T)	Provo, Utah	1875	Ernest L. Wilkinson	D	21,378 950
Brooklyn Law Sch.	Brooklyn, N. Y.	1863	Leonard E. Moore	P	1,153 89
Brown Univ. (W)	Providence, R. I.	1764	Ralph J. Hettner	P	2,587 1,114
Buncombe (W)	Providence, R. I.	1891	Rosemary Pierrel (Dn.)	P	967 25
Bryan (T)	Dayton, Tenn.	1930	Theodore C. Mercer	P	304 25
Bryant (T)	Providence, R. I.	1863	E. Gardner Jacobs	P	2,500 102
Bryn Mawr (W)	Bryn Mawr, Pa.	1885	Katherine E. McBride	P	1,252 174
Bucknell Univ.	Lewisburg, Pa.	1846	C. H. Watts	P	2,692 220
Buena Vista (T)	Storm Lake, Iowa.	1891	Wendell G. Halverson	D	993 59
Butler Univ. (T)	Indianapolis, Ind.	1855	Alexander E. Jones	D	4,350 250
Caldwell Coll. for Women (T) (W)	Caldwell, N. J.	1939	Sister Marguerite	D	650 59
California Baptist	Riverside, Calif.	1950	Loyd R. Simmons	D	583 45
Calif. Coll. of Arts and Crafts	Oakland, Calif.	1907	Harry Xavier Ford	P	1,021 77
California College of Medicine	Los Angeles, Calif.	1914	W. Ballentine Henley	P	315 584
Calif. Coll. of Podiatric Medicine	San Francisco, Calif.	1964	Plaza Valdes	P	181 25
Calif. Inst. of Tech. (M)	Pasadena, Calif.	1891	Lee Outbridge	P	1,457 600
Calif. Maritime Academy (M)	Vallejo, Calif.	1929	R. Adm. F. T. Williams-son (Supt.)	S	248 25
California State (T)	California, Pa.	1852	Michael Duda	S	4,420 300
Calif. State	Dominguez Hills, Cal.	1960	Leo F. Cain	S	545 55
Calif. State (T)	Fullerton, Calif.	1959	William B. Langsdorf	P	9,177 542
Calif. State	Hayward, Calif.	1959	Fred Harclerod	S	6,100 400
Calif. State (T)	Long Beach, Calif.	1949	Carl W. McIntosh	S	24,243 1,297
Calif. State (T)	Los Angeles, Calif.	1947	J. A. Greenlee	S	20,000 1,000
Calif. State Polytechnic	San Bernardino, Calif.	1962	John Pfau	S	830 70
Calif. State Polytechnic	San Luis Obispo, Calif.	1901	Robert Kennedy	S	8,079 470
California, Univ. of* (T)	Berkeley, Calif.	1868	Charles J. Hitch	S	62,241 3,802
Berkeley Campus (T)	Berkeley, Calif.	1868	Charles W. Heyns (Chan.)	S	27,439 1,764
Davis Campus (Med) (T)	Davis, Calif.	1908	Emil M. Meak (Chan.)	S	9,800 1,770
Irvine Campus (Med.)	Irvine, Calif.	1965	G. Aldrich (Chan.)	S	2,600 252
L. Angeles Campus (T) (Med.)	Los Angeles, Calif.	1919	<i>Vacant</i>	S	25,000 1,570
Riverside Campus	Riverside, Calif.	1954	Ivan Hinderaker (Chan.)	S	8,000 602
San Diego Campus (Med)	La Jolla, Calif.	1912	J. S. Galbraith (Chan.)	S	2,083 255
San Francisco Campus (Med)	San Francisco, Calif.	1864	W. C. Fleming (Chan.)	S	2,184 1,089
Santa Barbara Campus (T)	Santa Barbara, Calif.	1891	Vernon Chandle (Chan.)	S	12,000 1,050
Santa Cruz Campus	Santa Cruz, Calif.	1965	D. E. McHenry	S	1,825 150
California Western Univ.	San Diego, Calif.	1952	William C. Rust	D	1,714 105
Calvary Bible	Kansas City, Mo.	1932	Roger J. Andruss	P	367 49
Calvin (T)	Grand Rapids, Mich.	1876	William Spoelhof	D	5,269 173
Cameron State Agricultural	Lawton, Okla.	1909	Richard Birch	S	2,676 112
Campbell (T)	Bules Creek, N. C.	1887	Norman A. Wiggins	D	2,212 116

(a) Affiliated with Columbia Univ. (b) Faculty of Brown Univ. teaches at Pembroke.

Name	Location	Yr.	Governing Official and Control	Stu dents	Teach ers
Campbellsville.....	(T) Campbellsville, Ky.	1906	J. K. Powell.....	D	957 59
Canisius.....	Buffalo, N. Y.	1870	V. Rev. James Demske.....	D	3,418 220
Capital Univ.....	Columbus, Ohio	1850	Harold L. Yochum.....	D	1,866 128
Cardinal Cushing.....	(W) Brookline, Mass.	1952	Sister M. Madonna.....	D	350 46
Cardinal Glennon.....	(M) St. Louis, Mo.	1900	V. Rev. F. A. Gaydos.....	D	196 29
Cardinal Stritch.....	(T) (W) Milwaukee, Wis.	1937	Sister Mary Aquin.....	D	600 63
Carleton.....	Northfield, Minn.	1866	John W. Nason.....	P	1,364 145
Carnegie-Mellon Univ.	Pittsburgh, Pa.	1900	H. Guyford Stever.....	P	5,100 520
Carroll.....	Helena, Mont.	1909	Msr. A. M. Brown.....	D	985 65
Carroll.....	(T) Waukesha, Wis.	1846	John T. Middaugh.....	D	1,018 83
Carson-Newman.....	(T) Potosi, S. C., Tenn.	1857	R. D. H. Flix.....	D	673 104
Carthage.....	Kenosha, Wis.	1857	Harold H. Lentz.....	D	1,925 94
Case W. Reserve U. (Med.)	(T) Cleveland, Ohio.	1826	Robert W. Morse.....	P	10,130 1,200
Castleton State.....	(T) Castleton, Vt.	1867	Richard J. Dundas.....	S	983 82
Catawba.....	Salisbury, N. C.	1851	M. L. Sholtzberger.....	D	1,031 81
Cathedral Coll. of the Immaculate Conception.....	(M) Brooklyn, N. Y.	1914	Msr. J. J. Fleming.....	D	244 27
Catherine Spalding.....	(W) Louisville, Ky.	1920	Sis. M. C. Fowler.....	D	1,766 116
Catholic Univ. of America.....	Washington, D. C.	1887	Rev. Whalen (Act.).....	D	6,185 825
Catholic Univ. of Puerto Rico.....	Ponce, Puerto Rico	1948	Rev. T. E. McCarrick.....	D	6,056 332
Cedar Crest.....	(W) Allentown, Pa.	1867	Paulin B. Tompkins.....	D	673 104
Cedarville.....	(T) Cedarville, Ohio.	1887	James Jeremiah.....	D	822 50
Centenary Coll. of Louisiana.....	(T) Sreepville, La.	1825	Jack S. Wilkes.....	D	1,465 101
Central College.....	Pella, Iowa	1853	Arend D. Lubbers.....	D	968 73
Central Connecticut State.....	(T) N. W. Britain, Conn.	1849	E. Don James.....	S	4,775 558
Central Methodist.....	(T) Fayette, Mo.	1854	Ralph L. Woodward.....	D	934 65
Central Michigan Univ.....	(T) M. Pleasant, Mich.	1892	Judson W. Foust.....	S	9,076 387
Central Missouri State.....	(T) Warrensburg, Mo.	1871	Warren C. Lovinger.....	S	11,080 622
Central State Univ.....	(T) Wilberforce, Ohio.	1887	Harry E. Groves.....	S	2,048 110
Central State.....	(T) Edmond, Okla.	1891	Garland Godfrey.....	S	8,808 280
Central Washington State.....	(T) Ellensburg, Wash.	1891	James E. Brooks.....	D	4,756 330
Central Wesleyan.....	(T) Danville, Ky.	1911	Edwin Nelson.....	S	239 18
Centre Coll. of Kentucky.....	(T) Danville, Ky.	1819	Thomas A. Spragens.....	D	697 62
Chadron State.....	(T) Chadron, Nebr.	1911	Edwin Nelson.....	S	1,788 93
Chaminade Coll. of Honolulu.....	Honolulu, Hawaii.	1955	V. Rev. W. R. Ferree.....	D	714 65
Chapman.....	Orange, Calif.	1861	John L. Davis.....	D	3,500 269
Charleston, Coll. of.....	Charleston, S. C.	1770	Walter Coppedge.....	P	442 34
Chase (Salmon P.).....	Cincinnati, Ohio.	1893	C. N. Revelos (Act.).....	Y	198 16
Chatham.....	(W) Pittsburg, Pa.	1869	Edward D. Eddy.....	P	669 70
Chattanooga, Univ. of.....	Chattanooga, Tenn.	1886	William H. Masterson.....	D	2,638 160
Chesnut Hill.....	(W) Philadelphia, Pa.	1876	Sister C. Frances.....	D	640 78
Chesney Stat.....	(T) Chicago, Pa.	1837	LeRoy B. Allen.....	P	1,731 125
Chicago Coll. of Osteopathy.....	(T) Chicago, Ill.	1912	Thaddeus Kawalek.....	P	278 75
Chicago Conservatory.....	Chicago, Ill.	1857	Francis D'Albert.....	P	192 71
Chicago-Kent Coll. of Law.....	Chicago, Ill.	1887	E. Douglas Schwantes.....	P	512 22
Chicago State.....	(T) Chicago, Ill.	1869	Milton B. Byrd.....	S	4,678 309
Chicago, Univ. of.....	(T) (Med) Chicago, Ill.	1891	Edward H. Levi.....	P	9,846 1,080
Chico State.....	(T) Chico, Calif.	1887	Robert E. Hill.....	S	7,528 505
Christian Brothers.....	(M) Memphis, Tenn.	1871	Brother L. M. Grande.....	D	1,096 78
Christian Theol. Seminary.....	Indianapolis, Ind.	1924	Beauford A. Norris.....	D	233 25
Church Coll. of Hawaii.....	Lale, Hawaii	1955	Owen Cook.....	D	314 66
Cincinnati Bible Seminary.....	Cincinnati, Ohio.	1924	Woodrow W. Ferry.....	D	601 61
Cincinnati, Univ. of.....	(T) (Med) Cincinnati, Ohio.	1816	Walter Langsam.....	Mu	25,071 2,400
Citadel, The (Military).....	(M) Charleston, S. C.	1842	Gen. Hugh P. Harris.....	S	2,300 140
Citafin.....	(T) Orangeburg, S. C.	1869	Hubert V. Manning.....	D	779 51
Claremont Graduate Sch.....	Claremont, Calif.	1925	Louis T. Benezet.....	P	1,017 287
Claremont Men's.....	(M) Claremont, Calif.	1946	George Benson.....	P	737 95
Clarlson State.....	(T) Clarion, Pa.	1867	James Gemmell.....	S	3,425 246
Clark.....	Atlanta, Ga.	1869	Vivian Henderson.....	D	1,040 84
Clark, Univ.....	Worcester, Mass.	1887	Frederick H. Jackson.....	P	2,733 227
Clarke.....	(T) (W) Dubuque, Iowa.	1843	Sister Mary Benedict.....	D	1,106 93
Clarkson Coll. of Tech.....	Potsdam, N. Y.	1886	John N. Graham, Jr.....	P	2,472 168
Cleary.....	Ypsilanti, Mich.	1883	Donald Silkworth.....	P	470 44
Clemson Univ.....	(T) Clemson, S. C.	1893	Robert C. Edwards.....	S	6,057 713
Cleveland Inst. of Art.....	Cleveland, Ohio.	1882	Joseph McCullough.....	P	1,300 56
Cleveland Inst. of Music.....	Cleveland, Ohio.	1920	Victor Rabin (Dir.).....	P	200 125
Cleveland-Marshall Law School.....	Cleveland, Ohio.	1897	H. J. Oleck (Dir.).....	P	720 30
Cleveland State Univ.....	(T) Cleveland, Ohio.	1965	Harold L. Enarson.....	S	8,715 470
Coe.....	Cedar Rapids, Iowa.	1851	Joseph E. McCabe.....	P	1,300 88
Coker Coll. for Women.....	(W) Hartsville, S. C.	1908	Fenton Keyes.....	P	350 32
Colby.....	Waterville, Me.	1813	Robert E. L. Strider.....	P	1,479 134
Colgate Rochester Div. School.....	Rochester, N. Y.	1817	Gene E. Bartlett.....	D	182 23
Colgate Univ.....	(M) Hamilton, N. Y.	1819	Vincen M. Barnett.....	P	1,923 169
Colorado.....	Colo. Spgs., Colo.	1874	Lloyd E. Wornor.....	P	1,584 149
Colorado Sch. of Mines.....	Golden, Colo.	1874	Orio E. Childs.....	S	1,504 156
Colorado State.....	(T) Greeley, Colo.	1890	Darrell Holmes.....	S	7,268 550
Colorado State Univ.*.....	Fort Collins, Colo.	1870	William E. Morgan.....	S	13,100 950
Colorado, Univ. of.....	(T) (Med) Boulder, Colo.	1876	J. R. Smiley.....	S	26,252 2,324
Denver Center.....	(T) Denver, Colo.	1964	J. R. Smiley.....	S	7,007 334
Colorado Springs Center.....	(T) Colo. Springs, Colo.	1964	J. R. Smiley.....	S	2,318 99
Columbia College.....	(W) Columbia, S. C.	1854	R. Wright Spears.....	D	840 67
Columbia Union.....	(T) Takoma Park, Md.	1904	Winton H. Beaven.....	D	94 110
Columbia Univ.....	(T) (Med) New York, N. Y.	1754	Grayson Kirk.....	P	16,275 4,183
Teachers College (a).....	(T) New York, N. Y.	1888	John H. Fischer.....	P	5,199 403
Concord.....	(T) Athens, W. Va.	1872	Joseph F. Marsh, Jr.....	S	1,622 101
Concordia.....	Moorhead, Minn.	1891	Joseph Knutson.....	D	2,117 162
Concordia.....	(T) St. Paul, Minn.	1893	W. A. Poehler.....	D	674 49
Concordia Seminary.....	St. Louis, Mo.	1839	Alfred Fuerbringer.....	D	699 53
Concordia Senior.....	(M) Fort Wayne, Ind.	1957	Martin J. Neeb.....	D	461 44
Concordia Teachers.....	(T) River Forest, Ill.	1864	Martin L. Koehnke.....	D	1,316 100
Concordia Teachers.....	(T) Seward, Nebr.	1894	W. Theophil Janzow.....	P	1,386 101
Connecticut.....	(W) New London, Conn.	1911	Charles Shain.....	P	1,533 169
Connecticut, Univ. of*.....	(Med) Storrs, Conn.	1881	Homer D. Babblidge, Jr.....	P	16,801 1,022
Converse.....	Spartanburg, S. C.	1889	Robert T. Coleman, Jr.....	P	750 75
Cooper Union.....	New York, N. Y.	1859	Richard F. Humphreys.....	P	1,248 164
Coppin State.....	(T) Baltimore, Md.	1900	Parlett L. Moore.....	S	720 43
Cornell.....	Mt. Vernon, Iowa.	1853	Samuel Stumpf.....	P	925 110
Cornell Univ.*.....	(Med) Ithaca, N. Y.	1865	James A. Perkins.....	S, P	14,259 3,809
Corpus Christi, Univ. of*.....	(T) Corpus Christi, Tex.	1947	K. A. Maroney (Act.).....	D	648 38
Cranbrook Academy of Art.....	Bloomfield Hills, Mich.	1927	Glen Paulsen.....	P	123 12
Craigton Univ.....	(Med) Omaha, Nebr.	1878	V. Rev. H. W. Linn.....	D	3,952 606
Culver-Stoekton.....	(T) Canton, Mo.	1853	Fred Helsabeck.....	D	811 51

(a) Affiliated with Columbia University.

Name	Location	Yr.	Governing Official and Control	Stu-	Teach
Cumberland.....	Williamsburg, Ky.	1889	J. M. Boswell.....	D	1,625 96
Curry.....(T)	Milton, Mass.	1879	John S. Hafer.....	P	699 52
Curtis Institute of Music.....	Philadelphia, Pa.	1924	Mary C. Zimbalist.....	P	113 35
Dakota Wesleyan Univ.....	Mitchell, S. Dak.	1885	Jack J. Early.....	D	763 51
Dallas, Univ. of.....	Dallas, Tex.	1956	Donald A. Cowan.....	D	1,107 68
Dana.....(T)	Blair, Neb.	1884	C. Clifford Madsen.....	D	901 52
Dartmouth.....(M Med)	Hanover, N. H.	1760	John S. Dickey.....	P	3,101 329
David Lipscomb.....	Nashville, Tenn.	1891	Athens C. Pullas.....	D	1,905 96
Davidson.....(M)	Davidson, N. C.	1837	Vacant.....	D	1,000 83
Davis and Elkins.....	Elkins, W. Va.	1904	Rev. G. E. Hermanson.....	D	740 58
Dayton, Univ. of.....(T)	Dayton, Ohio.	1850	V. Rev. R. A. Roesch.....	D	9,523 628
Dehance.....	Dehance, Ohio.	1850	W. Noel Johnston.....	D	1,091 68
Delaware State*.....	Dover, Del.	1891	Luna I. Mishoe.....	S	937 71
Delaware, Univ. of*.....(T)	Newark, Del.	1833	John Shirley (Act.).....	S	11,055 595
Del. Valley Coll. of S. & A.....(M)	Doyletown, Pa.	1896	James Work.....	P	1,013 68
Delta State.....	Cleveland, Miss.	1924	James M. Ewing.....	D	2,321 109
Denison Univ.....(T)	Granville, Ohio.	1841	Vacant.....	D	1,824 147
Denver, Univ. of.....(T)	Denver, Colo.	1864	Maurence B. Miltchell.....	D	8,000 690
DePaul Univ.....(T)	Chicago, Ill.	1898	V. Rev. J. R. Cortelyou.....	D	7,564 487
DePauw Univ.....	Greencastle, Ind.	1837	William E. Kerstetter.....	D	2,340 197
Detroit Bible.....	Detroit, Mich.	1945	W. A. Bevier (Act.).....	P	323 22
Detroit Coll. of Business.....	Detroit, Mich.	1962	Frank Paone (Dn.).....	Pr.	1,000 43
Detroit Coll. of Law.....	Detroit, Mich.	1891	John J. Danhof.....	P	675 21
Detroit Inst. of Technology.....	Detroit, Mich.	1891	Dewey F. Barich.....	P	1,566 89
Detroit, Univ. of.....	Detroit, Mich.	1877	V. Rev. M. Carron.....	D	8,804 642
Dickinson.....	Carlisle, Pa.	1773	Howard L. Rubendall.....	P	1,510 110
Dickinson Sch. of Law.....	Carlisle, Pa.	1834	Dale F. Shughart.....	P	270 20
Dickinson State.....(T)	Dickinson, N. Dak.	1918	O. A. DeLong.....	S	1,170 72
Dixie Univ.....	New Orleans, La.	1924	Albert W. Dent.....	P	944 72
Doane.....	Croft, Neb.	1872	Philip C. Heckman.....	D	682 47
Dominican.....	Racine, Wis.	1946	Sister Rosita Chen.....	P	598 55
Dominican Coll. of Blauvelt.....(T)	Blauvelt, N. Y.	1952	Sis. M. Natalie.....	D	450 30
Dominican Coll. of S. Rafael.....(W)	San Rafael, Calif.	1890	Sister M. Patrick.....	D	774 80
Don Bosco.....(M)	Newton, N. J.	1928	Rev. J. S. Bajorek.....	D	152 17
Dordt.....	Sioux Center, Iowa.	1955	Bernard Haan.....	D	700 35
Drake Univ.....(T)	Des Moines, Iowa.	1881	Paul F. Shaap.....	P	7,028 371
Drew Univ.....	Madison, N. J.	1866	Robert F. Oxnand.....	P	1,459 153
Drexel Inst. of Technology.....	Philadelphia, Pa.	1891	William W. Hagerty.....	P	11,058 600
Dropsie Coll. for Hebrew & Cognate Learning.....	Philadelphia, Pa.	1907	Abraham I. Katsh.....	D	155 24
Duquesne.....	Springfield, Mo.	1873	Alfred O. Cannon.....	D	2,580 148
Dubuque, Univ. of.....	Dubuque, Iowa.	1932	William G. Chmura.....	D	907 55
Duchene Coll. of the S. E.....(W)	Omaha, Neb.	1881	Sis. Jeannette Kimball.....	P	336 40
Duke Univ.....(Med)	Durham, N. C.	1838	Douglas M. Knight.....	P	7,581 1,084
Dunbarton College of Holy Cross.....(W)	Washington, D. C.	1935	Walter Hess.....	D	512 56
Duquesne Univ.....(T)	Pittsburgh, Pa.	1878	V. Rev. H. J. McNulty.....	D	6,700 425
Dyke.....	Cleveland, Ohio.	1848	Jay R. Gates.....	P	1,178 57
D'Youville.....(T)(W)	Buffalo, N. Y.	1908	Sis. Francis Xavier.....	D	1,300 108
Earlham.....	Richmond, Ind.	1847	Landrum Bolling.....	D	1,081 117
East Carolina Univ.....	Greenville, N. C.	1907	Leo W. Jenkins.....	S	10,758 647
East Central State.....(T)	Ada, Okla.	1909	Charles F. Spencer.....	S	2,719 101
East Stroudsburg State.....(T)	E. Stroudsburg, Pa.	1893	LeRoy J. Koehler.....	D	2,318 164
East Tennessee State Univ.....(T)	Johnson City, Tenn.	1909	Delos Culp.....	S	8,367 446
East Texas Baptist.....	Marshall, Texas	1912	Bowling C. Bennett.....	D	629 12
East Texas State Univ.....(T)	Commerce, Texas	1889	Daniel W. Halladay.....	S	7,971 457
Eastern Baptist.....	St. Davids, Pa.	1932	Thomas B. McDormand.....	D	513 47
Eastern Coll.....	Baltimore, Md.	1928	A. Risley Ensor.....	P	1,120 65
Eastern Illinois Univ.....(T)	Charleston, Ill.	1899	Quincy Doudna.....	S	6,000 509
Eastern Kentucky Univ.....(T)	Richmond, Ky.	1906	Robert R. Martin.....	S	8,500 450
Eastern Mennonite.....	Harrisonburg, Va.	1917	Myron S. Augsburger.....	D	844 85
Eastern Michigan Univ.....(T)	Ypsilanti, Mich.	1849	Harold E. Sponberg.....	S	14,694 1,008
Eastern Montana.....(T)	Billings, Mont.	1927	Stanley Heywood.....	S	2,650 146
Eastern Nazarene.....	Quincy, Mass.	1918	Edward S. Mann.....	D	825 62
Eastern New Mexico Univ.....(T)	Portales, N. Mex.	1934	Charles Meister.....	S	3,637 296
Eastern Oregon.....	La Grande, Ore.	1929	Averno M. Renne.....	S	1,340 100
Eastern Pilgrim.....	Adrian, Pa.	1921	Charles Feilsburg (Act.).....	D	848 12
Eastern Washington State.....(T)	Cheney, Wash.	1890	Emerson C. Shuck.....	S	4,450 267
Edgewood.....	Madison, Wis.	1927	Sister Mary Cecilia.....	D	688 65
Edinboro State.....(T)	Edinboro, Pa.	1857	Chester T. McNeerney.....	S	5,200 296
Edwards Waters.....	Jacksonville, Fla.	1867	William B. Stewart.....	D	957 60
Elizabeth City State.....(T)	Elizabeth, N. C.	1891	Walter N. Ridley.....	S	940 76
Elizabethtown.....	Elizabethtown, Pa.	1899	Morley J. Mays.....	D	1,739 99
Elmhurst.....	Elmhurst, Ill.	1871	Donald Kleckner.....	D	2,517 120
Elmira.....(W)	Elmira, N. Y.	1853	J. Ralph Murray.....	P	2,457 101
Elon.....(T)	Elon College, N. C.	1889	J. E. Danielely.....	P	1,407 84
Embry-Riddle Aeron. Inst.....	Daytona Beach, Fla.	1926	Jack R. Hunt.....	P	1,050 103
Emerson.....(T)(W)	Boston, Mass.	1880	Richard Chapin.....	P	1,238 110
Emmanuel.....	Worcester, Mass.	1918	William Ann Bartholomew.....	D	1,454 130
Emory and Henry.....	Emory, Va.	1836	William C. Finch.....	D	637 37
Emory Univ.....(T)(Med)	Atlanta, Ga.	1836	S. S. Atwood.....	D	6,278 1,681
Emporia, Coll. of.....	Emporia, Kan.	1882	Joseph R. Laughlin.....	D	908 52
Episcopal Theol. Sch.....	Cambridge, Mass.	1867	Rev. J. B. Coburn (Dean).....	D	137 17
Erskine.....	Due West, S. C.	1839	Joseph Wightman.....	D	715 55
Eureka.....	Eureka, Ill.	1855	Ira W. Langston.....	D	500 37
Evangel.....	Springfield, Mo.	1953	J. Robert Ashcroft.....	D	755 60
Evansville, Univ. of.....(T)	Evansville, Ind.	1854	Wallace B. Graves.....	P	4,300 225
Fairfield Univ.....(M)	Fairfield, Conn.	1947	Rev. William C. McInnes.....	D	1,661 119
Fairleigh Dickinson Univ.....(T)	Rutherford, N. J.	1941	P. Sammartino (Chan.).....	P	19,042 1,100
Fairmont State.....	Fairmont, W. Va.	1867	Eaton K. Feaster.....	S	2,755 140
Farmington State.....	Farmington, Me.	1864	Melvin G. Scarlett.....	S	1,555 60
Fayetteville State.....	Fayetteville, N. C.	1877	Rudolph Jones.....	S	1,267 75
Ferris State.....	Big Rapids, Mich.	1884	Victor F. Spatheif.....	S	6,881 341
Finch.....(W)	New York, N. Y.	1900	Roland De Marco.....	P	393 45
Findlay.....	Findlay, Ohio.	1882	Ivan E. Frick.....	D	1,339 92
Fisk Univ.....	Nashville, Tenn.	1866	J. B. Lawson (Act.).....	P	1,070 87
Florence State.....	Florence, Ala.	1872	E. B. Norton.....	S	2,687 140
Florida Atlantic Univ.....(T)	Boca Raton, Fla.	1961	K. R. Williams.....	S	3,751 265
Florida A. & M. Univ.*.....	Tallahassee, Fla.	1887	George W. Gore, Jr.....	S	3,500 207
Florida Inst. of Tech.....	Melbourne, Fla.	1958	Jerome P. Keuper.....	P	1,644 150
Florida Memorial.....	St. Augustine, Fla.	1892	R. W. Puryear.....	P	588 35
Florida Presbyterian.....	St. Petersburg, Fla.	1958	William H. Kadel.....	D	854 65
Florida Southern.....	Lakeland, Fla.	1885	Charles T. Thrift, Jr.....	D	1,545 100
Florida State Univ.....(T)	Tallahassee, Fla.	1857	John E. Champion.....	S	14,629 947

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Florida, Univ. of*..... (T) (Med)	Gainesville, Fla.....	1853	Stephen O'Connell..... S	17,000	1,930
Fontbonne..... (T) (W)	St. Louis, Mo.....	1917	Sister E. M. Schmidt..... D	931	95
Fordham Univ..... (T)	Bronx, N. Y.....	1841	Rev. L. McLaughlin..... S	7,000	639
Ft. Hays Kansas State..... (T)	Hays, Kan.....	1902	Ed. Cunningham..... S	5,033	258
Ft. Kent State..... (T)	Ft. Kent, Me.....	1878	Joseph M. Fox..... S	271	73
Ft. Lewis..... (T)	Durango, Colo.....	1962	John F. Reed..... S	1,450	75
Fort Valley State*..... (T)	Fort Valley, Ga.....	1895	W. W. E. Blanchet..... S	1,858	94
Ft. Wayne Art Inst..... (T)	Fort Wayne, Ind.....	1922	Russell Oertel..... P	351	16
Fort Wayne Bible..... (T)	Fort Wayne, Ind.....	1904	Jared F. Greig..... P	560	36
Ft. Wright..... (T)	Spokane, Wash.....	1907	Sister B. Carlson..... D	450	57
Francis T. Nicholls State..... (T)	Thibodaux, La.....	1948	Vernon Galliano..... S	3,336	146
Franklin..... (T)	Franklin, Ind.....	1834	Wesley N. Haines..... D	689	51
Franklin and Marshall..... (M)	Lancaster, Pa.....	1787	Keith Spalding..... P	2,260	154
Franklin Pierce..... (T)	Rindge, N. H.....	1962	Frank S. DiPietro..... P	400	47
Franklin Univ..... (T)	Columbus, Ohio.....	1902	Joseph Frach..... P	2,225	95
Frederick..... (T)	Portsmouth, Va.....	1958	Ernest R. Wood..... P	741	49
Free Will Baptist Bible..... (T)	Nashville, Tenn.....	1942	L. C. Johnson..... D	353	21
Fresno State..... (T)	Fresno, Calif.....	1911	Frederic W. Ness..... S	10,190	647
Friends Univ..... (T)	Wichita, Kan.....	1898	Roy F. Ray..... D	915	49
Frostburg State..... (T)	Frostburg, Md.....	1898	John H. Morey..... S	2,815	115
Fuller Theol. Seminary..... (T)	Pasadena, Calif.....	1947	David A. Hubbard..... P	301	24
Furman Univ..... (T)	Greenville, S. C.....	1826	Gordon W. Blackwell..... D	1,947	115
Gallaudet..... (M)	Washington, D. C.....	1864	Leonard Elstad..... P	675	108
Gannon..... (M)	Erie, Pa.....	1894	Rev. J. J. Nash..... D	3,185	153
Garrett Theol. Sem..... (T)	Washington, Ill.....	1855	Orville H. McKay..... D	1,409	30
Gen. Beadle State..... (T)	Madison, S. Dak.....	1881	Harry Bowes..... P	1,299	51
General Motors Institute..... (T)	Flint, Mich.....	1919	Harold P. Rodes..... P	2,624	235
General Theol. Sem..... (M)	New York, N. Y.....	1817	V. Rev. S. J. Wyllie (Dn.)..... D	181	30
Geneva..... (T)	Beaver Falls, Pa.....	1848	Edwin C. Clarke..... D	1,731	116
George Fox..... (T)	Newberg, Ore.....	1891	Milo C. Ross..... D	375	42
George Peabody Coll. for Teachers..... (T)	Nashville, Tenn.....	1875	John Claunch..... P	1,510	125
Geo. Washington Un. (T) (Med)	Washington, D. C.....	1821	Lloyd H. Elliott..... P	12,545	1,300
George Williams..... (T)	Downers Grove, Ill.....	1890	Richard E. Hamlin..... P	782	56
Georgetown..... (Med)	Georgetown, Ky.....	1829	Robert L. Mills..... D	1,400	100
Georgetown Univ. (T) (Med)	Washington, D. C.....	1789	V. Rev. G. J. Campbell..... D	7,480	1,585
Georgia Coll. at Milledgeville..... (T)	Milledgeville, Ga.....	1889	J. Whitney Bunting..... P	1,400	77
Georgia Inst. of Technology..... (T)	Atlanta, Ga.....	1888	Edwin D. Harrison..... S	7,800	458
Georgia, Medical Coll. of..... (T)	Augusta, Ga.....	1828	Harry B. O'Rear..... S	697	250
Georgia Southern..... (T)	Statesboro, Ga.....	1908	Zach S. Henderson..... S	3,925	258
Georgia Southwestern..... (T)	Americus, Ga.....	1908	William B. King..... S	1,700	93
Georgia State..... (T)	Atlanta, Ga.....	1913	Noah N. Langdale..... S	9,379	528
Georgia Univ. of*..... (T)	Athens, Ga.....	1785	Fred C. Davison..... S	20,400	1,700
Georgian Court..... (W)	Lakewood, N. J.....	1908	Sis. Mary Pierre..... D	528	50
Gettysburg..... (T)	Gettysburg, Pa.....	1832	Carl Arnold Hanson..... D	1,840	161
Glassboro State..... (T)	Glassboro, N. J.....	1935	Thos. Robinson..... S	8,450	315
Gloucester State..... (T)	Glenview, W. Va.....	1872	D. Banks Wilburn..... S	1,700	75
Goddard..... (T)	Plainfield, Vt.....	1938	Royce S. Pitkin..... P	706	75
Golden Gate Bapt. Theol. Sem..... (T)	Mil Valley, Calif.....	1944	Harold K. Graves..... D	350	23
Golden Gate..... (T)	San Francisco, Calif.....	1901	Russell T. Sharpe..... P	2,560	125
Gonzaga Univ..... (T)	Spokane, Wash.....	1887	V. Rev. J. P. Leary..... D	2,573	239
Good Counsel..... (W)	White Plains, N. Y.....	1923	Mother M. Dolores..... D	501	60
Gordon..... (T)	Wenham, Mass.....	1889	James Forrester..... D	1,089	37
Gorham State..... (T)	Gorham, Me.....	1878	Kenneth T. H. Brooks..... S	1,750	87
Goshen..... (T)	Goshen, Ind.....	1903	Paul Mininger..... D	1,183	80
Goucher..... (T) (W)	Towson, Md.....	1886	Marvin B. Perry, Jr..... P	1,610	118
Grace Bible Institute..... (T)	Omaha, Nebr.....	1943	Waldo Harder..... P	424	24
Grace..... (T)	Winona Lake, Ind.....	1948	Herman A. Hoyt..... D	490	40
Graceland..... (T)	Lamoni, Iowa.....	1895	William Higdon..... D	1,111	67
Grambling..... (T)	Grambling, La.....	1901	Ralph W. E. Jones..... S	3,410	248
Grand Canyon..... (T)	Phoenix, Ariz.....	1949	Arthur K. Tyson..... D	544	37
Grand Rapids Bapt. Bible Coll. & Sem..... (T)	Grand Rapids, Mich.....	1941	W. Wilbert Welch..... D	443	23
Grand Valley State..... (T)	Allendale, Mich.....	1960	James H. Zumberge..... S	1,604	85
Great Falls Coll. of..... (T)	Great Falls, Mont.....	1932	Sister Rita..... D	1,128	53
Greensboro..... (T)	Greensboro, N. C.....	1838	Rev. Ralph Jolly..... D	608	51
Greenville..... (T)	Greenville, Ill.....	1892	Glenn Richardson..... D	748	52
Grinnell..... (T)	Grinnell, Ia.....	1846	Glenn H. Leggett..... P	1,139	119
Grove City..... (T)	Grove City, Pa.....	1876	John S. Harker..... P	1,921	100
Guam, Coll. of..... (T)	Agana, Guam.....	1952	A. C. Yamashiro..... T	1,700	80
Gulford..... (T)	Greensboro, N. C.....	1837	Grimsley T. Hobbs..... D	1,499	139
Gustavus Adolphus..... (T)	St. Peter Minn.....	1862	Edgar M. Carlson..... D	1,701	131
Gwynedd-Mercy..... (W)	Gwynedd Valley, Pa.....	1948	Sis. M. Gregory..... D	1,025	90
Hahnemann Medical..... (M)	Philadelphia, Pa.....	1848	Charles S. Cameron..... P	400	500
Hamilton..... (M)	Ciltron, N. Y.....	1812	R. W. Couper (Act.)..... P	807	85
Hamline Univ..... (T)	St. Paul, Minn.....	1854	Richard Bailey..... D	1,247	75
Hampton-Sydney..... (M)	Hampton, Va.....	1878	W. Taylor Reveley..... P	559	43
Hampton Institute..... (T)	Hampton, Va.....	1868	Jerome H. Holland..... P	2,584	201
Hanover..... (T)	Hanover, Ind.....	1827	John E. Horner..... D	983	72
Hardin-Simmons Univ..... (T)	Abilene, Tex.....	1891	Elwin L. Skiles..... D	1,664	112
Harding..... (T)	Searcy, Ark.....	1924	Clifton L. Ganus, Jr..... D	1,760	95
Harris Teachers..... (T)	St. Louis, Mo.....	1857	Richard Stumpe..... Mu	937	78
Hartford, Univ. of..... (T)	W. Hartford, Conn.....	1957	A. M. Woodruff (Chan.)..... P	7,458	500
Hartwick..... (T)	Oneonta, N. Y.....	1928	Frederick M. Binder..... D	1,497	100
Harvard, Univ. (a)..... (Med)	Cambridge, Mass.....	1636	Nathan M. Pusey..... P	16,216	7,330
Harvey Mudd..... (T)	Claremont, Calif.....	1955	Joseph B. Platt..... P	318	33
Hastings..... (T)	Hastings, Nebr.....	1882	Theron B. Maxson..... D	1,070	60
Haverford..... (M)	Haverford, Pa.....	1833	John R. Coleman..... D	805	58
Hawaii, Univ. of*..... (T)	Honolulu, Hawaii.....	1907	Thomas H. Hamilton..... S	563	79
Hebrew Union Coll.—Jewish Inst. of Religion..... (M)	Cincinnati, Ohio.....	1875	Nelson Glueck..... D	21,266	1,917
Heidelberg..... (T)	Tiffin, Ohio.....	1850	Terry Wickham..... D	268	34
Henderson State..... (T)	Arkadelphia, Ark.....	1890	M. H. Russell..... S	1,161	89
Hendrix..... (T)	Conway, Ark.....	1884	Marshall T. Steel..... D	3,000	125
Herron Sch. of Art..... (T)	Indianapolis, Ind.....	1902	Donald Mattison (Dir.)..... P	833	48
High Point..... (T)	High Point, N. C.....	1924	Wendell M. Patton..... P	1,118	83
Hillsdale..... (M)	Hillsdale, Mich.....	1841	J. Donald Phillips..... P	602	60
Hiram..... (T)	Hiram, Ohio.....	1850	Elmer Jagow..... P	1,076	95
Hobart & Wm. Smith Colleges..... (T)	Geneva, N. Y.....	1822	Rev. A. E. Holland..... D	1,411	114
Hofstra Univ..... (T)	Hempstead, N. Y.....	1935	Clifford L. Lord..... P	11,870	692
Hollins..... (W)	Hollins, Coll., Va.....	1842	John A. Logan, Jr..... P	951	97
Holy Cross, Coll. of the..... (M)	Worcester, Mass.....	1843	V. Rev. R. J. Swords..... D	2,353	173
Holy Family..... (W)	Philadelphia, Pa.....	1843	Sis. M. Aloysius..... D	628	51

(a) Oldest college in the United States.

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Holy Family.....(W)	Manitowoc, Wis.	1935	Sister M. Brieden.....P	562	45
Holy Names, Coll. of the....(W)	Oakland, Calif.	1880	Sister Mary Ambrose....D	960	106
Hood.....(W)	Frederick, Md.	1893	Randle Elliott.....P	750	76
Hope.....(T)	Holland, Mich.	1866	C. Vander Werf.....D	1,785	159
Houghton.....(T)	Houghton, N. Y.	1883	Stephen W. Palne.....D	1,128	90
Houston, Univ. of.....(T)	Houston, Tex.	1934	Philip G. Hoffman.....S	21,170	1,093
Howard Payne.....(Med)	Brownwood, Tex.	1889	Guy D. Newman.....D	1,200	78
Howard Univ.....(Med)	Washington, D. C.	1867	James Nabrit, Jr.....F, P	8,153	1,014
Humboldt State.....(T)	Arcata, Calif.	1913	Cornelius Siemens.....S	3,850	325
Huntingdon.....(T)	Montgomery, Ala.	1854	Allen Jackson.....D	882	67
Huntington.....(T)	Huntington, Ind.	1867	E. Davis Baker.....D	432	35
Huron.....(T)	Huron, S. Dak.	1883	Richard H. Timmins.....D	690	45
Husson.....(T)	Bangor, Me.	1808	Chester H. Husson.....Pr	1,200	56
Huston-Tillotson.....(T)	Austin, Tex.	1876	John T. King.....P	771	59
Idaho, Coll. of.....(T)	Caldwell, Idaho	1891	Warren B. Knox.....D	1,057	81
Idaho State Univ.....(Med.)	Pocatello, Idaho	1901	William E. Davis.....S	4,906	300
Idaho, Univ. of*.....(T)	Moscow, Idaho	1889	Ernest W. Hartung.....S	5,914	433
IHFT School of Theology.....(T)	Denver, Colo.	1892	Lowell B. Swan.....D	120	14
Illinois.....(T)	Jacksonville, Ill.	1829	I. Vernon Calme.....D	500	51
Illinois Coll. of Optometry.....(T)	Chicago, Ill.	1872	Eugene W. Strawn.....P	260	26
Illinois Inst. of Technology.....(T)	Chicago, Ill.	1892	John T. Rettallata.....P	7,885	683
Illinois St. Univ.....(T)	Normal, Ill.	1857	Samuel E. Braden.....S	11,072	850
Illinois, Univ. of.....(T) (Med)	Urbana & Chicago, Ill.	1827	David D. Eckhardt.....S	30,714	5,613
Illinois Wesleyan Univ.....(T)	Bloomington, Ill.	1850	Robert C. Eckley.....D	1,530	120
Immaculata.....(W)	Immaculata, Pa.	1920	Sis. Mary of Lourdes.....D	1,602	136
Immaculate Conception Sem.....(W)	Conception, Mo.	1882	V. Rev. C. Falk.....D	320	30
Immaculate Heart.....(W)	Los Angeles, Calif.	1916	Sister M. William.....D	1,098	98
Incarinate Word.....(W)	San Antonio, Tex.	1881	S. T. Greenburg.....D	1,366	101
Indiana Central.....(T)	Indianapolis, Ind.	1902	I. Lynd Esch.....D	2,271	113
Indiana Inst. of Tech.....(T)	Ft. Wayne, Ind.	1930	Edward Dugan, Jr.....P	1,036	59
Indiana State Univ.....(T)	Terre Haute, Ind.	1870	Alan Rankin.....S	12,066	660
Indiana Univ. of Penn.....(T)	Indiana, Pa.	1875	Willis E. Pratt.....S	8,500	460
Indiana Univ.....(T) (Med)	Bloomington, Ind.	1820	Elvis J. Stahr.....S	47,000	2,970
Institute for Adv. Study (a).....(T)	Princeton, N. J.	1930	Karl Kayser (Dir.).....P	114	22
Insurance, Coll. of.....(T)	New York, N. Y.	1829	A. Leslie Leonard.....P	2,000	154
Iona.....(T)	New Rochelle, N. Y.	1940	Rev. Bro. Eckenna.....D	3,016	210
Iowa State Univ.....(T)	Ames, Iowa	1858	W. Robert Parks.....S	15,341	1,279
Iowa, Univ. of.....(Med)	Iowa City, Iowa	1847	Howard R. Bowen.....S	17,707	1,062
Iowa Wesleyan.....(T)	Mt. Pleasant, Iowa	1842	Franklin Littell.....D	1,033	66
Ithaca.....(T)	Ithaca, N. Y.	1892	Howard I. Dillingham.....P	3,327	267
Jackson State.....(T)	Jackson, Miss.	1877	John A. Peoples.....S	2,990	128
Jacksonville State Univ.....(T)	Jacksonville, Fla.	1883	Houston Cole.....S	4,479	192
Jacksonville Univ.....(T)	Jacksonville, Fla.	1934	Robert H. Spiro.....P	2,517	120
Jamestown.....(T)	Jamestown, N. Dak.	1884	Dan J. Sillers.....D	578	72
Jarvis Christian.....(T)	Hawkins, Tex.	1912	J. O. Perpener.....D	497	44
Jefferson Medical.....(T)	Philadelphia, Pa.	1824	Peter A. Herbut.....P, S	731	756
Jersey City State.....(T)	Jersey City, N. J.	1923	A. Liggitt (Act.).....S	6,400	250
Jewish Studies, Coll. of.....(T)	Chicago, Ill.	1925	D. Weinstein.....D	300	22
Jewish Theol. Sem. of America.....(M)	New York, N. Y.	1886	L. Finkelstein (Chan.).....D	2,669	196
John Brown Univ.....(T)	Siloam Springs, Ark.	1919	John E. Brown, Jr.....P	681	48
John Carroll Univ.....(T)	Cleveland, Ohio	1886	Rev. Joseph Schell.....D	4,700	180
Johns Hopkins Univ.....(Med)	Baltimore, Md.	1876	Lincoln Gordon.....P	9,613	2,073
Johnson C. Smith Univ.....(T)	Charlotte, N. C.	1867	Rufus P. Perry.....D	1,031	86
Johnson State.....(T)	Johnson, Vt.	1867	Arthur J. Didden.....S	547	42
Jones.....(T)	Jacksonville, Fla.	1918	Jack H. Jones.....P	616	35
Judson.....(T) (W)	Marion, Ala.	1838	James H. Edmondson.....D	434	39
Julliard Sch. of Music.....(T)	New York, N. Y.	1906	Peter Mennin.....P	1,000	140
Junata.....(T)	Huntingdon, Pa.	1876	John Stauffer.....D	1,100	93
Kalamazoo.....(T)	Kalamazoo, Mich.	1843	Weimer K. Hicks.....D	1,240	70
Kans. City Coll. of Art.....(T)	Kansas City, Mo.	1885	Andrew W. Morgan.....P	767	50
Kan. City Coll. of Osteop. & Sur.....(T)	Kansas City, Mo.	1916	Eugene Powers.....P	425	55
Kansas St. Coll.....(T)	Pittsburg, Kan.	1903	George F. Budd.....S	5,393	341
Kansas State Teachers.....(T)	Emporia, Kan.	1863	John E. Visser.....S	6,658	286
Kansas State Univ.....(T)	Manhattan, Kan.	1863	James A. McCain.....S	11,200	1,240
Kansas, Univ. of.....(T) (Med)	Lawrence, Kan.	1866	W. C. Wescoe (Chan.).....S	14,899	936
Kansas Wesleyan Univ.....(T)	Salina, Kan.	1886	D. Arthur Zook.....D	716	43
Kearney State.....(T)	Kearney, Nebr.	1905	Milton J. Hassel.....S	4,660	238
Keene State.....(T)	Keene, N. Hamp.	1909	Roman J. Zorn.....S	1,652	84
Kent State Univ.....(T)	Kent, Ohio	1910	Robert White.....S	22,795	836
Kentucky Southern.....(T)	Louisville, Ky.	1960	Rollin Burhans.....D	640	42
Kentucky State*.....(T)	Frankfort, Ky.	1865	M. M. Hill.....S	1,535	105
Kentucky, Univ. of*.....(T) (Med)	Lexington, Ky.	1885	Harold P. Hamilton.....S	13,762	1,150
Kentucky Wesleyan.....(T)	Owensboro, Ky.	1868	E. Edward Lund.....P	1,761	67
Kenyon.....(M)	Gambier, Ohio	1821	F. Edward Lund.....P	700	66
Keuka.....(W)	Keuka Park, N. Y.	1890	G. Wayne Gilek.....P	800	70
King.....(T)	Bristol, Tenn.	1867	Robert Liston.....D	316	38
King's.....(M)	Briarcliff Manor, N. Y.	1948	Robert A. Cook.....P	659	64
King's.....(M)	Wilkes-Barre, Pa.	1946	Rev. L. D. Kilburn.....D	1,845	122
Kirkville Coll. of Ost. & Surg.....(T)	Kirkville, Mo.	1892	Morris Thompson.....P	393	168
Knox.....(T)	Galesburg, Ill.	1837	Shary G. Umbeck.....P	1,221	98
Knoxville.....(T)	Knoxville, Tenn.	1875	Robert Owens.....D	921	79
Kutztown State.....(T)	Kutztown, Pa.	1866	Cyrus E. Beckey.....S	3,863	216
Ladysmith.....(W)	Highland Falls, N. Y.	1933	Sister M. Jane Thomas.....P	596	51
Lafayette.....(T)	Easton, Pa.	1826	K. R. Bergen.....D	1,911	166
LaGrange.....(T)	LaGrange, Ga.	1831	Waights Henry, Jr.....D	4,500	351
Lake Erie.....(T)	Painesville, Ohio	1856	Paul Weaver.....P	989	88
Lake Forest.....(T)	Lake Forest, Ill.	1857	William G. Cole.....D	1,218	101
Lakeland.....(T)	Sheboygan, Wis.	1867	John B. Morland.....D	644	42
Lamar State Coll. of Tech.....(T)	Beaumont, Tex.	1923	R. W. Setzer.....D	9,989	371
Lambuth.....(T)	Jackson, Tenn.	1843	James S. Wilder.....D	805	62
Lancaster Theol. Sem.....(T)	Lancaster, Pa.	1825	Robert V. Moss, Jr.....D	110	11
Lander.....(T)	Greenwood, S. C.	1872	E. Don Herd, Jr.....P	548	43
Lane.....(T)	Jackson, Tenn.	1882	Chester Kirkendoll.....D	981	46
Langston Univ.*.....(T)	Langston, Okla.	1897	William H. Hale.....S	1,166	82
La Roche.....(W)	Allison Pk., Pa.	1993	Sister M. Annunciate.....D	355	26
La Salle.....(T)	Philadelphia, Pa.	1863	Bro. Daniel Bernian.....D	6,200	330
La Verne.....(T)	La Verne, Calif.	1891	Harold Eastcott.....D	730	51
Lawrence Univ.....(T)	Appleton, Wis.	1847	Curtis W. Tarr.....P	1,211	120
Lawrence Inst. of Tech.....(T)	Southfield, Mich.	1932	W. H. Buell.....P	3,925	110
Layton Sch. of Art.....(T)	Milwaukee, Wis.	1920	E. D. Lewandowski (Dir.).....P	550	45
Lebanon Valley.....(T)	Annapolis, Pa.	1866	Frederick Sample.....D	1,257	78
Lee.....(T)	Cleveland, Tenn.	1918	James A. Cross.....D	1,162	60

(a) Post-doctoral research.

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Lehigh Univ. (M)	Bethlehem, Pa.	1865	W. Deming Lewis	P 4,843	484
Le Moyne	Syracuse, N. Y.	1946	Rev. William L. Reilly	D 1,536	103
Le Moyne-Owen	Memphis, Tenn.	1870	Hollis F. Price	D 614	47
Lenoir Rhyme	Hickory, N. C.	1891	Raymond Bost	D 1,264	94
Lesley (W) (T)	Cambridge, Mass.	1909	Don A. Orton	P 611	48
LeTourneau	Longview, Tex.	1946	R. H. LeTourneau	P 615	50
Lewis (T)	Lockport, Ill.	1930	Brother Paul French	D 1,630	92
Lincoln Christian	Lincoln, Ill.	1944	Earl C. Hargrove	D 675	32
Lincoln Memorial Univ.	Harrogate, Tenn.	1897	H. Y. Livesay	P 675	42
Lincoln Univ.	Lincoln Un., Pa.	1854	Marvin Wachman	P 780	75
Loras (M)	Jefferson City, Mo.	1866	Earl Edgar Dawson	S 2,014	122
Lindenwood (T) (W)	St. Charles, Mo.	1827	John A. Brown	D 648	69
Linfield (T)	McMinnville, Ore.	1849	Harry L. Dillin	D 1,072	78
Little Rock Univ.	Little Rock, Ark.	1927	Carey V. Stabler	P 3,099	140
Livingston State (T)	Livingston, Ala.	1840	John Deloney	S 1,300	75
Livingstone	Salsbury, N. C.	1879	Samuel E. Duncan	S 866	52
Lock Haven State (T)	Lock Haven, Pa.	1870	Richard T. Parsons	S 2,001	136
Loma Linda Univ. (Med)	Loma Linda, Calif.	1905	David J. Biebler	D 2,936	1,223
Long Island Univ.	Greenvale, N. Y.	1926	R. Gordon Hoxie (Chan.)	P 18,000	1,000
Longwood (T) (W)	Farmville, Va.	1891	Henri I. Willett, Jr.	S 1,702	122
Loras (M)	Dubuque, Iowa	1839	W. R. Rex J. A. Driscoll	D 1,604	125
Loretto Heights (T) (W)	Denver, Colo.	1918	Sister Patricia Jean	D 895	97
Louisiana	Pineville, La.	1906	G. Earl Guinn	D 1,079	61
Louisiana Polytechnic Inst. (T)	Ruston, La.	1894	F. J. Taylor	S 6,489	369
Louisiana St. Univ.* (Med)	Baton Rouge, La.	1860	John A. Hunter	S 25,079	1,468
Main Campus	Baton Rouge, La.	1860	C. G. Taylor (Chan.)	S 16,000	950
Medical Center	New Orleans, La.	1931	William W. Frye (Chan.)	S 650	185
New Orleans Campus	New Orleans, La.	1958	Homier L. Hitt (Chan.)	S 6,807	245
Louisville Presbyt. Sem.	Louisville, Ky.	1853	Albert C. Wynn	D 122	14
Louisville, Univ. of (T) (Med)	Louisville, Ky.	1798	Woodrow Strickler	Mtu 7,787	960
Louisiana Technological Inst.	Baton Rouge, La.	1857	John A. Sellinger	S 5,680	435
Loyola	Baltimore, Md.	1832	V. Rev. J. A. Maguire	D 2,778	191
Loyola Univ. (T) (Med)	Chicago, Ill.	1869	V. Rev. J. F. Maguire	D 12,651	1,100
Loyola Univ.	New Orleans, La.	1849	V. Rev. H. R. Jolley	D 4,334	364
Loyola Univ. of L. A.	Los Angeles, Calif.	1911	V. Rev. C. S. Casassa	D 2,872	164
Luther (T)	Decorah, Iowa	1861	Elwin D. Farwell	D 1,950	124
Luther Theol. Sem. (M)	St. Paul, Minn.	1869	Alvin N. Rogness	D 530	43
Lutheran Sch. of Theology	Chicago, Ill.	1860	Stewart W. Herman	D 340	32
Lutheran Theol. Sem.	Philadelphia, Pa.	1864	Rev. D. R. Helges	D 237	26
Lycoming	Williamsport, Pa.	1812	D. Frederick Wertz	D 1,569	102
Lynchburg	Lynchburg, Va.	1903	Barry Breyer	D 1,592	97
Lyndon State (T)	Danville, Vt.	1911	Robert C. Long	D 1,174	36
Macalester	St. Paul, Minn.	1874	Harvey M. Rice	P 1,769	148
MacMurray	Jacksonville, Ill.	1846	Gordon E. Michelson	D 1,064	70
Madison (T)	Harrisonburg, Va.	1908	G. Tyler Miller	S 3,000	199
Madonna (T) (W)	Livonia, Mich.	1947	Sister Mary Danatha	D 700	44
Maine Maritime Academy (M)	Castine, Me.	1941	E. A. Rodgers (Supt.)	S 510	39
Maine, Univ. of (T)	Orono, Me.	1865	Edwin Young	S 13,732	748
Malone	Canton, Ohio	1892	Everett L. Cattell	D 1,129	59
Manchester	No. Manchester, Ind.	1889	Alfred B. Helman	D 1,483	71
Manhattan	Bronx, N. Y.	1853	Brother Gregory	D 4,698	335
Manhattan Sch. of Music	New York, N. Y.	1917	John Brownlee	P 1,174	25
Manhattanville	Purchase, N. Y.	1841	Mo. E. J. McCormack	D 1,402	135
Mankato State (T)	Mankato, Minn.	1867	James F. Nickerson	S 11,304	473
Mansfield State (T)	Mansfield, Pa.	1857	Fred E. Bryan	S 2,600	195
Marlan	Indianapolis, Ind.	1937	D. J. Guzzetta	D 1,061	77
Marlan Coll. of Fon du Lac (T) (W)	Fon du Lac, Wis.	1936	Sister Mary Shella	D 472	47
Marletta (T)	Marletta, Ohio	1835	Frank E. Duddy	P 2,075	125
Marillac (T) (W)	St. Louis, Mo.	1955	Sister Rose Collins	D 407	55
Marion (T)	Marion, Ind.	1920	Woodrow Goodman	D 680	43
Marist (T)	Poughkeepsie, N. Y.	1920	Bro. Linus Richard Foy	D 1,860	98
Marquette Univ.	St. Louis, Mo.	1946	Thomas B. Tagle	P 1,174	25
Mars Hill (T)	Milwaukee, Wis.	1881	V. Rev. J. P. Raynor	D 11,611	730
Marshall Univ. (T)	Mars Hill, N. C.	1856	Fred Blake Bentley	D 1,403	90
Martin Luther (T)	Huntington, W. Va.	1837	Roland H. Nelson Jr.	S 8,200	330
Mary Baldwin (W)	New Ulm, Minn.	1884	Conrad Frey	D 617	45
Mary Baldwin Baylor (W)	Staunton, Va.	1842	Samuel R. Spencer, Jr.	D 701	51
Mary Hardin Baylor (W)	Belton, Tex.	1845	Leonard L. Holloway	D 955	62
Mary Manse (T) (W)	Toledo, Ohio	1922	Sis. Mary Lawrence	D 1,284	80
Marycrest (T) (W)	Davenport, Iowa	1939	Sister Mary Ellen	D 1,091	67
Marygrove (W)	Dearborn, Mich.	1910	Sis. Jane Mary (Act.)	D 1,366	109
Maryknoll (M)	Glen Ellyn, Ill.	1949	Rev. Charles Kenney	D 368	41
Maryland Inst.	Baltimore, Md.	1826	Eugene W. Leake	P 1,850	70
Maryland, Univ. of* (T) (Med)	College Park, Md.	1812	Wilson H. Elkins	S 40,947	3,173
Marylhurst (T) (W)	Marylhurst, Ore.	1893	Sister Anselm Mary	D 616	73
Marymount (T) (W)	Los Angeles, Calif.	1932	Sister M. Raymunde	D 416	44
McKay				D 555	75
Marymount (T) (W)	Salina, Kan.	1922	Sister Etta L. Knaup	D 1,042	92
Marymount (W)	Tarrytown, N. Y.	1907	Sister Brendan	D 525	63
Marymount Manhattan (T) (W)	New York, N. Y.	1948	Sis. Colette Mahoney	D 829	69
Maryville (W)	Maryville, Tenn.	1819	Joseph J. Copeland	D 575	67
Mary Washington (a) (T) (W)	Fredericksburg, Va.	1908	G. C. Simpson (Chan.)	S 2,091	163
Marywood (W)	Seranton, Pa.	1915	Sister M. St. Mary	D 1,900	120
Massachusetts Coll. of Art.	Boston, Mass.	1873	Robert L. Bertoll	S 631	40
Mass. Coll. of Pharmacy	Boston, Mass.	1823	Leonard F. Tibbetts	P 633	45
Mass. Institute of Tech.*	Cambridge, Mass.	1865	Howard Johnson	P 7,293	774
Mass. Maritime Academy (M)	Buzzards Bay, Mass.	1891	A. Sanford Limouze	S 218	23
Massachusetts State Colleges:					
State Coll. at Boston (T)	Boston, Mass.	1852	William F. Looney	S 6,532	320
State Coll. at Bridgewater (T)	Bridgewater, Mass.	1840	Adrian Rondle	S 5,000	225
State Coll. at Fitchburg (T)	Fitchburg, Mass.	1894	James J. Hammond	S 3,232	212
State Coll. at Framingham (T)	Framingham, Mass.	1839	D. Justin McCarthy	S 2,230	149
State Coll. at Lowell (T)	Lowell, Mass.	1894	Daniel H. O'Leary	S 1,761	140
State Coll. at No. Adams (T)	N. Adams, Mass.	1894	Andrew S. Flagg	S 1,200	61
State Coll. at Salem (T)	Salem, Mass.	1854	Frederick A. Meier	S 5,439	221
State Coll. at Westfield (T)	Westfield, Mass.	1839	Leonard J. Savignano	S 2,838	107
State Coll. at Worcester (T)	Worcester, Mass.	1871	Eugene A. Sullivan	S 1,614	100
Massachusetts, Univ. of* (T) (Med)	Amherst, Mass.	1863	John W. Lederle	S 17,351	1,036
Boston Campus	Boston, Mass.	1964	John W. Ryan (Chan.)	S 1,244	73
Maryville State (T)	Maryville, N. Dak.	1889	T. S. Jenkins	D 750	48
McKendree (T)	Lebanon, Ill.	1828	E. E. Voigt	D 499	37

(a) Affiliated with Univ. of Virginia.

Name	Location	Yr.	Governing Official and Control	Students	Teachers
McMurry	Abilene, Tex.	1923	Gordon Bennett	D 1,522	58
McNeese State	(T) Lake Charles, La.	1939	W. N. Cusic	D 4,366	214
McPherson	(T) McPherson, Kan.	1887	J. Jack Melhorn	D 753	41
Medaille	(T) Buffalo, N. Y.	1837	Sis. Mary Lawrence	D 457	51
Meherry Medical	Nashville, Tenn.	1876	Lloyd C. Elam	D 1,302	23
Memphis Academy of Arts	Memphis, Tenn.	1936	Edwin Rust (Dir.)	P 519	37
Memphis State Univ.	(T) Memphis, Tenn.	1912	Cecil C. Humphreys	S 14,300	650
Menlo	(M) Menlo Park, Calif.	1915	William Kratt	P 520	42
Mercer Univ.	(M) Macon, Ga.	1833	Rufus C. Harris	D 1,868	106
Mercy	(W) Dobbs Ferry, N. Y.	1950	Sis. M. E. Christie	D 640	69
Mercy Coll. of Detroit	(T) Detroit, Mich.	1941	Sis. Mary Karl George	D 1,132	160
Mercyhurst	(T) Erie, Pa.	1926	Sis. Mary Carolyn	D 673	33
Meredith	(W) Raleigh, N. C.	1891	E. Bruce Hellman	D 856	56
Merrimack	(W) No. Andover, Mass.	1947	Rev. V. A. McQuade	D 2,313	150
Messiah	(W) Grantham, Pa.	1909	D. Ray Hostetter	D 447	33
Methodist	(T) Fayetteville, N. C.	1956	L. S. Weaver	S 13,751	692
Miami Univ.	(T) Oxford, Ohio	1809	Philip R. Shriver	S 994	56
Miami Univ. of	(T) (Med) Coral Gables, Fla.	1925	Henry R. Stanford	P 16,165	1,100
Michigan State Univ.*	(T) (Med) East Lansing, Mich.	1855	John A. Hannah	S 45,949	3,055
Oakland Univ.	(T) Rochester, Mich.	1957	Durward B. Varner	S 4,000	183
Michigan Technological Univ.	(T) Houghton, Mich.	1855	Raymond L. Smith	S 4,960	363
Michigan, Univ. of	(T) (Med) Ann Arbor, Mich.	1817	Robbin W. Fleming	S 37,283	4,083
Middle Tennessee State Univ.	(T) Murfreesboro, Tenn.	1911	Quill W. Cope	S 6,041	306
Middlebury	(T) Middlebury, Vt.	1800	James I. Armstrong	P 1,357	130
Midland Lutheran	(T) Fremont, Nebr.	1883	L. Dale Lund	D 954	57
Midwestern Baptist Theol. Sem.	(T) Kansas City, Mo.	1957	Millard J. Berquist	D 206	19
Midwestern Univ.	(T) Wichita Falls, Tex.	1922	Travis A. White	Mu 3,391	138
Miles	(T) Birmingham, Ala.	1907	Lucius H. Pitts	D 963	63
Millersville State	(T) Millersville, Pa.	1854	Robert Christie	D 4,234	274
Milligan	(T) Milligan Coll., Tenn.	1881	Dean E. Walker (Chan.)	P 795	63
Millikin Univ.	(T) Decatur, Ill.	1901	Paul L. McKay	D 1,797	123
Mills	(W) Oakland, Calif.	1852	Robert J. Wert	P 711	83
Mills Coll. of Education	(T) (W) New York, N. Y.	1909	Margaret Devine (Act.)	P 495	43
Millsaps	(T) Jackson, Miss.	1890	Benjamin B. Graves	D 940	79
Milton	(T) Milton, Wis.	1844	C. W. Banta	P 645	52
Milwaukee Sch. of Eng.	(T) Milwaukee, Wis.	1903	Karl O. Werwath	P 2,753	153
Minneapolis Sch. of Art	(T) Minneapolis, Minn.	1886	A. Herstand (Dir.)	P 553	43
Minnesota Bible	(T) Minneapolis, Minn.	1913	Galen E. Skinner	P 130	11
Minnesota, Univ. of*	(T) (Med) Minneapolis, Minn.	1851	Malcolm C. Moos	S 66,060	2,350
Duluth Campus	(T) Duluth, Minn.	1944	R. W. Darland (Prov.)	S 4,707	230
Morris Campus	(T) Morris, Minn.	1960	J. L. Bug (Chan.)	S 1,100	100
Minot State	(T) Minot, N. Dak.	1913	Gorden B. Olsen	S 2,059	120
Misericordia	(T) (W) Dallas, Pa.	1924	Sister Miriam Teresa	P 1,134	99
Mississippi	(T) Clinton, Miss.	1826	Richard A. McLemore	D 2,113	99
Mississippi Industrial	(T) Holly Springs, Miss.	1905	E. E. Rankin	D 350	2
Miss. St. Coll. for Women	(W) Columbus, Miss.	1884	Charles P. Hogarth	S 2,419	169
Mississippi State Univ.*	(T) State Coll., Miss.	1878	William L. Giles	S 8,633	658
Mississippi, Univ. of	(T) (Med) University, Miss.	1844	P. E. Fortune, Jr. (Chan.)	S 7,768	778
Mississippi Valley State	(T) Ita Bena, Miss.	1946	J. H. White	S 2,468	118
Missouri, Univ. of*	(T) (Med) Columbia, Mo.	1839	John C. Weaver	S 40,406	2,406
At Kansas City	(T) Kansas City, Mo.	1933	Vacant	S 8,025	879
At Rolla	(T) Rolla, Mo.	1870	Merl Baker (Chan.)	S 4,563	293
At St. Louis	(T) St. Louis, Mo.	1963	J. L. Bug (Chan.)	S 6,112	214
Missouri Valley	(T) Marshall, Mo.	1889	M. Earle Collins	D 833	43
Mobile	(T) Mobile, Ala.	1961	William K. Weaver, Jr.	D 343	30
Molloy Cath. Coll. for Women	(W) Rockville Ctr., N. Y.	1955	Mother M. Celeste	D 912	77
Monmouth	(T) Monmouth, Ill.	1853	G. Duncan Wmpress	D 1,296	99
Monmouth	(T) W. Long Branch, N. J.	1933	William G. Van Note	P 4,742	263
Montana Coll. of Mineral Science and Technology	(T) Butte, Mont.	1893	Edwin G. Koch	S 552	47
Montana State Univ.	(T) Bozeman, Mont.	1893	Leon H. Johnson	S 6,301	471
Montana, Univ. of	(T) Missoula, Mont.	1893	Robert Pantzen	S 5,790	340
Montclair State	(T) Upper Montclair, N. J.	1908	T. H. Richardson	S 7,114	321
Moore Coll. of Art	(W) Philadelphia, Pa.	1844	Fayo Bryce	S 510	27
Moorhead State	(T) Moorhead, Minn.	1945	John Schneider	S 4,140	274
Moravian	(T) Bethlehem, Pa.	1807	Raymond S. Haupt	D 1,563	130
Morehead State Univ.	(T) Morehead, Ky.	1923	Ardon Doran	S 5,779	275
Morehouse	(M) Atlanta, Ga.	1867	Hugh Gloster	P 989	88
Morgan State	(T) Baltimore, Md.	1867	Martin D. Jenkins	S 3,443	263
Morningside	(T) Sioux City, Iowa	1894	J. Richard Palmer	D 1,871	107
Morris Brown	(M) Atlanta, Ga.	1881	John A. Middleton	D 1,068	88
Morris Harvey	(T) Charleston, W. Va.	1888	Marshall Buckalew	P 2,291	150
Mt. Angel	(T) Mt. Angel, Ore.	1887	Bro. LaSalle Woelfel	D 360	53
Mt. Holyoke	(W) So. Hadley, Mass.	1837	Richard G. Gettell	P 1,749	180
Mt. Marty	(W) Yankton, S. D.	1936	Sister Evangeline	D 509	69
Mt. Mary	(T) Yankton, S. Dak.	1936	Sister M. Evangeline	D 191	56
Mt. Mary	(T) Wausau, Wis.	1913	Sister Mary Daniels	D 1,703	140
Mt. Mercy	(T) Cedar Rapids, Iowa	1957	Sister Mary Agnes	D 650	49
Mt. Mercy	(W) Pittsburgh, Pa.	1929	Sister M. C. Scully	P 885	70
Mt. St. Agnes	(T) (W) Baltimore, Md.	1890	Sister Mary Cleophas	D 450	58
Mt. St. Joseph-on-the-Ohio	(T) (W) Mt. St. Joseph, Ohio	1854	Sister Adele	D 988	92
Mt. St. Mary	(T) Hooksett, N. Hamp.	1934	Sister Mary Vianney	D 303	43
Mt. St. Mary	(T) Newburgh, N. Y.	1959	Mo. M. F. McDonald	D 471	63
Mt. St. Mary's	(W) Los Angeles, Calif.	1925	Sister Cecilia Louise	D 1,200	113
Mt. St. Mary's	(M) Emmitsburg, Md.	1808	Rev. Hugh Phillips	D 856	67
Mt. St. Paul	(T) Waukesha, Wis.	1862	V. Rev. G. Stapleton	D 196	37
Mt. St. Scholastica	(T) Atchinson, Kans.	1924	Sister Mary Noel (Act.)	D 845	66
Mt. St. Vincent Coll. of	(W) Bronx, N. Y.	1847	Sister Mary David	D 998	107
Mt. Senario	(T) Ladysmith, Wis.	1962	Sis. Mary Hyacinth	D 183	27
Mt. Union	(T) Alliance, Ohio	1816	Ronald Weber (Act.)	D 1,499	88
Muhlenberg	(T) Allentown, Pa.	1848	Erling N. Jensen	D 1,732	102
Multnomah Sch. of the Bible	(T) Portland, Ore.	1936	Willard M. Aldrich	I 117	27
Mundelein	(W) Chicago, Ill.	1929	Sister Mary Ann Ida	D 1,112	106
Murray State Univ.	(T) Murray, Ky.	1922	Harry S. Sparks	S 6,637	376
Muskingum	(T) New Concord, Ohio	1837	Harry S. Manley	D 1,322	102
Nassau	(T) Springville, Me.	1912	Roger C. Gay	P 877	60
Nathaniel Hawthorne	(T) Antrim, N. H.	1962	Kenneth McLaughlin	P 580	33
Nazareth	(W) Kalamazoo, Mich.	1924	Sis. Mary L. Bader	D 450	60
Nazareth Coll. of Rochester	(W) Rochester, N. Y.	1924	Sister Helen Daniel	D 1,381	113
Nazareth	(T) Bronx, N. Y.	1914	Charles Karner	D 443	33
Nebraska, Univ. of*	(T) (Med) Lincoln, Nebr.	1869	Clifford Hardin (Chan.)	S 18,862	933
Nebraska Wesleyan Univ.	(T) Omaha, Nebr.	1908	Kirk Naylor	S 8,288	334
Nebraska Wesleyan Univ.	(T) Lincoln, Nebr.	1897	Vance D. Rogers	D 1,278	102

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Ner Israel Rabbinical. . . (T) (M)	Baltimore, Md.	1933	Rabbi J. I. Ruderman. . .	D 242	20
Nevada, Univ. of* (T)	Reno, Nev.	1864	N. O. Humphrey (Chan.) .	S 9,481	442
New	Sarasota, Fla.	1960	John Elmendorf	P 2 0	43
New England. (T)	Henniker, N. H.	1946	H. Raymond Danforth. .	P 765	73
New England Conservatory. .	Boston, Mass.	1867	Gunther Schuler	P 524	97
N. H. Coll. of Acct. & Comm. .	Manchester, N. H. . . .	1932	Gertrude Shapiro	Pr. 1,521	55
New Hampshire, Univ. of* . .	Durham, N. H.	1866	John W. McConnell. . .	S 8,815	723
New Haven.	New Haven, Conn. . . .	1926	Marvin K. Petersen. . . .	Y 3,156	265
N. J. Coll. of Med. & Dent. . .	Jersey City, N. J. . . .	1965	Robert Cadmus	Z 490	217
New Mexico Highlands Univ. (T)	Las Vegas, N. Mex. . . .	1893	Thomas Donnelly	Z 2,022	103
N. Mex. Inst. of Min. & Tech. .	Socorro, N. Mex.	1859	Edith A. Colgate	S 583	56
New Mexico State Univ.* . . .	Las Cruces, N. Mex. . .	1888	Roger C. Cebett.	Z 6,305	434
New Mexico, Univ. of (T) (Med)	Albuquerque, N. Mex. . .	1889	Ferrel Heude	Z 15,021	747
New Orleans Bapt. Theol. Sem. .	New Orleans, La.	1917	H. Leo Eddleman.	D 825	52
New Rochelle, Coll. of. (T) (W)	New Rochelle, N. Y. . .	1904	Mother M. R. Falls. . . .	D 940	83
New Sch. for Social Research. .	New York, N. Y.	1919	John R. Everett.	P 11,175	338
New York City Univ. of	Brooklyn, N. Y.	1961	A. H. Bowker (Chan.) . .	Mu 90,900	5,620
Brooklyn. (T)	Brooklyn, N. Y.	1930	Harold C. Syrett.	Mu 19,631	1,453
City. (T)	New York, N. Y.	1847	Buell G. Gallagher	Mu 28,862	1,700
Hunter. (T)	New York, N. Y.	1870	Robert D. Cross.	Mu 18,000	1,000
Queens.	Flushing, N. Y.	1937	Joseph H. McMurray . . .	Mu 24,397	1,467
New York Coll. of Music. . . .	New York, N. Y.	1878	Edward R. M.	P 313	103
N. Y. Inst. of Technology	New York, N. Y.	1937	Alexander Schure	P 4,494	390
New York Law School.	New York, N. Y.	1891	Sylvester C. Smith, Jr. . .	P 500	20
New York Medical.	New York, N. Y.	1860	David Denker	P 608	1,160
New York, State Univ. of. . . .	Albany, N. Y.	1948	Samuel B. Gould.	Z 91,888	6,407
State Univ. (Med)	Albany, N. Y.	1844	Evan R. Collins.	S 9,089	560
"	Buffalo, N. Y.	1846	Martin Meyerson.	Z 19,113	1,170
"	Binghamton, N. Y. . . .	1946	G. Bruce Dearing.	Z 4,028	268
State Univ. College (T)	Stony Brook, N. Y. . . .	1957	John Toll.	S 5,199	400
" (T)	Brookport, N. Y.	1867	Albert W. Brown.	Z 4,574	243
" (T)	Buffalo, N. Y.	1867	Albert C. Wilkins.	Z 7,561	468
" (T)	Canastota, N. Y.	1868	Kenneth E. Young.	Z 4,147	293
" (T)	Fredonia, N. Y.	1867	Oscar F. Lanford	Z 3,112	196
" (T)	Geneseo, N. Y.	1871	R. W. MacVittie.	Z 3,562	223
" (T)	New Paltz, N. Y.	1885	John J. Neumaler	Z 4,519	335
" (T)	Oneonta, N. Y.	1887	Royal F. Netzer.	Z 4,251	287
" (T)	Oswego, N. Y.	1861	James E. Perdue.	Z 5,029	346
" (T)	Plattsburgh, N. Y.	1889	George W. Angell.	Z 3,496	215
" (T)	Potsdam, N. Y.	1867	H. Austin Peck	Z 3,009	214
College of Agriculture.	Ithaca, N. Y.	1904	Chas. E. Palm (Dean). . .	Z 2,989	134
Buffalo Health Science Center. .	Buffalo, N. Y.	1846	F. Regan.	P 1,682	43
College of Ceramics.	Alfred, N. Y.	1900	Edward R. Mueller. . . .	P 593	65
College of Forestry. (M)	Canastota, N. Y.	1900	E. C. Jahn (Act.).	P 1,949	100
College of Home Econ. (W)	Ithaca, N. Y.	1925	H. G. Canoyer (Dean). . .	S 931	65
Downstate Health Science Cen.	Brooklyn, N. Y.	1858	Joseph K. Hill.	Z 884	584
Maritime College. (M)	Ft. Schuyler, N. Y. . . .	1874	Edward J. O'Donnell. . .	Z 716	50
Sch. of Ind. & Labor Rel. . . .	Ithaca, N. Y.	1944	David G. Moore (Dn.). . .	Z 484	32
Upstate Health Science Center. .	Syracuse, N. Y.	1834	W. W. Westerfield (Act.).	Z 575	176
Veterinary College.	Ithaca, N. Y.	1894	G. C. Poppensleek (Dn.).	Z 306	46
New York Univ. (T) (Med)	New York, N. Y.	1831	James M. Hester.	Z 42,184	5,320
Newark Coll. of Engineering. . .	Newark, N. J.	1881	Robert W. Van Houten. . .	Mu 3,654	280
Newark State. . .	Union, N. J.	1855	Edward G. Wiles.	D 3,189	300
New Bedford State Univ.	New Bedford, Mass. . . .	1858	A. C. D. Wiles	D 38	55
Newton Coll. of Sacred Heart (W)	Newton, Mass.	1866	Mother Gabrielle Husson	D 83	119
Niagara Univ.	Niagara Univ. N. Y. . .	1856	Rev. K. F. Slattery	D 2,663	169
Nichols Coll. of Bus. Admin. (M)	Dudley, Mass.	1815	Gordon B. Cross.	P 670	42
No. Carolina A. & T. State U.	Greensboro, N. C.	1891	Lewis Dowdy	Z 3,940	230
North Carolina Coll. at Durham (T)	Durham, N. C.	1909	Albert N. Whiting	Z 3,086	230
North Carolina, Univ. of. . . .	Chapel Hill, N. C. . . .	1795	William Friday	Z 32,493	2,300
at Raleigh. (T)	Raleigh, N. C.	1887	J. C. Caldwell (Chan.). .	Z 10,392	764
at Chapel Hill. (T) (Med)	Chapel Hill, N. C. . . .	1789	J. T. Sitterson (Chan.). .	Z 15,110	1,100
at Greensboro	Greensboro, N. C.	1891	J. S. Ferguson (Act.). . .	Z 3,564	331
at Charlotte.	Charlotte, N. C.	1946	W. C. Colvins (Chan.). .	Z 1,527	101
North Carolina Wesleyan. . . . (T)	Rocky Mount, N. C. . .	1863	Thomas A. Collins.	D 683	32
North Central Bible.	Minneapolis, Minn. . . .	1930	G. Raymond Carlson . . .	D 363	20
North Central.	Minneapolis, Ill.	1861	Arlo L. Schilling.	D 1,080	87
North Dakota State Univ. . . .	Fargo, N. Dak.	1890	L. D. Loftsgard (Act.). . .	S 5,800	300
No. Dak., Univ. of. (T) (Med)	Grand Forks, N. Dak. .	1883	George W. Starcher	P 6,686	383
North Georgia. (T)	Dahlonega, Ga.	1873	Merritt E. Hoag	P 1,044	60
North Park.	Chicago, Ill.	1891	Karl A. Olsson.	D 1,704	112
North Texas State Univ.	Denton, Tex.	1890	J. C. Matthews.	Z 13,356	552
Northeast La. State.	Monroe, La.	1931	George T. Walker	P 6,328	315
Northeast Mo. St.	Kirkville, Mo.	1867	Clark Elkins	Z 5,319	249
Northeastern State.	Tahlequah, Okla. . . .	1898	Harold E. Harrison. . . .	P 3,132	89
Northeastern Univ.	Boston, Mass.	1868	Ass S. Knowles.	P 31,332	897
Northern Arizona Univ.	Flagstaff, Ariz.	1899	J. Lawrence Walup.	Z 7,250	345
Northern Ill. Univ.	DeKalb, Ill.	1895	Rhoten A. Smith	Z 17,251	1,018
Northern Iowa, Univ. of. . . .	Cedar Falls, Iowa. . . .	1876	James W. Maucker.	Z 6,930	405
Northern Michigan Univ. . . .	Marquette, Mich.	1899	John X. Jamrich	Z 6,585	380
Northern Montana.	Harve, Mont.	1929	Joseph R. Crowley	P 1,195	86
Northern St.	Aberdeen, S. Dak. . . .	1902	J. Howard Kramer	Z 3,000	130
Northland.	Ashland, Wis.	1892	Robert Cramer	P 698	55
Northrop Inst. of Tech.	Ingleswood, Calif. . . .	1942	Homor H. Grant	P 1,830	93
Northwest Christian.	Eugene, Ore.	1895	Arton A. Dowdy	D 303	23
Northwest.	Kirkland, Wash.	1942	Ray D. Hirst.	D 305	23
Northwest Missouri State. . . .	Maryville, Mo.	1905	Robert P. Foster	S 3,936	215
Northwestern.	Orange City, Iowa. . . .	1882	Lars Granberg.	D 727	51
Northwestern State.	Natchitoches, La.	1884	Arnold R. Kilpatrick. . .	Z 6,487	308
Northwestern State.	Alva, Okla.	1897	Jesse W. Martin.	Z 2,303	83
Northwestern Univ. (T) (Med)	Evanson, Ill.	1851	J. Roscoe Miller.	P 16,766	2,297
Norwich Univ.	Northfield, Vt.	1819	Glen Barksdale Hamlett .	P 1,195	102
Notre Dame, Coll. of.	Belmont, Calif.	1868	Sister Catherine Julie. .	D 1,647	129
Notre Dame.	St. Louis, Mo.	1954	Mother M. Francis. . . .	D 338	36
Notre Dame. (T) (W)	Manchester, N. H. . . .	1950	Sister Jeannette.	D 375	33
Notre Dame.	Cleveland, Ohio.	1932	Sister Mary Luke	D 573	40
Notre Dame of Maryland (W)	Baltimore, Md.	1871	Sister M. Mary	D 1,242	65
Notre Dame Coll. of S. I.	Stanton Island, N. Y. . .	1931	Sister Rita Donahue. . .	D 499	37
Notre Dame Seminary.	New Orleans, La.	1923	Rev. Albert Ernst	D 133	20
Notre Dame, Univ. of.	Notre Dame, Ind.	1846	Rev. T. M. Hesburgh. . .	D 7,500	600
Nyack Missionary	Nyack, N. Y.	1882	Harold W. Boon.	D 560	52
Oakland City.	Oakland City, Ind. . . .	1885	Carl E. Shepard.	D 600	33

(a) Included with staff of Univ. of Buffalo.

Name	Location	Yr.	Governing Official and Control	Students	Teachers	
Oberlin	Oberlin, Ohio	1833	Robert K. Carr	P	2,492	245
Occidental	Los Angeles, Calif.	1887	Richard C. Gilman	P	1,714	117
Oglethorpe	(T) Atlanta, Ga.	1835	Paul K. Vonk	P	898	53
Ohio Dominican	(T) Columbus, Ohio	1911	Sister M. Suzanne	D	997	77
Ohio Coll. of Podiatry	(T) Cleveland, Ohio	1916	M. M. Pomerantz	P	289	65
Ohio Northern Univ.	(T) Ada, Ohio	1871	Samuel L. Meyer	D	2,660	166
Ohio State Univ.*	(T) (Med) Columbus, Ohio	1870	Novice G. Fawcett	S	38,300	3,971
Ohio Univ.	(T) Athens, Ohio	1804	Vernon R. Alden	S	13,581	1,169
Ohio Wesleyan Univ.	(T) Delaware, Ohio	1842	<i>Vacant</i>	D	2,450	160
Oklahoma Baptist Univ.	(T) Shawnee, Okla.	1910	Grady C. Cothen	D	1,325	96
Oklahoma Christian	(T) Oklahoma City, Okla.	1950	James O. Baird	P	905	45
Oklahoma City Univ.	(T) Oklahoma City, Okla.	1904	John F. Olson	D	2,458	110
Okla. Coll. of Liberal Arts	(T) (W) Chickasha, Okla.	1908	Robert Martin	S	910	61
Oklahoma State Univ.*	(T) Stillwater, Okla.	1890	Robert B. Kamm	S	18,282	918
Oklahoma, Univ. of	(T) (Med) Norman, Okla.	1890	George L. Cross	S	17,787	618
Old Dominion	(T) Norfolk, Va.	1930	Lewis W. Webb, Jr.	P	8,266	439
Olivet	(T) Olivet, Mich.	1844	Gorton Riethmiller	P	730	52
Olivet Nazarene	(T) Kankakee, Ill.	1907	Harold W. Reed	D	1,803	95
Oregon State Univ.*	(T) Corvallis, Ore.	1868	James H. Jensen	S	12,150	950
Oregon Technical	(T) Klamath Falls, Ore.	1947	W. D. Purvine	S	1,050	105
Oregon, Univ. of	(Med) Eugene, Ore.	1872	Arthur S. Fleminning	S	12,800	1,400
Osteop. Med. & Surg., Coll. of	(T) Des Moines, Iowa	1898	T. F. Vigorito (Dn.)	P	307	31
Otis Art Institute of L. A. County	(T) Los Angeles, Calif.	1918	A. S. Andersen (Dir.)	C	303	26
Ottawa Univ.	(T) Ottawa, Kan.	1865	Peter H. Armacost	D	974	60
Otterbein	(T) Westerville, Ohio	1847	Lynn W. Turner	D	1,416	104
Ouachita Baptist Univ.	(T) Arkadelphia, Ark.	1885	Ralph Phelps, Jr.	D	1,561	106
Our Lady of Cincinnati	(W) Cincinnati, Ohio	1935	Sls. M. Honora Kroger	D	1,062	75
Our Lady of the Elms, Coll. of	(W) Chicopee, Mass.	1928	V. Rev. T. F. Devine	D	636	53
Our Lady of the Lake	(T) (W) San Antonio, Tex.	1911	John L. McMahon	D	1,431	139
Ozark Bible	(T) Clarksville, Ark.	1947	Don E. Boatman	D	591	42
Ozarks, Coll. of the	(T) Clarksville, Ark.	1834	Don Davis	D	587	40
Ozarks, School of the	(T) Pt. Lookout, Mo.	1906	M. Graham Clark	D	752	40
Pace	(T) New York, N. Y.	1906	Edward J. Mortola	P	8,700	474
Pacific	(T) Fresno, Calif.	1944	Arthur J. Wiebe	D	343	31
Pacific Christian	(T) Long Beach, Calif.	1928	Kenneth A. Stewart	D	150	19
Pacific Lutheran Univ.	(T) Tacoma, Wash.	1890	Robert Mortvedt	D	2,739	130
Pacific School of Religion	(T) Berkeley, Calif.	1866	Stuart L. Anderson	I	170	17
Pacific Union	(T) Angwin, Calif.	1882	F. O. Rittenhouse	D	1,467	126
Pacific Univ.	(T) Forest Grove, Ore.	1849	Miller A. F. Riehl	P	1,035	74
Pacific, Univ. of the	(T) Stockton, Calif.	1851	Robert E. Burns	D	8,770	335
Paine	(T) Augusta, Ga.	1883	E. Clayton Calhoun	D	653	40
Pan American	(T) Elmhurst, Tex.	1927	Ralph Schilling	C	3,267	134
Panhandle State	(T) Goodwell, Okla.	1909	J. Freeman McKee	S	1,167	65
Park	(T) Parkville, Mo.	1875	Donald MacKenzie	D	553	65
Parsons	(T) Fairfield, Iowa	1875	W. E. Stamper (Act.)	P	2,110	97
Parsons Sch. of Design	(T) New York, N. Y.	1909	Francis A. Ruzicka	P	580	102
Pasadena	(T) Pasadena, Calif.	1902	W. S. Brown	D	1,200	60
Pasadena Playhouse Coll. of Theatre Arts	(T) Pasadena, Calif.	1926	Winston O'Keefe	D	175	25
Paterson State	(T) Wayne, N. J.	1855	James J. Forcina	S	6,149	282
Paul Quinn	(T) Waco, Tex.	1872	L. H. McCloney	D	510	40
Peabody Cons. of Music	(T) Baltimore, Md.	1868	John M. Nelson	P	471	77
Pembroke State	(T) Pembroke, N. C.	1887	English E. Jones	P	1,458	97
PMC Colleges	(T) Chester, Pa.	1821	Clarence M. McCall	P	1,538	203
Penna. Coll. of Optometry	(T) Philadelphia, Pa.	1919	Lawrence Fitch	P	1,358	46
Penna. S. Univ.*	(T) (Med) University Park, Pa.	1855	Eric A. Walker	S, P	41,608	2,200
Penna., Univ. of	(T) (Med) Philadelphia, Pa.	1740	Gaylord P. Harnwell	P	18,173	1,223
Pepperdine	(T) Los Angeles, Calif.	1937	M. Norvel Young	P	1,521	250
Peru State	(T) Peru, Neb.	1867	Neal S. Gomon	S	1,076	55
Pestalozzi-Froebel Teachers	(T) Chicago, Ill.	1896	Daniel D. Howard	P	380	25
Pfeiffer	(T) Misenheimer, N. C.	1885	J. Lem Stokes, 2nd	D	906	80
Phila. Coll. of Art	(T) Philadelphia, Pa.	1876	George D. Culler	P	1,396	189
Phila. Coll. of Bible	(T) Philadelphia, Pa.	1913	D. B. MacCorkle	P	994	58
Phila. Coll. of Osteopathy	(T) Philadelphia, Pa.	1899	Frederick H. Barth	P	379	165
Phila. Coll. of Pharm. & Science	(T) Philadelphia, Pa.	1821	Arthur Osol	P	872	92
Phila. Coll. of Textiles & Sc.	(T) Philadelphia, Pa.	1887	Bertrand W. Hayward	P	1,166	105
Phillander Smith	(T) Little Rock, Ark.	1877	Ernest T. Dixon, Jr.	D	663	47
Phillips Univ.	(T) Enid, Okla.	1906	Hallie G. Gantz	D	1,401	105
Piedmont Bible	(T) Winston-Salem, N. C.	1945	Charles H. Stevens	P	528	17
Piedmont	(T) Denorest, Ga.	1897	James E. Walter	P	418	27
Pikeville	(T) Pikeville, Ky.	1889	Thomas Johns	D	1,183	45
Pittsburgh Theological Sem.	(T) Pittsburgh, Pa.	1794	Donald G. Miller	D	288	31
Pittsburgh, Un. of	(T) (Med) Pittsburgh, Pa.	1787	Wesley W. Posvar	P	23,168	1,601
Pitzer	(T) Claremont, Calif.	1963	John W. Atherton	P	515	62
Plymouth State	(T) Plymouth, N. H.	1871	Harold E. Hyde	S	1,869	163
Point Park	(T) Pittsburgh, Pa.	1960	Arthur M. Blum	P	3,018	157
Polytechnic Inst. of Brooklyn	(T) Brooklyn, N. Y.	1854	Ernest Weber	P	5,633	353
Pomona	(T) Claremont, Calif.	1887	Ellijah Wilson Lyon	P	1,273	117
Portland State	(T) Portland, Ore.	1955	Brannon J. Miller	S	3,404	564
Portland, Univ. of	(T) Portland, Ore.	1901	Rev. P. E. Waldschmidt	D	1,870	130
Pratt Institute	(T) Brooklyn, N. Y.	1887	James B. Donovan	P	1,415	475
Presbyterian	(T) Clinton, S. C.	1880	Marc C. Weersing	D	618	49
Princeton Theol. Sem.	(T) Princeton, N. J.	1812	James I. McCord	D	552	47
Princeton Univ.	(T) Princeton, N. J.	1746	Robert F. Goheen	P	4,675	854
Principia	(T) Elshah, Ill.	1898	David K. Andrews	P	662	64
Providence College	(T) Providence, R. I.	1917	V. Rev. W. P. Haas	D	3,357	192
Puerto Rico, Univ. of*	(T) (Med) Rio Piedras, P. R.	1903	Jaime Benitez	(a)	28,499	2,226
Puerto Rico, Inter. Am. Univ. of	(T) San German, P. R.	1912	Raymond B. Hoxeng	P	7,425	571
Puget Sound, Univ. of	(T) Tacoma, Wash.	1888	R. Franklin Thompson	D	2,371	159
Purdue Univ.*	(T) Lafayette, Ind.	1869	Frederick L. Hovde	S	37,498	2,133
Queens	(T) Charlotte, N. C.	1857	John Smylie	D	1,759	78
Quincy	(T) Quincy, Ill.	1899	Rev. G. Brinkman	D	577	77
Quinnipiac	(T) Hamden, Conn.	1929	Nils G. Sahlin	P	2,116	147
Ranb. Coll. of Teishe	(T) Wickliffe, Ohio	1875	Rabbi M. Gifter	P	242	7
Radcliffe	(T) Cambridge, Mass.	1879	Mary L. Bunting	P	1,206	(b)
Radford	(T) Radford, Va.	1910	Charles K. Martin	S	3,600	202
Randolph-Macon	(T) Ashland, Va.	1830	Luther W. White	D	845	62
Randolph-Macon Woman's	(T) Lynchburg, Va.	1891	William F. Quillian, Jr.	D	864	84
Redlands, Univ. of	(T) Redlands, Calif.	1909	George H. Armacost	D	1,716	131
Reed	(T) Portland, Ore.	1909	Richard H. Sullivan	P	1,983	118
Regis	(T) Denver, Colo.	1877	Rev. L. G. Mattione	D	673	78
Regis	(T) Weston, Mass.	1927	Sister M. Jeanne D'Arc	D	1,189	160

(a) Controlled by Puerto Rican Govt. (b) Faculty at Harvard Univ. furnishes instruction.

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Rensselaer Poly. Inst.	Troy, N. Y.	1824	Richard G. Folsom	P 6,496	617
Rhode Island (T)	Providence, R. I.	1854	Joseph Kauffman	S 4,400	220
R. I. School of Design	Providence, R. I.	1877	Albert Bush-Brown	S 1,004	108
Rhode Island, Univ. of	Kingston, R. I.	1892	Werner Baum	S 6,918	600
Rice Univ.	Houston, Tex.	1912	Kenneth S. Pitzer	S 2,767	342
Richmond Prof. Inst. (T)	Richmond, Va.	1930	<i>Vacant</i>	S 9,253	570
Richmond, Univ. of	Richmond, Va.	1830	George M. Modlin	D 4,104	290
Ricker (T)	Houlton, Me.	1848	C. Worth Howard	D 553	38
Rider (T)	Trenton, N. J.	1865	Franklin F. Moore	P 5,184	269
Rio Grande (T)	Rio Grande, Ohio	1876	Alphus R. Christensen	I 774	42
Ripon (W)	Ripon, Wis.	1851	Bernard S. Adams	P 950	91
Rivier (W)	Nashua, N. H.	1933	Sister Clarice Dion	P 830	58
Roanoke	Salem, Va.	1842	Perry F. Kendig	P 1,233	84
Roberts Wesleyan	North Chili, N. Y.	1866	Ellwood A. Voiler	D 674	57
Rochester Inst. of Technology	Rochester, N. Y.	1829	Mark Ellingson	P 8,528	691
Rochester, Univ. of (T) (Med)	Rochester, N. Y.	1850	W. Allen Wallis	P 8,400	1,673
Rocketteller Univ.	New York, N. Y.	1884	Frederick Seltz	P 138	258
Rockford (T)	Rockford, Ill.	1847	John A. Howard	P 1,137	93
Rockhurst (T)	Kansas City, Mo.	1910	Rev. M. E. Van Ackeren	D 2,117	137
Rocky Mountain	Billings, Mont.	1883	Lawrence F. Small	D 445	16
Rollins (W)	Winter Park, Fla.	1885	Hugh F. McKean	P 1,050	95
Roosevelt Univ.	Chicago, Ill.	1945	Rolf A. Weil	P 6,292	332
Rosary (W)	River Forest, Ill.	1901	Sister Candida Lund	D 1,253	109
Rosary Hill (W)	Buffalo, N. Y.	1948	Sister M. Angela	D 1,345	112
Rose Polytechnic Inst.	Terre Haute, Ind.	1884	John A. Logan	P 809	60
Rosemont (W)	Rosemont, Pa.	1921	Sister Mary George	D 690	88
Russell Sage (T) (W)	New York, N. Y.	1916	Lewis A. Groman	P 3,600	88
Rust	Holly Springs, Miss.	1866	W. McMillan	D 506	31
Rutgers, Univ.* (T) (Med)	New Brunswick, N. J.	1766	Mason W. Gross	S 25,882	2,009
Sacramento State (T)	Sacramento, Calif.	1947	Robert Johns	S 12,000	600
Sacred Heart (T)	Wichita, Kan.	1933	Sister M. Sylvia	D 728	51
Sacred Heart, Coll. of the (W)	Santurce, P. R.	1935	Sis. E. M. O'Byrne (Act.)	D 518	53
Sacred Heart Dominican (W)	Houston, Tex.	1945	Toney P. Brown	D 338	60
Sacred Heart Seminary (M)	Detroit, Mich.	1919	Rt. Rev. F. X. Canfield	D 200	26
Sacred Heart Univ. (T)	Bridgeport, Conn.	1963	William H. Conley	D 1,900	120
St. Ambrose (T)	Davenport, Iowa	1882	Rev. S. G. Menke	D 1,458	88
St. Andrews Presbyterian	Laurinburg, N. C.	1858	Ansley C. Moore	D 406	79
St. Anselm's (W)	Manchester, N. H.	1880	Gerald P. McCarthy	D 2,395	105
St. Benedict (T)	Ferdinand, Ind.	1914	Sis. M. D. Wilson	D 287	26
St. Benedict, Coll. of (T) (W)	St. Joseph, Minn.	1913	Sister M. Grel	D 571	55
St. Benedict's (M)	Atchison, Kan.	1858	Rev. T. Hartmann (Chan.)	D 1,008	63
St. Bernard	St. Bernard, Ala.	1892	Rev. Gregory Roettger	D 735	55
St. Bonaventure Univ. (T)	St. Bonaventure, N. Y.	1856	V. Rev. R. A. Redlon	D 2,439	215
St. Catherine, Coll. of (W)	St. Paul, Minn.	1905	Sister Fides Huber	D 1,316	128
St. Cloud State (T)	St. Cloud, Minn.	1869	Robert H. Wick	S 8,140	421
St. Dominic (T)	St. Charles, Mo.	1963	Sister Marie Arana	D 338	38
St. Edward's Univ. (W)	Austin, Tex.	1885	Bro. Raymond Fleck	D 865	70
St. Elizabeth, Coll. of	Convent Station, N. J.	1899	Sis. H. M. Mahoney	D 979	101
St. Francis (T) (M)	Fort Wayne, Ind.	1890	Sister M. Rosanna	D 1,805	97
St. Francis (T) (M)	Brooklyn, N. Y.	1884	Bro. Urban Gonnoud	D 2,221	106
St. Francis (T)	Loretto, Pa.	1847	Rev. V. R. Negherbon	D 1,680	107
St. Francis (W)	Joliet, Ill.	1930	Sister Anita Marie	D 994	85
St. Francis Seminary	Milwaukee, Wis.	1856	Rt. Rev. W. N. Schult	D 252	25
St. John Coll. of Cleveland (T) (W)	Cleveland, Ohio	1928	Rt. Rev. L. P. Cahill	D 1,082	94
St. John Fisher (M)	Rochester, N. Y.	1951	V. Rev. C. J. Lavery	D 1,177	83
St. John's	Annapolis, Md.	1747	Richard D. Weigle	P 162	15
St. John's Prov. Seminary	Pliny, Mich.	1949	V. Rev. E. Van Antwerp	D 162	15
St. John's Univ. (M)	Collegeville, Minn.	1856	Rt. Rev. B. Dwarchak	D 1,481	125
St. John's Univ. (W)	Jamaica, N. Y.	1870	V. Rev. Joseph T. Cahill	D 11,419	620
St. Joseph (W)	W. Hartford, Conn.	1932	Sister M. Theodore	D 901	90
St. Joseph (W)	Emmitsburg, Md.	1809	Sister Margaret	D 645	75
St. Joseph's (W)	Rensselaer, Ind.	1889	Rev. Charles Banet	D 2,400	150
St. Joseph's (W)	North Windham, Me.	1915	Sis. Mary De La Salle	D 216	30
St. Joseph's	Philadelphia, Pa.	1851	V. Rev. W. F. Maloney	D 6,377	299
St. Joseph's Coll. of Orange (W)	Orange, Calif.	1959	Mother M. Felix	D 795	21
St. Joseph's Coll. for Women (W)	Brooklyn, N. Y.	1916	Sister Vincent Therese	D 700	70
St. Lawrence Univ.	St. Charles, Mo.	1856	Foster S. Brown	P 1,987	145
St. Leo	St. Leo, Fla.	1963	Rev. Stephen Herrmann	D 1,200	90
St. Louis Coll. of Pharmacy	St. Louis, Mo.	1864	Charles C. Rabe	P 393	23
St. Louis Inst. of Music	St. Louis, Mo.	1924	John P. Blake, Jr.	P 850	65
St. Louis Univ. (Med)	St. Louis, Mo.	1818	V. Rev. Paul Rehnert	D 10,961	1,619
Parks Coll (M)	E. St. Louis, Ill.	1927	L. F. Seltzer (Dn.)	D 650	47
St. Martin's (T)	Olympia, Wash.	1895	Rt. Rev. Michael Feeney	D 652	69
St. Mary, Coll. of (W)	Omaha, Nebr	1923	Sister Mary Patricia	D 657	63
St. Mary (W)	Xavier, Kan.	1923	Sister Mary Janet	D 604	51
St. Mary of the Plains (T)	Dodge City, Kan.	1952	Sister M. Cecilia Bush	D 756	59
St. Mary-of-the-Woods (T) (W)	St. Mary-of-the-Woods, Ind.	1840	Sister Mary Perpetua	D 631	74
St. Mary's (T)	Notre Dame, Ind.	1844	Rev. John McGrath	D 1,395	127
St. Mary's (M)	Winona, Minn.	1912	Brother Gregory	D 1,100	92
St. Mary's Coll. of Calif. (T) (M)	St. Mary's Coll., Calif.	1863	Bro. Michael Quinn	D 900	88
St. Mary's Dominican (T) (W)	New Orleans, La.	1910	Sister Mary Ursula	D 560	52
St. Mary's Semin. & Univ. (M)	Baltimore, Md.	1791	Rev. Paul Purta	D 726	57
St. Mary's Univ.	San Antonio, Tex.	1852	Rev. L. J. Blume	D 3,742	140
St. Meinrad's (M)	St. Meinrad, Ind.	1861	V. Rev. H. Ottensmeyer	D 274	34
St. Michael's (M)	Winoski, Vt.	1903	V. Rev. G. E. Dupont	D 923	92
St. Norbert	Wausau, De Pere, Wis.	1859	W. De M. Burke	D 1,532	120
St. Olaf (T)	Northfield, Minn.	1874	Sidney A. Rand	D 2,536	180
St. Patrick's (M)	Menlo Park, Calif.	1898	Rev. A. C. Gagliotti	D 163	32
St. Paul Bible	St. Paul, Minn.	1916	Rev. Harry T. Hardwick	D 394	30
St. Paul Schl. of Theol.-Meth.	Kansas City, Mo.	1958	Dn. W. Holter	D 163	20
St. Paul's (T)	Lawrenceville, Va.	1888	Earl H. McClenney	D 520	43
St. Peter's	Jersey City, N. J.	1872	V. Rev. V. R. Yanitelli	D 3,959	298
St. Procopius (T)	Lisle, Ill.	1887	Rev. R. S. Gallardo	D 751	72
St. Rose, Coll. of (T) (W)	Albany, N. Y.	1920	Sister Clarence Paul	D 1,318	100
St. Scholastica, Coll. of (T) (W)	Duluth, Minn.	1912	Sister Mary Richard	D 583	70
St. Teresa, Coll. of	Winona, Minn.	1907	Sister M. Camille Bow	D 1,341	132
St. Thomas, Coll. of (M)	St. Paul, Minn.	1855	Magr. Terrence Murphy	D 2,144	129
St. Thomas Theolog. Semin. (M)	Denver, Colo.	1906	Rev. H. B. Persich	D 209	36
St. Thomas, Univ. of	Houston, Tex.	1947	Rev. William Young	D 899	75
St. Vincent (M)	Latrobe, Pa.	1846	Rev. M. J. Brennan	D 1,031	88
St. Xavier (T) (W)	Chicago, Ill.	1847	Sister Mary Olivia	D 984	111
Salem (W)	Winston-Salem, N. C.	1772	Dale H. Gramley	D 574	69

Name	Location	Yr.	Governing Official and Control	Stu- dents	Teach- ers
Salem.....(T)	Salem, W. Va.....	1888	K. Duane Hurley.....	D 1,549	87
Salisbury State.....(T)	Salisbury, Md.....	1825	Albur Devliss.....	S 821	32
Salisbury Regins.....(W)	Newport, R. I.....	1947	Sister Mary Emily.....	D 836	81
Sam Houston State.....(T)	Huntsville, Tex.....	1879	A. B. Templeton.....	S 6,795	354
Samford Univ.....	Birmingham, Ala.....	1842	Leslie S. Wright.....	D 2,669	162
San Diego College for Women.....(T)(W)	San Diego, Calif.....	1949	Mother Nancy Morris.....	D 630	62
San Diego State.....(T)	San Diego, Calif.....	1897	Malcolm A. Love.....	S 20,087	1,400
San Diego, Univ. of.....(T)	San Diego, Calif.....	1949	V. Rev. J. E. Baer.....	D 575	83
San Fernando Valley St.....	Northridge, Calif.....	1948	Ralph Prator.....	S 15,995	650
San Fran. Coll. for Women(T)(W)	San Francisco, Calif.....	1921	Sister Gertrude Patch.....	D 676	67
San Francisco State.....(T)	San Francisco, Calif.....	1899	Robert R. Smith.....	S 18,500	1,400
San Francisco Theol. Sem.....	San Anselmo, Calif.....	1871	Rev. A. B. Come.....	D 230	39
San Francisco, Univ. of.....(T)	San Francisco, Calif.....	1855	Rev. C. W. Dulles.....	D 6,259	382
San Jose State.....(T)	San Jose, Calif.....	1857	Robert D. Clark.....	S 22,364	1,400
Santa Clara, Univ. of.....(T)	Santa Clara, Calif.....	1851	Thomas Terry.....	D 6,114	296
Santa Fe, Coll. of.....(T)	Santa Fe, N. M.....	1947	Bro. Cyprilan Luke.....	D 1,226	65
Sarah Lawrence.....(W)	Bronxville, N. Y.....	1928	Esther Rauschenbush.....	P 572	104
Savannah State.....	Savannah, Ga.....	1890	Howard Jordan, Jr.....	S 1,652	85
Scarritt Coll. for Christian Workers.....	Nashville, Tenn.....	1892	D. Dillon Holt.....	D 149	18
Seranton, Univ. of.....(T)	Seranton, Pa.....	1888	V. Rev. A. C. Galvin.....	D 2,188	129
Scrrips.....(W)	Claremont, Calif.....	1926	Mark H. Curtis.....	P 465	56
Seattle Pacific.....(T)	Seattle, Wash.....	1891	David L. McKenna.....	D 1,919	120
Seattle Univ.....(T)	Seattle, Wash.....	1891	Rev. John A. Fitterer.....	D 3,400	302
Seneca (see Hobart & Wm. Smith)					
Seon Hall Univ.....(T)	So. Orange, N. J.....	1856	M. Rev. J. J. Dougherty.....	D 8,800	509
Seton Hill.....(T)(W)	Greensburg, Pa.....	1887	Rev. William G. Ryan.....	P 934	70
Shaw Univ.....	Raleigh, N. C.....	1887	James E. Creek.....	D 1,056	70
Shenandoah Cong. of Music.....	Winchester, Va.....	1875	Forrest S. Racey.....	D 516	54
Shepherd.....(T)	Shepherdstown, W. Va.....	1871	Oliver S. Ikenberry.....	S 1,396	80
Shiner.....	Mt. Carroll, Ill.....	1853	F. Joseph Mullin.....	P 467	47
Shippensburg State.....(T)	Shippensburg, Pa.....	1871	Ralph E. Heffes.....	S 3,965	225
Shorter.....	Rome, Ga.....	1873	Randall H. Minor.....	D 750	55
Siena.....(T)(W)	Loudonville, N. Y.....	1937	Rev. Brian Duffy.....	D 1,843	121
Siena Heights.....	Memphis, Tenn.....	1922	Sister Agatha Dutton.....	P 310	34
Sims.....(T)(W)	Adrian, Mich.....	1919	Sister M. Petronilla.....	D 889	68
Simmons.....	Boston, Mass.....	1899	William E. Park.....	P 2,147	268
Slipson Bible.....	San Francisco, Calif.....	1921	Rev. J. C. Wenninger.....	D 904	73
Slipson.....	Indianola, Iowa.....	1866	Ralph C. John.....	D 904	73
Sloux Falls.....	Sioux Falls, S. Dak.....	1883	Reuben P. Jeschke.....	D 1,052	52
Skidmore.....(W)	Saratoga Spgs., N. Y.....	1911	Joseph C. Palamountain.....	P 1,568	163
Slippery Rock State.....	Slippery Rock, Pa.....	1889	Robert S. Carter.....	S 4,100	280
Smith.....(W)	Northampton, Mass.....	1871	Thomas C. Mendenhall.....	P 2,627	240
Sonoma State.....(T)	Robert Pk., Calif.....	1960	Ambrose R. Nichols.....	S 2,122	120
South Alabama, Univ. of.....(T)	Mobile, Ala.....	1964	Federick P. Whiddon.....	S 3,092	213
So. Carolina, Med. Coll. of.....	Charleston, S. C.....	1823	William M. McCord.....	S 867	349
South Carolina St.*.....(T)	Orangeburg, S. C.....	1896	M. M. Nance.....	S 1,452	113
South Carolina, Univ. of.....	Columbia, S. C.....	1801	Thomas F. Jones.....	S 15,023	600
S. Dak. Sch. of Mines & Tech.....	Rapid City, S. Dak.....	1885	Harvey R. Fraser.....	S 1,380	120
S. Dak. St. Univ.*.....	Brookings, S. Dak.....	1889	H. M. Briggs.....	S 5,213	317
South Dakota, Univ. of(T)(Med)	Vermillion, S. Dak.....	1882	Edward C. Moulton.....	S 4,600	310
South-Eastern Bible.....(T)	Lakeland, Fla.....	1936	Arthur Graves.....	D 515	19
South Florida, Univ. of.....(T)	Tampa, Fla.....	1956	John S. Allen.....	S 10,848	530
South, Univ. of the.....	Sewanee, Tenn.....	1858	Edward McCrady.....	D 800	68
Southeast Missouri State.....	Cape Girardeau, Mo.....	1873	Mark Scully.....	D 5,800	288
Southeastern Bapt. Theol. Sem.....	Wake Forest, N. C.....	1951	O. T. Binkley.....	D 446	27
Southeastern Louisiana.....	Hammond, La.....	1925	Clea E. Parker.....	S 4,992	327
Southeastern Mass. Tech. Inst.....	No. Dartmouth, Mass.....	1895	Joseph L. Driscoll.....	S 3,300	264
Southeastern State.....	Durant, Okla.....	1909	Leon Hibbs.....	S 1,985	105
Southern California.....	Costa Mesa, Calif.....	1920	O. Cope Budge.....	D 478	33
Southern Calif., Univ. of(T)(Med)	Los Angeles, Calif.....	1880	Norman Topping.....	P 17,500	1,900
Southern Coll. of Optometry.....	Memphis, Tenn.....	1932	Spurgeon B. Eure.....	P 280	20
Southern Colorado St.....(T)	Pueblo, Colo.....	1933	J. Victor Hopper.....	S 6,900	223
Southern Conn. State.....	New Haven, Conn.....	1869	John C. Bailey.....	S 8,976	435
Southern Illinois Univ.....	Carbondale, Ill.....	1889	Delyte W. Morris.....	S 26,061	2,824
Southern Methodist Univ.....	Dallas, Tex.....	1911	Willis M. Tate.....	D 8,010	450
Southern Missionary.....	Collegedale, Tenn.....	1892	W. M. Schneider.....	D 1,100	110
Southern Mississippi, Univ. of(T)	Hattiesburg, Miss.....	1910	William D. McCain.....	S 7,000	350
Southern Oregon.....	Ashland, Ore.....	1926	Elmo N. Stevenson.....	S 3,500	220
Southern State.....	Magnolia, Ark.....	1909	Allen E. Bruce.....	S 2,273	109
Southern State.....(T)	Springfield, S. Dak.....	1897	Ilion Millar.....	S 923	74
Southern Univ. & A. M. Coll.*.....	Baton Rouge, La.....	1880	Felton G. Clark.....	S 7,250	399
Southern Utah, Coll. of.....	Cedar City, Utah.....	1897	R. C. Bralithwaite.....	S 1,660	95
Southwest Baptist.....	Bolivar, Mo.....	1878	Courts Redford.....	D 1,167	64
Southwest Coll. of the.....	Hobbs, N. M.....	1906	J. L. Burke, Jr.....	P 14	22
Southwest Missouri State.....(T)	Springfield, Mo.....	1906	Alfred J. Malloy.....	S 6,200	300
Southwest Texas State.....	San Marcos, Tex.....	1899	James H. McCrocklin.....	S 7,075	440
Southwestern College.....	Winhold, Kan.....	1885	C. Orville Strohl.....	D 644	58
Southwestern La. Univ. of.....(T)	Lafayette, La.....	1901	Clyde Rougeau.....	S 8,409	490
Southwestern at Memphis.....	Memphis, Tenn.....	1848	John D. Alexander.....	D 1,010	115
Southwestern State.....(T)	Weatherford, Okla.....	1901	Al Harris.....	S 4,500	180
Southwestern Univ.....	Los Angeles, Calif.....	1913	Miriam Schumacher.....	P 1,152	49
Southwestern Univ.....	Georgetown, Tex.....	1840	Durwood Fleming.....	D 781	69
Spelman.....(W)	Atlanta, Ga.....	1881	Albert E. Manley.....	D 821	90
Spring Arbor.....(T)	Spring Arbor, Mich.....	1873	David McKenna.....	D 580	45
Spring Hill.....	Mobile, Ala.....	1830	V. Rev. W. J. Rimes.....	D 1,100	110
Springfield.....	Springfield, Mass.....	1885	Wilbert Locklin.....	P 1,071	51
Stanford Univ.....(T)(Med)	Stanford, Calif.....	1891	J. E. Wallace Sterling.....	P 10,922	1,232
Stanislaus State.....(T)	San Jose, Calif.....	1957	Alex. Maur Capurso.....	S 9,064	38
Stephen F. Austin State.....	Nacogdoches, Tex.....	1923	Ralph W. Steen.....	S 7,458	360
Stephens.....(W)	Columbia, Mo.....	1833	Seymour Smith.....	P 1,808	225
Stetson Univ.....	De Land, Fla.....	1883	Paul Green.....	D 2,172	165
Steuenville, Coll. of.....	Steuenville, Ohio.....	1946	Rev. C. J. Devlin.....	P 1,145	85
Stevens Inst. of Tech.....(M)	Hoboken, N. J.....	1870	Jess H. Davis.....	P 2,703	190
Stillman.....	Tuscaloosa, Ala.....	1876	Harold N. Stinson.....	D 612	58
Stirling.....	Stirling, Kansas.....	1887	William McCreery.....	D 592	36
Stonehill.....	No. Easton, Mass.....	1948	Rev. John T. Corr.....	D 1,214	74
Stout State Univ.....(T)	Menomonie, Wis.....	1893	William J. Michaels.....	S 3,957	295
Suffolk Univ.....	Boston, Mass.....	1906	John E. Fenton.....	P 3,571	141
Sul Ross State.....(T)	Alpine, Tex.....	1919	Norman L. McNeil.....	S 1,940	119
Susquehanna Univ.....	Selinsgrove, Pa.....	1858	Gustave W. Weber.....	D 1,840	99
Swarthmore.....	Swarthmore, Pa.....	1887	Gurtey C. Smith.....	P 998	137
Sweet Briar.....(W)	Sweet Briar, Va.....	1901	Anne G. Pannell.....	P 718	75

Name	Location	Yr.	Governing Of. and Control	Students	Teachers
Syracuse Univ. (T)	Syracuse, N. Y.	1870	William Tolley (Chan.)	P 22,866	1,208
Tabor	Hillsboro, Kan.	1908	Roy Just.	D 391	48
Talladega	Talladega, Ala.	1867	Herman B. Long.	D 48	48
Tampa, Univ. of. (T)	Tampa, Fla.	1931	David M. Delo.	P 2,143	91
Tarkio	Tarkio, Mo.	1883	William H. Schechter.	D 6	47
Taylor Univ. (T)	Upland, Ind.	1846	Milo Rediger.	P 1,217	77
Temple Univ. (T) (Med)	Philadelphia, Pa.	1884	Paul R. Anderson.	P 34,018	1,670
Temple Buell	Denver, Colo.	1888	Eugene E. Dawson.	D 1,100	91
Tenn. Ag. & Inst. St. Univ.* ..	Nashville, Tenn.	1912	Walter S. Davis.	S 4,750	285
Tennessee Tech. Univ. (T)	Kooville, Tenn.	1915	Everett Derryberry.	S 5,700	320
Tennessee Temple	Chattanooga, Tenn.	1913	Lee Roberson.	D 884	49
Tennessee, Univ. of* .. (Med)	Knoxville, Tenn.	1794	Andrew D. C.	S 2,689	49
Tennessee Wesleyan	Athens, Tenn.	1857	Charles Turner.	D 850	45
Tex. A. & M. Univ. (T)	College Station, Tex.	1876	Earl Rudder.	S 10,918	575
Prairie View A. & M. (T)	Prairie View, Tex.	1876	Alvin Thomas.	S 3,948	187
Tarleton State	Stephenville, Tex.	1899	William O. Trogden.	S 2,079	109
Texas Christian Univ. (T)	Fort Worth, Tex.	1873	J. M. Moody (Chan.)	D 6,078	564
Texas	Tyler, Tex.	1894	Allen C. Hancock.	D 458	30
Texas A. & I. Univ. (T)	Kingsville, Tex.	1925	James C. Jernigan.	S 5,332	265
Texas Lutheran	Seagoville, Tex.	1891	Martin L. Cole.	D 780	53
Texas Southern Univ. (T)	Houston, Tex.	1947	Vacant.	S 4,076	225
Texas, Univ. of. (T)	Austin, Tex.	1883	Harry R. Ransom (Ch.)	S 52,635	5,323
At Arlington	Arlington, Tex.	1895	J. R. Woolf.	S 11,873	450
At Austin	Austin, Tex.	1883	Norman Hackerman.	S 29,841	2,183
At Houston	Houston, Tex.	1905	J. V. Olson (Dean).	S 517	234
Medical Branch	Galveston, Tex.	1891	Truman G. Blocker, Jr.	S 865	424
Southwestern Medical Sch.	Dallas, Tex.	1943	C. C. Sprague (Dean)	S 469	1,229
At El Paso	El Paso, Tex.	1913	Vacant.	S 9,029	357
Texas Technological	Lubbock, Tex.	1923	Grover Murray.	S 18,080	1,213
Texas Wesleyan	Fort Worth, Tex.	1891	William Pearce.	D 1,999	87
Texas Woman's Univ. (W)	Denton, Tex.	1902	John A. Gulln.	S 4,949	332
Thiel	Greenville, Pa.	1868	Chauncey C. Biv.	D 1,300	92
Thomas	Waterville, Maine.	1894	John L. Thomas, Jr.	P 360	28
Thomas More	Ft. Mitchell, Ky.	1921	Msgr. John Murphy.	D 1,732	114
Tift	Forsyth, Ga.	1849	Carey T. Vinzant.	D 574	33
Toledo, Univ. of. (T)	Toledo, Ohio.	1872	William S. Carlson.	Mu 11,350	691
Tougaloo	Tougaloo, Miss.	1869	George A. Owens.	D 627	51
Towson State	Baltimore, Md.	1866	Earle T. Hawkins.	S 6,671	309
Transylvania	Lexington, Ky.	1780	Irvin E. Lunger.	P 824	68
Trenton State	Trenton, N. J.	1853	Robert Heussler.	S 8,691	459
Trevecca Nazarene	Nashville, Tenn.	1901	M. Breathouse.	D 601	39
Trinity	Hartford, Conn.	1823	Theodore Lockwood.	P 1,455	145
Trinity	Burlington, Vt.	1925	Sister Mary Patrick.	D 1,355	45
Trinity	Deerfield, Ill.	1897	Harry Evans.	D 583	51
Trinity Univ. (W)	San Antonio, Tex.	1869	James W. Laurie.	D 2,376	149
Trinity	Washington, D. C.	1897	Sis. Margaret.	D 995	111
Tri-State	Angola, Ind.	1884	Richard Bateman.	P 1,822	95
Troy State	Troy, Ala.	1887	Ralph W. Adams.	P 2,641	120
Tufts Univ. (Med)	Medford, Mass.	1852	Burton Hollowell.	P 6,022	688
Tulane Univ. (T) (Med)	New Orleans, La.	1834	H. E. Longenecker.	P 8,325	2,045
Newcomb	New Orleans, La.	1886	C. D. Hounshell (Dn.)	P 1,161	118
Tulsa, Univ. of. (W)	Tulsa, Okla.	1894	Charles L. Swearingen.	P 6,262	262
Tusculum	Greenville, Tenn.	1794	Rev. D. G. Trout.	P 458	45
Tuskegee Institute	Tuskegee Inst., Ala.	1881	Luther H. Foster.	P 2,980	342
Union	Barbourville, Ky.	1879	Maion A. Miller.	D 872	63
Union	Lincoln, Nebr.	1891	Ray W. Fowler.	D 1,208	108
Union	Schenectady, N. Y.	1795	Harold C. Martin.	P 2,617	212
Union Theol. Sem. (T)	New York, N. Y.	1836	Rev. J. C. Bennett.	I 662	94
Union Univ. (T)	Jackson, Tenn.	1825	Robert E. Craig.	D 780	60
U. S. Air Force Academy	Colorado Springs, Colo.	1955	Gen. T. S. Moorman	(Supt.)	
U. S. Coast Guard Academy (M)	New London, Conn.	1876	R. Adm. A. C. ...	F 3,028	466
U. S. Dept. of Agric. Grad. Sch.	Washington, D. C.	1921	John B. Holden (Dir.)	F 700	80
U. S. Merchant Marine Acad.	Kings Point, N. Y.	1938	R. Adm. G. McIntock.	F 6,800	300
U. S. Military Academy	West Point, N. Y.	1802	Maj. Gen. S. W. Koster	(Supt.)	
U. S. Naval Academy	Annapolis, Md.	1845	R. Adm. James Calvert	(Supt.)	
U. S. Naval Postgraduate Sch.	Monterey, Calif.	1909	R. Adm. R. W. McNitt	F 4,091	547
United Theol. Sem. (T)	Dayton, Ohio.	1871	John Knecht.	D 1,171	225
Upper Iowa	Fayette, Iowa.	1857	Eugene E. Carbee.	D 186	19
Upsala	E. Orange, N. J.	1893	Carl J. Ejdman.	D 1,018	84
Ursinus	Collegeville, Pa.	1869	Donald L. Helfferich.	D 1,809	109
Ursuline Coll. for Women. (W)	Cleveland, Ohio.	1874	Sis. Rose Angela.	P 1,814	124
Utah State Univ.*	Logan, Utah.	1888	Glen L. Taggart.	D 468	43
Utah, Univ. of. (T) (Med)	Salt Lake City, Utah.	1850	James C. Fletcher.	S 7,293	630
Valdosta State	Valdosta, Ga.	1906	S. Walter Martin.	S 17,485	2,100
Valley City State	Valley City, N. D.	1890	Roscoe L. Lokken.	S 2,322	127
Valparaiso Univ. (Med)	Valparaiso, Ind.	1859	Otto P. Kretzmann.	D 1,064	65
Vanderbilt Univ. (T)	Nashville, Tenn.	1873	Alexander Heard (Ch.)	P 4,363	282
Vassar	Poughkeepsie, N. Y.	1861	Alan Simpson.	P 5,176	205
Vermont, Univ. of* .. (T) (Med)	Burlington, Vt.	1791	Lyman S. Ewell.	S 6,281	246
Villa Maria	Erie, Pa.	1925	Sis. M. L. Antoun.	D 1,746	67
Villanova Univ. (T)	Villanova, Pa.	1842	Rev. R. J. Welsh.	D 6,182	440
Virginia Islands, Coll. of. (T)	St. Thomas, V. I.	1962	L. C. Wanlass.	T 609	109
Virginia, Medical Coll. of.	Richmond, Va.	1838	R. Blackwell Smith, Jr.	S 1,600	900
Virginia Military Institute. (M)	Lexington, Va.	1839	Gen. George R. E. Shell.	S 1,141	111
Virginia Poly. Inst.* .. (T)	Blacksburg, Va.	1872	T. Marshall Hahn, Jr.	S 8,610	843
Virginia Southern	Roanoke, Va.	1933	A. R. Kennett.	Pr 200	15
Virginia State*	Petersburg, Va.	1882	Robert P. Daniel.	S 1,650	221
Virginia Union, Univ. (T)	Richmond, Va.	1865	Thomas H. Henderson.	D 1,280	95
Virginia, Univ. of. (T) (Med)	Charlottesville, Va.	1819	Edgar F. Shannon, Jr.	S 8,457	867
Viterbo	La Crosse, Wis.	1931	Sister M. Justile.	D 600	56
Voorhees	Denmark, So. Car.	1897	John F. Potts.	D 510	34
Wabash	Crawfordsville, Ind.	1832	Paul W. Cook, Jr.	P 860	87
Wagner	Staten Island, N. Y.	1883	Arthur O. Davidson.	D 2,674	175
Wake Forest Univ. (T) (Med)	Winston-Salem, N. C.	1834	James R. Scales.	D 3,076	447
Walla Walla	College Place, Wash.	1892	Robert Reynolds.	D 1,355	100
Walsh	Canton, Ohio.	1960	Br. T. S. Farrell.	D 836	52
Warner Pacific	Portland, Ore.	1937	E. J. Gilliam (Act.)	D 309	33
Warren Wilson	Swannanoa, No. Car.	1894	Arthur M. Bannerman.	D 306	33
Warburg	Waukegan, Ill.	1862	John W. Bachman.	S 1,235	123
Washington, Univ. (T)	Topeka, Kan.	1865	John W. Henderson.	Mu 4,076	123
Washington	Chestertown, Md.	1782	Daniel Z. Gibson.	P 600	54

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Washington and Jefferson. (M)	Washington, Pa.	1781	Boyd C. Patterson.	P 821	82
Washington and Lee Univ. (M)	Lexington, Va.	1749	Robert Huntley	P 1,472	133
Washington School of Psychiatry	Washington, D. C.	1936	Seymour S. Mintz.	P 200	15
Washington State. (T)	Machias, Me.	1909	Lincoln Sennett.	S 357	30
Washington State Univ.*. (T)	Pullman, Wash.	1890	W. Glenn Terrell, Jr.	S 11,162	1,273
Washington, Univ. (Med)	St. Louis, Mo.	1853	T. H. Elliot (Chan.)	S 10,958	2,944
Washington, Univ. of. (T) (Med)	Seattle, Wash.	1861	Charles E. Odegard.	S 28,505	3,492
Wayland Baptist. (T)	Plainview, Tex.	1908	Roy C. McClung.	D 667	51
Wayne State. (T)	Wayne, Nebr.	1910	W. A. Brandenburg.	S 2,578	126
Wayne State Univ. (T) (Med)	Detroit, Mich.	1868	William R. Keast.	S 32,370	1,215
Waynesburg. (T)	Waynesburg, Pa.	1850	B. M. Rich.	D 1,033	74
Weber State. (T)	Ogden, Utah.	1889	William P. Miller.	D 8,300	149
Webster. (W)	Webster Groves, Mo.	1915	Sls. J. Grennan.	P 1,050	100
Wellesley. (T)	Wellesley, Mass.	1870	Ruth M. Adams.	P 1,729	171
Wells. (T)	Aurora, N. Y.	1868	Louis J. Long.	P 615	67
Wesleyan. (W)	Macon, Ga.	1836	W. Earl Strickland.	D 651	61
Wesleyan Univ. (T)	Middletown, Conn.	1831	Edwin D. Etherington.	P 1,594	236
West Chester State. (T)	West Chester, Pa.	1812	Earl F. Sykes.	S 5,293	365
West Coast Univ. (T)	Los Angeles, Calif.	1909	Victor Elconin.	P 1,550	62
West Georgia. (T)	Carrollton, Ga.	1933	James E. Boyd.	S 2,536	130
West Liberty State. (T)	West Liberty, W. Va.	1837	Paul N. Elbin.	S 3,299	175
West Texas State Univ. (T)	Canyon, Tex.	1910	James Cornette.	S 6,118	298
W. Va. Inst. of Technology. (T)	Montgomery, W. Va.	1895	Leonard C. Nelson.	S 2,064	112
West Virginia State*. (T)	Institute, W. Va.	1897	William J. L. Wallace.	S 2,811	136
West Virginia Univ.*. (T) (Med)	Morgantown, W. Va.	1867	Frederic H. Harlow.	S 12,003	1,465
West Va. Wesleyan. (T)	Buckhannon, W. Va.	1890	Stanley H. Martin.	D 1,619	110
Western Bapt. Bible. (T)	El Cerrito, Calif.	1936	F. R. Brock.	D 327	22
Western Carolina. (T)	Cullowhee, N. C.	1889	Paul A. Reid.	S 3,399	183
Western Coll. for Women. (W)	Oxford, Ohio.	1853	Herrick B. Young.	P 530	64
Western Conn. State. (T)	Danbury, Conn.	1903	Ruth A. Haas.	S 2,782	154
Western Illinois Univ. (T)	Macomb, Ill.	1899	Arthur L. Knoblauch.	S 8,119	595
Western Kentucky Univ. (T)	Bowling Green, Ky.	1906	Kelly Thompson.	S 9,339	423
Western Maryland. (T)	Westminster, Md.	1867	Lowell S. Ensor.	D 1,170	120
Western Mich. Univ. (T)	Kalamazoo, Mich.	1903	James W. Miller.	S 17,325	771
Western Montana. (T)	Dillon, Mont.	1897	James E. Short.	S 860	44
Western New England. (T)	Springfield, Mass.	1919	Beaumont A. Herman.	P 2,127	120
Western New Mexico Univ. (T)	Silver City, N. M.	1893	John Snedeker.	S 1,247	72
Western State. (T)	Gunnison, Colo.	1901	Harlan Bryant.	S 2,577	116
Western Washington State. (T)	Bellingham, Wash.	1893	Charles Flora (Act.)	S 5,600	370
Westmar. (T)	Le Mars, Iowa.	1890	Harry H. Kalas.	D 1,240	71
Westminster Choir. (T)	Princeton, N. J.	1926	Lee H. Bristol, Jr.	P 341	55
Westminster College. (M)	Fulton, Mo.	1851	Robert L. D. Davidson.	D 663	71
Westminster College. (T)	New Wilmington, Pa.	1852	Earland I. Carlson.	D 1,921	103
Westminster College. (T)	Salt Lake City, Utah.	1875	Manfred A. Shaw.	I 794	40
Westminster Theol. Sem. (M)	Philadelphia, Pa.	1929	Edmund Clowney.	P 135	16
Westmont. (T)	Santa Barbara, Calif.	1940	Roger J. Voskuyl.	P 650	53
Wheaton. (W)	Wheaton, Ill.	1860	Hudson T. Armerding.	P 1,846	146
Wheaton. (W)	Norton, Mass.	1834	William C. H. Prentice.	P 1,096	97
Wheeling. (W, T)	Wheeling, W. Va.	1854	V. Rev. F. R. Haig.	P 775	63
Wheelock. (W, T)	Boston, Mass.	1888	Margaret H. Merry.	P 617	92
Whittier. (T)	Walla Walla, Wash.	1859	<i>vacant.</i>	P 1,010	88
Whittier. (T)	Whittier, Calif.	1901	Paul S. Smith.	P 2,078	125
Whitworth. (T)	Spokane, Wash.	1890	M. E. Koehler.	D 1,722	99
Wichita State Univ. (T)	Wichita, Kan.	1895	Emory Lindquist.	Mtu 10,535	476
Wilberforce Univ. (T)	Wilberforce, Ohio.	1856	Rembert E. Stokes.	D 835	55
Wilcy. (T)	Marshall, Tex.	1873	Thomas W. Cole.	D 703	56
Wilkes. (T)	Wilkes-Barre, Pa.	1933	Eugene S. Farley.	P 2,800	175
Williamette Univ. (T)	Salem, Ore.	1842	G. Herbert Smith.	D 1,436	123
William Carey. (T)	Hattiesburg, Miss.	1906	J. Ralph Noonkester.	D 831	58
William Jewell. (T)	Liberty, Mo.	1849	H. Guy Moore.	D 997	86
William and Mary, College of. (T)	Williamsburg, Va.	1693	Davis V. Paschall.	S 4,646	371
William Penn. (T)	Oskaloosa, Iowa.	1873	Diane Moon.	D 775	57
William Woods. (W)	Fulton, Mo.	1870	Randall B. Cutilip.	D 702	61
Williams. (M)	Williamstown, Mass.	1793	John E. Sawyer.	P 1,215	151
Williamstante State. (T)	Williamstante, Conn.	1889	Searle F. Charles.	S 860	128
Wilmington. (T)	Wilmington, N. C.	1947	William Wagoner.	C 1,080	83
Wilmington. (T)	Wilmington, Ohio.	1870	James M. Read.	D 875	67
Wilson. (W)	Chambersburg, Pa.	1869	Paul S. Havens.	P 709	75
Windham. (T)	Putney, Vt.	1951	Eugene C. Winslow.	P 704	59
Winona State. (T)	Winona, Minn.	1858	Robt. DuFresne.	S 3,591	175
Winston-Salem State. (T)	Winston-Salem, N. C.	1892	Kenneth R. Williams.	S 1,270	108
Winthrop. (W, T)	Rock Hill, S. C.	1886	Charles S. Davis.	S 2,986	158
Wisconsin State Univ. (T)	Eau Claire, Wis.	1866	Leonard Haas.	S 5,833	393
Wisconsin State Univ. (T)	La Crosse, Wis.	1908	Sam C. Gates.	S 3,773	207
Wisconsin State Univ. (T)	Oshkosh, Wis.	1871	Roger E. Gules.	S 8,330	504
Wisconsin State Univ. (T)	River Falls, Wis.	1871	Richard Delorlt.	S 2,500	246
Wisconsin State Univ. (T)	Stevens Point, Wis.	1894	Lee Sherman Dreyfus.	S 6,050	380
Wisconsin State Univ. (T)	Superior, Wis.	1896	K. W. Meyer.	S 3,300	207
Wisconsin State Univ. (T)	Whitewater, Wis.	1868	William L. Carter.	S 8,064	526
Wisconsin State Univ. (T)	Platteville, Wis.	1866	Bjarne R. Ulsvik.	S 5,000	330
Wisconsin, Univ. of*. (T) (Med)	Madison, Wis.	1818	Fred Harrington.	S 31,226	3,800
Wisconsin Milwaukee Campus. (T)	Milwaukee, Wis.	1956	J. M. Klotzsche (Chan.)	S 14,128	950
Wittenberg Univ. (T)	Springfield, Ohio.	1845	John N. Stauffer.	D 2,684	285
Wofford. (M)	Spartanburg, S. C.	1854	Charles F. Marsh.	P 968	66
Woman's Med. Coll. of Pa. (W)	Philadelphia, Pa.	1850	G. R. Leymaster.	P 208	246
Woodbury. (M)	Los Angeles, Calif.	1884	D. B. Kirby.	P 1,726	73
Woodstock. (M)	Woodstock, Ohio.	1869	Rev. F. F. Cardegna.	D 200	20
Worcester Polytechnic Inst. (T)	Worcester, Mass.	1866	J. G. Drushal (Act.)	D 1,533	151
Wyoming, Univ. of*. (T)	Laramie, Wyo.	1865	Harry P. Storke.	P 1,658	239
Xavier Univ. of Louisiana. (T)	New Orleans, La.	1886	William Carlson.	S 6,883	471
Xavier Univ. (T)	New Orleans, La.	1915	Norman C. Francis.	D 1,207	103
Xavier Univ. (T)	Cincinnati, Ohio.	1831	V. Rev. P. L. O'Connor.	D 8,809	286
Yale Univ. (M, Med)	New Haven, Conn.	1701	Kingman Brewster, Jr.	S 8,866	2,187
Yankton. (T)	Yankton, S. Dak.	1881	Donald B. Ward.	P 701	58
Yeshiva Univ. (T) (Med)	New York, N. Y.	1886	Samuel Belkin.	D 7,589	2,300
Youngstown Univ. (T)	Youngstown, Ohio.	1908	Albert L. Pugsley.	P 12,600	695

Many Words Rarely Used

Despite the fact that English is the richest language in the world with some 800,000 words, the speaking vocabulary of well-educated Americans is about 5,000 words. Experts doubt if any one person has an active vocabulary of 60,000 words—a mere 7½% of the entire English language.

Junior Colleges

See explanatory notes on page 319

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Abraham Baldwin Agricultural	Tifton, Ga.	1933	J. Clyde Driggers	S 1,105	63
Adirondacks Community	Hudson Falls, N. Y.	1960	Charles R. Eisenhart	C 1,315	53
Aeronautics, Academy of	Flushing, N. Y.	1932	Walter M. Hartung	Pr 1,447	63
Albany, Jr. Coll. of (b)	Albany, N. Y.	1957	Lewis Froman	P 620	41
Albermarle, Coll. of	Elizabeth City, N. C.	1960	B. A. Barringer	S, C 491	35
Alice Lloyd	Pippa Passes, Ky.	1923	Will Hayes	P 267	17
Allan Hancock	Santa Maria, Calif.	1920	Walter E. Conrad	Mu 3,324	125
Allen County Community, Jr.	Iola, Kan.	1923	Paul Parker	C 426	23
Alegany Community	Cumberland, Md.	1961	W. Ardel Haines	C 516	31
Alpena Community	Alpena, Mich.	1952	S. E. Van Lare (Dn.)	Mu 806	51
Altus Junior	Altus, Okla.	1926	Clifford Peterson	D 458	28
Alvin Junior	Alvin, Tex.	1949	D. P. O'Quinn	Mu 1,388	75
Amarillo	Amarillo, Tex.	1929	Albert B. Martin	D 5,006	117
American River	Sacramento, Calif.	1955	Kenneth Boettcher	Di 10,042	461
Anderson	Anderson, S. C.	1911	John E. Rouse	D 778	46
Andrew	Cuthbert, Ga.	1854	George W. Gambill	D 385	25
Anne Arundel Community	Arnold, Md.	1961	Andrew G. Truxal	C 1,346	80
Anoka-Ramsey St. Jr.	Neenah Rapids, Minn.	1961	William W. Ken	S 1,320	65
Antelope Valley	Lancaster, Calif.	1929	William Keely, Jr.	Mu 2,524	119
Apprentice School	(M) Newport News, Va.	1919	John Pirkle (Supt.)	Fr 700	53
Arizona Western	Yuma, Ariz.	1963	George H. Hall	C 1,580	82
Atlantic Comm.	Mays Landing, N. J.	1964	Luther G. Shaw	C 1,150	51
Auburn Community	Auburn, N. Y.	1953	Albert T. Skinner	Mu 2,732	63
Austin State Junior	Austin, Minn.	1940	R. I. Meland (Dean)	Di 757	41
Averett	(W) Danville, Va.	1859	Conwell Anderson	D 573	38
Bacone	Bacone, Okla.	1880	Garold D. Holstine	D 606	31
Bakersfield	Bakersfield, Calif.	1913	Edward Simonsen	Di 3,710	350
Baltimore Junior	Baltimore, Md.	1940	Larry Bard	Mu 2,918	42
Barstow	Barstow, Calif.	1940	Donald White	Di 1,278	42
Bay de Noc Comm.	Escanaba, Mich.	1962	R. L. Rinehart	C 650	35
Bay Path Junior	Longmeadow, Mass.	1949	Thomas G. Carr	P 500	27
Becker Junior	Worcester, Mass.	1887	T. F. Fleming (Chan.)	P 613	28
Beckley	Beckley, W. Va.	1933	D. K. Shroyer	P 1,422	33
Belleville Junior	Belleville, Ill.	1946	H. J. Haberaecker	Di 2,784	225
Bennett	(W) Millbrook, N. Y.	1941	Donald A. Eldridge	P 330	47
Berkshire Community	Pittsfield, Mass.	1960	T. E. O'Connell	S 1,069	55
Big Bend Community	Moses Lake, Wash.	1962	Don A. Morgan	Di 1,066	132
Bismarck Junior	Bismarck, N. Dak.	1939	Ralph Werner	Di 1,151	52
Black Hawk	Madison, Wis.	1946	Alban R. Reid	Di 1,938	169
Blind	Brenham, Tex.	1883	James H. Atkins	Di 1,318	69
Bloom Community	Chicago Heights, Ill.	1958	Richard Sherman	Di 1,426	89
Bluefield	Bluefield, Va.	1922	Charles Harman	D 375	23
Blue Mountain Community	Pendleton, Ore.	1962	Wallace C. McCrae	Di 650	62
Boone Junior	Boone, Iowa	1927	Clair E. Abbott (Dn.)	Di 408	25
Borough of Manhattan Comm.	(W) New York, N. Y.	1963	Murray H. Block	S 4,747	230
Bradford Junior	Bradford, Mass.	1803	Robert Vogel	P 425	44
Brainerd State Junior	Brainerd, Minn.	1938	J. E. Chalberg	Di 475	24
Brevard	Brevard, N. C.	1853	Emmett K. McLarty, Jr.	D 583	44
Brevard Junior	Cocoa, Fla.	1960	James A. Colston	Mu 6,000	200
Brewton Parker	McPherson, Kan.	1904	J. Theodore Phillips	D 500	33
Bronx Community (b)	Bronx, N. Y.	1958	James A. Colston	Mu 7,737	275
Broome Tech. Community	Binghamton, N. Y.	1946	Cecil C. Tyrrell	C 3,371	131
Broward Co., Jr. Coll. of	Ft. Lauderdale, Fla.	1960	Hugh Adams	C 4,461	168
Bryant & Stratton Bus. Inst.	Bufilea, N. Y.	1865	Llewellyn White	Fr 2,000	70
Burdett	Boston, Mass.	1879	C. Fred Burdett	Pr 916	48
Burlington Community	Burlington, Iowa	1920	R. Burkheimer (Supt.)	Mu 822	40
Butler County Comm. Jr.	El Dorado, Kansas	1927	Edwin J. Walbourn	Mu 1,957	70
Cabrillo	Aptos, Calif.	1959	Robert E. Swenson	Di 3,325	77
Canal Zone	Barboza, C. Z.	1933	W. W. Skinner (Dean)	Di 1,400	77
Canton Community	Chillicothe, N. C.	1953	Philip S. Osborn	Di 1,129	48
Cape Cod Comm.	Hyannis, Mass.	1961	E. Carleton Nickerson	S 825	47
Casper	Casper, Wyo.	1945	Tilghman R. Aley	C 2,310	123
Catonville Community	Baltimore, Md.	1958	James Newpher	C 1,837	111
Cazenovia	(W) Cazenovia, N. Y.	1824	Rhea M. Eckel	P 568	51
Centenary Coll. for Women	(W) Hackettstown, N. J.	1887	Edward W. Seay	D 662	68
Centerville Community	Centerville, Iowa	1930	Lyle Hellyer (Dn.)	Di 800	43
Central	McPherson, Kan.	1914	Bruce L. Kline	D 172	19
Central Florida Junior	Ocala, Fla.	1958	Henry E. Goodlett	C 1,250	64
Central Oregon Community	Bend, Oregon	1933	Fredrick Boyer	Di 1,548	69
Central Piedmont Comm.	Charlotte, N. C.	1963	Richard H. Hagemeier	Di 2,891	150
Central Pilgrim College	Bartlesville, Okla.	1959	Norman N. Bonner	D 180	15
Central Tech. Institute	Kansas City, Mo.	1931	C. L. Foster	Pr 478	23
Central YMCA Comm.	Chicago, Ill.	1961	Donald A. Canar	P 3,607	180
Centralia	Centralia, Wash.	1925	Nels W. Hanson	Di 1,400	79
Cerritos	Norwalk, Calif.	1955	Jack W. Mears	Di 9,877	246
Chabot	Hayward, Calif.	1961	Reed L. Buntington	Di 7,239	260
Chaffey	Alta Loma, Calif.	1922	Harry Wiser	Di 6,740	227
Champlain	Burlington, Vt.	1878	C. Bader Brouillette	P 720	44
Charles Co. Community	La Plata, Md.	1958	D. N. Carsey	C 547	30
Chicago City	Chicago, Ill.	1911	Oscar Shabat	Mu 30,780	839
Chipola Junior	Marianna, Fla.	1947	Ned L. Haven	S, C 1,083	75
Chowan	Murfreesboro, N. C.	1848	Bruce E. Whitaker	D 1,155	71
Christian	(W) Columbia, Mo.	1851	W. Merle Hill	D 522	40
Christian Coll. of the Southwest	Dallas, Tex.	1962	W. E. Kirk	D 304	30
Christopher Coll. of	Corpus Christi, Tex.	1958	Sis. Jeanne Francis	D 178	23
Corpus Christi			Minner		
Cisco Junior	Cisco, Texas	1940	Leland Willis	Mu 813	48
Citrus	Azusa, Calif.	1915	Robt. D. Haugh	Di 5,483	104
Clarendon	Clarendon, Tex.	1898	Kenneth D. Vaughan	Di 2,381	15
Clark	Cincinnati, Wash.	1923	Dwight C. Byrd	Di 2,239	144
Clarke Memorial	Newton, Miss.	1908	W. L. Compere	D 230	18
Clatsop Community	Astoria, Ore.	1962	Stewart F. McCollom	Di 790	87
Cloud County Comm. Junior	Concordia, Kansas	1965	Arley Bryant (Dean)	C 299	25
Coahoma Junior	Clarksdale, Miss.	1949	James Earl Miller	S 882	38
Coalinga	Coalinga, Calif.	1941	Robert Annand	Di 1,165	100
Cochise	Douglas, Ariz.	1964	Jack R. Netcher	S 1,186	65
Coffeyville Community Junior	Coffeyville, Kan.	1923	Russell Graham	Mu 577	30
Colby Comm. Junior	Colby, Kansas	1964	Richard Mesler	C 394	21
Colby Junior	(W) New London, N. H.	1837	Everett M. Woodman	P 370	57

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Columbia Basin	Pasco, Wash.	1955	Fred L. Esvelt	D1 2,114	123
Compton	Compton, Calif.	1927	Foster Davidoff	D 4,802	172
Concordia	Portland, Ore.	1950	Erhardt P. Weber	D 148	18
Concordia	Milwaukee, Wis.	1881	Walter W. Stuenkel	D 299	23
Concordia Junior	Braxville, N. Y.	1881	Albert E. Meyer	D 49	49
Concordia Lutheran Jr.	Austin, Tex.	1926	Walter C. Rubke	D 169	19
Contra Costa	Ann Arbor, Mich.	1962	P. A. Zimmermann	D 479	39
Cooke County Jr.	San Pablo, Calif.	1948	Raymond Dondoro	D1 5,290	195
Copiah-Lincoln Junior	Gainsville, Tex.	1924	John H. Parker	C 1,030	60
Corning Community	Wesson, Miss.	1928	Billy Thames	C 625	54
Cotley	Corning, N. Y.	1956	Robt. W. Frederick, Jr.	Mu 2,699	84
Cowley County Comm. Jr.	Nevada, Mo.	1884	Ted McCarrel	P 337	33
Crowder	Arkansas City, Kans.	1922	Paul M. Johnson	M 1,079	45
Cuesta	Neosho, Mo.	1963	Donald D. Shook	D1 515	24
Cumberland Coll. of Tenn.	San Luis Obispo, Calif.	1963	Merlin Elenblae	D1 2,800	93
Cuyahoga Community	Lebanon, Tenn.	1842	Ernest L. Stockton	P 291	21
Danville Junior	Cleveland, O.	1935	Charles E. Chapman	D1 12,637	653
Davenport Coll. of Business	Danville, Ill.	1949	Mary Miller	Mu 1,298	100
Dawson Junior	Grand Rapids, Mich.	1866	Robert W. Sneden	P 925	44
Daytona Beach Junior	Glendive, Mont.	1940	Richard Starr (Dn.)	D1 400	27
Dean Junior	Daytona Beach, Fla.	1958	Roy F. Bergengren	C 8,696	371
DeKalb	Franklin, Mass.	1865	William Garner	P 987	78
Del Mar	Clarkston, Ga.	1964	James Hinson, Jr.	C 2,917	118
Delta	Corpus Christi, Tex.	1935	Jean Richardson	Mu 3,658	172
DeVry Inst. of Tech.	University Ctr., Mich.	1957	Donald Carlyon	D1 3,738	209
Desert, Coll. of the	Chicago, Ill.	1931	Orville Thompson	Pr 3,100	160
Diablo Valley	Palm Desert, Calif.	1958	Roy C. McCall	D1 3,642	169
Dixie Junior	Pleasant Hill, Calif.	1948	William P. Niland	D1 8,467	345
Dodge City Community Jr.	St. George, Utah	1913	Ferron C. Losee	S 1,000	50
Donnelly	Dodge City, Kan.	1935	Chas. M. Barnes	D1 774	39
DuPage Coll. of	Kansas City, Kan.	1949	Sister Richard	D 466	42
Dutchess Community	Naperville, Ill.	1967	Rodney W. Berg	C 2,500	227
East Central Junior	Poughkeepsie, N. Y.	1958	James F. Hall	C 3,538	115
East Los Angeles	Decatur, Miss.	1928	Charles V. Wright	D1 759	45
Eastern Arizona	Los Angeles, Calif.	1945	John K. Wells	D1 13,109	585
Eastern Iowa Comm.	Thatcher, Ariz.	1888	Dean Curtis	D1 1,032	51
Eastern Okla. State	Muscatine, Iowa	1929	R. W. Johnson (Supt.)	C 626	37
Eastern Wyoming	Wilburton, Okla.	1909	J. N. Baker	S 958	42
Edison Junior	Torrington, Wyo.	1948	Albert C. Conger	D1 377	19
El Camino	Ft. Myers, Fla.	1962	David G. Robinson	C 1,200	60
El Reno Junior	Torrance, Calif.	1946	Stuart E. Marsee	D1 14,500	435
Elgin Community	El Reno, Okla.	1948	Leslie F. Roblyer	D1 266	19
Elizabeth Seton	Elgin, Ill.	1948	Albert Renner	D1 187	14
Ellsworth	Yonkers, N. Y.	1960	Sis. Dolores Mary	D 430	45
Emmanuel	Iowa Falls, Iowa	1890	G. P. Warford (Dn.)	Mu 981	49
Endicott Junior	Franklin Spgs., Ga.	1919	Woodward G. Drum	D 265	20
Erle County Tech. Inst.	Beverly, Mass.	1939	George Bierkoe	P 850	59
Essex Community	Buffalo, N. Y.	1946	James Shenton	D1 4,158	138
Everett Junior	Essex, Md.	1957	M. S. Koch, Jr.	C 1,269	87
Fairbury Junior	Everett, Wash.	1941	Paul McCurley	D1 3,100	192
Fashion Inst. of Technology	Fairbury, Nebr.	1941	Ivan R. Simpson	Mu 423	23
Fergus Falls State Jr.	New York, N. Y.	1944	Lawrence L. Jarvie	S.Mu 5,220	122
Ferrum Junior	Fergus Falls, Minn.	1960	W. A. Waage	D1 531	30
Fisher Junior	Ferrum, Va.	1933	C. Ralph Arthur	D 993	57
Florida Community Junior	Boston, Mass.	1903	Sanford L. Fisher	P 508	40
Florida	Flint, Mich.	1922	Chas. Donnelly	Mu 6,043	172
Foothill	Temple Terrace, Fla.	1946	James R. Cope	P 365	28
Fort Scott Community Junior	Los Altos Hills, Calif.	1958	H. H. Semans	D1 7,992	255
Ft. Worth Christian	Fort Scott, Kan.	1919	Leon Foster	Mu 439	18
Frank Phillips	Ft. Worth, Tex.	1959	Cursti Ramey	P 200	15
Franklin Inst. of Boston	Borger, Tex.	1948	James W. Dillard	D1 700	43
Frederick Community	Boston, Mass.	1908	L. J. Dunham Jr. (Dir.)	P 1,091	73
Freed-Hardeman	Frederick, Md.	1957	Lewis W. Stephens	C 719	47
Fresno City	Henderson, Tenn.	1908	Hubert A. Dixon	D 661	46
Friendship Junior	Fresno, Calif.	1910	Clyde C. McNally	D1 7,802	356
Fullerton Junior	Rock Hill, S. C.	1991	James H. Goudlock	D 375	18
Fullton-Montgomery Community	Fullerton, Calif.	1913	H. Lynn Sheller	D1 11,297	354
Garden City Community Junior	Easton, Mass.	1963	William L. Gregg	S 1,150	47
Gardner-Webb Junior	Garden City, Kan.	1919	L. C. Crouch	Mu 414	30
Garland Junior	Bolling Springs, N. C.	1905	E. Eugene Poston	D 1,134	67
Gaston	Boston, Mass.	1952	Frederic B. Viaux	P 370	44
Gavilan	Gaston, N. C.	1964	W. B. Sugg	C 1,691	73
Genesee Community	Gilroy, Calif.	1919	Ralph Schroeder	D1 1,340	76
Georgia Military	Batavia, N. Y.	1965	Alfred C. O'Connell	S 625	16
Glendale	Milledgeville, Ga.	1879	R. A. Thorne	Mu 242	20
Goble Community	Glendale, Calif.	1927	John T. Mc Cucu	D1 4,988	163
Goldie Beacon Junior	Ironwood, Mich.	1932	James Perry	Mu 515	24
Gordon Military	Wilmington, Del.	1886	Jay W. Miller	Pr 1,460	60
Graben Junior	Barnesville, Ga.	1855	Woodrow Light	D 600	75
Grand Rapids Junior	Easton, Mass.	1919	M. J. McMahon	Pr 1,300	75
Grand Valley	Grand Rapids, Mich.	1914	Francis McCarthy (Dn.)	D 4,128	209
Grays Harbor	Des Moines, Iowa	1896	Ernest D. Nielsen	D 1,420	77
Greenbrier	Aberdeen, Wash.	1930	Edward P. Smith	D1 1,794	101
Greenfield Comm.	Lewisburg, W. Va.	1812	John F. Montgomery	Pr 204	18
Green Mountain	Greenfield, Mass.	1962	Lewis O. Turner	S 915	63
Grossmont	Poultney, Vt.	1834	Raymond A. Withey	D 647	44
Gulf Coast Junior	El Cajon, Calif.	1961	Harold Hughes	D1 5,444	150
Gulf Park	Panama City, Fla.	1957	Richard E. Morley	S, D1 2,000	70
Hagerstown Junior	Long Beach, Miss.	1919	William T. Sadler	P 283	32
Harcum Junior	Hagerstown, Md.	1946	Atlee Kepler	P 898	63
Hartford Jr.	Bryn Mawr, Pa.	1915	Michael A. Duzy	C 975	52
Harrisburg Area Comm.	Bel Air, Md.	1957	Joseph N. Hankin	C 1,193	72
Hartford Coll. for Women	Harrisburg, Pa.	1964	Clyde E. Blocker	D1 2,153	110
Hartnell	Hartford, Conn.	1939	Laura A. Johnson	P 187	40
Henderson County Junior	Salinas, Calif.	1920	William Harwood	D1 3,150	112
Henry Ford Community	Athens, Tex.	1946	Orval Pirle	C 1,174	67
Herkimer County Comm.	Dearborn, Mich.	1936	James O. McCann	Mu 11,346	605
Hesston	Ilion, N. Y.	1966	Robert McLaughlin	S 305	10
Hibbing State Junior	Hesston, Kan.	1909	Leban Peachey	D 425	33
Highland Comm.	Hibbing, Minn.	1916	Ove. C. Nordvold (Dn.)	D1 795	36
Highland Community Junior	Freeport, Ill.	1962	Kenneth E. Borland	C 902	105
Highland Park	Highland, Kan.	1858	T. E. Woodrum	D1 349	18
Highline Comm.	Highland Park, Mich.	1918	Paul H. Jones (Dean)	Mu 3,750	195
	Midway, Wash.	1961	M. A. Allan	D1 3,600	271

Name	Location	Yr.	Governing Official and Control	Stu- dents	Teach- ers
Hill Junior.	Hillsboro, Texas.	1962	Oran Bailey	Di 700	41
Hinds Junior.	Raymond, Miss.	1917	Robert Mayo.	Di 2,412	125
Hiwassee.	Madisonville, Tenn.	1849	Horace N. Barker	D 650	36
Holmes Junior.	Goodman, Miss.	1928	Frank E. Franch.	Di 1,945	47
Holyoke Community.	Holyoke, Mass.	1946	George E. Frost.	Di 852	13
Howard County Junior.	Big Springs, Tex.	1945	William A. Hunt.	Cu 980	56
Hudson Valley Community.	Troy, N. Y.	1953	James J. Fitzgibbons.	C 4,955	227
Humphreys.	Stockton, Calif.	1896	John R. Humphreys.	P 440	22
Hutchinson Community Junior.	Hutchinson, Kan.	1928	A. H. Elland.	Mu 1,464	80
Illinois Valley Comm.	La Salle, Ill.	1924	Kenneth H. Freeman.	Mu 1,721	87
Imperial Valley.	Imperial, Calif.	1960	Terrel Spencer.	Di 1,640	70
Independence Community Jr.	Independence, Kan.	1925	Nell Edds.	Mu 479	40
Indian River Junior.	Ft. Pierce, Fla.	1960	Maxwell C. King.	C 960	46
Iowa Central Comm.	Ft. Dodge, Iowa.	1967	Edwin Barbour.	C 1,680	187
Iowa Lakes Comm.	Esterville, Iowa.	1924	Arvyl Parks.	C 627	44
Iowa Western Comm.	Clarinda, Iowa.	1923	Orin C. Mann (Dn.).	Di 602	34
Itasca State Junior.	Grand Rapids, Minn.	1922	H. E. Wilson.	C 440	32
Itawamba Junior.	Fulton, Miss.	1948	J. S. Crubaugh.	Di 880	60
Jackson Community.	Jackson, Mich.	1928	Wm. N. Atkinson.	Mu 2,900	110
Jamestown Community.	Jamestown, N. Y.	1950	Albert W. Balsier.	S,Mu 1,357	55
Jefferson.	Hillsboro, Mo.	1963	Charles J. McClain.	Di 943	34
Jefferson Community.	Watertown, N. Y.	1963	James E. McVean.	C 1,042	67
Johnson & Wales Jr. Coll. of Bus.	Providence, R. I.	1914	Edward P. Triangolo.	Pr 1,600	60
Joliet Junior.	Joliet, Ill.	1901	Elmer Rowley.	Mu 3,100	136
Jones County Junior.	Ellisville, Miss.	1927	James B. Young.	Di, S 2,260	96
Kan. City Kan. Comm. Junior.	Kansas City, Kan.	1948	Jack M. Flint.	Mu 1,367	60
Kan. K. I.	Lawrence, Kan.	1941	Eugene McClain.	Di 1,300	56
Kellogg Community.	Battle Creek, Mich.	1956	Dr. Whitmore (Dir.).	Di 2,700	110
Kemper Military School.	Boonville, Mo.	1844	James Kelly.	P 260	41
Kendall.	Evanson, Ill.	1934	Wesley M. Westerberg.	D 709	64
Keokuk Community.	Keokuk, Iowa.	1953	R. O. Birkhimer.	Di 687	27
Keystone Junior.	La Plume, Pa.	1868	Harry K. Miller, Jr.	P 683	43
Kilgore.	Kilgore, Tex.	1935	Randolph C. Watson.	Di 2,216	161
King's.	Charlotte, N. C.	1901	Milo O. Kirkpatrick.	Pr 878	37
Kingsborough Community (a).	Brooklyn, N. Y.	1963	Jacob I. Harstein.	S 2,935	200
Kittrell.	Kittrell, N. C.	1886	Larnie G. Horton.	D 276	17
Lafayette Community Jr.	Parsons, Kans.	1923	Charles E. Thiebaud.	Mu 307	29
Lackawanna Junior.	Scranton, Pa.	1894	H. G. Seeley.	P 310	12
Lake City Jr. Coll. & Forest Ranger School.	Lake City, Fla.	1962	Herbert E. Phillips.	C 858	39
Lake Michigan.	Benton Harbor, Mich.	1946	Robert H. Plummer.	Mu 2,250	67
Lake Region Jr.	Devils Lake, N. Dak.	1941	Merrill Berg (Dn.).	Di 450	38
Lake-Sumter Jr.	Leesburg, Fla.	1962	Paul P. Williams.	C 909	42
Lamar Community.	Lamar, Colo.	1937	Carl Gerber.	Di 550	45
Lansing Community.	Lansing, Mich.	1957	Phillip Gannon.	Mu 4,621	183
Laredo Junior.	Laredo, Tex.	1947	Ray A. Laird.	Mu 1,300	47
Lasell Junior.	Ashford, Mass.	1868	Charles DeBaun.	P 805	91
Lassen.	Susanville, Calif.	1925	Robert Theiler.	Di 885	35
Lee.	Baytown, Tex.	1934	Richard Strahan.	Mu 2,000	90
Lees Junior.	Jackson, Ky.	1891	Troy R. Eslinger.	D 319	18
Lees-McRae.	Banner Elk, N. C.	1929	H. C. Evans, Jr.	D 600	39
Leicester Junior.	Leicester, Mass.	1784	Henry Borger.	P 228	15
Limestone.	Gaffney, S. C.	1840	J. C. McCollister.	P 645	53
Lindsey Wilson.	Columbia, Ky.	1903	John B. Horton.	D 547	25
Lon Morris.	Jacksonville, Tex.	1873	Cecil E. Peoples.	D 376	24
Long Beach City.	Long Beach, Calif.	1927	Wiley Garner.	Mu 2,648	480
Lorain County Comm.	Elyria, Ohio.	1964	Max Lerner.	C 2,624	97
Los Angeles Harbor.	Los Angeles, Calif.	1961	Charles Goodley.	Mu 18,000	600
Los Angeles Harbor.	Wilmington, Calif.	1949	Wendell C. Black.	Di 6,927	334
Los Angeles Pierce.	Woodland Hills, Calif.	1947	Marle Martin.	Mu 13,732	435
L. A. Trade Technical.	Los Angeles, Calif.	1949	F. Parker Wilber.	Mu 15,369	666
Los Angeles Valley.	Van Nuys, Calif.	1949	Wm. J. McNellis.	Mu 16,200	400
Louisburg.	Louisburg, N. C.	1787	Cecil W. Robbins.	D 691	46
Lower Columbia.	Longview, Wash.	1934	Harold A. Lang.	Di 2,200	61
Macomb County Community.	Warren, Mich.	1959	J. R. Dimitry (Act.).	Di 10,300	459
Madison Business.	Madison, Wis.	1856	Otto J. Madland.	Pr 455	25
Manatee Junior.	Bradenton, Fla.	1957	Samuel R. Neel, Jr.	C 2,800	113
Manchester Comm.	Manchester, Conn.	1966	W. Lowe.	C Mu 1,400	100
Manor Junior.	Jenkintown, Pa.	1959	Mo. M. Jerome.	D 124	25
Maria Regina.	Syracuse, N. Y.	1961	Sis. M. Rosalie.	D 533	33
Marin, Coll. of.	Kentfield, Calif.	1926	William Ramstad.	Di 4,674	123
Marion Institute.	Marion, Ala.	1842	Paul B. Robinson.	P 647	48
Marjorie Webster Junior.	Washington, D. C.	1920	Sherwood Webster.	Pr 500	50
Marshalltown Community.	Marshalltown, Iowa.	1927	Robert Horstall.	Di 1,060	60
Mary Holmes Jr.	West Point, Miss.	1892	Donovan Smucker.	D 367	30
Marymount, Coll. of Virginia (W)	Arlington, Va.	1950	Mother M. M. Berg.	D 730	50
Marymount.	Boca Raton, Fla.	1963	Sis. de la Croix.	Di 340	22
Massachusetts Bay Comm.	Watertown, Mass.	1963	J. F. McKenzie.	S 1,685	109
Maunaloa.	Honolulu, Hawaii.	1941	C. A. Perkins.	D 185	17
McCook.	McCook, Neb.	1926	A. W. Kuper.	Pu 457	29
MacCormac Junior.	Chicago, Ill.	1904	Gorpon Borchardt.	F 250	12
Merced.	Merced, Calif.	1963	Lowell Barker.	Di 3,050	57
Mercer County Comm.	Trenton, N. J.	1966	Richard Greenfield.	S 2,507	137
Meridian Junior.	Meridian, Miss.	1937	William Scaggs.	Mu 1,245	65
Mesa.	Gd. Junction, Colo.	1925	William A. Medesy.	Mu 2,314	135
Mesabi State Jr.	Virginia, Minn.	1921	Gilbert Staupe.	S 619	29
Metropolitan Jr. Coll.—Kansas City.	Kansas City, Mo.	1915	H. N. Monnett (Act.).	Di 5,140	123
Miami-Dade Jr.	Miami, Fla.	1960	Peter Maslko, Jr.	C 25,341	887
Miami-Jacobs Jr. Coll. of Business	Dayton, Ohio.	1860	Charles P. Harbottle.	Pr 791	35
Michigan Christian Jr.	Rochester, Mich.	1959	E. Lucien Palmer.	P 220	10
Middle Georgia.	Cochran, Ga.	1887	Louis C. Alderman, Jr.	S 1,503	82
Midway Junior.	Midway, Ky.	1849	Albert N. Cox.	P 147	24
Miles Comm.	Miles City, Mont.	1939	K. O. Smith (Dn.).	Mu 350	20
Miltonvale Wesleyan.	Miltonvale, Kansas.	1909	Wesley Knapp.	D 177	14
Milwaukee Technical.	Milwaukee, Wis.	1951	George Parkinson (Dir.).	Mu 7,615	365
Mineral Area.	Flat River, Mo.	1922	Richard Caster.	Di 780	53
Mira Costa.	Oceanside, Calif.	1834	John MacDonal.	Di 1,936	75
Mississippi Delta Jr.	Moorhead, Miss.	1926	J. T. Hall.	Di 745	40
Missouri Baptist.	Hamblin, Mo.	1858	L. A. Foster.	D 453	34
Missouri Southern.	Joplin, Mo.	1937	Leon C. Billingsley.	Di 2,399	74
Missouri Western Junior.	St. Joseph, Mo.	1915	M. O. Looney.	Mu 985	42
Mitchell.	Statesville, N. C.	1856	John Montgomery.	D 499	33
Modesto Junior.	Modesto, Calif.	1921	Roy Mikalon.	Di 9,111	452

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Mohawk Valley Community	Utica, N. Y.	1946	R. D. Larsson (Act.)	C	3,387 86
Monroe Community	Rochester, N. Y.	1962	LeRoy V. Good	C	4,838 150
Monterey Peninsula	Monterey, Calif.	1947	George J. Faul	DI	4,800 142
Montgomery Junior	Takoma Park, Md.	1946	William Strasser	C	4,686 279
Monticello	Godfrey, Ill.	1835	Gail E. Myers	P	365 41
Montreat-Anderson	Montreat, N. C.	1916	C. Grier Davis	D	418 33
Morristown	Morristown, Tenn.	1881	Elmer P. Gibson	D	280 15
Morse	Hartford, Conn.	1860	Vacant	Pr	209 12
Morton Junior	Cicero, Ill.	1924	J. Philip Dalby	Mu	2,429 146
Mt. Aloystus Junior	Cresson, Pa.	1939	Sis. Mary Ursula	D	450 47
Mt. Ida Junior	Newton Ctr., Mass.	1899	F. Roy Carlson	P	600 51
Mt. Olive Junior	Mt. Olive, N. C.	1951	William B. Raper	DI	340 30
Mt. St. Clare	Clinton, Iowa	1928	Sister Mary Phelan	D	280 33
Mt. San Antonio	Walnut, Calif.	1946	Oscar H. Edinger, Jr.	DI	12,202 431
Mt. San Jacinto	Gilman Hot Spgs., Calif.	1963	Milo P. Johnson	C	1,010 62
Mt. Vernon Community	Mt. Vernon, Ill.	1956	Eltis Henson	DI	589 38
Mt. Vernon Junior	Washington, D. C.	1875	Peter D. Pelham	P	276 32
Mt. Wachusett Comm.	Gardner, Mass.	1963	Arthur F. Haley	S	1,032 49
Multnomah	Portland, Ore.	1897	John S. Griffith	P	899 79
Murray State	Tishomingo, Okla.	1908	Clyde Kindell	S	656 34
Muskegon County Community	Muskegon, Mich.	1926	Ralph A. Austermiller	Mu	3,475 169
Muskegon Business	Muskegon, Mich.	1885	Robert Jewell	DI	360 15
Napa Junior	Napa, Calif.	1911	Geoff. Clark	DI	2,800 72
Nassau Community	Napa, Calif.	1959	George F. Chambers	C	9,941 254
Natchez Junior	Natchez, Miss.	1885	Rev. LeVander Kinds	D	245 10
National Business	Roanoke, Va.	1886	Murray K. Coulter	Pr	435 21
Navarro Junior	Corsicana, Tex.	1946	Ben W. Jones	C	1,203 60
Neosho County Comm. Jr.	Chanute, Kans.	1936	Bufoed E. Fisher	DI	310 31
New Hampshire Voc. Inst.	Manchester, N. H.	1946	George C. Knox (Dir.)	S	358 24
New Hampshire Voc. Inst.	Portsmouth, N. H.	1945	E. A. McCourt (Prin.)	S	200 17
New Mexico Military Inst.	Roswell, N. M.	1891	Maj. Gen Sam W. Agee	S	950 54
N. Y. City Community Coll. (a)	Brooklyn, N. Y.	1946	Milton G. Bassin	Mu	11,518 397
New York, State Univ. of	Albany, N. Y.	1948	Samuel B. Gould	S	131,293 4,712
Agric. & Tech. Inst.	Alfred, N. Y.	1908	David H. Huntington	S	2,751 173
" " "	Canjous, N. Y.	1906	C. E. Wright (Act.)	S	1,261 87
" " "	Cobleskill, N. Y.	1911	Walton A. Brown	S	1,619 92
" " "	Delhi, N. Y.	1913	William R. Kunsela	S	1,398 89
" " "	Farmingdale, N. Y.	1912	Chas. W. Laffin	S	9,041 256
" " "	Morrisville, N. Y.	1908	Roysen N. Whipple	S	1,566 103
Newton Junior	Newtownville, Mass.	1946	Charles W. Dudley	Mu	650 55
Niagara County Community	Niagara Falls, N. Y.	1963	Ernest Notar	C	2,776 95
Norfolk Junior	Norfolk, Nebr.	1942	F. Don MacLay	D	600 31
Norman	Norman Park, Ga.	1900	Guy Atkinson	DI	264 17
North Central Michigan	Petoskey, Mich.	1958	A. D. Shankland	DI	553 27
N. Dak. Sch. of Forestry	Bottineau, N. Dak.	1906	C. N. Nelson	S	300 22
N. Dak. St. Sch. of Science	Wahpeton, N. Dak.	1903	Clair T. Blikre	S	2,100 144
North Florida Junior	Madison, Fla.	1958	Marshall Haddon	C	1,159 73
North Greenview Junior	Tigerville, S. C.	1892	Thomas L. Neely	D	430 39
North Idaho Junior	Coeur d'Alene, Idaho	1939	P. A. Christianson	DI	930 54
North Iowa Area Comm.	Mason City, Iowa	1918	C. H. Beem (Dn.)	Mu	1,797 130
North Shore Community	Beverly, Mass.	1965	Harold Shively	S	1,684 120
Northampton Commercial	Northampton, Mass.	1896	Richard D. Pickett	Pr	553 28
Northeast Miss. Junior	Booneville, Miss.	1948	Harold White	DI	920 54
Northeastern Junior	Sterling, Colo.	1941	Ervin S. French	C	1,705 92
Northeastern Okla. A. & M.	Miami, Okla.	1919	Bruce G. Carter	S	1,806 72
Northern Essex Comm.	Haverhill, Mass.	1960	Harold Benley	DI	1,447 71
Northern Okla.	Tonkawa, Okla.	1901	Edwin Vineyard	S	1,025 51
Northwest Community	Powell, Wyo.	1946	Sinclair Orendorff	DI	505 38
Northwest Miss. Junior	Senatobia, Miss.	1927	R. D. McLendon	DI	1,500 80
Northwestern Michigan	Traverse City, Mich.	1951	N. T. Tink (Dir.)	DI	1,285 78
Northwood State	Midland, Mich.	1947	Arthur Turner	P	950 47
Norwalk Community	Norwalk, Conn.	1961	E. I. L. Baker	Mu	1,961 79
Norwalk State Tech.	Norwalk, Conn.	1961	Frank Juszil	S	1,525 77
Odessa	Odessa, Tex.	1946	Jack Rodgers	DI	2,828 160
Ohio Coll. of Applied Science	Cincinnati, Ohio	1828	William W. Culp	P	2,534 161
Okaloosa-Walton Jr.	Valparaiso, Fla.	1963	J. E. McCracken	C	2,552 124
Oklahoma Military Academy	Claremore, Okla.	1918	John F. Smoller	S	325 38
Oklahoma Sch. of Business	Tulsa, Okla.	1919	H. Everett Pope	Pr	734 28
Accountancy, Law & Finance	Ohney, Ill.	1963	Leslie E. Purdy	DI	455 18
Olney Comm.	Bremerton, Wash.	1946	James D. Park	DI	3,550 105
Olympic	Syracuse, N. Y.	1962	Marvin Rapp	C	3,175 81
Onondago Community	Costa Mesa, Calif.	1947	Robert Moore	DI	14,828 509
Orange Coast	Huddleton, N. Y.	1950	Robert T. Novak	C	3,078 115
Orange County Community	Orlando, Fla.	1941	Morris S. Hale, Jr.	P	1,672 75
Orlando Junior	La Junta, Colo.	1941	William L. McDivitt	DI	1,046 45
Otero Jr.	Ottumwa, Iowa	1925	Sister M. Hogan	D	435 35
Ottumwa Heights	Memphis, Tenn.	1954	Charles L. Dinkins	D	437 35
Owen	Oxford, Ga.	1836	S. S. Atwood	DI	367 28
Oxford Coll. of Emory Univ.	Paducah, Ky.	1932	R. G. Matheson	Mu	1,153 62
Paducah Junior	Lake Worth, Fla.	1933	Harold C. Manor	C	4,001 180
Palm Beach Junior	Charleston, S. C.	1954	Charles E. Palmer	P	918 44
Palmer	San Marcos, Calif.	1945	Frederick R. Huber	DI	5,123 35
Palomar	Blythe, Calif.	1947	Stuart M. Bundy	DI	550 30
Palo Verde	Carthage, Tex.	1947	M. A. Baker	C	638 35
Panola	Carthage, Tex.	1924	Louis B. Williams	Mu	504 29
Paris Junior	Pasadena, Calif.	1924	Armen Sarafian	DI	13,119 565
Pasadena City	Paul Smiths, N. Y.	1916	Chester L. Buxton	P	954 52
Paul Smiths	Raleigh, N. C.	1857	S. David Frazier	D	435 28
Peace	Poplarville, Miss.	1926	M. R. White	DI	858 70
Pearl River Junior	Philadelphia, Pa.	1865	Thomas M. Peirce	Pr	1,889 82
Peirce Junior	Port Angeles, Wash.	1961	E. John Maier	S	997 50
Peninsula	Pensacola, Fla.	1948	T. Felton Harrison	DI	3,943 226
Pensacola Jr.	Oakland, Calif.	1953	John W. Dunn (Supt.)	Mu	16,490 829
Peralta Jr. Coll. Dist.	Oakland, Calif.	1953	Wallace T. Homitz	DI	8,025 379
Laney	Oakland, Calif.	1953	Edward H. Redford	DI	8,465 450
Merritt	Oakland, Calif.	1953	Frederick T. Lencestey	DI	9,787 499
Phoenix	Phoenix, Ariz.	1920	J. Lee Thompson	P	395 37
Pine Manor Junior	Chesnut Hill, Mass.	1944	Frederick C. Ferry, Jr.	DI	3,275 137
Polk Junior	Winder, Haven, Fla.	1964	C. H. Browning (Dean)	Mu	4,126 110
Port Huron Junior	Port Huron, Mich.	1923	J. C. Shires	DI	1,044 47
Porterville	Porterville, Calif.	1927	O. H. Shires	Pr	500 41
Post Junior	Waterbury, Conn.	1890	Harold B. Post	Mu	295 16
Poteau Community	Poteau, Okla.	1933	Orville Johnson	S	841 44
Potomac St. Coll.	Keyser, W. Va.	1901	Iodd H. Bullard	S	841 44

Name	Location	Yr.	Governing Official and Control	Students	Teachers
Pratt Community Jr.	Pratt, Kan.	1938	Jess V. Cooper.	DI	343 25
Prentiss Institute.	Prentiss, Miss.	1931	Mrs. J. E. Johnson.	P	237 21
Presentation.	Aberdeen, S. D.	1951	Sister F. M. Dunn.	D	285 35
Prince George's Community.	Largo, Md.	1958	Watson F. Pindell.	C	3,023 143
Queensborough Community (a).	Bayside, N. Y.	1958	Kurt R. Schmeller.	Mu	6,460 257
Quincy Junior.	Quincy, Mass.	1958	Kenneth P. White.	Mu	977 57
Racine-Kenosha Co. Teachers.	Union Grove, Wisc.	1916	W. D. Thompson.	C	192 8
RCA Institutes.	New York, N. Y.	1909	A. L. Baker.	Pr	4,000 150
Ranger Junior.	Ranger, Tex.	1926	E. W. Mince.	Mu	335 24
Reedley.	Reedley, Calif.	1926	Clifford M. Boyer.	DI	1,896 86
Reinhardt.	Waleska, Ga.	1883	James Burgess, Jr.	D	300 25
Rhode Island Jr.	Providence, R. I.	1964	William F. Flanagan.	S	2,356 140
Ricks.	Rexburg, Idaho.	1888	John L. Clarke.	DI	3,384 160
Rio Hondo Jr.	Whittier, Calif.	1963	Walter Garcia.	DI	5,600 450
Riverside City.	Riverside, Calif.	1916	R. H. Bradshaw.	DI	7,390 267
Robert Morris.	Carthage, Ill.	1965	Lawrence Sherman.	P	609 35
Robert Morris Junior.	Pittsburgh, Pa.	1921	Charles L. Sewall.	Pr	3,090 109
Rochester State Junior.	Rochester, Minn.	1915	Charles Hill.	Mu	1,700 80
Rockland Community.	Suffern, N. Y.	1960	Seymour Eskow.	C	3,266 84
Roger Williams Junior.	Providence, R. I.	1948	Ralph E. Gauvey.	P	1,116 72
Sacramento City.	Sacramento, Calif.	1916	Oliver Durand.	DI	9,395 388
Sacred Heart.	(W) Cullman, Ala.	1940	Sister M. L. Michel.	D	181 32
St. Catharine.	St. Catharine, Ky.	1931	Sister M. M. Hofstetter.	D	227 22
St. Gregory's.	Shawnee, Okla.	1875	Richard Sneed.	D	582 47
St. John's.	Winfield, Kan.	1893	Rev. Reuben C. Beisel.	D	288 40
St. John's River Junior.	Palatka, Fla.	1958	Charles W. La Pradd.	C	1,441 94
St. Louis, Jr. Coll. Dist. of.	St. Louis, Mo.	1962	Joseph Cosand.	DI	9,000 600
St. Mary's Jr.	Minneapolis, Minn.	1964	Sis. Anne Joachim.	DI	494 61
St. Mary's Junior.	(W) Raleigh, N. C.	1842	Richard G. Stone.	D	354 37
St. Paul's.	Concordia, Mo.	1883	Lambert J. Mehl.	D	307 30
St. Petersburg Junior.	St. Petersburg, Fla.	1927	Michael Bennett.	C	8,627 360
San Antonio.	San Antonio, Tex.	1927	Arthur W. Moody.	DI	10,800 465
San Bernardino Valley.	San Bernardino, Calif.	1914	Charles W. Patrick.	Mu	11,317 467
San Diego Junior.	San Diego, Calif.	1914	Charles W. Patrick.	Mu	13,363 791
San Francisco, City Coll. of.	San Francisco, Calif.	1935	Louis G. Conlan.	Mu	11,000 358
San Jacinto.	Pasadena, Texas.	1960	Thomas M. Spencer.	DI	4,857 161
San Joaquin Delta.	Stockton, Calif.	1935	Burke W. Bradley.	Mu	6,635 328
San Jose City.	San Jose, Calif.	1921	Otto Roemlich.	DI	10,722 384
San Mateo, Coll. of.	San Mateo, Calif.	1922	Julio L. Bortolazzo.	DI, C	20,500 598
Santa Ana.	Santa Ana, Calif.	1915	John E. Johnson.	DI	6,468 116
Santa Barbara City.	Santa Barbara, Calif.	1946	Robert C. Rockwell.	DI	3,861 179
Santa Monica City.	Santa Monica, Calif.	1929	Malcolm Thomas.	Mu	12,479 300
Santa Rosa Junior.	Santa Rosa, Calif.	1918	Randolph Newman.	DI	6,165 250
Sayre Junior.	Sayre, Okla.	1938	Harry Patterson.	D	106 35
Schreiner Institute.	Kerrville, Tex.	1923	Andrew Edgington.	D	407 35
Scottsbluff.	Scottsbluff, Nebr.	1932	William Ptacek.	Mu	507 26
Schoolcraft.	Livonia, Mich.	1961	Eric Bradner.	DI	3,779 150
Sequoias, Coll. of the.	Visalia, Calif.	1925	Ivan Crookshanks.	DI	4,134 157
Shasta.	Redding, Calif.	1950	Gilbert Collyer.	DI	4,980 211
Sheldon Jackson Jr.	Sitka, Alaska.	1878	Orin Stratton.	DI	159 23
Sheridan.	Sheridan, Wyo.	1948	Jefferson Haney.	DI	384 29
Shoreline Community.	Seattle, Wash.	1964	Richard S. White.	DI	3,112 173
Shorter.	No. Little Rock, Ark.	1859	H. Solomon Hill.	DI	219 18
Sierra.	Rocklin, Calif.	1936	Harold M. Weaver.	D	2,500 91
Silvermine Coll. of Art.	New Canaan, Conn.	1960	R. H. Grey (Dn.)	P	500 20
Sinclair Community.	Dayton, Ohio.	1887	Marvin Knudson.	Y	2,587 125
Siskiyous, Coll. of the.	Weed, Calif.	1959	W. E. Roberts.	DI	2,000 77
Skagit Valley.	Mt. Vernon, Wash.	1926	Norwood Cole.	DI	2,659 140
Snead State Junior.	Boaz, Ala.	1935	Virgil McCain.	D	393 27
Snow.	Ephraim, Utah.	1888	Floyd S. Holm.	S	967 34
Solano.	Vallejo, Calif.	1945	M. Dallas Evans.	DI	4,267 145
South Georgia.	Douglas, Ga.	1927	Pope A. Duncan.	S	805 49
South Plains.	Levelland, Tex.	1927	Marvin L. Baker.	C	1,359 66
South Texas Junior.	Houston, Tex.	1948	William Dykes.	Y	4,602 121
Southeastern.	Harrisburg, Ill.	1960	John Murphy (Dn.)	DI	593 37
Southern Baptist.	Walnut Ridge, Ark.	1941	H. E. Williams.	D	525 32
Southern Sem. & Junior.	(W) Buena Vista, Va.	1867	Sidney Sandridge.	P	325 36
Southern Tech. Institute.	Marietta, Ga.	1948	Hoyt L. McClure (Dir.)	S	1,049 60
Southwest Mississippi Junior.	Summit, Miss.	1918	H. T. Huddleston.	DI	538 33
Southwest Texas Junior.	Uvalde, Tex.	1946	Wayne Matthews.	DI	905 41
Southwestern Comm.	Creston, Iowa.	1966	W. R. Pierce, Jr. (Supt.)	Mu	670 41
Southwestern Oregon Comm.	Coos Bay, Ore.	1961	Jack E. Brookins.	DI	1,800 101
Spartanburg Junior.	Spartanburg, S. C.	1961	H. Lester Kingman.	D	646 34
Spring Garden Institute.	Philadelphia, Pa.	1850	Robert Thompson.	P	337 38
Spokane Comm.	Spokane, Wash.	1963	Walter S. Johnson.	D	4,972 363
Springfield Junior.	Springfield, Ill.	1929	Mo. M. Borgia.	D	822 51
Staten Island Community (a).	Staten Island, N. Y.	1955	Walter L. Willig.	Mu	3,579 179
Stevens Henager.	Salt Lake City, Utah.	1907	Leroy Stevens.	Pr	904 48
Strayer Jr.	Washington, D. C.	1904	M. T. Donoho, III.	Pr	1,595 118
Sue Bennett.	London, Ky.	1896	Earl F. Hays.	D	386 21
Suffolk County Community.	Selden, N. Y.	1959	Albert M. Ammerman.	C	6,789 192
Sullins.	(W) Bristol, Va.	1870	William Martin.	P	350 35
Sullivan County Community.	So. Fallsburg, N. Y.	1963	Richard F. Grego.	C	1,057 54
Suomi.	Hamock, Mich.	1896	Ralph J. Jalkanen.	D	320 25
Tacoma Comm.	Tacoma, Wash.	1965	Thornton Ford.	DI	2,100 120
Taft.	Taft, Calif.	1922	Garryn A. Basham.	DI	1,241 43
Temple Junior.	Temple, Tex.	1926	H. M. Dawson.	Mu	1,021 57
Texas Southmost.	Texasarkana, Tex.	1927	J. W. Cady.	Mu	1,612 57
Thames Valley St. Tech. Inst.	Brownsville, Tex.	1926	C. J. Garland.	Mu	1,296 54
Thornton Junior.	Norwich, Conn.	1963	Donald Welter.	S	697 42
Treasure Valley Comm.	Harvey, Ill.	1929	J. D. Logsdon.	Mu	3,580 124
Trinidad State Junior.	Ontario, Ore.	1962	E. J. Skinner.	DI	2,000 120
Truett McConnell.	Trinidad, Colo.	1925	Guy C. Davis.	Mu	1,372 57
Tyler Junior.	Cleveland, Ga.	1946	Warner Fusselle.	DI	440 17
Ulster County Community.	Tyler, Tex.	1963	Harry E. Jenkins.	Mu	2,900 146
Umpqua Comm.	Stone Ridge, N. Y.	1963	George S. Erbsstein.	C	1,495 47
Union.	Roseburg, Ore.	1964	Harry Jacoby.	DI	738 73
Utica Junior.	Cranford, N. J.	1933	Kenneth MacKay.	P	1,450 78
Valley Forge Military Junior (M).	Utica, Miss.	1954	Walter Washington.	C	591 38
Ventura.	Wayne, Pa.	1934	Lt. Gen. M. G. Baker.	P	250 25
Vermont.	Ventura, Calif.	1929	Ray E. Lochr.	DI	9,507 362
Vermont Technical.	(W) Montpelier, Vt.	1834	William L. Irvine.	P	492 45
	Randolph Center, Vt.	1957	Pierre Kleffer.	S	348 35

Name	Location	Yr.	Governing Official and Control	Stu- dents	Teach- ers
Victor Valley	Victorville, Calif.	1961	Fred F. Berger, Jr.	1,400	44
Victoria	Victoria, Tex.	1925	J. D. Moore	1,387	60
Villa Julie	Stevenson, Md.	1952	Sis. Mary Stephen	210	38
Vincennes Univ.	Vincennes, Ind.	1801	Isaac K. Beckes	1,946	106
Virginia Intermont.	(W) Bristol, Va.	1884	Floyd V. Turner	550	38
Virginia Southern	Roanoke, Va.	1933	A. R. Kennett	175	8
Voorhees	Denmark, S. C.	1897	John F. Potts	704	35
Voorhees Technical Inst.	New York, N. Y.	1881	Edwin H. Miner	482	61
Wabash Valley	Mt. Carmel, Ill.	1960	Robert W. Bowen	700	52
Waldorf	Forest City, Iowa	1903	Rev. Sigvald D. Fauske	600	38
Walker	Jasper, Ala.	1938	David J. Rowland	750	45
Weatherford	Weatherford, Tex.	1869	J. C. Nichois	976	45
Wenatchee Valley Community	Wenatchee, Wash.	1939	William Stewart	1,440	99
Wentworth Institute	(M) Boston, Mass.	1904	H. Russell Beatty	1,955	151
Wentworth Military Acad.	(M) Lexington, Mo.	1880	Col. L. B. Wilcox	304	30
Wesley	Dover, Del.	1873	Robert H. Parker	884	57
Westbrook Junior	(W) Portland, Me.	1831	Edward Y. Blewett	460	40
Westchester Community	Valhalla, N. Y.	1946	Phillip C. Martin	4,809	87
Wharton County Junior	Wharton, Tex.	1946	Theodore Nicksick, Jr.	1,868	86
Willmar State Junior	Willmar, Minn.	1961	Daie A. Lorenz	448	33
Wingate	Wingate, N. C.	1896	Budd E. Smith	1,560	88
Wood Junior	Mathiston, Miss.	1885	Elfrit Sutphin	175	14
Worcester Junior	Worcester, Mass.	1905	Clifton W. Emery, Jr.	2,250	114
Worthington State Junior	Worthington, Minn.	1936	W. Donald Olsen (Dn.)	600	35
Yakima Valley	Yakima, Wash.	1928	Omar Scheldt	2,715	127
York	York, Neb.	1900	Ole Larsen	350	23
York Junior	York, Pa.	1941	Ray A. Miller	1,800	87
Young Harris	Young Harris, Ga.	1886	Douglas R. Sasser	414	20
Yuba Junior	Marysville, Calif.	1927	James M. Starr	4,507	195

(a) Division of the City Univ. of New York. (b) Division of Russell Sage College.

Selected Colleges with Major Endowment Funds

Table shows the latest available figures. They represent book values (italics indicate market value), excluding federal, state or municipal appropriations, value of plant or of contributed services.

Institution	Location	Amount	Institution	Location	Amount
Agnes Scott	Decatur, Ga.	12,300,000	Minnesota, Univ. of	Minneapolis, Minn.	78,320,382
Alabama, Univ. of	University, Ala.	13,054,910	Missouri, Univ. of	Columbia, Mo.	10,080,876
Amherst College	Amherst, Mass.	55,542,444	Mt. Holyoke College	So. Hadley, Mass.	31,314,000
Atlanta Univ.	Atlanta, Ga.	11,100,721	Northeastern Univ.	Boston, Mass.	20,182,619
Barnard College	New York, N. Y.	14,249,783	Northwestern Univ.	Evanston, Ill.	155,305,447
Baylor Univ.	Waco, Tex.	25,766,870	Notre Dame, U. of	Notre Dame, Ind.	65,000,000
Berea College	Berea, Ky.	40,000,000	Oberlin College	Oberlin, Ohio	60,686,540
Berry College	Mt. Berry, Ga.	10,794,103	Occidental	Los Angeles, Calif.	15,735,482
Boston Univ.	Boston, Mass.	26,000,000	Ohio State Univ.	Columbus, Ohio	381,800,000
Bowdoin College	Brunswick, Me.	27,170,000	Penna. Univ. of	Philadelphia, Pa.	158,000,000
Brandeis Univ.	Waltham, Mass.	19,500,000	Pittsburgh, Univ. of	Pittsburgh, Pa.	76,934,652
Brown Univ.	Providence, R. I.	63,655,584	Pomona College	Claremont, Calif.	17,624,325
Bryn Mawr College	Bryn Mawr, Pa.	30,213,994	Pratt Institute	Brooklyn, N. Y.	15,700,000
Bucknell Univ.	Lewisburg, Pa.	17,878,223	Princeton Univ.	Princeton, N. J.	316,497,854
Calif. Inst. of Tech.	Pasadena, Calif.	110,217,000	Queens Univ.	Kingston, Ont.	16,020,000
Calif., Univ. of	Berkeley, Calif.	250,000,000	Radcliffe College	Cambridge, Mass.	20,554,146
Carleton College	Northfield, Minn.	12,429,000	Redlands, Univ. of	Redlands, Calif.	11,536,312
Carnegie-Mellon	Pittsburgh, Pa.	120,000,000	Rensselaer Poly.	Troy, N. Y.	54,136,632
Case W. Reserve	Cleveland, O.	126,055,000	Rice Univ.	Houston, Tex.	98,144,630
Chatham	Pittsburgh, Pa.	10,370,895	Richmond, Univ. of	Richmond, Va.	13,477,867
Chicago, Univ. of	Chicago, Ill.	886,000,000	Rochester I. of T.	Rochester, N. Y.	21,649,369
Cincinnati, Univ. of	Cincinnati, Ohio	36,493,721	Rochester, Univ. of	Rochester, N. Y.	138,176,936
Claremont Graduate School	Claremont, Calif.	18,000,000	Rockefeller Univ.	New York, N. Y.	198,447,798
Colby College	Waterville, Maine	12,250,000	Rutgers, the St. U.	New Brunswick, N. J.	25,766,049
Colgate Univ.	Hamilton, N. Y.	18,877,000	St. John's Univ.	Jamaica, N. Y.	11,000,000
Columbia Univ.	New York, N. Y.	406,800,000	St. Lawrence Univ.	Canton, N. Y.	10,367,724
Cooper Union	New York, N. Y.	38,084,754	St. Louis Univ.	St. Louis, Mo.	20,847,026
Cornell Univ.	Ithaca, N. Y.	381,566,308	Santa Clara, U. of	Santa Clara, Calif.	10,821,195
Dalhousie Univ.	Halifax, N. S.	31,624,403	Smith College	N. Hampton, Mass.	48,686,285
Dartmouth College	Hanover, N. H.	110,000,000	South. Univ.	Memphis, Tenn.	18,908,333
Delaware, Univ. of	Newark, Del.	49,568,687	So. Methodist Univ.	Dallas, Tex.	23,525,000
Denison Univ.	Granville, O.	12,821,193	Stanford Univ.	Stanford, Calif.	216,224,503
Denver, Univ. of	Denver, Colo.	12,000,000	Stevens Inst. of Tech.	Hoboken, N. J.	36,000,000
Delaunay Univ.	Greencastle, Ind.	13,993,227	Swarthmore Coll.	Swarthmore, Pa.	24,555,589
Drew Univ.	Madison, N. J.	13,965,649	Syracuse Univ.	Syracuse, N. Y.	38,799,000
Duke Univ.	Durham, N. C.	60,301,844	Texas Christ'n U.	Fort Worth, Tex.	27,000,000
Emory Univ.	Atlanta, Ga.	64,000,000	Texas Univ. of	Austin, Tex.	544,372,593
Fairleigh Dickinson Univ.	Rutherford, N. J.	11,000,000	Toronto, Univ. of	Toronto, Ont.	24,588,154
Fordham Univ.	Bronx, N. Y.	10,610,000	Trinity	Hartford, Conn.	15,000,000
George Peabody Coll. for Teachers	Nashville, Tenn.	12,500,000	Tufts Univ.	Medford, Mass.	21,287,576
George Wash. U.	Washington, D. C.	10,000,000	Tulane Univ.	New Orleans, La.	40,296,627
Georgetown Univ.	Washington, D. C.	12,000,000	Tuskegee Inst.	Alabama	17,144,552
Grinnell College	Grinnell, Iowa	11,064,389	Union Coll.	Schenectady, N. Y.	20,946,966
Gustavus Adolphus	St. Peter, Minn.	14,157,624	Union Theol. Sem.	New York, N. Y.	24,949,533
Hampton Inst.	Hampton, Va.	37,000,000	Vanderbilt Univ.	Nashville, Tenn.	76,405,110
Harding	Secary, Ark.	13,000,000	Vassar College	Poughkeepsie, N. Y.	48,572,902
Harvard Univ.	Cambridge, Mass.	621,795,041	Vermont, Univ. of	Burlington, Vt.	11,996,386
Idaho, Univ. of	Moscow, Idaho	14,700,000	Virginia, Univ. of	Charlottesville, Va.	48,220,341
Illinois, Univ. of	Urbana, Ill.	13,647,151	Wabash Coll.	Crawfordsville, Ind.	15,000,000
Johns Hopkins Univ.	Baltimore, Md.	150,200,000	Wake Forest Coll.	Winston-Sa., N. C.	17,739,100
Kalamazoo	Kalamazoo, Mich.	11,000,000	Washington State	Pullman, Wash.	41,794,076
Kansas, Univ. of	Lawrence, Kans.	22,000,000	Washington, U. of	St. Louis, Mo.	75,100,868
Lafayette College	Easton, Pa.	22,000,000	Washington & Lee	Seattle, Wash.	32,331,911
Lawrence Univ.	Appleton, Wis.	20,946,225	Wellesley College	Lexington, Mass.	12,943,372
Lehigh Univ.	Bethlehem, Pa.	31,267,411	Wesleyan Univ.	Wellesley, Mass.	72,651,285
Mary Washington	Fredericksburg, Va.	12,977,775	Whitman College	Middleton, Conn.	109,000,000
Mass. Inst. of Tech.	Cambridge, Mass.	120,877,000	Williams College	Walla Walla, Wash.	12,642,236
McGill Univ.	Montreal, Can.	76,623,018	Wisconsin, Univ. of	Williamst'n Mass.	43,007,000
Maine, Univ. of	Coral Gables, Fla.	17,898,827	Wittenberg Coll.	Nauvauker, Wisc.	15,368,088
Michigan, Univ. of	Ann Arbor, Mich.	49,683,733	Wooster Coll.	Springfield, O.	10,990,260
Middlebury College	Middlebury, Vt.	16,749,676	Worcester Poly. Inst.	Wooster, O.	11,592,000
			Wyoming, Univ. of	Worcester, Mass.	21,628,000
			Yale Univ.	Laramie, Wyo.	12,846,287
				New Haven, Conn.	457,951,886

American College Fraternities, Sororities and Societies

Source: World Almanac Questionnaire

American college fraternal organizations include the fraternities and sororities that organize the social life of their members, and the honor and recognition societies that elect members primarily for their achievement in some field of education. Among the fraternities and sororities, there is a distinction between the so-called social college fraternities that draw their membership mainly from the undergraduate student body, and the professional fraternities that confine their membership to a specific field of professional education.

The oldest American college Greek letter fraternity is Phi Beta Kappa, organized Dec. 5, 1776 at William and Mary College, Williamsburg, Va. It was not continuously active. Originally founded as a secret fraternity, Phi Beta Kappa was reorganized in 1883 as an honor society and students with the highest standing on graduation are nominated for membership by college authorities. Kappa Alpha Society, founded Nov. 26, 1825 at Union College, Schenectady, N. Y., is the oldest of all Greek letter fraternities to have maintained a continuous existence.

NATIONAL INTERFRATERNITY ORGANIZATIONS

National Interfraternity Conference: 271 Madison Ave., New York, N. Y. 10016.

Professional Intrafraternity Conference: Sec., W. E. Koch, Jr., 29 N. Gore Ave., Webster Groves, Mo.

Assn. of College Honor Societies: Sec.-Treas., Donald Hoffman, 2812 Livingston St., Allentown, Pa.

National Panhellenic Conference: Mrs. Karl Miller, 8747 Greenwood Ave., Chicago, Ill.

Professional Panhellenic Association: Sec., Mrs. Sybil A. Lambert, 1323 Manget Way, Atlanta, Ga.

Social College Fraternities and Sororities

FRATERNITIES

Name	Year Found.	Active Chapt.	Members	National Headquarters
Acacia.....	1904	52	25,977	1611 Chicago Ave., Evanston, Ill. 60201
Alpha Chi Rho.....	1895	28	12,010	1 Malden Lane, New York, N. Y. 10038
Alpha Delta Gamma.....	1924	14	746	6332 No. Kenmore, Chicago, Ill. 60626
Alpha Delta Phi.....	1832	30	31,314	125 E. 50th St., New York, N. Y. 10022
Alpha Epsilon Pi.....	1913	92	31,000	7730 Carondelet Ave., St. Louis, Mo. 63105
Alpha Kappa Lambda.....	1914	40	9,140	4702 S. College Ave., Ft. Collins, Colo.
Alpha Phi Alpha.....	1906	337	30,840	4432 South Pkwy., Chicago, Ill. 60653
Alpha Phi Delta.....	1914	20	7,500	P.O. Box 8474, Pittsburgh, Pa. 15220
Alpha Phi Omega (A).....	1925	420	107,000	1100 Waltham Bldg., Kansas City, Mo. 64106
Alpha Sigma Phi.....	1845	60	35,406	24 W. William St., Delaware, Ohio 43015
Alpha Tau Omega.....	1865	130	96,400	107 F. Green St., Champaign, Ill. 61820
Beta Sigma Psi.....	1925	14	2,550	60 Progress Pkwy., Maryland Hts., Mo. 63042
Beta Sigma Rho.....	1910	10	5,200	250 Broadway, New York, N. Y. 10007
Beta Theta Pi.....	1839	103	73,500	208 E. High St., Oxford, Ohio 45056
Chi Phi.....	1824	36	20,370	3330 Peachtree Rd., N.E. Atlanta, Ga. 30326
Chi Psi.....	1841	27	16,500	1705 Washtenaw Ave., Ann Arbor, Mich. 48104
Delta Chi.....	1890	54	25,000	16 So. Clinton St., Iowa City, Ia., 52240
Delta Kappa Epsilon.....	1844	42	25,000	50 Vanderbilt Ave., New York, N. Y. 10017
Delta Phi.....	1827	15	7,500	331 Madison Ave., New York, 10017
Delta Psi.....	1847	9	4,763	16 East 64th St., New York, N. Y. 10021
Delta Sigma Phi.....	1899	117	46,299	1445 Steele St., Denver, Colo. 80206
Delta Tau Delta.....	1858	97	73,796	3685 Washington Blvd., Indianapolis 46205
Delta Upsilon.....	1834	80	60,000	271 Madison Ave., New York, N. Y. 10016
Farmhouse.....	1905	22	8,600	424 So. Sixth Ave., La Grange, Ill. 60525
Kappa Alpha Order.....	1865	88	61,000	1252 W. Peachtree St., N.W., Atlanta, Ga.
Kappa Alpha Psi.....	1911	277	38,000	2320 No. Broad St., Philadelphia, Pa. 19132
Kappa Alpha Society.....	1845	9	3,850	518 St. Albany, N. Y. 12207
Kappa Delta Rho.....	1905	20	10,000	481 No. Dean St., Englewood, N. J. 07631
Kappa Sigma.....	1869	155	107,500	P.O. Box 5066, Charlottesville, Va.
Kappa Sigma Kappa.....	1867	12	14,339	P.O. Box 609, Fairmont, W. Va. 26554
Lambda Chi Alpha.....	1909	170	103,000	3434 Washington Blvd., Indianapolis, Ind. 46205
Omega Psi Phi.....	1911	300	37,000	2714 Georgia Ave., Washington, D. C. 20001
Phi Beta Sigma.....	1914	215	23,501	none
Phi Delta Theta.....	1848	131	115,800	2 So. Campus Ave., Oxford, Ohio 45056
Phi Epsilon Pi.....	1904	55	28,500	225 S. 15th St., Philadelphia, Pa. 19102
Phi Gamma Delta.....	1848	100	80,000	1757 E. St., N.W., Washington, D. C. 20036
Phi Kappa Psi.....	1852	73	56,600	1940 East 6th St., Cleveland, Ohio 44114
Phi Kappa Sigma.....	1850	45	31,614	335 So. 16 St., Philadelphia, Pa. 19102
Phi Kappa Tau.....	1906	85	37,000	15 No. Campus Ave., Oxford, Ohio 45056
Phi Kappa Theta.....	1889	63	27,000	544 Main, Worcester, Mass. 01608
Phi Lambda Chi.....	1924	6	3,050	Box 521, College Hills Branch, Monticello, Ark.
Phi Mu Delta.....	1918	14	8,750	450 Murray Hill Dr., Lancaster, Pa. 17601
Phi Sigma Delta.....	1909	49	19,950	120 East 34th St., New York, N. Y. 10016
Phi Sigma Epsilon.....	1910	45	19,500	2829 No. Pennsylvania, Indianapolis, Ind. 46205
Phi Sigma Kappa.....	1873	87	38,500	2528 Garrett Road, Drexel Hill, Pa.
Phi Kappa Alpha.....	1868	142	79,000	577 University Blvd., Memphis, Tenn. 38112
Phi Kappa Phi.....	1904	60	25,900	1924 Vall Ave., Charlotte, N. C. 28204
Phi Lambda Phi.....	1895	46	20,782	125 West 43d St., New York, N. Y. 10036
Psi Upsilon.....	1833	27	16,500	4 West 43d St., New York, N. Y. 10036
Sigma Alpha Epsilon.....	1856	161	114,600	1856 Sheridan Rd., Evanston, Ill. 60201
Sigma Alpha Mu.....	1909	64	24,500	250 West 57th St., New York, N. Y. 10019
Sigma Chi.....	1855	144	115,000	1714 Hinman Ave., Evanston, Ill.
Sigma Nu.....	1889	141	85,932	P.O. Box 1869, Lexington, Va. 24450
Sigma Phi.....	1827	10	4,300	25 Broadway, New York, N. Y. 10004
Sigma Phi Epsilon.....	1901	174	85,164	5800 Chamberlayne Rd., Richmond, Va.
Sigma Pi.....	1897	30	26,730	County Highway 225, Vincennes, Ind.
Sigma Tau Gamma.....	1920	67	30,857	23 No. Gore Ave., St. Louis, Mo. 63119
Tau Delta Phi.....	1910	33	13,791	171 Madison Ave., New York, N. Y. 10016
Tau Epsilon Phi.....	1910	80	24,000	250 Fifth Ave., New York, N. Y. 10001
Tau Kappa Epsilon.....	1899	248	77,000	3755 W. Washington Blvd., Indianapolis, Ind. 46206
Theta Chi.....	1856	141	65,234	436 Broad St., Bk. Bldg., Trenton, N. J. 08608
Theta Delta Chi.....	1857	32	17,000	Hotel Biltmore, New York, N. Y. 10017
Theta Xi.....	1864	71	33,161	9974 Old Olive St., St. Louis, Mo. 63141
Triangle.....	1907	28	12,000	P.O. Box 1336, Evanston, Ill. 60204
Zeta Beta Tau.....	1898	75	35,640	Statler Hilton Hotel, New York, N. Y. 10001
Zeta Psi.....	1847	37	20,100	125 East 50th St., New York, N. Y. 10022

(A) A service society.

SOCIAL COLLEGE SORORITIES

Name	Year Found.	Active Chapt.	Members	National Headquarters
Alpha Chi Omega	1885	109	65,553	3415 N. Washington Blvd., Indianapolis Ind., 46205
Alpha Delta Pi	1851	122	68,797	1386 Ponce de Leon Ave., N.E., Atlanta, Ga.
Alpha Epsilon Phi	1909	59	24,500	3600 Forbes St., Pittsburgh, Pa. 15213
Alpha Gamma Delta	1904	87	45,000	3444 Washington Blvd., Indianapolis, Ind. 46205
Alpha Kappa Alpha	1908	320	45,000	5211 So. Greenwood Ave., Chicago, Ill. 60615
Alpha Omicron Pi	1897	88	42,038	300 Meadows Pkwy. Court, Indianapolis, Ind.
Alpha Phi	1872	90	46,000	634 Foster St., Evanston, Ill. 60201
Alpha Sigma Alpha	1901	50	25,000	1201 E. Walnut, Springfield, Mo. 65802
Alpha Sigma Tau	1899	34	14,000	6200 Hoffman Ave., St. Louis, Mo. 63139
Alpha Xi Delta	1893	115	49,500	3447 N. Washington Blvd., Indianapolis, Ind. 46205
Chi Omega	1895	150	96,281	2245 Grandin Rd., Cincinnati, Ohio 45208
Delta Delta Delta	1888	99	85,000	6 No. Michigan Ave., Chicago, Ill. 60602
Delta Gamma	1873	93	64,000	3250 Riverside Dr., Columbus, Ohio 43221
Delta Phi Epsilon	1917	37	15,000	41-25 Kissena Blvd., Flushing, N. Y. 11355
Delta Zeta	1902	173	62,560	3561 N. Pennsylvania St., Indianapolis, Ind. 46205
Gamnia Phi Beta	1874	87	49,000	630 Green Bay Rd., Kenilworth, Ill. 60043
Iota Alpha Pi	1903	11	7,000	81 E. Beverly Pkwy., Valley Stream, N. Y. 11580
Kappa Alpha Theta	1870	93	74,500	Suite 342, 1589 Sherman Ave., Evanston, Ill. 60201
Kappa Delta	1897	104	63,257	900 Landers Bldg., Springfield, Mo. 65806
Kappa Kappa Gamma	1870	94	82,276	530 E. Town St., Columbus, Ohio 43216
Phi Mu	1852	96	48,000	22 No. Front St., Memphis, Tenn. 38103
Phi Sigma Sigma	1913	33	13,569	161 Madeira Ave., Coral Gables, Fla. 33134
Phi Beta Phi	1867	112	88,000	112 S. Hanley Rd., St. Louis, Mo. 63105
Sigma Delta Tau	1917	50	17,000	630 Green Bay Rd., Kenilworth, Ill. 60043
Sigma Gamma Rho	1922	130	7,212	1254 West 25th St., Indianapolis, Ind.
Sigma Kappa	1874	106	50,000	3433 Washington Bldg., Indianapolis, Ind. 46205
Sigma Sigma Sigma	1898	65	31,000	225 N. Muhlenberg, Woodstock, Va.
Theta Phi Alpha	1912	17	8,800	3738 Clifton Ave., Cincinnati, Ohio 45220
Zeta Phi Beta	1920	250	20,000	1734 New Hampshire Ave., Wash., D. C. 20009
Zeta Tau Alpha	1898	111	52,094	708 Church St., Evanston, Ill. 60201

Professional Fraternities and Sororities
Honor and Recognition Societies

Abbreviations: (H.) honor society; (R.) recognition society. All others are professional fraternities and sororities. Organizations marked with (*) asterisk admit both men and women.

FRATERNITIES AND SOCIETIES

Accounting				
Beta Alpha Psi*	1919	77	34,000	Bowling Green St. Univ., Ohio
Advertising				
Alpha Delta Sigma	1913	46	21,563	Southern Ill. Univ., Carbondale, Ill. 62901
Agricultural				
Alpha Gamma Rho	1904	43	25,500	323 Cornell Ave., Des Plaines, Ill. 60016
Alpha Tau Alpha (Agric. Educ.)	1921	30	10,000	Kansas St. Univ., Manhattan, Kans.
Alpha Zeta (H.)	1897	37	53,000	1010 Vermont Ave., Wash., D. C. 20005
Gamma Sigma Delta* (H.)	1905	30	25,000	Auburn Univ., Ala. 36830
Architecture				
Alpha Rho Chi	1914	8	4,000	4256 N. High St., Columbus, Ohio 43214
Scarab	1909	7	5,115	Calif. St. Poly. Coll., San Luis Obispo, Calif.
Tau Sigma Delta* (H.)	1913	23	5,014	Kansas State Univ., Manhattan, Kan. 66502
Arts				
Delta Phi Delta* (H.)	1909	40	14,500	P.O. Box 635, De Kalb, Ill.
Kappa Pi* (R.)	1911	127	48,950	209 N. Adams St., Mt. Pleasant, Iowa
Athletic				
Sigma Delta Psi (H.)	1912	146	3,655	Univ. of Arizona, Tucson, Ariz. 85721
Aviation				
Alpha Eta Rho*	1929	18	2,000	Parks College, Cahokia, Ill. 62201
Band				
Kappa Kappa Psi (R.)	1919	128	37,568	Okla. State Univ., Stillwater, Okla. 74074
Biology				
Beta Beta Beta*	1922	200	3,000	Drew Univ., Madison, N. J.
Phi Sigma Society* (H.)	1915	40	32,600	1305 Hillcrest Dr., Blacksburg, Va. 24060
Broadcasting				
Alpha Epsilon Rho*	1943	35	6,200	St. Coll. at Los Angeles, Calif. 90032
Business				
Alpha Kappa Psi	1904	172	72,386	111 E. 38th St., Indianapolis, Ind. 46205
Beta Gamma Sigma* (H.)	1913	118	45,000	101 No. Skinker Blvd., St. Louis, Mo. 63130
Delta Sigma Pi	1907	139	66,365	330 S. Campus Ave., Oxford, Ohio 45056
Business Education				
Delta Pi Epsilon*	1936	45	10,574	Gustavus Adolphus Coll. St. Peter, Minn.
Pi Omega Pi* (H.)	1923	109	31,000	Bowling Green St. Univ., Bowling Green, Ky.
Ceramic Engineering				
Keramos*	1902	12	3,289	Univ. of Washington, Seattle, Wash. 98105
Chemistry				
Alpha Chi Sigma	1902	45	34,426	5503 E. Wash. St., Indianapolis, Ind. 46220
Gamma Sigma Epsilon* (R.)	1919	16	6,000	W. A. Powell, Univ. of Richmond
Phi Lambda Upsilon (H.)	1899	50	37,175	Ohio Northern Univ., Ada, Ohio
Classics				
Eta Sigma Phi* (H.)	1914	74	1,200	Birmingham-Southern Coll., Ala. 35204
Dentistry				
Alpha Omega	1907	100	15,000	None
Delta Sigma Delta	1882	91	20,857	2204 Constitution Ave., Colo. Spgs., Colo. 80909
Omicron Kappa Upsilon* (H.)	1914	51	13,427	P.O. Box 64, Esparto, Calif. 95627
Psi Omega	1892	35	25,000	1030 Lincoln Ave., Prospect Pk., Pa. 19076
Xi Psi Phi	1889	28	26,000	23 No. Gore, Webster Groves, Mo. 63119
Drama				
Alpha Psi Omega & Delta Psi Omega* (H.)	1925	639	55,000	New York Univ., N. Y.
Natl. Collegiate Players* (H.)	1922	67	10,000	4645 E. Granada Rd., Phoenix, Ariz. 85008
Theta Alpha Phi* (H.)	1919	52	22,000	Brigham Young Univ., Provo, Utah 84601
Earth Sciences				
Sigma Gamma Epsilon* (H.)	1915	62	18,000	Univ. of Oklahoma, Norman, Okla. 73069

FRATERNITIES AND SOCIETIES (continued)

Name	Year Found.	Active Chapt.	Members	National Headquarters
Economics				
Lambda Delta* (H.) (Land Econ.)	1930	7	450	None
Omicron Delta Epsilon* (H.)	1963	150	28,300	Univ. of So. Calif., Los Angeles, Calif. 90007
Education				
Iota Lambda Sigma (Voc.)	1927	27	7,500	3002 Woodside Pl., Cincinnati, Ohio
Kappa Delta Pi* (H.)	1911	298	239,505	Box A, W. Lafayette, Ind. 47906
Kappa Phi Kappa.	1922	36	24,000	Miami Univ., Oxford, Ohio
Phi Delta Kappa.	1906	320	74,000	Elgith St. & Union Ave., Bloomington, Ind. 47401
Engineering				
Alpha Pi Mu (Industrial)* (H.)	1949	34	5,700	Box 2589, San Juan, P. R.
Chi Epsilon (Civil)* (H.)	1922	65	22,708	Univ. of Texas, Austin, Tex. 78712
Eta Kappa Nu (Electrical)* (H.)	1904	113	65,000	Univ. of Ill., Urbana
Kappa Eta Kappa (Electrical)	1923	4	80	1221 N. Milwaukee St., Milwaukee, Wisc.
Pi Tau Sigma (Mechanical)* (H.)	1916	84	40,000	Univ. of Illinois, Urbana, Ill.
Sigma Gamma Tau (Aerospace)* (H.)	1953	20	5,736	Univ. of Kansas, Lawrence
Sigma Phi Delta.	1924	12	5,200	828 Hawthorn Dr., Naperville, Ill. 60540
Sigma Tau* (H.)	1904	33	37,000	Miller Freeman Publications, 500 Howard St. San Francisco
Tau Beta Pi (H.)	1885	128	145,000	Univ. of Tenn., Knoxville, Tenn. 37916
Theta Tau.	1904	29	19,037	13 Sona Lane, St. Louis, Mo. 63141
Forensic				
Delta Sigma Rho & Tau Kappa Alpha* (H.)	1963	192	20,000	Butler Univ., Indianapolis, Ind. 46207
Pi Kappa Delta* (R.)	1913	240	41,400	Bradley Univ., Peoria, Ill. 61606
Forestry				
Xi Sigma Pi* (H.)	1908	28	8,300	Univ. of Missouri, Columbia, Mo. 65201
Geography				
Gamma Theta Upsilon*	1931	128	17,350	Clarion State Coll., Clarion, Pa.
History				
Phi Alpha Theta* (H.)	1921	350	50,781	2812 Livingston St., Allentown, Pa. 18104
Journalism				
Alpha Phi Gamma* (R.)	1919	62	8,817	Ohio Univ., Athens, Ohio 45701
Kappa Tau Alpha* (H.)	1910	47	8,000	Univ. of Missouri, Columbia, Mo. 65201
Pi Delta Epsilon* (R.)	1909	130	31,657	5738 Howe St., Pittsburgh, Pa. 15232
Sigma Delta Chi.	1909	198	19,000	35 E. Wacker Dr., Chicago, Ill. 60601
Languages				
Delta Phi Alpha (German)* (H.)	1929	112	24,703	Univ. of Hawaii, Honolulu, Hawaii 96822.
Pi Sigma Iota (Romance)* (H.)	1922	60	15,600	416 Woodside Ave., Ripon, Wis. 54971
Pi Delta Phi (French)* (H.)	1906	137	26,500	6039 N. Kedvale Ave., Chicago, Ill. 60646
Sigma Delta Pi (Spanish)* (H.)	1919	160	27,000	Kent St. Univ., Kent, Ohio
Sigma Tau Delta (English)*	1924	125	15,000	698 Brookfield Dr., Largo, Fla. 33540
Law				
Delta Theta Phi.	1900	70	52,000	1020 Commerce Bldg., Kansas City, Mo. 64106
Order of the Coll* (H.)	1902	50	15,000	Univ. of Texas, Austin, Tex. 78705
Phi Alpha Delta.	1902	112	53,500	10722 White Oak Ave., Granda Hills, Calif.
Phi Beta Gamma.	1922	15	2,500	425 St. Paul Place, Baltimore, Md.
Phi Delta Phi.	1869	85	76,259	9601 Wilshire Blvd., Beverly Hills, Calif.
Sigma Delta Kappa.	1914	27	18,290	2009 N. 14th St., Arlington, Va. 22201
Sigma Nu Phi.	1903	4	4,901	2026 P St., N.W., Washington D. C. 20036
Tau Epsilon Rho.	1926	22	6,000	Washington & Rugby, Philadelphia, Pa. 19138
Leadership and Activities				
Blue Key (H.)	1924	135	61,000	P.O. Box 4010, New Orleans, La. 70118
Omicron Delta Kappa (H.)	1914	117	49,050	Univ. of Kentucky, Lexington, Ky. 40506
Library Science				
Alpha Beta Alpha*	1950	28	1,200	Millersville St. Coll., Pa. 17551
Mathematics				
Kappa Mu Epsilon* (H.)	1931	77	23,886	Washburn Univ., Topeka, Kan. 66621
Pi Mu Epsilon* (H.)	1914	125	30,000	Univ. of Okla., Norman, Okla. 73069
Medicine				
Alpha Kappa Kappa.	1888	24	12,000	703-A, S.E. 1st St., Evansville, Ind. 47713
Alpha Omega Alpha* (H.)	1902	88	40,500	Box 47, Slatteryville Springs, N. Y. 14881
Chi Delta Mu (Med., Dent. and Pharm.)	1913	20	1,700	1336 Oak St., Washington, D. C. 20010
Delta Sigma Theta (Med., Dent. and Pharm.)	1913	20	3,000	1814 M. St., Wash., D. C. 20036
Nu Sigma Nu.	1882	30	26,000	123 Keller Ave., N. Amery, Wis. 54001
Phi Beta Pi & Theta Kappa Psi	1891	30	25,000	3800 Woodward Ave., Detroit, Mich. 48210
Phi Chi.	1889	43	52,880	P.O. Box 2035, Valdosta, Ga. 31601
Phi Delta Epsilon.	1904	83	20,000	145 East 52nd St., New York, N. Y. 10022
Phi Lambda Kappa.	1907	12	3,500	1205 Spruce St., Philadelphia 7, Pa.
Phi Rho Sigma.	1890	23	27,057	P.O. Box 10886, Pittsburgh, Pa. 15236
Military				
Pershing Rifles (H.)	1894	165	8,500	Univ. of Nebraska, Lincoln, Nebr.
Scabbard and Blade (H.)	1905	157	109,482	P.O. Box 1021, Stillwater, Okla. 74074
Music				
Mu Beta Psi* (R.)	1925	3	1,100	Box 27534, Atlanta, Ga. 30327
Pi Mu Alpha (Sinfonia).	1898	275	50,000	Southern Securities Bldg, Evansville, Ind.
Pi Kappa Lambda* (H.)	1918	64	12,000	P.O. Box 2886, University, Ala. 35486
Nursing				
Sigma Theta Tau* (H.)	1922	43	9,000	20 Hillside Circle, Storrs, Conn.
Optometric				
Omega Delta.	1917	5	2,800	100 N. Main St., Memphis, Tenn.
Omega Epsilon Phi*	1919	7	3,900	1022 Hamilton St., Allentown, Pa.
Osteopathic				
Atlas Club.	1898	5	3,500	1010 E. 5th So., Salt Lake City, Utah 84102
Iota Tau Sigma.	1902	5	2,200	P.O. Box 792, Kirksville, Mo. 63501
Lambda Omicron Gamma.	1924	4	750	300 Spruce St., Philadelphia, Pa. 19106
Phi Sigma Gamma.	1915	3	2,600	1601 Belmont Ave., Kan. City, Mo. 64126
Psi Sigma Alpha* (H.)	1924	3	820	P.O. Box 654, East Liverpool, Ohio 43920
Sigma Sigma Phi (R.)	1921	4	953	25 E. Washington St., Chicago, Ill.
Pharmacy				
Alpha Zeta Omega.	1919	42	5,693	2456 Elmdale Rd., University Heights, Ohio
Delta Sigma Theta (R.)	1913	316	40,000	None
Kappa Psi.	1873	82	29,707	275 Union Blvd., St. Louis, Mo.
Phi Delta Chi.	1883	46	20,000	2070 E. 54th St., Indianapolis, Ind.
Rho Chi* (H.)	1922	68	16,126	500 W. 12th St., Columbus, Ohio
Rho Pi Chi.	1919	38	10,000	32 City Terrace North, Newburgh, N. Y.

FRATERNITIES AND SOCIETIES (continued)

Name	Year Found.	Active Chapt.	Members	National Headquarters
Philosophy				
Phi Sigma Tau* (H.)	1930	35	7,111	Baldwin-Wallace Coll., Berea, Ohio 44017
Physical Education				
Phi Epsilon Kappa	1913	58	19,575	4000 Meadows Dr., Indianapolis, Ind. 46205
Physics				
Lambda Delta Lambda* (H.)	1925	7	3,000	Kansas St. Teachers Coll., Emporia, Kan.
Sigma Pi Sigma* (H.)	1921	135	30,000	Osmond Laboratory, Univ. Park, Pa. 16802
Political Science				
Pi Sigma Alpha* (H.)	1920	125	27,500	Univ. of Maryland, College Park, Md. 20742
Premedical				
Alpha Epsilon Delta* (H.)	1926	89	31,500	7 Brookside Circle, Bronxville, N. Y. 10708
Psychology				
Psi Chi* (H.)	1929	225	46,000	1200 17th St., N.W., Washington, D. C. 20016
Real Estate				
Rho Epsilon* (R.)	1947	13	1,554	Univ. of Nebr. at Omaha
Scholarship (General)				
Alpha Chi* (H.)	1922	75	34,000	Southwest Tex. St. Coll., San Marcos, Tex.
Alpha Kappa Nu* (H.)	1937	71	10,593	Florida A. & M. Univ., Tallahassee, Fla.
Delta Epsilon Sigma* (H.)	1939	93	17,000	Loras College, Dubuque, Iowa 52001
Phi Beta Kappa* (H.)	1776	184	195,000	1811 Q St. N.W., Wash., D. C. 20009
Phi Eta Sigma (Freshman) (H.)	1923	153	104,243	304 Martin Hall, Auburn Univ., Auburn, Ala.
Phi Kappa Phi* (H.)	1897	101	181,000	3839 Wilshire Blvd., Los Angeles, Calif. 90005
Phi Theta Kappa* (H.)	1918	341	12,000	Box 230, Canton, Miss. 39046
Science				
Chi Beta Phi* (H.)	1916	25	8,500	Randolph-Macon Coll., Ashland, Va.
Alpha Alpha (graduate) (R.)	1899	11	11,056	Cornell Univ., Ithaca, N. Y.
Sigma Xi* (H.)	1886	166	110,000	155 Whitney Ave., New Haven, Conn. 06510
Sigma Zeta* (undergrad.) (H.)	1925	21	7,333	Anderson Coll., Anderson, Ind.
Social Science				
Alpha Kappa Delta* (H.)	1920	110	20,000	Iowa State Univ., Ames, Iowa
Pi Gamma Mu* (H.)	1924	142	86,559	1719 Ames St., Winfield, Kan.
Veterinary				
Alpha Psi	1907	8	8,600	Mich. St. Univ., E. Lansing, Mich. 48823
Omega Tau Sigma	1906	9	5,652	Univ. of Illinois, Urbana, Ill.

SORORITIES AND SOCIETIES

Advertising				
Gamma Alpha Chi	1920	27	8,500	917 Cruce St., Norman, Okla. 73069
Architecture				
Alpha Alpha Gamma	1922	20	1,145	P.O. Box 1, Clayton, Mo. 63105
Band				
Tau Beta Sigma (R.)	1946	93	23,158	Okla. State Univ., Stillwater, Okla. 74074
Chemistry				
Iota Sigma Pi (H.)	1912	26	1,500	None
Commerce and Business				
Alpha Iota (H.)	1925	170	57,000	1002 Grand Ave., Des Moines, Iowa 50309
Epsilon Eta Phi	1927	5	2,000	5318 N. Meade Ave., Chicago, Ill.
Phi Chi Theta	1924	75	14,500	718 Judah St., San Francisco, Calif. 94122
Phi Gamma Nu	1924	43	7,500	275 Roosevelt Pl., Grosse Pointe, Mich. 48230
Education				
Alpha Delta Kappa (H.)	1947	1,191	34,660	1615 W. 92nd St., Kansas City, Mo. 64114
Kappa Delta Epsilon	1933	40	15,585	608 Superior Ave., Decatur, Ga. 30033
Pi Lambda Theta (H.)	1917	90	14,500	815 17th St. N.W., Washington, D. C. 20006
Dentistry				
Upsilon Alpha	1918	7	350	832 Marquette Bank Bldg., Minneapolis
Fine Arts				
Phi Mu Gamma (R.)	1898	10	5,628	Box 363, East Bank, W. Va.
Home Economics				
Kappa Omicron Phi (H.)	1922	42	9,200	R.R. 1, P.O. Box 268A, Williamsburg, Pa.
Omicron Nu* (H.)	1912	46	26,000	Mich. State Univ., East Lansing, Mich. 48823
Phi Upsilon Omicron (H.)	1909	56	32,774	Box 5471, State U. Sta., Fargo, N. D.
Journalism				
Theta Sigma Phi	1909	114	4,500	1018 W. 11th St., Austin, Tex. 78703
Law				
Iota Tau Tau	1925	37	1,050	1367 S.E. Sycamore Ave., Santa Ana, Calif.
Kappa Beta Pi	1908	88	4,700	570 Neff Road, Grosse Pointe, Mich.
Phi Delta Delta	1911	55	5,000	860 5th Ave., New York, N. Y. 10021
Literature				
Chi Delta Phi* (H.)	1919	10	170	51 Westwood Ave., Columbus, Ohio 43212
Medicine				
Alpha Delta Theta (Medical technology)	1944	27	1,750	P.O. Box 7241, Milwaukee, Wis. 53213
Music				
Delta Omicron	1909	75	13,000	18518 Cherrylawn, Detroit, Mich. 48221
Mu Phi Epsilon	1903	196	30,000	1139 N. Ridgewood, Wichita, Kan. 67208
Phi Beta (Music and Speech)	1912	60	15,198	4950 W. Walton St., Chicago, Ill. 60651
Sigma Alpha Iota	1903	155	45,000	4119 Rollins Ave., Des Moines, Iowa
Nursing				
Alpha Tau Delta	1921	20	1,800	13301 El Dorado Dr., Seal Beach, Calif. 90740
Osteopathic				
Delta Omega	1904	5	300	Dr. Worley, 226 W. 39th St., Kansas City, Mo.
Pharmacy				
Kappa Epsilon	1921	32	4,600	514 29th Ave., Fargo, N. D. 58102
Lambda Kappa Sigma	1913	50	6,050	4509 Regent, Philadelphia, Pa. 19143
Physical Education				
Delta Psi Kappa	1916	40	7,364	None
Phi Delta Pi	1916	11	3,200	4595 E. 4th Ave., Hialeah, Fla. 33012
Scholastic				
Alpha Lambda Delta (H.)	1924	150	84,385	P.O. Box 866, So. Miami, Fla. 33143
Cardinal Key (R.)	1932	33	1,750	Northern Arizona Univ., Flagstaff, Ariz.
Cwens (Sophomore) (H.)	1932	22	9,000	1177 Woodland Ave., Atlanta, Ga.
Kappa Gamma Pi (H.)	1926	41	13,500	3821 Kirkwood Rd., Cleveland, Ohio 44118
Mortar Board (H.)	1918	117	42,838	6150 W. 76 St., Los Angeles, Calif.
National Spurs (R.)	1922	51	1,500	Univ. of Idaho, Moscow, Idaho
Phi Delta Gamma	1923	19	4,700	2752 N. Leifer Ave., Wauwatosa, Wis.
Sigma Epsilon Sigma (H.)	1927	7	420	433 N. Murray St., Madison, Wis.
Science				
Sigma Delta Epsilon	1921	17	1,400	316 Kingston Ave., Barrington, N. J.
Speech Arts				
Zeta Phi Eta	1893	50	11,094	P.O. Box 1236, Seattle, Wash. 98111

Degrees Conferred by Higher Educational Institutions

UNITED STATES AND OUTLYING AREAS, 1965-66

Source: United States Office of Education

Major sub-classifications do not necessarily add to totals.

Field of study	Bachelor's & first professional ¹		Master's		Doctor's (Ph.D. Ed. D., etc.)	
	Men	Women	Men	Women	Men	Women
Agriculture²	5,578	152	1,295	68	530	7
Agronomy, field crops	626	4	235	5	107	1
Animal Science	1,376	64	283	10	119	1
Architecture	2,496	103	365	16	8	1
Biological Sciences²	19,428	7,620	3,087	1,148	1,792	305
Pre-medical, dental and veterinary	2,948	273	10	1	1	
Biology, general	11,373	5,493	1,105	441	181	45
Zoology, general	3,198	921	485	175	246	47
Business and Commerce²	58,074	5,426	12,656	332	370	17
Accounting	14,203	898	834	28	31	3
Secretarial studies	50	1,396				
Computer Science and Systems Analysis	76	13	221	17	19	
Education²	29,267	89,154	25,837	24,641	2,461	602
<i>Specialized teaching fields</i>						
Physical education	8,294	4,721	2,093	672	86	42
Agriculture	885	1	419	11	30	
Art	1,086	2,620	267	347	10	4
Business and commercial	1,731	4,437	490	680	37	6
Home economics	3	4,504		450		18
Industrial arts	3,445	20	955	8	31	
Music education	2,347	3,151	862	530	41	7
<i>General teaching fields</i>						
Early childhood	12	3,522	1	159		
Elementary education	6,780	58,274	1,772	6,941	86	54
Secondary education	1,338	1,318	2,360	1,564	93	21
<i>Non teaching fields</i>						
Counseling and guidance	9	2	3,125	2,756	232	54
Education general	129	469	4,225	3,900	589	129
Engineering	35,669	146	13,602	76	2,295	9
English and Journalism	15,154	27,169	3,249	3,539	552	162
English and literature	13,244	25,948	2,854	3,411	540	150
Journalism	1,910	1,221	395	128	12	3
Fine and Applied arts²	7,940	10,765	2,760	2,259	396	80
Art, general	1,782	3,462	495	445	22	3
Music	1,554	2,011	974	721	145	19
Speech & dramatic arts	2,266	3,003	780	755	201	39
Foreign Languages and Literature²	4,553	10,974	1,579	2,052	361	151
Latin and/or Greek	634	611	187	174	51	12
French	1,045	4,543	313	741	46	34
German	837	1,224	260	254	69	24
Russian	253	284	83	59	6	3
Spanish	1,377	3,662	387	480	55	27
Forestry	1,464	2	299	4	51	
Geography	1,529	405	309	61	52	6
Health professions²	16,042	12,265	1,610	1,257	225	26
Dentistry, D.D.S. and D.M.D. only	3,229	35	in	in	in	in
Medicine, M.D. only	7,204	516	in	in	in	in
Nursing and or public health nursing	96	7,735	17	846		5
Pharmacy	3,227	536	159	28	73	5
Home economics²	145	5,579	29	711	12	42
Child development, family relations	16	628	13	109	11	12
Clothing and textiles	2	592		94		3
Foods and nutrition	10	650	2	116		14
Law	13,169	518	743	37	27	2
Library science	53	589	1,002	2,914	14	5
Mathematical subjects	13,404	6,689	3,771	1,001	725	57
Merchant marine—deck officer	181		in	in	in	in
Military, naval or airforce science	1,798					
Philosophy	4,306	730	504	109	181	22
Physical sciences²	14,853	2,333	4,464	528	2,914	131
Chemistry	7,934	1,801	1,472	350	1,442	91
Physics	4,385	224	1,869	80	952	21
Geology	1,181	126	445	33	259	9
Psychology	10,041	6,981	1,680	850	826	220
Religion²	7,004	1,475	1,475	471	314	19
Religious education and bible	1,691	938	336	261	39	10
Theology	4,490	112	965	150	171	5
Social sciences²	60,876	32,793	11,369	5,091	1,919	239
<i>Basic</i>						
General	8,212	6,073	988	411	30	3
Economics	10,447	1,138	1,359	169	436	22
History	18,829	9,941	2,800	1,083	527	72
Political science or government	11,994	3,381	1,152	277	307	29
Sociology	6,139	9,064	680	301	208	36
<i>Applied</i>						
Agricultural economics	683	6	363	10	126	2
Industrial relations	860	58	178	5	15	
Public administration	348	30	691	48	27	2
Social work, social administration	476	1,188	1,588	2,324	34	30
Trade and industrial training	2,334	23	42	2	11	
All other	5,688	2,587	1,236	404	66	15
Total	331,122	224,491	93,184	47,588	16,121	2,118
Grand total	555,613	140,772			18,239	

Number of degrees conferred—men 440,427; women 274,197; total 714,624

¹—Includes bachelor of arts, bachelor of science, and such first professional degrees as M.D., LL.B., D.D.S., and B.D. ²—Includes fields of study not listed. (Note—in = inapplicable.)

Fall Enrollment in Higher Educational Institutions

Year	Total	In all institutions		Women	Public	Private
		Men	Men			
All students¹						
Fall 1967.....	6,963,687	4,158,557	2,805,130	4,850,330	2,113,357	2,057,391
Fall 1966.....	6,438,477	3,880,557	2,557,920	4,381,086	1,967,471	1,825,805
Fall 1965.....	5,967,411	3,652,675	2,314,736	3,999,940	1,825,805	1,825,805
Fall 1964.....	5,320,294	3,268,188	2,052,106	3,494,489	1,825,805	1,825,805
First-time students						
Fall 1967.....	1,652,317	936,406	715,911	1,212,846	439,471	439,471
Level of institution						
1967						
		Full-time resident	Part-time resident	Total	First time ²	Women
		Men	Men		Men	Women
Public:						
All institutions.....	1,995,618	1,285,613	865,582	703,517	4,850,330	693,550
4-year institutions.....	1,537,190	1,038,516	485,475	414,479	3,475,660	355,417
Universities.....	915,350	621,698	268,243	198,074	1,903,365	193,674
All other 4-year.....	621,840	516,818	217,232	216,405	1,572,295	161,743
2-year institutions.....	458,428	247,097	380,107	289,038	1,374,670	338,133
Private:						
All institutions.....	945,370	600,390	351,987	215,610	2,113,357	242,856
4-year institutions.....	881,440	546,484	337,187	204,837	1,969,948	208,051
Universities.....	325,657	142,973	157,316	89,786	715,732	59,497
All other 4-year.....	555,783	403,511	179,871	115,051	1,254,216	148,554
2-year institutions.....	63,930	53,906	14,800	10,773	143,409	34,805

¹Includes students whose programs of work consist wholly or chiefly of work normally creditable toward a bachelor's or higher degree and students in 1-, 2-, or 3-year undergraduate programs which are not chiefly creditable toward a bachelor's degree but which are designed to prepare for immediate employment or to provide general education.

²Included in other columns.

All Institutions: 1967—2,382; 1966—2,337. Universities 1967—157; 1966—157. All other 4-year institutions 1967—1,436; 1966—1,425. 2-year institutions 1967—789; 1966—755.

Federal Funds for Education

Source: Office of Education, Dept. of Health, Education and Welfare.
(In millions of dollars. Includes grants, loans, and directly administered services.)

Type of support, level and program	1967	Type of support, level and program	1967
Supporting ed. in educational insts.¹	8,326.3	Loans.....	743.1
Grants.....	7,583.2	Elementary-secondary education.....	741.5
Elementary-secondary education.....	3,084.1	Higher education.....	741.3
Assistance for ed. deprived children.....	1,057.4	Student loan programs ⁸	237.7
School asst.—federally affected areas.....	489.1	Loans for facilities ⁹	50.6
Assistance for special groups ²	721.3	Vocational education insured loan fund.....	.3
National Defense Education Act.....	107.7	Other federal funds¹⁰	3,871.9
Supporting services ³	273.6	Applied research and development.....	1,064.7
Public lands revenue for schools.....	50.2	Related school services.....	448.0
Dependents schools abroad.....	87.5	Training of federal personnel.....	1,537.4
Vocational education.....	194.6	Professional and tech. training (mil.).....	1,443.0
School assistance in special areas ⁴	57.0	Training in nongovernment facilities.....	91.4
School Corps.....	11.3	Library services.....	141.4
Veterans education.....	49.3	Grants to public libraries.....	76.0
Other.....	5.1	National library services.....	65.4
Higher education.....	3,590.7	International education.....	325.5
Basic research.....	1,036.5	Educational Exchange Program.....	44.7
Research facilities.....	203.0	AID education projects and training.....	203.3
Training grants.....	363.6	Peace Corps.....	41.9
Fellowships and traineeships.....	350.2	Other intl education and training.....	36.6
Institutional support—facilities ⁵	822.2	Other.....	353.9
Institutional support—other ⁶	170.0	Extension services.....	92.9
Other student assistance ⁷	590.6	Educational television facilities.....	3.3
Other support.....	54.6	Education in Federal correctional institutions.....	6.3
Adult vocational-tech. and continuing ed.....	908.4	Other education and training.....	15.2
Vocational-technical education.....	470.8	Surplus property transferred ¹¹	236.2
Assistance for special groups ²	345.8		
Veterans education.....	11.3	Total.....	12,198.2
General continuing education.....	29.2		
Training state and local personnel.....	25.6		
Other.....	22.7		

¹Excludes payments for services rendered to the Federal Government. ²Includes Indian education and Economic Opportunity Act programs. ³Includes Titles III (part) and X of NDEA and Titles II, III, and V of ESEA. ⁴Includes District of Columbia, Canal Zone, national parks and territories, Cuban refugee education, etc. ⁵Includes construction at Howard University and Gallaudet College, Washington, D.C., Higher Education Facilities Act, AEC and NSF grants. ⁶Includes AEC, NSF, and PHS grants, language and area centers, land-grant colleges, and support of Howard University, Gallaudet College, East-West Center for Cultural and Technical Interchange, and State merchant marine schools. ⁷Includes Veterans education and work-study programs. ⁸Includes college, health professions, nursing and Cuban refugee programs. ⁹Includes college housing and Higher Education Facilities Act programs. ¹⁰Includes payments for services rendered to the Federal Government and education and related activities excluded above. ¹¹Estimated actual value of surplus real and personal property at time of transfer for education use.

Science Service Popularizes Science

Science Service, Inc., 1719 N St., N.W., Washington, D. C., Edward G. Sherburne, Jr., director, the institution for the popularization of science, was organized as a non-profit corporation, with trustees nominated by the National Academy of Sciences, the National Research Council, the American Association for the Advancement of Science, the journalistic profession and the Edward W. Scripps Trust.

Through its services to newspapers, Science Service has been since 1921 telling the public about science and technology. It covers the broad fields of science—physics, chemistry, medicine, biology, astronomy, anthropology, archaeology, psychology, mathematics, atomics, electronics, etc.—by a specialized science writing staff. It publishes the weekly SCIENCE NEWS and produces monthly the unique THINGS of science experimental kits.

More than a million boys and girls participate annually in Science Service's International Science Youth Program, doing projects and making exhibits shown in science fairs. Some 25,000 science teachers and other science youth leaders, mostly in secondary schools, upon request are sent without charge "know-how" literature and material for inspiring and instructing science students. The International Science Youth Program consists of Science Clubs of America, International Science Fair and the Science Talent Search for the Westinghouse Science Scholarships and awards.

Average Tuition Fee at Selected Colleges and Universities

Source: World Almanac Questionnaire

Fees for tuition charged per year by colleges and universities for courses, use of libraries, laboratories and other facilities, are a major part of student expenses. Tuition varies considerably, depending on the type of institution, its control and location. The lowest tuition fees are those of state-controlled or other public-controlled institutions for residents of their state, city, etc. Students from other states or areas have to pay more. In the following list, such state or other public institutions are shown with two figures. The lower one is the tuition fee for residents, the higher one the tuition fee for students from other states or areas.

It should be noted that the tuition fee does not cover room, board, and other personal expenses.

For location of College or University see pages 319-338

School	Tuition	School	Tuition	School	Tuition
Abilene Christian....	944	Fairleigh Dickinson..	1,250	Oberlin.....	2,000
Adelphi.....	1,500	Florida Dick.....	375-975	Oglethorpe.....	1,100
Akron, Univ. of....	495-1,095	Florida, Univ. of....	375-975	Ohio Univ.....	525-1,050
Alabama, Univ. of....	350-700	Franklin & Marshall..	2,200	Oklahoma State....	360-900
Alaska, Univ. of....	100-250	Fresno State.....	128-848	Oklahoma, Univ. of..	360-900
Albuquerque, Univ. of	300	Furman Univ.....	1,700	Oregon State Univ..	369-999
Amherst.....	2,125	George Washington U..	1,700	Oregon, Univ. of....	369-999
Antioch.....	2,200	Georgetown U.....	1,500	Pan American.....	100-400
Arizona State Univ..	286-815	Georgia.....	333-753	Pennsylvania.....	2,150
Arizona, Univ. of....	289-1,104	Grambling.....	100-500	Pennsylvania St....	450-1,050
Arkansas, Univ. of....	250-650	Grinnell.....	2,125	Pittsburgh, Univ. of	450-1,400
Athenaeum of Ohio..	600	Hamline Univ.....	1,500	Princeton.....	2,150
Auburn.....	360-720	Hampton Inst.....	800	Purdue.....	200-600
Baldwin-Wallace....	1,700	Hartford, Univ. of....	1,500	Radcliffe.....	2,000
Barrington.....	1,400	Harvard.....	2,000	Rensselaer Poly. Inst.	2,050
Baylor.....	900	Hawaii, Univ. of....	1,950	Rice.....	1,050
Boston Coll.....	1,600	Holy Cross.....	1,700	Rutgers.....	400-636
Boston Univ.....	1,875	Houston, Univ. of....	210-510	St. Bonaventure.....	1,400
Bowdoin.....	2,150	Howard Univ.....	500	St. John's Univ.....	1,500
Bowling Green State.	540-1,140	Idaho, Univ. of....	275-775	St. Lawrence Univ..	2,025
Bradley Univ.....	1,300	Illinois State Univ..	120-600	St. Peter's.....	1,425
Brandeis Univ.....	2,100	Illinois, Univ. of....	270-850	San Diego, Univ. of.	1,200
Bridgeport, Univ. of.	1,200	Indiana State Univ..	360-720	Santa Fe.....	860
Brigham Young (a)..	430	Indiana Univ.....	360-990	Sarah Lawrence.....	2,600
Brown.....	2,150	Iowa State Univ.....	375-1,005	Smith.....	2,050
Bryn Mawr.....	1,850	Iowa, Univ. of....	370-1,000	So. Carolina.....	460-1,010
Bucknell.....	1,900	Jacksonville Univ. (c)	1,050	So. Dakota State Un.	423-850
Butler Univ.....	1,450	John Carroll Univ....	1,190	So. Dakota, Univ. of.	304-800
California.....	219-1,200	Kansas, Univ. of....	338-798	South, Univ. of the..	1,550
Carnegie-Mellon U..	1,950	Kansas State.....	332-792	So. Ill. Univ.....	241-631
Case Western Reserve		Kent State.....	510-960	So. Methodist.....	1,200
Univ.....	1,900	La Salle.....	1,400	Stanford.....	1,920
Chattanooga, Univ. of	1,000	Lawrence Univ.....	1,370	Swarthmore.....	2,260
Chicago, Univ. of....	2,100	Lehigh.....	2,000	Syracuse Univ.....	2,100
Cincinnati (b).....	750-1,215	Loma Linda Univ....	1,350	Tampa, Univ. of....	1,200
Clemson.....	496-996	Long Island Univ....	1,676	Temple.....	450-1,350
Colgate.....	2,250	Louisville, Univ. of.	1,200-1,800	Tennessee.....	315-855
Colorado State Univ..	402-1,284	Maine, Univ. of....	400-1,000	Texas Christian Univ.	1,200
Colorado, Univ. of....	378-1,226	Marquette.....	1,450	Texas, Univ. of....	100-400
Columbia.....	1,700	Marshall Univ.....	242-992	Toledo, Univ. of....	556-1,086
Connecticut, Univ. of	290-640	Maryland, Univ. of..	300-525	Tufts Univ.....	2,300
Cooper Union.....	None	Mass. Univ. of....	200-600	Tulane.....	1,900
Cornell.....	2,200	Miami.....	1,650	Tulsa Univ.....	750
Corpus Christi, Un. of	660-760	Mich. State.....	505-1,204	Utah State Univ....	327-801
Creighton Univ.....	1,230	Michigan.....	420-1,300	Valparaiso Univ....	1,300
Dallas, Univ. of....	475	Midwestern.....	100-400	Vanderbilt Univ....	1,760
Dana.....	930	Minnesota.....	385-931	Vassar.....	1,600
Dartmouth.....	2,075	Mississippi.....	366-956	Vermont, Univ. of..	600-1,800
Davidson.....	1,150	Mississippi State....	342-942	Wake Forest Univ..	1,200
Davis & Elkins.....	1,500	Missouri, Univ. of....	350-500	Washington & Lee..	1,800
Dayton, Univ. of....	1,600	Montana St. U.....	375-983	Washington, Univ. of	345-825
Defiance.....	1,500	Montana.....	359-966	Wayne State Univ..	411-1,050
Delaware.....	315-750	Nebraska.....	433-933	Wesleyan Univ.....	*3,100
Denison Univ.....	1,650	Nevada.....	None-600	West Virginia Univ.	230-710
Denver.....	1,680	New Hampshire.....	630-1,375	Western Kentucky..	240-740
Depauw.....	1,900	New Mexico State....	414-1,044	Wichita State Univ..	317-775
Dickinson.....	1,850	New Mexico, U. of..	420-1,050	Wilberforce.....	970
Dordt.....	1,000	New York State.....	425-925	Williamette Univ....	1,600
Drake.....	1,400	New York Univ.....	2,100	William & Mary....	438-560
Dubuque.....	1,260	Niagara.....	1,400	Worcester Poly. Inst.	2,100
Duke.....	1,800	North Carolina.....	175-700	Wyoming.....	347-963
Duquesne.....	1,400	North Dakota State..	360-864	Yale.....	2,150
Eastern Ill. U.....	267-747	North Dakota Un. of.	360-864	Yeshiva Univ.....	1,500
Eastern Kentucky U.	240-740	Notre Dame, Univ. of	1,800	Youngstown State U.	450-525

*Includes room and board. (a) Additional fee for non-members of the Church of Jesus Christ of Latter-Day Saints. (b) Residents of Cincinnati—\$480. (c) Residents of Duval County—\$900.

Public School Attendance, Teachers, Expenditures

Source: U. S. Office of Education; Salaries cover supervisors, principals, and teachers

School year ended in	Pop. 5 to 17 yrs.	Pupils		Teachers ¹			Av. salary ² per member	Total Expend.
		Enrolled	Av. daily attend.	Male	Female	Total		
1900.....	21,404,322	15,503,110	10,632,772	126,588	296,474	423,062	\$325	\$214,964,618
1910.....	24,239,948	17,813,852	12,827,307	110,481	412,729	523,210	485	426,250,434
1920.....	27,728,788	21,578,316	16,150,035	95,654	583,648	679,302	871	1,036,151,209
1930.....	31,571,322	25,678,015	21,264,886	141,771	712,492	854,263	1,420	2,316,790,384
1940.....	29,805,259	25,433,542	22,042,151	194,725	680,752	875,477	1,441	2,344,048,927
1950.....	30,788,000	25,111,427	22,283,845	194,968	718,705	913,671	5,010	5,837,643,000
1960.....	43,881,000	36,036,771	32,777,440	392,700	962,300	1,355,000	3,174	15,613,255,000
1964.....	49,536,000	41,025,000	37,405,000	487,967	1,080,007	1,567,974	6,240	21,482,425,000
1966.....	49,993,000	42,849,900	39,159,000	526,800	1,166,100	1,692,900	6,907	26,195,500,000
1967 (Fall).....	51,584,000	43,886,805	40,708,000	577,200	1,277,500	1,854,700	7,630	31,511,051,000

¹Prior to 1954 includes other non-supervisory instructional staff (librarians and guidance and psychological personnel) ²Average annual salary per member of instruction staff

Degree Granting Canadian Colleges and Universities

Excluding those granting degrees in theology only.
See explanatory notes on page 319

Name	Location	Year	Governing Official	Students	Teachers
Acadia Univ. (T)	Wolfville, Nova Scotia	1838	James Beveridge	1,836	108
Alberta, Univ. of. (T) (Med)	Edmonton, Calgary, Al.	1908	Walter H. Johns	15,725	965
Bishop's Univ. (T)	Lennoxville, Que.	1843	C. L. O. Glass	1,040	77
Brit. Columbia, Univ. of (T) (Med)	Vancouver, B. C.	1912	F. Kenneth Barr	19,994	1,267
Brook Univ. (T)	St. Catharines, Ont.	1964	James A. Gibson	3,781	89
Carleton Univ. (T)	Ottawa, Ont.	1942	A. Davidson Dunton	8,787	380
College De Bathurst	Bathurst, N. B.	1899	Rev. Leopold Lantaigne	1,053	60
Dalhousie Univ. (T) (Med)	Halifax, Nova Scotia	1818	Henry D. Hicks	4,010	651
King's Coll., Univ. of. (T)	Halifax, Nova Scotia	1789	H. D. Smith	210	16
Laurentian Univ. (T)	Sudbury, Ont.	1960	Stanley G. Mullins	2,625	200
Laval, Universite. (T) (Med)	Quebec, Que.	1852	Msgr. L. A. Vachon	25,952	2,320
Loyola	Montreal, Que.	1899	V. Rev. P. G. Malone	5,258	250
Manitoba, Univ. of. (T) (Med)	Winnipeg, Man.	1877	Hugh H. Sanderson	12,550	800
McGill Univ. (T) (Med)	Montreal, Que.	1821	H. R. Robertson (Prin.)	16,141	1,910
McMaster Univ.	Hamilton, Ont.	1887	H. G. Thode	8,951	440
Moncton, Universite de. (T)	Moncton, N. B.	1963	Adelard Savoye	1,961	160
Montreal, Universite de (T) (Med)	Montreal, Que.	1828	R. Gaudry	13,014	904
Mt. Allison Univ.	Sackville, N. B.	1840	Laurence H. Cragg	16,141	109
Mt. St. Vincent Univ. (T) (W)	Halifax, Nova Scotia	1925	Sister Alice Michael	757	79
New Brunswick, Univ. of. (T)	Fredericton, N. B.	1785	M. A. Bart (Chan.)	5,472	380
Newfoundland, Mem. Univ. of (T)	St. John's, Newfld.	1949	Lord Taylor of Harlow	5,600	300
Notre Dame Univ. of Nelson. (T)	Nelson, B. C.	1950	Rev. Aquinas Thomas	541	48
Nova Scotia Technical	Halifax, Nova Scotia	1907	George W. Holbrook	470	71
Osgoode Hall Law School	Toronto, Ont.	1881	Dean Le Dain	575	39
Ottawa, Univ. of. (Med)	Ottawa, Ont.	1848	V. Rev. R. Guindon (Rect.)	8,032	900
Queen's Univ. (T) (Med)	Kingston, Ont.	1841	J. B. Stirling (Chan.)	6,174	603
Royal Military Coll. of Canada (M)	Kingston, Ont.	1876	Hon. L. A. Cadieux	549	115
St. Anne's	Church Pt., N. S.	1890	Rev. Raymond Le Blanc	163	24
St. Dunstan's Univ. (T)	Charlottetown, P.E.I.	1855	V. Rev. G. MacDonald	1,015	70
St. Francis Xavier Univ. (T)	Antigonish, N. S.	1853	R. Rev. M. A. MacLellan	2,607	186
St. Louis	Edmundston, N. B.	1946	Rev. Louis Cyr	1,678	45
St. Mary's Univ. (M)	Halifax, Nova Scotia	1841	V. Rev. C. J. Fischer	1,603	110
St. Thomas Univ.	Fredericton, N. B.	1910	V. Rev. D. C. Duffie	600	36
Saskatchewan, Univ. of. (T) (Med)	Saskatoon, Sask.	1907	J. W. T. Spinks	16,455	900
Sherbrooke, Univ. de. (T) (Med)	Sherbrooke, Que.	1954	Msgr. R. Maltais	7,445	396
Simon Fraser Univ.	Burnaby, B. C.	1965	Patrick McTaggart	5,185	726
Sir George Williams Univ.	Montreal, Que.	1926	Fraser F. Fulton (Chan.)	16,296	467
Toronto, Univ. of. (T) (Med)	Toronto, Ont.	1827	Claude T. Bissell	26,305	4,215
Trent Univ.	Peterborough, Ont.	1963	T. H. Symons	800	78
Victoria, Univ. of. (T)	Victoria, B. C.	1903	Vacant	4,075	274
Waterloo Lutheran Univ.	Waterloo, Ont.	1911	W. R. MacDonald (Chan.)	5,154	113
Waterloo, Univ. of. (T)	Waterloo, Ont.	1957	J. Gerald Hagey	9,500	590
West'n Ontario Un. of (Med) (T)	London, Ont.	1875	D. C. Williams	8,500	1,200
Windsor, Univ. of	Windsor, Ont.	1857	John F. Leddy	5,424	260
York Univ.	Toronto, Ont.	1960	Murray G. Ross	4,000	400

American Field Service (AFS) International Scholarship Program

The American Field Service is a privately-sponsored, non-profit, non-sectarian, non-political organization which operates the world's largest international scholarship program for high school students.

The AFS was founded in 1914 as a volunteer ambulance service with the French Armies. Between the two World Wars, it sponsored a "Fellowships for French Universities" program, and in 1939, re-organized its ambulance corps with the Allied Armies. In 1946 it established its present international scholarship programs on the teenage level when it brought 52 students from 10 countries to the United States.

During 1967, AFS brought more than 3,000 high school students (ages 16-18) to the U.S.A. from 60 countries to participate wholeheartedly in the life of an American community where they attend a secondary school and live in carefully selected homes as members of their host families. During the same period more than 1,300 American students were sent overseas to 44 countries for a similar experience. Since 1947, some 42,712

students in 78 countries have participated in the AFS Scholarship programs.

A grass-roots organization, AFS is operated principally by volunteers worldwide, including 4,300 host families and 20,000 bus stop families who open their homes to students during the cross country trip at the end of the year. In each of the participating countries, there is a far-flung structure involving in-toto thousands of volunteers.

Many organizations as well as individuals contribute to the AFS scholarship programs. Schools have waived non-resident tuition, and other fees and host families welcome students without pay. Local chapters contribute approximately 50% of the funds to administer the AFS. Approximately 32% of the budget comes from the natural families whose payments are adjusted according to their financial resources. The balance of AFS support is dependent upon general fund raising in the United States and abroad.

Arthur Howe, Jr., is president of AFS, which has its international headquarters at 313 East 43rd Street, New York, N. Y. 10017.

Government Publications and How to Get Them

The United States Government, through the Government Printing Office, issues a vast number of pamphlets, books and reports of studies and research conducted by departments and agencies. It has 335 periodicals or subscription services, with more than 1,231,000 subscribers. It sells about 72,000,000 publications annually and distributes many more to libraries and offices. Receipts are more than \$16,000,000 and more than \$7,000,000 is turned over annually to the U. S. Treasury.

Catalogues and price lists are available to the public. Pamphlets dealing with every conceivable subject related to human living—the farm, the home, child care, education, business, fiscal matters—are published regularly. A list of selected publications, issued biweekly, can be had free on request. In addition to free price lists, the Monthly Catalogue of Publications is sold by subscription, \$6, foreign \$7. Address the Supt. of Documents, Government Printing Office, Washington, D. C. 20402.

Scholarships, Fellowships, and Other Financial Aid

Rising costs of higher tuition of colleges and universities have led more and more students to finance their education by summer jobs, part-time work on and off campus, loans, scholarships and fellowships.

Scholarships are usually outright grants to undergraduates, while fellowships are awarded to graduate students. Scholarships which may range from as little as \$10 to as much as \$3,000 annually are usually given to students of proven talent and need. Scholarship donors as a rule require applicants to answer questionnaires and to take talent tests.

To help assure that the available scholarships will go to those who deserve and need them, the College Scholarship Service was created 15 years ago as an agency of the College Entrance Examination Board. More than 1,450 of the nation's colleges and universities are served by this agency. The College Scholarship Service, Box 592, Princeton, N. J., and for residents of the Western states Box 1025, Berkeley, Calif. 94701, requires parents to answer a confidential questionnaire on finances.

National Defense Student Loan Program—Is a program of long-term low-interest student loans, administered by the participating colleges. The Federal Government contributes 90% of the total amount of each institutional loan fund. Eligibility is based upon the financial needs of the student although preference is given to students with superior academic backgrounds. The amount of the loan cannot exceed \$1,000 for any one undergraduate academic year (up to \$5,000), or \$2,500 for any graduate academic year (up to \$10,000). Repayment of the loan must begin 9 months after the borrower is graduated or leaves the school, and may be extended over a 10-year period, except that the institution may require a repayment of no less than \$15 a month. An interest charge of 3% is in effect during the repaying period. No repayment is required during those periods when the borrower is serving in the Armed Forces, the Peace Corps, or as a Volunteer in Service to America (VISTA), providing such periods do not exceed 3 years. If a borrower should become a full-time teacher, as much as half of the loan may be forgiven at the rate of 10% for each year of teaching service. Borrowers who elect to teach in certain eligible schools located in areas of primarily low-income families or who teach handicapped children may qualify for cancellation of their entire obligation at the rate of 15% per year. A student should address his inquiry concerning the program to the appropriate official (usually the Director of Admissions) of the institution in which he expects to enroll.

The Guaranteed Student Loan Programs—Banks, savings and loan associations, insurance companies, credit unions and similar supervised lending institutions may be lenders under this program. The program may vary from state to state but generally the maximum amount borrowed will range from \$1,000 to \$1,500. The Federal Government pays the lender the total interest while the student is in school, and 3 percent on the unpaid balance during the repayment period after the student has withdrawn or graduated. The program is designed to make it possible for students to borrow money for educational expenses in college or in nursing, business, trade, technical or other vocational schools. The loans are guaranteed by State or private nonprofit agencies, or in some states by the Federal government. Students should contact the financial aid officer at their schools for further details.

The College Work-Study Program—Is designed to help students, particularly those from low income families, who need jobs to meet college expenses. Students may work up to 15 hours weekly while attending classes full time and 40 hours weekly during summer and vacation periods. Work may be for the institution or for an approved off-campus agency. To be eligible, a student must be enrolled and be in good standing, or be accepted for enrollment as a full-time student, at a college which participates in the program.

The Educational Opportunity Grants Program—Colleges participating in this program select the

recipients of this program and also determine the amount of the grant. Grants range from \$200 to \$800 for each year of undergraduate study, but can be no more than one-half of the total assistance given the student. As an academic incentive to students, an additional award of \$200 may be given to those students who were in the upper half of their college class during the preceding academic year.

National Merit Scholarship Program—The Natl. Merit Scholarship Corp., estab. in 1955 with grants from the Ford Foundation and the Carnegie Corp. of N. Y., awards over 2,400 scholarships annually to students who demonstrate extraordinary ability to benefit from a college education. Students may participate in the Natl. Merit Scholarship Program through their high schools. They become eligible by taking the Qualifying Test. Top scorers take a second examination, the Scholastic Aptitude Test of the College Entrance Examination Board and have to submit biographical and financial information. Scholarships range from \$100 to \$1,500 a year, depending on needs.

General Motors Scholarship Plan—Another contributor of a large number of scholarships is the General Motors Corp. Under the General Motors Scholarship plan, about 300 4-year undergraduate scholarships for any field of study are awarded annually to entering freshmen by over 200 participating institutions throughout the nation. Scholarships range from \$200 to \$2,000 per year depending upon need. Applications are made through the directors of admission of participating colleges.

Fulbright-Hays Scholarships—As part of an international educational exchange program, the U. S. Government, under the Fulbright-Hays Act provides scholarships for graduate study, research, lecturing and teaching abroad. There are full grants that cover transportation, tuition, books, living expenses and other costs, and there are grants which cover travel costs, with tuition and other expenses fully or partly paid by foreign governments, universities, and other institutions.

Detailed information on these exchange grants may be obtained from the Fulbright Program Adviser at college and university campuses. Persons not currently enrolled at an institution of higher learning should contact one of the following agencies:

- For graduate study and pre-doctoral research—Institute of International Education, 809 United Nations Plaza, New York, N. Y. 10017.
- For teaching in elementary and secondary schools—U. S. Office of Education, Bureau of International Education, Dept. of Health, Education & Welfare, Washington, D. C. 20202.
- For university lecturing and post-doctoral research—Conference Board of Associated Research Councils, Committee on Intl. Exchange of Persons, 2101 Constitution Ave., Washington D. C. 20418.

Rhodes Scholarships for Study at Oxford—Thirty-two qualified American students, regardless of race or religion, are chosen every year to receive Rhodes Scholarships for a minimum of two years of study at Oxford University. Rhodes Scholarships, estab. under the will of Cecil John Rhodes, carry a stipend of approximately \$1,500 a year. At Oxford work may be done in any field of study for which the university awards a degree. Applicants must be male, unmarried U. S. citizens, 18 to 24 years of age at the time of application, and with at least junior standing at a recognized degree-granting college or university at time of application. Information may be obtained from President Courtney Smith, American Secretary of the Rhodes Scholarships, Swarthmore College, Swarthmore, Pa. 19081.

American Academy in Rome Prize Fellowships—The American Academy in Rome, estab. 1894, chartered 1905 by Act of Congress, offers a limited number of fellowships to young American artists and scholars capable of doing independent creative work or research in architecture, landscape architecture, musical composition, painting, sculpture, history of art and classical studies. Fellowships are awarded for one year with a possibility of renewal. A fellowship consists of a grant of \$3,650 a year, studio or study, and residence at the Academy. Information may be obtained from the American Academy in Rome, 101 Park Avenue, New York, N. Y. 10017.

Public Libraries in Selected American Cities

Source: United States Office of Education

City	No. of volumes	Circulation	Cost of operation	City	No. of volumes	Circulation	Cost of operation
Akron, Ohio.....	602,781	2,067,608	\$1,387,554	Mobile, Ala.....	201,970	668,341	\$ 393,540
Albany, N. Y.....	521,543	1,307,118	740,083	Montgomery, Ala.....	122,773	426,644	113,926
Albuquerque, N.M.....	247,364	953,107	247,948	Nashville, Tenn.....	244,624	827,079	648,330
Alhambra, Pa.....	125,608	353,029	228,675	Newark, N. J.....	914,634	2,226,106	2,056,190
Anaheim, Calif.....	148,799	392,278	593,460	New Bedford, Mass.....	296,481	591,135	285,412
Atlanta, Ga.....	700,051	2,282,278	1,011,903	New Haven, Conn.....	396,216	580,031	533,175
Austin, Texas.....	210,507	1,278,121	499,820	New Orleans, La.....	500,933	997,390	999,987
Baltimore, Md.....	1,761,023	4,559,195	3,954,881	New York, N. Y.....			
Baton Rouge, La.....	179,161	709,618	812,276	Public Library			
Berkeley, Calif.....	279,575	892,058	501,272	Circulation	17,490,650	12,644,518	15,631,396
Birmingham, Ala.....	696,673	3,342,750	785,140	Reference			
Boston, Mass.....	2,306,711	3,104,217	4,050,400	Brooklyn.....	2,604,112	10,147,116	8,217,236
Bridgeport, Conn.....	444,911	980,713	550,449	Queens.....	2,084,997	8,721,818	7,484,741
Buffalo, N. Y.....	2,120,020	6,800,210	4,413,900	Norfolk, Va.....	265,876	838,328	592,144
Cambridge, Mass.....	232,851	630,061	359,510	Oakland, Calif.....	669,205	1,676,863	1,804,161
Camden, N. J.....	105,723	169,434	25,784	Oklahoma City.....	268,218	1,003,588	673,225
Canton, Ohio.....	398,583	1,848,569	577,477	Omaha, Nebr.....	369,950	1,468,944	613,562
Charlotte, N. C.....	398,555	1,230,401	609,720	Pasadena, Calif.....	362,172	1,168,911	848,023
Chattanooga, Tenn.....	174,888	469,562	265,430	Paterson, N. J.....	240,778	496,217	318,216
Chicago, Ill.....	3,124,686	10,342,717	7,585,030	Peoria, Ill.....	331,856	748,792	493,304
Cincinnati, Ohio.....	2,344,166	5,719,402	3,197,689	Philadelphia, Pa.....	2,408,341	6,664,745	6,212,870
Cleveland, Ohio.....	3,305,759	7,450,466	5,624,924	Phoenix, Ariz.....	815,590	1,791,395	489,748
Columbus, Ohio.....	785,299	2,795,962	2,033,140	Pittsburgh, Pa.....	1,900,014	4,340,201	3,243,349
Corpus Christi, Tex.....	154,662	694,998	233,754	Portland, Ore.....	896,917	3,504,963	1,849,660
Dallas, Texas.....	821,377	3,465,402	2,284,651	Portsmouth, Va.....	46,479	222,835	133,451
Dayton, Ohio.....	957,492	3,606,321	1,501,323	Providence, R. I.....	536,256	902,771	993,605
Dearborn, Mich.....	218,005	744,010	483,051	Richmond, Va.....	364,925	1,115,985	611,612
Denver, Colo.....	965,754	3,057,244	1,820,677	Rockford, Ill.....	213,826	1,008,568	571,022
Des Moines, Iowa.....	336,084	1,294,796	697,841	Sacramento, Calif.....	455,733	1,105,950	669,158
Detroit, Mich.....	2,057,905	4,653,065	5,772,347	St. Louis, Mo.....	1,235,213	3,164,859	2,459,108
Duluth, Minn.....	171,873	601,033	277,528	St. Paul, Minn.....	659,349	2,277,368	1,198,765
Elizabeth, N. J.....	248,932	458,583	488,111	St. Petersburg, Fla.....	1,599,100	5,058,160	399,900
Erie, Pa.....	263,014	683,145	226,206	Salt Lake City.....	380,832	886,400	590,849
Evansville, Ind.....	359,781	1,264,217	499,462	San Antonio, Tex.....	484,184	1,852,686	816,645
Flint, Mich.....	292,062	1,337,703	855,612	San Diego, Calif.....	753,838	3,174,329	1,531,909
Fort Wayne, Ind.....	1,120,884	2,692,751	1,319,482	San Francisco, Calif.....	1,008,935	3,400,476	2,909,046
Fort Worth, Tex.....	459,011	1,080,223	620,000	San Jose, Calif.....	286,570	2,195,820	723,126
Gary, Ind.....	323,630	805,822	720,357	Santa Ana, Calif.....	175,290	861,194	351,931
Glendale, Calif.....	254,112	922,419	573,951	Scranton, Pa.....	158,967	522,340	205,056
Grand Rapids, Mich.....	502,909	985,731	508,282	Seattle, Wash.....	1,243,891	3,904,684	2,425,145
Hammond, Ind.....	230,153	1,109,753	340,535	Shreveport, La.....	208,454	992,676	279,422
Hartford, Conn.....	404,901	728,471	742,241	South Bend, Ind.....	248,455	993,232	269,777
Houston, Texas.....	788,964	2,476,178	1,098,181	Spokane, Wash.....	335,206	1,087,942	605,747
Indianapolis, Ind.....	836,831	2,195,633	1,672,075	Springfield, Mass.....	568,162	1,113,000	906,833
Jacksonville, Fla.....	459,782	583,665	551,496	Tacoma, Wash.....	442,660	1,135,691	688,316
Jersey City, N. J.....	456,653	797,539	1,011,799	Tampa, Fla.....	327,782	1,132,510	450,322
Kansas City, Kans.....	108,222	305,242	220,539	Toledo, Ohio.....	865,472	2,351,426	1,341,561
Kansas City, Mo.....	1,068,804	3,023,225	1,621,381	Topeka, Kans.....	189,539	631,214	351,401
Knoxville, Tenn.....	259,766	933,566	616,136	Trenton, N. J.....	214,775	333,904	332,017
Little Rock, Ark.....	157,619	356,427	188,165	Tucson, Ariz.....	233,942	1,053,476	583,370
Long Beach, Calif.....	449,447	2,146,302	1,262,778	Tulsa, Okla.....	449,657	1,932,693	997,408
Los Angeles, Calif.....	3,189,122	14,022,126	8,195,646	Washington, D. C.....	1,552,280	2,858,583	4,060,500
Louisville, Ky.....	774,328	1,848,919	1,395,410	Waterbury, Conn.....	168,283	328,959	285,976
Lubbock, Texas.....	87,920	441,278	85,748	Wichita, Kans.....	240,027	1,006,108	462,142
Madison, Wis.....	200,300	943,849	607,179	Wichita Falls, Tex.....	74,219	156,951	78,707
Memphis, Tenn.....	607,946	3,245,686	1,151,364	Wilmington, Del.....	345,223	965,999	484,051
Miami, Fla.....	429,269	1,281,619	1,396,201	Worcester, Mass.....	569,050	894,083	1,261,529
Milwaukee, Wis.....	1,754,359	4,258,216	3,040,260	Youngstown, Ohio.....	518,183	1,473,085	945,160
Minneapolis, Minn.....	1,029,698	2,810,526	2,250,826				

50 Leading U. S. Academic Libraries

Source: U. S. Office of Education

Data for 1965-1966

Name	Total Volumes	Volumes Added	Expenditures	Name	Total Volumes	Volumes Added	Expenditures
Harvard U.....	7,600,357	208,534	\$6,728,455	U. of Iowa.....	1,284,836	63,762	\$1,587,514
Yale U.....	4,826,148	128,281	4,153,155	U. of Va.....	1,288,634	67,837	1,149,956
U. of Ill.....	4,083,634	197,190	4,209,478	Rutgers U.....	1,289,554	85,993	1,539,362
Columbia U.....	3,675,920	122,894	3,434,410	U. of Mich.....	1,636,955	94,570	1,776,498
U. of Mich.....	3,516,355	142,859	4,628,331	Mich. State U.....	1,274,528	80,810	1,661,925
U. of Calif. (Berkeley).....	3,179,633	155,175	4,688,759	Wayne State U.....	992,242	61,798	1,866,213
Cornell U.....	2,892,539	171,012	3,412,034	U. of So. Calif.....	1,192,240	57,331	1,284,699
Stanford U.....	2,764,211	177,684	4,413,683	U. of Kan.....	1,122,158	54,417	1,230,833
U. of Chicago.....	2,437,717	120,489	2,468,913	Brown U.....	1,150,052	40,810	1,213,334
U. of Minn.....	2,480,997	109,758	2,834,361	U. of Fla.....	1,117,711	62,592	1,193,475
U. of Calif. (L. A.).....	2,333,442	142,002	4,132,807	U. of Ky.....	1,131,070	64,135	1,234,581
U. of Pa.....	1,958,602	72,954	1,736,979	U. of Ore.....	1,112,743	58,710	1,099,332
Ind. U.....	1,943,256	171,356	2,515,462	U. of Okla.....	1,012,093	36,706	756,318
Princeton U.....	1,846,776	78,473	892,572	M. I. T.....	900,468	79,723	1,430,108
Ohio State U.....	1,845,069	99,926	2,038,193	Joint U. Lib. (Nashville).....	995,839	50,410	993,912
U. of Texas.....	1,838,645	115,830	2,233,895	U. of Colo.....	1,011,533	68,198	1,435,715
Duke U.....	1,783,803	71,706	1,565,067	U. of Pittsburg.....	997,896	71,116	1,106,581
Northwestern U.....	1,771,899	65,605	1,728,632	Tulane U.....	950,719	33,291	962,311
U. of Wis.....	2,117,885	187,612	4,173,631	Dartmouth Coll.....	924,496	24,022	742,145
New York U.....	1,387,885	81,427	1,992,424	U. of Cincinnati.....	905,047	19,382	652,476
Johns Hopkins U.....	1,500,510	100,998	1,014,123	U. of Rochester.....	906,410	51,184	1,243,339
U. of Wash. (Seattle).....	1,466,906	78,522	3,112,009	Wash. U. (St. L.).....	936,754	83,131	1,767,209
U. of N. C.....	1,385,234	70,962	1,558,236	U. of Utah.....	924,381	75,966	898,472
La. State U. & A & M Col.....	1,410,760	84,423	1,817,945	Wash. State U.....	879,094	29,091	1,021,514
				West. Reserve U.....	861,883	26,309	691,019
				U. of Ariz.....	858,067	64,643	943,700

Fall Enrollment and Teachers in Full Time Day Schools

PUBLIC ELEMENTARY AND SECONDARY DAY SCHOOLS 1967

Source: United States Office of Education

Region and state	Pupils enrolled		Teachers ¹	
	Elementary	Secondary	Elementary	Secondary
Total United States (50 states and D. C.)	43,886,805	16,505,546	1,854,700	814,540
North Atlantic	6,122,697	4,243,863	253,431	221,589
Connecticut	400,228	214,280	16,920	12,019
Delaware	66,354	51,124	2,608	2,566
Maine	168,876	59,950	7,136	3,288
Maryland	479,730	346,162	19,388	16,701
Baltimore	120,149	72,396	4,926	3,968
Massachusetts	614,660	465,137	25,551	21,914
Boston	57,022	36,314	2,272	1,606
New Hampshire	84,433	54,064	3,635	2,758
New Jersey	905,084	472,560	36,614	25,880
New York	1,903,900	1,417,200	83,200	78,700
New York City	626,200	468,600	27,900	25,800
Pennsylvania	1,241,800	1,014,200	48,436	49,056
Philadelphia	11,860	120,487	6,248	5,457
Rhode Island	95,424	71,751	3,843	3,642
Vermont	66,481	24,012	2,500	2,000
District of Columbia	95,727	53,423	3,750	2,665
Great Lakes and Plains	7,961,591	4,429,466	299,999	231,984
Illinois	1,442,494	772,834	59,103	39,839
Chicago	420,610	132,728	15,504	6,503
Indiana	720,778	460,662	26,643	21,724
Iowa	359,479	284,479	17,303	13,800
Kansas	371,130	149,626	14,046	10,671
Michigan	1,138,000	854,000	42,200	40,040
Detroit	183,771	114,256	6,037	4,362
Minnesota	476,267	387,168	18,679	19,558
Missouri	741,662	260,877	26,450	13,774
St. Louis	92,417	24,378	3,089	1,069
Nebraska	194,542	131,827	8,882	7,175
North Dakota	94,181	53,663	4,334	3,154
Ohio	1,706,540	652,360	53,560	38,600
Cleveland ²	93,127	59,805	3,169	2,248
South Dakota	117,850	49,606	6,143	3,214
Wisconsin	548,668	372,364	22,656	20,575
Milwaukee	78,309	50,099	2,502	2,276
Southeast	6,105,962	3,826,222	226,599	166,257
Alabama	456,469	374,416	16,300	15,700
Arkansas	249,760	201,722	9,870	9,184
Florida	721,039	578,915	28,025	24,886
Georgia	709,079	377,802	25,587	16,062
Kentucky	447,544	239,807	17,282	10,892
Louisiana	511,250	329,064	19,827	14,663
New Orleans	67,312	42,372	2,324	1,948
Mississippi	346,447	236,141	11,660	9,370
North Carolina	552,841	340,426	30,515	15,340
South Carolina	386,110	260,797	13,785	11,541
Tennessee	563,816	310,517	19,620	12,630
Virginia	628,674	393,620	23,550	18,889
West Virginia	232,933	182,995	8,578	7,000
West and Southwest	7,191,009	4,005,995	260,131	194,710
Alaska	47,050	18,701	1,886	1,184
Arizona	289,500	109,950	12,049	4,132
California	2,549,275	1,616,991	101,540	70,560
Los Angeles	372,148	272,911	13,149	10,382
San Francisco	52,387	42,137	1,317	1,950
Colorado	295,523	214,801	12,282	11,023
Hawaii	97,696	71,734	3,980	2,690
Idaho	91,709	84,395	3,656	3,987
Montana	110,005	61,801	5,354	2,790
Nevada	69,279	42,474	2,800	1,965
New Mexico	151,875	119,470	6,119	5,218
Oklahoma	338,884	254,233	13,467	12,319
Oregon	276,777	186,151	12,596	9,806
Texas	1,917,555	716,030	59,500	47,500
Dallas	93,289	64,549	3,213	2,485
Houston	149,139	91,634	5,302	3,827
Utah	170,434	127,280	5,840	5,170
Washington	436,958	344,907	16,800	14,250
Wyoming	48,489	37,077	2,262	2,116
Outlying areas:				
American Samoa	6,115	1,884	262	88
Canal Zone	8,169	5,697	335	250
Guam	11,612	7,572	429	346
Puerto Rico	427,448	227,314	12,444	9,266
Virgin Islands	7,586	3,859	260	236
Trust territory of the Pacific Islands	22,597	3,054	895	140

¹Full-time and Part-time Classroom Teachers. ²Data for fall 1966.

Air Force Library Service

The Air Force library program is designed to support all the missions of the Air Force. This includes not only providing opportunity for the constructive use of leisure time, but also support for education and training programs and scientific and technical research requirements. Library service is worldwide. There are 224 main libraries and service centers. A total of 667 service units, including main libraries, branches and field collections are required to serve all Air Force personnel, whether on large Air Force bases or at small, remote or isolated sites. Over 6,095,568 volumes are in Air Force library collections. Annual book circulation is over 16,203,545. Reader services for \$33,682 reference and bibliographic requests are provided each year. An annual library publicity contest is conducted.

Cobwebs and Spider Webs

There is a popular but erroneous belief that cobwebs are merely dust. The fact is that cobweb means spider web, cob being an old English word for spider. Most cobwebs are the work of a little house spider whose handiwork usually goes unnoticed until it becomes covered with dust.

The Principal Languages of the World

Total number of speakers of languages spoken by at least one million persons (Midyear 1968)
 Parenthesized numbers after names of languages refer to notes below table
 Source: Sidney S. Culbert, Assoc. Professor of Psychology, University of Washington

	Millions		Millions		Millions
Afrikaans (S. Africa)	4	Hindi (1) (4)	181	Persian	22
Albanian	3	Hindustani (4)		Polish	33
Amharic (Ethiopia)	3	Hungarian (or Magyar)	13	Portuguese	97
Arabic	98	Ibibio (see Eki)	6	Provençal (Southern France)	7
Armenian	4	Ibo (or Igbo) (W. Africa)	16	Punjabi (1) (India; Pakistan)	41
Assamese (1) (India)	10	Ilocano (Philippines)	5	Pushtu (mainly Afghanistan)	13
Azerbaijani (USSR; Iran)	7	Italian	58	Quechua (S. American)	6
Bahasa Indonesia		Japanese	102	Rajasthani (India)	17
(see Malay-Indonesian)		Javanese	42	Romanian	20
Balinese	3	Kanarese (see Kannada)		Rundi (S.-Central Africa)	2
Baluchi (Pakistan; Iran)	2	Kannada (1) (India)	24	Russian	
Bashkir (USSR)	1	Kanuri (W. and Cent. Africa)	1	(Great Russian only)	188
Batak (Indonesia)	1	Kashmiri (1)	3	Rwanda (S.-Central Africa)	6
Bengali (1) (India; Pakistan)	98	Kazakh (USSR)	5	Samar-Leyte (Philippines)	1
Berber (2) (N. Africa)	4	Khalkha (Mongolia)	1	Santal (India)	4
Bhili (India)	4	Kikongo (see Kongo)	1	Serbo-Croatian (Yugoslavia)	17
Bihari (India)	18	Kikuyu (Kenya, Africa)	1	Shona (S.E. Africa)	1
Bikol (Philippines)	2	Kimbundu (Angola, Africa)	1	Sinense (see Thai)	
Bisaya (see Cebuano,		Kirghiz (USSR)	2	Sindhi (India; Pakistan)	8
Panay-Hiligaynon, and		Kituba (Congo)	1	Sinhalese (Ceylon)	8
Samar-Leyte)		Kongo (Congo)	1	Slovak	4
Bugi (Indonesia)	1	Konkani (India)	2	Slovene (Yugoslavia)	2
Bulgarian	8	Korean	43	Somali (E. Africa)	3
Burmese	19	Kumaoni (India)	1	Sotho, Northern (S. Africa)	2
Byelorussian (mainly USSR)	10	Kurdish		Sotho, Southern (S. Africa)	2
Cambodian (Cambodia, Asia)	4	(S. W. of Caspian Sea)	6	Spanish	179
Cantonese (China)	45	Kurukh (or Oraon) (India)	1	Sundanese (Indonesia)	13
Catalan (Spain; France;		Lao (Laos, Asia)	2	Swahili (E. Africa)	12
Andorra)	5	Latvian (or Lettish)	2	Swedish	8
Cebuano (Philippines)	8	Lingala (see Ngala)		Tagalog (Philippines)	17
Chinese (3)		Lithuanian	3	Tajiki (USSR)	1
Chuvash (USSR)	1	Luba-Lulua (Dem. Rep.		Tamil (1) (India; Ceylon)	45
Czech	10	(Congo)	1	Tatar (or Kazan-Turkic)	
Danish	5	Luganda (see Ganda)	1	(USSR)	5
Dayak (Borneo)	1	Macedonian (Yugoslavia)	1	Telugu (1) (India)	48
Dutch (see Netherlandish)		Madurese (Indonesia)	6	Thai	26
Efik	1	Makua (S. E. Africa)	2	Tibetan	7
English	314	Malagasy (Madagascar)	6	Tswana (S. Africa)	1
Esperanto	1	Malay-Indonesian	80	Tulu (India)	1
Estonian	1	Malayalam (1) (India)	20	Turkish	36
Ewe (W. Africa)	1	Malinke-Bambara-Diula		Turkoman (USSR)	2
Fang-Bulu (W. Africa)	1	(Africa)	4	Twipante (or Akan)	
Flemish (see Netherlandish)		Mandarin (China)	567	(W. Africa)	4
French	75	Marathi (1) (India)	43	Uighur (Sinkiang, China)	4
Fula (W. Africa)	6	Min (China)	37	Ukrainian (mainly USSR)	81
Galician (Spain)	2	Mordvin (USSR)	3	Umbundu (Angola, Africa)	2
Galla (Ethiopia)	5	Mossi (W. Africa)	3	Urdu (1) (Pakistan; India)	55
Ganda (or Luganda) (Africa)	3	Nepali (Nepal; India)	10	Uzbek (USSR)	7
Georgian (USSR)	3	Netherlandish (Dutch		Vietnamese	32
German	120	and Flemish)	19	Visayan (see Cebuano,	
Gondi (India)	2	Ngala (or Lingala) (Africa)	2	Panay-Hiligaynon, and	
Greek	10	Norwegian	4	Samar-Leyte)	
Guarani (mainly Paraguay)	2	Nyanja (S.-E. Africa)	1	White Russian (see	
Gujarati (1) (India)	25	Oraon (see Kurukh)		Byelorussian)	
Hakka (China)	20	Oriya (1) (India)	20	Wu (China)	40
Hausa (W. and Central		Panay-Hiligaynon		Xhosa (S. Africa)	4
Africa)	14	(Philippines)	4	Yiddish (5)	
Hebrew	3	Panjabi (see Punjabi)		Yoruba (W. Africa)	5
		Pashto (see Pushtu)		Zulu (S. Africa)	4

(1) One of the fourteen languages of the Constitution of India. (2) Here considered a group of dialects. (3) See Mandarin, Cantonese, Wu, Min, and Hakka. The "national language" (kuo-yu) is a standardized form of Mandarin as spoken in the area of Peking. (4) Hindi and Urdu are essentially the same language, Hindustani. As the official language of India it is written in the Devanagari script and called Hindi. As one of the two official languages of Pakistan (the other is Bengali), it is written in a modified Arabic script and called Urdu. (5) Yiddish is usually considered a variant of German, though it has its own standard grammar, dictionaries, a highly developed literature, and is written in Hebrew characters. Speakers number about 3,000,000.

National Spelling Bee Champions

The National Spelling Bee, conducted by Scripps-Howard Newspapers and other newspapers since 1939, was instituted by the Louisville (Ky.) Courier-Journal in 1925. Children under 16 years of age sponsored by participating newspapers are eligible to compete for the cash prizes and prize trips. Recent winners are:

1966—1, Robert A. Wake, 13, Houston, Tex. (Houston Chronicle); 2, Beth Sherrill, 14, Millington, Tenn. (Memphis Press-Scimitar); 3, Sonya Gilliam, 13, Lubbock, Tex. (Lubbock Avalanche-Journal).

1967—1, Jennifer Reinke, 14, Deshler, Neb. (The Omaha World-Herald); 2, Anne Clark, 14, Hunt-

ington, W. Va. (The Herald-Dispatch); 3, Milene Henley, 14, Houston, Tex. (The Houston Chronicle).

1968—1, Robert L. Walters, 14, Russell, Kan. (Topeka Daily Capital); 2, Ann Johnson, 13, Richfield, Minn. (Minneapolis Tribune); 3, Stephen Bacher, 14, Middle Village, Queens, N. Y. (N. Y. Daily News).

How to Obtain Birth, Marriage, Death Records

The United States Government has published a series of inexpensive booklets entitled Where to Write for Birth & Death Records; Where to Write for Marriage Records; Where to Write for Divorce Records; Where to Write for Birth and Death Records of U. S. Citizens who were born or died outside of the U. S. and birth certificates for alien children adopted by U. S. citizens; How to obtain death certificates in each state; How to obtain birth certificates; table showing where to apply for birth certificates in each State; Marriage and divorce registration; You May Save Time Proving Your Age and Other Birth Facts. They tell where to write to get a certified copy of or original vital record. Supt. of Documents, Government Printing Office, Washington, D. C. 20402.

Forms of Address for Persons of Rank and Public Office

In these examples John Smith is used as a representative American name. The salutation Dear Sir is always permissible when addressing a person not known to the writer.

PRESIDENT OF THE UNITED STATES

Address: The President, The White House, Washington, D. C. Also, The President and Mrs. —.

Salutation: Dear Sir or Mr. President or Dear Mr. President. More intimately: My dear Mr. President. Also: Dear Mr. President and Mrs.

The Vice President takes the same forms as President.

CABINET OFFICERS

Address: Mr. John Smith, Secretary of State, Washington, D. C., or The Hon. John Smith. Similar addresses for other members of the Cabinet. Also: Secretary and Mrs. John Smith.

Salutation: Dear Sir, or Dear Mr. Secretary. Also: Dear Mr. and Mrs. Smith.

THE BENCH

Address: The Hon. John Smith, Chief Justice of the United States. The Hon. John Smith, Associate Justice of the Supreme Court of the United States. The Hon. John Smith, Associate Judge, U. S. District Court.

Salutations: Dear Sir or Dear Mr. Chief Justice. Dear Mr. Justice. Dear Judge Smith.

MEMBERS OF CONGRESS

Address: The Hon. John Smith, United States Senate, Washington, D. C. Or Sen. John Smith, etc. Also The Hon. John Smith, House of Representatives, Washington, D. C. Or Rep. John Smith, etc. Salutation: Dear Mr. Senator. Dear Mr. Representative, or more generally, Dear Mr. Colloquially as Congressman.

OFFICERS OF ARMY AND NAVY

Address: Careful attention should be given to the precise rank, thus: General of the Army Douglas MacArthur; Fleet Admiral Chester W. Nimitz. Also Brigadier General John Smith, United States Army, or abbreviated, Brig. General John Smith, USA, or Captain (Capt.) John Smith, USN. If he is retired, Rtd. is added.

Salutation: Dear Sir, or Dear General. All general officers, whatever rank, are entitled to be addressed as generals. Likewise a lieutenant colonel is addressed as colonel and first and second lieutenants are addressed as lieutenant.

Warrant officers and flight officers are addressed as Mister. Chaplains are addressed as Chaplain. A Catholic chaplain may be addressed as Father. Cadets of the United States Military Academy and Air Force Academy are addressed as Cadet. Noncommissioned officers are addressed by their titles. In the U. S. Navy all men from midshipman at Annapolis up to and including Lieut. Commander are addressed as Mister.

AMBASSADOR, GOVERNOR, MAYOR

Address: The Hon. John Smith, followed by his title. He can be addressed either at his embassy, or at the Department of State, Washington, D. C. A foreign ambassador is His Excellency.

Salutation: Dear Mr. Ambassador. A foreign ambassador is Your Excellency.

Governors and Mayors are often addressed as The Hon. John Smith, Governor of ————, or The Hon. John Smith, Mayor of ————; also Governor John Smith, State House, Albany, N. Y., or Mayor John Smith, City Hall, Erie, Pa.

THE CLERGY

Address: His Holiness, the Pope, or His Holiness Pope (name), State of Vatican City, Italy. Salutation: Your Holiness or Most Holy Father.

Also: His Eminence, John, Cardinal Smith; salutation: Your Eminence. An archbishop or a bishop is addressed The Most Reverend, and the salutation is Your Excellency. A monsignor who is a papal chamberlain is The Very Reverend Monsignor and saluted as Very Reverend Monsignor; a monsignor who is a domestic prelate is The Right Reverend Monsignor and salutation is Right Reverend Monsignor. A priest is addressed Reverend John Smith, and saluted as Reverend Father, or Dear Reverend Father. A Brother of an order is addressed Brother ————, and saluted Dear Brother ————. A Sister takes the same form.

A bishop of the Protestant Episcopal Church is The Right Reverend John Smith; salutation is Right Reverend Sir, or Dear Bishop Smith. If a clergyman is a Doctor of Divinity, he is addressed: The Reverend John Smith, D. D., and the salutation is Reverend Sir, or Dear Dr. Smith. When a clergyman does not have the degree the salutation is Dear Mr. Smith.

A bishop of the Methodist Church is addressed Bishop John Smith with titles following, and saluted as Dear Bishop Smith.

ROYALTY AND NOBILITY

An Emperor is to be addressed in a letter as Sir, or Your Imperial Majesty.

A King or Queen is addressed as His Majesty (Name), King of (Name), or Her Majesty (Name), Queen of (Name). Salutation: Sir, or Madam, or May it please Your Majesty.

Princes and Princesses and other persons of royal blood are addressed as His (or Her) Royal Highness, and saluted with May it please Your Royal Highness.

A Duke or Marquis is My Lord Duke (or Marquis), a Duke is His (or Your) Grace.

Wives of any peer may be addressed as Madam, with the further alternative of Your Ladyship, or Your Grace, if she is of high rank.

Vocational Education

Source: United States Office of Education

All Federal funds expended for vocational education are matched by state and local funds. This does not include expenditures for plant and equipment for vocational schools, for which Federal funds cannot be used.

ENROLLMENT IN FEDERALLY AIDED VOCATIONAL CLASSES

Year	Total*	Agri.	Trade	Econ.	Year	Total*	Agri.	Trade	Econ.
1935.....	1,178,896	325,685	503,869	349,346	1960.....	3,768,149	796,237	938,490	1,588,109
1940.....	2,290,741	584,133	758,409	818,766	1964.....	4,566,399	860,605	1,069,274	2,022,138
1945.....	2,012,931	446,953	522,733	* 890,464	1965.....	5,430,611	887,529	1,087,807	2,098,520
1950.....	3,364,613	764,795	804,602	1,430,366	1966.....	6,070,059	907,354	1,269,051	1,897,670
1955.....	3,314,255	776,138	870,654	1,431,808	1967 (prel.)	6,002,598	951,972	1,439,046	2,179,356

*Total figures since 1957 include enrollment for health occupations—(1966) 83,677; (1967 prel.) 114,652.

Total figures since 1965 include enrollment for office occupations—(1966) 1,238,043; (1967 prel.) 1,568,197.

Total figures since 1959 include enrollment for technical education—(1967 prel.) 268,174.

ENROLLMENT IN FEDERALLY AIDED VOCATIONAL CLASSES BY STATES

Fiscal Year 1967 Provisional figures

State	Enroll.	State	Enroll.	State	Enroll.	State	Enroll.
Alabama.....	126,574	Indiana.....	81,711	Nevada.....	17,939	Tennessee....	124,688
Alaska.....	6,103	Iowa.....	80,394	N. Hampshire..	10,879	Texas.....	563,558
Arizona.....	50,739	Kansas.....	57,032	New Jersey....	175,171	Utah.....	62,995
Arkansas....	91,519	Kentucky....	94,903	New Mexico....	22,390	Vermont.....	9,774
California....	951,862	Louisiana....	121,915	New York.....	595,980	Virginia.....	197,363
Colorado....	78,025	Maine.....	21,582	N. Carolina....	271,098	Washington..	210,067
Connecticut..	90,593	Maryland....	157,991	N. Dakota....	20,656	West Virginia.	49,834
Delaware....	17,323	Massachusetts.	158,564	Ohio.....	243,818	Wisconsin....	150,141
Dist. of Col..	10,521	Michigan....	263,844	Oklahoma....	91,193	Wyoming....	9,650
Florida.....	302,732	Minnesota....	138,887	Oregon.....	58,709	Guam.....	639
Georgia.....	268,815	Mississippi..	106,263	Pennsylvania..	219,156	Puerto Rico..	104,679
Hawaii.....	17,215	Missouri....	100,934	Rhode Island..	9,007	Virgin Islands.	1,418
Idaho.....	23,293	Montana....	14,654	S. Carolina....	128,977		
Illinois.....	180,696	Nebraska....	43,825	S. Dakota....	17,410	Total.....	7,002,598

Circulation of Leading U. S. Magazines

General and farm magazines, exclusive of groups and comics, of the Audit Bureau of Circulations. Statistics based on average circulation per issue during the 6 months prior to Jan. 1, 1968. Source: Magazine Advertising Bureau of Magazine Publishers Assn., Inc.

Magazine	Circulation	Magazine	Circulation
Reader's Digest	17,336,168	Presbyterian Life	1,026,517
TV Guide	12,718,141	Ebony	1,012,381
McCall's	8,545,839	American Girl	1,006,861
Look	7,756,951	National Enquirer	994,447
Family Circle	7,386,700	Co-Ed	982,394
Life	7,354,615	House Beautiful	974,744
Better Homes & Gardens	7,274,726	Cosmopolitan	961,508
Woman's Day	7,225,073	Sunset	938,570
Saturday Evening Post	6,811,418	Nation's Business	838,520
Ladies' Home Journal	6,779,059	TV Radio Mirror	834,896
Good Housekeeping	5,618,738	Modern Screen	831,594
National Geographic	5,607,457	Ingenué	810,210
Playboy	4,708,261	Modern Romances	784,985
Redbook	4,465,991	'Teen	752,291
Time	3,710,134	Our Sunday Visitor	749,497
American Home	3,635,633	Hot Rod Magazine	744,207
Farm Journal	3,045,913	Mademoiselle	697,870
American Legion	2,523,356	Simplicity Fashion Magazine	650,425
Boys' Life	2,425,927	Flower & Garden Magazine	625,401
True	2,420,572	Lion	609,613
True Story	2,286,653	Catholic Digest	582,490
Newsweek	2,128,032	Together	569,382
Parents'	2,037,182	True Confessions	558,204
Senior Scholastic Unit	1,937,486	Lutheran, The	556,483
Popular Mechanics	1,662,961	Business Week	555,139
Junior Scholastic Unit	1,631,719	Young Catholic Messenger	543,769
U.S. News & World Report	1,584,073	Saturday Review	521,074
Popular Science	1,558,841	Motion Picture	515,241
Outdoor Life	1,503,318	Motor Trend	504,595
Workbasket	1,496,991	Forbes	500,191
Seventeen	1,457,348	Pageant	489,515
Elks	1,438,662	McCall's Patterns & Home Decorating	485,133
Field & Stream	1,423,931	National Observer	480,309
Mechanix Illustrated	1,390,713	Family Handyman	478,980
Scouting	1,384,709	New Yorker	475,029
Glamour	1,381,324	Fortune	465,363
Argosy	1,370,073	Capper's Weekly	455,422
Sports Illustrated	1,361,543	Harold	454,247
Sports Afield	1,361,156	Vogue	449,722
V.F.W. Magazine	1,345,696	Westways	442,622
Successful Farming	1,330,831	Harper's Bazar	437,752
Progressive Farmer	1,254,928	Popular Photography	432,813
House & Garden	1,211,068	Car & Driver	424,304
Grit	1,134,137	Rotarian	423,156
Holiday	1,110,745	Scientific American	420,748
Photoplay	1,103,213	Movie Mirror	420,494
Esquire	1,081,110	Farmer-Stockman	417,585
Sport	1,046,576	Home Garden	414,044
Columbia	1,040,189	Southern Living	411,408
1,001 Decorating Ideas	1,035,093	Christian Herald	398,501

Breaking the Sound Barrier; Speed of Sound

The prefix Mach is used to describe supersonic speed. It derives from Ernst Mach, a Czech-born German physicist, who contributed to the study of sound. When a plane moves at the speed of sound it is Mach 1. When twice the speed of sound it is Mach 2. When it is near but below the speed of sound its speed can be designated at less than Mach 1, for example, Mach .10. Mach is defined as "in jet propulsion, the ratio of the velocity of a rocket or a jet to the velocity of sound in the medium being considered."

When a plane passes the sound barrier—flying faster than sound travels—listeners in the area hear thunderclaps, but pilots do not hear them.

Sound is produced by vibrations of an object and is transmitted by alternate increase and decrease in pressures that radiate outward through a material media of molecules—somewhat like waves spreading out on a pond after a rock has been tossed.

The frequency of sound is determined by the number of times the vibrating waves undulate per second, and is measured in cycles per second. The slower the cycle of waves, the lower the sound. As the frequencies increase, the sound rises

higher.

Sound is audible to human beings only if the frequency falls within a certain range. The human ear is usually not sensitive to frequencies of less than 20 vibrations per second, or more than about 20,000 vibrations per second—although this range varies among individuals. Anything at a pitch higher than the human ear can hear is termed ultrasonic.

Intensity or loudness is the strength of the pressure of these radiating waves, and is measured in decibels. The human ear responds to intensity in a range from zero to 120 decibels. Any sound with pressure over 120 decibels is painful.

The speed of sound is generally placed at 1088 ft. per second at sea level at 32° F. It varies in other temperatures and in different media. Sound travels faster in water than in air, and even faster in iron and steel. If in air it travels a mile in 5 seconds, it does a mile under water in 1 second, and through iron in $\frac{1}{3}$ of a second. It travels through ice-cold vapor at approximately 4,708 ft. per sec., ice-cold water, 4,938; granite, 12,960; hard wood, 12,620; brick, 11,960; glass, 16,410 to 19,690; silver, 8,658; gold, 5,717.

Colors of the Spectrum

Color, an electromagnetic wave phenomenon, is a sensation produced through the excitation of the retina of the eye by rays of light. The colors of the spectrum may be produced by viewing a light beam refracted by passage through a prism, which breaks the light into its wave lengths.

Customarily, the primary colors of the spectrum are thought of as those six monochromatic colors which occupy relatively large areas of the spectrum: red, orange, yellow, green, blue and violet. However, Sir Isaac Newton named a seventh, indigo, situated between blue and violet on the spectrum. Aubert estimated (1865) the solar spectrum to contain approximately 1,000 distinguishable hues of which according to Reed (1881) 2,000,000 tints and shades can be distinguished. Luckiesh stated (1915) that 55 distinctly different hues have been seen in a single spectrum.

By many physicists only three primary colors are recognized: red, yellow and blue (Mayer, 1775); red, green and violet (Thomas Young, 1801); red, green and blue (Clerk Maxwell, 1860).

The color sensation of black is due to complete lack of stimulation of the retina, that of white to complete stimulation. The infra-red and ultra-violet rays, below the red (long) end of the spectrum and the violet end (short end) respectively, are invisible. Heat is the principal effect of the infra-red rays and chemical action that of the ultra-violet rays.

U. S. Daily Newspapers of Large Circulation

Source: Publishers' statements to Audit Bureau of Circulations of total average paid circulation for 6 months ending Sept. 30, 1967.

As of Feb. 1, 1968 there were 1,749 English language daily newspapers in the U.S. (311 morning; 1,422 evening; 16 "all day") with a combined circulation of 61,560,952. Sunday newspapers numbered 573 with a total circulation of 49,224,125.

(m) Morning; (e) Evening; *Based on Monday to Friday average. Brackets indicate joint publication.

Newspaper	Daily	Sunday	Newspaper	Daily	Sunday
Akron Beacon Journal (e).....	175,179	199,950	New Orleans Times-Picayune (m)	194,454	310,889
Atlanta Constitution (m).....	200,682	.....	New Orleans States & Item (e)	*138,462	.....
Atlanta Journal (e) & Sunday Journal Constitution.....	252,688	525,519	New York: Long Island Press (e)	350,885	419,563
Baltimore News American (e).....	*219,795	315,418	New York: Long Island Star-Journal (e) (l).....	95,689	.....
Baltimore Sun (m & e).....	*398,508	345,601	New York: Newsday (e).....	421,356	.....
Birmingham News (e).....	181,098	220,993	New York News (m).....	*2,112,244	3,104,076
Birmingham Post-Herald (m).....	83,006	.....	New York Post (e).....	*628,146	334,497
Boston Globe (m & e).....	*438,635	555,905	New York Times (m).....	*40,495	1,494,704
Boston Herald (e).....	302,817	302,436	Newark News (e).....	*278,235	423,157
Boston Traveler (e).....	*136,971	.....	Newark Star-Ledger (m).....	*249,729	403,863
Boston Record American (m) & Sunday Advertiser.....	455,873	431,430	Norfolk Ledger-Star (e).....	104,580	.....
Buffalo Courier-Express (m).....	158,973	306,989	Norfolk Virginian-Pilot (m).....	125,503	170,122
Buffalo News (e).....	*284,568	.....	Oakland Tribune (e).....	128,393	248,433
Charlotte News (e).....	63,396	.....	Oklahoma City Oklahoman (m)	176,235	270,975
Charlotte Observer (m).....	175,076	202,016	Oklahoma City Times (e).....	116,437	.....
Chicago's American (e).....	*446,945	586,643	Omaha World-Herald (m & e).....	251,831	271,998
Chicago News (e).....	*462,916	.....	Orlando Sentinel (m).....	112,715	145,553
Chicago Sun-Times (m).....	*552,155	177,814	Orlando Star (e).....	33,683	.....
Chicago Tribune (m).....	805,851	1,124,946	Philadelphia Bulletin (e).....	*67,525	78,276
Christian Science Monitor (e).....	202,155	.....	Philadelphia Inquirer (m).....	*516,840	936,135
Cincinnati Enquirer (m).....	190,169	302,042	Philadelphia News (e).....	*238,837	.....
Cincinnati Post & Times-Star (e).....	243,165	.....	Phoenix Republic (m).....	155,995	231,269
Cleveland Plain Dealer (m).....	388,261	532,193	Phoenix Gazette (e).....	91,779	.....
Cleveland Press (e).....	389,695	.....	Pittsburgh Post Gazette (m).....	*247,007	.....
Columbus Citizen-Journal (m).....	115,215	.....	Pittsburgh Press (e).....	*344,575	740,523
Columbus Dispatch (e).....	220,105	310,335	Portland: Oregonian (m).....	240,566	401,946
Dallas News (m).....	226,804	264,344	Portland: Oregon Journal (e).....	*142,517	135,513
Dallas Times Herald (e).....	*209,449	243,379	Providence Bulletin (e).....	148,039	.....
Dayton Journal Herald (m).....	109,502	.....	Providence Journal (e).....	65,731	206,985
Dayton News (e).....	159,529	211,696	Raleigh News & Observer (m).....	138,288	146,216
Denver Post (e).....	*253,280	341,595	Raleigh Times (e).....	23,979	.....
Denver: Rocky Mountain News (m).....	194,933	209,571	Richmond News Leader (e).....	124,545	.....
Des Moines Register (m).....	242,371	512,401	Richmond Times-Dispatch (m)	148,673	199,297
Des Moines Tribune (e).....	116,120	.....	Rochester Democrat & Chronicle (m).....	142,794	218,586
Detroit Free Press (m).....	590,546	631,175	Rochester Times-Union (e).....	143,855	.....
Detroit News (e).....	700,321	947,155	Sacramento Bee (e).....	177,100	202,617
Elm Journal (e).....	111,376	170,766	St. Louis Globe-Democrat (m).....	*327,594	356,929
Fort Worth Star-Telegram (m & e).....	*237,043	212,194	St. Louis Post-Dispatch (e).....	*366,906	580,238
Fresno Bee (e).....	116,418	146,481	St. Paul Dispatch (e).....	128,459	.....
Grand Rapids Press (e).....	129,946	123,788	St. Paul Pioneer Press (m).....	103,543	217,372
Hackensack Record (e).....	145,566	.....	St. Petersburg Independent (e).....	23,627	.....
Harrisburg News (e).....	74,460	.....	St. Petersburg Times (m).....	137,265	151,087
Harrisburg Patriot (m) & Sunday Patriot News.....	44,959	160,588	Salt Lake City Tribune (m).....	108,566	188,217
Hartford Courant (m).....	147,068	193,944	Salt Lake City Deseret News (e).....	85,735	.....
Hartford Times (e).....	135,474	.....	San Antonio Express (m) & Sat.-Sun. Express-News.....	*81,165	111,657
Honolulu Advertiser (m).....	67,550	.....	San Antonio News (e).....	*62,797	.....
Honolulu Star-Bulletin (e) & Sunday Star-Bulletin & Advertiser.....	112,182	160,147	San Antonio Light (e).....	*118,807	141,175
Houston Chronicle (e).....	*280,472	327,121	San Diego Union (m).....	131,081	237,289
Houston Post (m).....	*271,248	304,238	San Diego Tribune (e).....	118,445	.....
Indianapolis News (e).....	197,305	.....	San Francisco Examiner (e).....	*220,610	.....
Indianapolis Star (m).....	230,685	377,027	San Francisco Chronicle (m) & Sunday Examiner Chronicle.....	*493,020	691,510
Jacksonville: Florida Journal (e).....	54,982	.....	San Jose Mercury (m) & Sunday Mercury-News.....	122,703	182,497
Jacksonville: Florida Times Union (m).....	119,440	174,721	San Jose News (e).....	*205,859	256,930
Jersey City: Jersey Journal (e).....	*91,883	.....	Seattle Post-Intelligencer (m).....	*242,887	298,298
Kansas City Star (e).....	327,623	396,260	Seattle Times (e).....	120,085	125,468
Kansas City Times (m).....	334,746	.....	South Bend Tribune (e).....	70,955	.....
Knoxville Journal (m).....	66,696	.....	Spokane Chronicle (e).....	86,673	128,778
Knoxville News-Sentinel (e).....	105,207	153,109	Spokane Spokesman-Review (m).....	137,093	260,836
Little Rock: Arkansas Democrat (e).....	*81,467	96,515	Syracuse Herald-Journal (e) & Sunday Herald-American.....	*101,520	94,883
Little Rock: Arkansas Gazette (m).....	*105,363	120,830	Syracuse Post-Standard (m).....	160,570	180,637
Long Beach Independent (m) & Sunday Independent-Press-Telegram.....	46,281	144,531	Tampa Tribune (m).....	37,953	.....
Long Beach Press-Telegram (e).....	107,737	.....	Tampa Times (e).....	172,008	184,093
Los Angeles Herald Examiner (e).....	*731,473	726,127	Toledo Blade (e).....	29,354	.....
Los Angeles Times (m).....	856,621	1,145,695	Tulsa Tribune (e).....	80,083	.....
Louisville Courier-Journal (m).....	230,431	343,823	Tulsa World (m).....	109,496	175,416
Louisville Times (e).....	171,477	.....	Wall St. Journal (m) (total).....	1,079,616	.....
Memphis Commercial Appeal (m).....	220,370	270,397	Washington (D. C.) News (e).....	*225,874	.....
Memphis Press-Scimitar (e).....	135,256	.....	Washington Post (m).....	*467,505	600,357
Miami Herald (m).....	343,456	433,187	Washington Star (e).....	*309,245	358,738
Miami News (e).....	*90,248	.....	Wichita Eagle (m) & Sunday Eagle-Beacon.....	127,612	166,145
Milwaukee Journal (e).....	368,520	561,851	Wichita Beacon (e).....	66,843	.....
Milwaukee Sentinel (m).....	170,264	.....	Winston-Salem Journal (m) & Sunday Journal Sentinel.....	76,244	90,701
Minneapolis Star (e).....	282,219	.....	Winston-Salem Sentinel (e).....	44,019	.....
Minneapolis Tribune (m).....	238,776	668,941	Worcester Gazette (e).....	94,543	.....
Nashville Banner (e).....	96,629	.....	Worcester Telegram (m).....	62,682	107,892
Nashville Tennessean (m).....	141,709	231,784	Youngstown Vindicator (e).....	99,776	154,761

(1) N. Y. Long Island Star-Journal suspended publication March 16, 1968.

STATES OF THE UNION

Their Resources, Histories, Industries, Agricultural and Mineral Products, Tourist Attractions, Nicknames, State Symbols

Areas of the states are total land and water areas reported by the Geography Division, Bureau of the Census; agricultural figures are based on reports of the Dept. of Agriculture and state agencies; mineral statistics are those reported by the Bureau of Mines.

For maps and for descriptive articles on great cities, see Index.

Alabama

Heart of Dixie, Cotton State

CAPITAL: Montgomery. **AREA:** 51,609 sq. mi., rank, 29th. **POPULATION:** (1960 Census), 3,266,740, rank, 19th. **MOTTO:** We Dare Defend Our Rights. **FLOWER:** Camellia. **BIRD:** Yellowhammer. **FISH:** Tarpon. **TREE:** Southern (Longleaf) Pine. **SONG:** Alabama. **ADMISSION:** 22nd.

Alabama lies in the cotton belt of the Old South but introduction of new and diversified industries has given the state a more balanced economy. Natural wealth includes coal, which underlies about 7,000 sq. mi. in the northern Appalachian region, iron, bauxite and timber.

Cheaha Mtn., 2,407 ft., is the state's highest point. Est. pop. July 1, 1967, was 3,540,000.

Abundant water for hydroelectric power and river shipping has contributed to the growth of Alabama's economy. Three Tennessee Valley Authority dams are in the northern part of the state. Historic sites, fishing and hunting are among its attractions.

Agriculture remains a vital part of the economy despite the growth of manufacturing. Cotton, long king among Alabama's crops, dropped to 3rd place behind corn and soybeans in 1967, mainly because of poor growing weather. Among the states, Alabama was 4th in production of pecans and 5th in peanuts. Also important are potatoes, watermelons, tobacco and sugarcane.

Livestock, especially poultry, has grown in importance; Alabama moved up to 6th place in number of chickens in 1968. Farm receipts for livestock and livestock products totaled \$435,410,000 in 1967; for crops, the total was \$167,014,000.

Alabama ranks 2nd in the nation in pulpwood production; lumber and furniture are important; the output of wood products is valued at over \$550,000,000 a year, providing 100,000 jobs.

Industrial growth in 1966 saw \$320,289,000 invested in 330 new or expanded plants, providing 24,441 additional jobs; the rate of growth was not quite up to previous records. Largest industries in terms of value added by manufacture are iron and steel, chemicals, textiles, food processing, paper, clothing, fabricated metals, transportation equipment (including aircraft). Birmingham, center of the steel industry, is known as "the Pittsburgh of the South." Value added by manufacture totals over \$2.3 billion a year.

Alabama ranks 2d behind Arkansas in production of bauxite and is the 3rd largest producer of asphalt, mica and pyrites. But bituminous coal accounts for 40% of the value of its total mineral production, which in 1967 reached a record \$249,828,000. Also important are cement, stone and petroleum.

At Huntsville is the George C. Marshall Space Flight Center of NASA.

Total employment in the state showed gains in both 1966 and 1967.

Educational institutions include the Univ. of Alabama, Univ. of South Alabama, Auburn Univ., Alabama College and Tuskegee Institute.

Alabama, first explored by De Narvaez, Spanish, 1528, is rich in historical markers and sites. Andrew Jackson defeated the Creek Indians at Talladega and Horseshoe Bend. The Confederate States were organized at Montgomery, Feb. 4, 1861, and Jefferson Davis took oath as president at State Capitol there Feb. 18. Davis' "first White House" now is a state shrine; others include the house in Tusculum where Helen Keller was born June 27, 1880; statue of Vulcan near Birmingham.

The state was organized as a Territory Mar. 3, 1817, and became a state Dec. 14, 1819.

Mobile, colonized by French, 1699, ceded by Spain, 1799, but not turned over till 1813, is the state's principal seaport; shipments to foreign countries are valued at \$328,000,000 a year. Its carnival dates from 1704. Azalea Trail (February-March) and tarpon fishing are tourist attractions.

At Russell Cave National Monument, near

Bridgeport, may be seen a detailed record of occupancy by humans from about 7000 B.C. to 1650 A.D., including tools, weapons and pottery. The exhibit is free.

The George Washington Carver Museum at Tuskegee Institute, Tuskegee, contains records of the famous scientist's contributions to agronomy and dioramas of achievements by Negroes.

The University of Alabama Museum of Natural History, in University, displays Alabama fossils, shells and aboriginal materials and collections of native and foreign beetles, birds, batrachians and reptiles. Mound State Monument, Moundville, an adjunct of the museum, shows aboriginal burials.

(See also Index for Birmingham.)

Alaska

No official nickname

CAPITAL: Juneau. **AREA:** 586,412 sq. mi., rank, 1st. **POPULATION** (1960 Census), 226,167, rank 50th. **FLOWER:** Forget-me-not. **BIRD:** Willow Ptarmigan. **TREE:** Sitka Spruce. **SONG:** Alaska's Flag. **FISH:** King Salmon. **ADMISSION:** 49th.

Alaska became the 49th state Jan. 3, 1959. Largest political division of the U. S., it is two and one-fifth times the size of Texas. Alaska occupies the NW part of North America, separated from the rest of the continental U. S. by Canada's British Columbia. Alaska's general coastline runs 6,640 mi.; including all its islands, 33,904 mi. It has mountain ranges, volcanoes, fjords and glaciers; 98% of the total land is owned by the Federal Government.

Est. pop. July 1, 1967, was 273,000. About one-sixth of the pop. are Eskimos and Indians.

Pt. Barrow in Arctic Alaska is the northernmost point of the state. The Yukon River flows E to W 1,200 mi. through Central Alaska, from the Canadian border to the Bering Sea. In South Central Alaska stands Mt. McKinley, 20,320 ft., highest point in North America; also in McKinley National Park is Mt. Wrangell, 14,163 ft., a steaming volcano.

In West Central Alaska, off the tip of the Seward Peninsula, lies Little Diomedes Is., only 2.4 mi. from Big Diomedes Is., owned by the USSR. The Alaska Peninsula and the Aleutian Islands, into which it tapers, extend SW and W for 1,200 mi., with numerous volcanoes; at the SE base of the peninsula is Katmai National Monument, containing the Valley of 10,000 Smokes, scene of a 1912 eruption.

Alaska's Panhandle stretches SE; it is a narrow strip of mainland and islands, with fjords and Glacier Bay National Monument (containing the Muir Glacier, 2 mi. wide and 250 ft. high), facing the Pacific W of British Columbia.

History. Vitus Bering, a Dane employed by Russia, discovered Bering Strait, separating Asia and North America, in 1728, but may not have found Alaska until his second voyage in 1741, when he explored Alaska's coast. Other early visits were made by Spanish explorers (1775, 1788); by the British Cook (1776), Vancouver (1791-94) and Mackenzie (1793); by the French La Perouse (1786); and by the U. S. Capts. Robert Gray and John Kendrick (1788). Alexander Baranov, first Russian governor of Alaska, set up headquarters at New Archangel, near present Sitka, 1799.

William H. Seward, as Secy. of State under President Andrew Johnson, bought Alaska from Czarist Russia for \$7,200,000, a transaction some labeled at the time "Seward's Folly." The treaty was signed Mar. 30, 1867, the transfer of territory took place Oct. 18, 1867. Alaska was a District until Aug. 24, 1912, and an Organized Territory until becoming a state in 1959.

The "Gold Rush" began when gold was discovered near the Klondike River in Canada, Aug. 16, 1896. Out of 100,000 prospectors, 1897-1899, many died of exposure, others took up trading and farming. On the south coast of Seward Peninsula

lies Nome, where gold-bearing sands were worked by placer mining.

Resources and Industries. The Good Friday, Mar. 27, 1964, earthquake, the most powerful ever recorded in North America, caused a temporary setback to the economic development of Southwestern Alaska, but reconstruction was speedily completed. Anchorage, Seward, Valdez and Kodiak benefited with new facilities.

Principal income is from fisheries, minerals (esp. oil), timber and wood products, and furs. Salmon, halibut, herring, cod and shellfish are frozen or canned; Alaska is the top state in value of its commercial catch, \$80,677,000 in 1966.

Processing of fish and other foods is the largest manufacturing industry, followed by lumber and wood products. Total value added by manufacture in 1963 was an est. \$89,311,000.

Spruce, yellow cedar and hemlock are plentiful; there also are red cedar and birch. Commercial timberland of Alaska's vast forest totals 28,000,000 acres. The forest products industry in SE is expanding as pulp mills increase. There are also hardwood forests in the interior.

Furs produced are those of the seal, sable, ermine, wolverine, land otter, muskrat, beaver, mink, red fox, blue fox, lynx, marten. The black fox and white fox are less frequent. Wild life includes the gray wolf, moose, caribou, and 5 kinds of bear: black, grizzly, Polar, Kodiak and glacier. There are plenty of sea fowl, but whales, walrus, sea lion and sea otter have diminished.

The seal herd on the Pribilof islands is owned by the Government and protected by the U. S. Fish & Wildlife Service. Reindeer herds are multiplying and their meat is marketed.

Oil and natural gas have long since taken over from gold as the mainstay of mineral production.

Oil production, boosted by new offshore fields in Cook Inlet, almost doubled in value in 1967, reaching \$94,644,000 compared to \$44,007,000 in 1966, and accounting for some 65% of the value of the total mineral output, est. at \$129,897,000. New oil discoveries were made along the Arctic coast.

Gold production was valued at \$910,000 in 1967, continuing an annual decline. Alaska remained the leading platinum-producing state and was 2nd to Colorado in tin. It also has considerable copper, coal, mercury and uranium.

Principal ports are in the Panhandle where Juneau, the capital, is on the mainland shore; N of it is Skagway, historic entry to Klondike gold fields via Chilkoot Pass and White Pass. Sitka, Wrangell and Ketchikan (center of salmon industry), are on islands of the Alexander group.

At the head of Cook Inlet, in S Central Alaska, is the state's largest city, Anchorage. Seward, S of Anchorage, is terminus for the govt.-owned Alaska Railroad, which runs N to Fairbanks.

Twelve domestic airlines serve Alaska. International lines flying via Arctic routes make stops.

Ships transport 90% of the goods and foods to and from Alaska with the Alaska Steamship Co. linking some 50 Alaskan ports with Seattle, etc.

An est. 100,000 tourists visit Alaska annually, spending over \$25,000,000.

There are now two motor routes to Alaska. The newer is by way of Marine Highway, a 450-mile ferry route from Prince Rupert, B. C., to Haines, Alaska. Motorists leaving one of the three ferries at Haines have 785 mi. of paved highway to Anchorage, 662 mi. to Fairbanks. The older route is Alaska Highway, which starts at Dawson Creek, B. C., and ends via Richardson Highway in Fairbanks, 1,523 mi. away. The system also links Anchorage, Homer, Kodiak, Valdez and Cordova. Fairbanks, largest city in Central Alaska, has the northernmost airport on the continent. Nearby are Fort Wainwright and Eielson AFB.

Higher education is provided by Univ. of Alaska, near Fairbanks, with 5 junior colleges in other cities; Alaska Methodist Univ., Anchorage; Sheldon Jackson Junior College, Sitka.

The Alaska State Museum in Juneau features Eskimo and Indian exhibits, mounted wildlife specimens, rocks and minerals and historical exhibits.

The University of Alaska Museum, in College, near Fairbanks, maintains cultural and natural history collections for research and for the public.

Arizona

Grand Canyon State

CAPITAL: Phoenix. **AREA:** 113,909 sq. mi., rank, 6th. **POPULATION:** (1960 Census), 1,302,161, rank, 35th. **MOTTO:** Ditat Deus, God Enriches. **FLOWER:** Giant Cactus or Saguaro. **BIRD:** Cactus Wren. **TREE:** Paloverde. **SONG:** Arizona. **ADMISSION:** 48th.

Arizona leads the nation in copper production with 55% of the total U. S. output, and ranks high among cotton-growing states, but its rapidly-growing manufacturing industries, such as machinery, aerospace and electronics, form the largest source of income. Mining, agriculture and tourism follow in that order.

Loads of sunshine and a wealth of scenic attractions give Arizona a steadily mounting tourist business. est. at \$450,000,000 for 1966. Est. pop. July 1, 1967, was 1,635,000.

The climate is dry in southern regions and the northern plateau, but high mountains and forests in central areas have heavy snows in winter. Highest point is Humphreys Peak, 12,633 ft. Over 44% of the land is Federally owned.

The only point in the U. S. at which 4 states meet is the juncture of Arizona, Utah, Colorado and New Mexico.

Arizona is noted for the Grand Canyon of the Colorado, an immense, vari-colored fissure 217 mi. long, 4 to 18 mi. wide at brim, 4,000 to 5,500 ft. deep. It also has one of man's greatest water barriers, Hoover Dam (formerly Boulder) in Black Canyon of the Colorado, 726 ft. high, 660 ft. wide at base, 1,244 ft. long at top, creating Lake Mead.

Nature has given Arizona the Painted Desert, extending for 30 mi. along U. S. 66; the Petrified Forest; Canyon Diablo, 225 ft. deep, 500 ft. wide, and Meteor Crater, 4,150 ft. across, 570 ft. deep, made by a prehistoric meteor, near U. S. 66. The state has 15 national monuments, 2 national parks. Rodeos and historic sites of Indian and Spanish eras are other attractions.

Manufacturing production rose 7% in 1967.

Copper is king among Arizona's many minerals, and Arizona normally produces 51% of the nation's copper output. A prolonged copper strike in 1967 trimmed the value of the yield to \$380,369,000 which was 81% of the state's total mineral production, valued at \$465,449,000. Arizona also ranks 1st in pumice, 3rd in silver, molybdenum and asphalt, and 4th in gold. Also important are uranium, helium, mercury and vanadium.

Cotton is the major crop; Arizona's harvest ranks 5th among the states although it fell off from 515,000 bales in 1966 to 460,000 in 1967. Receipts for all crops rose slightly in 1967, reaching \$272,820,000, as did receipts for livestock and livestock products, \$233,882,000. The state ranks 14th in number of sheep. Important produce includes lettuce, alfalfa, melons, oranges, grapefruit, lemons and tangerines.

Federal spending on defense contracts, construction projects, air bases, etc., is an important factor in Arizona's economy.

Schools include the Univ. of Arizona at Tucson, Arizona State Univ. at Tempe and Northern Arizona Univ. at Flagstaff. The new observatory of the National Science Foundation is located on Kitt Peak near Tucson. Taliesin West is the Frank Lloyd Wright architectural school near Phoenix.

Originally part of the Territory of New Mexico, which was ceded in 1848 by Mexico with the Gadsden Purchase added in 1853, Arizona became a Territory itself in 1863 and a state Feb. 14, 1912.

Museums include Arizona State Museum, Tucson, which stresses the archeology and ethnology of the Southwest with exhibits on Hohokam prehistory, early elephant hunters, tree-ring dating of prehistoric cultures and Pima and Apache ethnology. The Museum of Northern Arizona, 3 mi. N of Flagstaff, has exhibits illustrating the geology and paleontology of the area, and the culture of prehistoric and modern Indians, with a Navajo rug display and a Hopi kiva.

The Southwestern Arboretum, on U. S. 60 and 70 near Superior, has over 6,000 plants and trees from arid regions of the world, from lowly cactus to lofty baobab tree.

The Arizona-Sonora Desert Museum, near Tucson, displays animals and plants of the desert.

England's historic London Bridge, purchased in 1968 for \$2,460,000, was to be re-erected as a tourist attraction at Lake Havasu City, 150 mi. NW of Tucson.

(See also Phoenix in Index.)

Arkansas

Land of Opportunity

CAPITAL: Little Rock. **AREA:** 53,104 sq. mi., rank, 27th. **POPULATION** (1960 Census), 1,786,272, rank, 31st. **MOTTO:** Regnat Populus. Let the People Rule. **FLOWER:** Apple Blossom. **BIRD:** Mockingbird. **TREE:** Pine. **SONG:** Arkansas. **ADMISSION:** 25th.

Arkansas is an important agricultural state with growing industries, has large oil production, valuable thermal springs and is popular with sportsmen. Highest point is Magazine Mtn., 2,753 ft.

Arkansas became a state June 15, 1836; it seceded in 1861 and was readmitted to the Union in 1868. Est. pop. July 1, 1967, was 1,969,000.

Manufacturing is growing in importance with an 86% increase in employees from 1955 to 1968. Per capita income in Arkansas increased 2.5 times between 1950 and 1967. Lumber, bauxite and cotton are major products.

The \$1.2 billion Arkansas River program, involving navigation, flood control and power developments and construction of 17 dams and locks in Arkansas and Oklahoma, is scheduled for completion in 1970. It is expected to provide a great boost to the area's economy.

The state has 20,052,000 acres of oak, hickory, gum, cypress and pine, and mechanization has increased output of lumber products. Cotton accounts for 48% of farm income and Arkansas ranked 4th in cotton production in the U. S. in 1967 with 520,000 bales. It is 3rd in rice. It was 3rd in number of chickens as of Jan. 1, 1968.

Arkansas accounts for 96% of the bauxite (aluminum ore) produced in the U. S. It also has the only diamond field in the U. S., near Murfreesboro, where visitors may keep any diamond they find up to 5 carats.

Oil is the state's main mineral product; 1967 output was valued at \$57,262,000, that of bauxite was \$18,200,000. Total value of mineral production was \$182,131,000.

Arkansas has 23 institutions of higher learning—13 colleges and universities, one professional school, two teachers' colleges and a number of junior colleges. It has 11 vocational-technical schools, and a technical institute.

Fresh-water fishing, duck-hunting in southeast lowlands, and recreation areas in 14 state parks and two national forests attract visitors. There are several reservoir-recreation areas, as at Norfolk, Bull Shoals, Nimrod and Dardanelle, and others are being created. There are 47 hot springs in government-owned and operated Hot Springs National Park, which entirely surrounds the city of Hot Springs, about 50 mi. SW of Little Rock. Spring water ranges from 95° to 147° F. and is piped in insulated conduits for baths and drinking. The state has 83 airports.

Little Rock is served by 3 major railroads, 5 airlines and 31 motor carriers. Hot Springs has 2 main railroads, 3 airlines and 10 truck lines.

Historic attractions in Little Rock include the Territorial Capital Restoration, a block of 13 original frame and brick buildings, furnished as in 1820-36, including the governor's home and the first print shop of the Arkansas Gazette, oldest newspaper west of the Mississippi. The Old State House in Little Rock was the state capitol 1836-1912; it houses many historical exhibits and a library of 100,000 vols.

The Arkansas Museum of Natural History and Antiquities in Little Rock occupies the building where Gen. Douglas MacArthur was born; also in MacArthur Park is the Arkansas Museum of Fine Arts.

California

Golden State

CAPITAL: Sacramento. **AREA:** 158,693 sq. mi., rank, 3rd. **POPULATION** (1960 Census), 15,717,294, rank 2nd (see text below). **MOTTO:** Eureka. I Have Found It. **FLOWER:** California Poppy. **BIRD:** Valley Quail. **TREE:** Redwood. **SONG:** I Love You, California. **ADMISSION:** 31st.

California is the leading agricultural state and is 2nd only to New York in manufacturing.

Third largest in area, California also has, within only 85 mi. of each other, the highest and lowest points in the conterminous 48 states, Mt. Whitney, 14,494 ft., and Death Valley, 282 ft. below sea level. The U. S. Bureau of the Census estimated Cali-

fornia's population, as of July 1, 1964, at 18,084,000 and New York's at 17,915,000, giving California 1st place; New York had been in 1st place from 1820 through the Census of 1960. (See N. Y. article for further figures.) Est. pop. July 1, 1967, was 19,163,800. It also has the most dogs and cats—an est. 50,000,000.

Among scenic regions are the Yosemite Valley, Lassen and Sequoia-Kings Canyon national parks, Lake Tahoe, the Mohave and Colorado deserts, San Francisco Bay and Monterey Peninsula. National forests cover one-fifth of the state.

Oldest living things on earth are believed to be a stand of bristlecone pine in the Inyo National Forest, est. to be 4,500 years old.

The world's tallest tree, the Howard Libbey redwood, 367.6 ft. with a girth of 44 ft., stands on Redwood Creek, Humboldt County.

California's huge fruit and vegetable production is fed by large irrigation systems. Receipts from crops in 1967 totaled \$2.4 billion (tops in U. S.); from livestock, \$1.5 billion (2nd to Iowa); total receipts were \$3.9 billion (most in U. S.).

The state ranked 1st in numbers of chickens and turkeys, 3rd in sheep, 5th in cattle, as of Jan. 1, 1968.

California produces the most apricots, avocados, grapes and raisins, peaches, persimmons, pomegranates, plums, prunes, lemons, nectarines, olives, dates, almonds, walnuts and sugarbeets. Its total vegetable crop is the largest; it ranks 2nd to Florida in oranges and 3rd in potatoes.

It is 2nd to Alaska in commercial fishing, with a catch valued at \$55,446,000 in 1966.

The state's giant aerospace industries employ a third of all its manufacturing employees, est. at 1,565,000 in 1966. Value added by manufacture was \$18.9 billion in 1965: transportation equipment, esp. aircraft and missiles, led; food products, particularly frozen and canned foods, were 2nd; electrical machinery, including electronic components, was 3rd, followed by other machinery, metal products.

California received \$6.16 billions in defense and aerospace prime contracts in 1966, or 17.2% of the national total.

Gold, discovered at Sutter's sawmill Jan. 24, 1848, set off the historic Gold Rush and gave initial impetus to California's development, but petroleum is the leading mineral product today.

Oil output in 1967 was valued at \$845,387,000, almost half the state's total mineral production value, \$1.7 billion (3rd highest in the U. S.). Ranking 3rd among the states in oil production, California leads in output of asbestos, boron, cement, diatomite, mercury, rare-earth metals, sand and gravel, sodium sulfate, sulphur ore and tungsten.

The Oroville Dam, main unit in the world's largest water project—the \$2.8 billion Feather River Project—was dedicated May 4, 1968, N of Sacramento; electric power and water for irrigation were flowing even before completion.

Some 7,229,000 out-of-state visitors spent \$1.33 billion in California in 1965.

There were, in 1965, 252 institutions of higher learning in California, 77 public junior colleges, 20 state colleges, 8 campuses of the Univ. of California, and 147 independent colleges and universities. During the 1964-65 school year, 39,711 baccalaureate degrees, 10,859 masters degrees, and 2,992 doctorates were conferred.

Three of the world's largest observatories are located on Palomar Mtn., Mt. Hamilton and Mt. Wilson.

The Tournament of Roses and the Rose Bowl football game at Pasadena are held annually, Jan. 1. Winter sports are featured in many mountain areas.

Vandenberg AFB, 170 mi. NW of Los Angeles, is center of an interservice missile range extending from San Nicholas Island to Point Sur.

California, named by Spanish explorers, was Alta (Upper) California under Spain. Mexico took over, 1822, ceded it 1848. California Republic (Bear Flag) at Sonoma, June 14, 1846, was led by Gen. William B. Ide. Commander John D. Sloat raised U. S. flag at Monterey July 7, 1846. The state was admitted to the Union Sept. 9, 1850.

Among museums the Pasadena Art Museum has collections of modern German painting, American painting, Oriental art and prints. The Santa Barbara Museum of Art has exhibits of Greek and Roman sculpture, Oriental art, old master and modern paintings, primitive arts, American paintings and old and modern European drawings. The

Santa Barbara Historical Society Museum displays and interprets objects of state and local history, owns several historic houses and operates the Ghedlin Library for historical research. In Sacramento, the Crocker Art Gallery has collections of paintings, drawings, prints, sculpture and crafts representing all European schools from early Renaissance, American glass and a cross section of pottery from 5th Century B.C. to contemporary American.

SPANISH MISSIONS. Twenty-one churches built by Franciscans of the Roman Catholic Church, 1769-1823, have been restored, rebuilt or are in ruins. They are located on or near El Camino Real, the Royal Highway, U. S. 101. Father Junipero Serra led a missionary expedition from Mexico City and founded 9 churches between 1769 and his death, 1784. The missions converted Indians and raised livestock and grain. Mexico secularized and sold the missions in the 1830s. After the Mexican War the U. S. returned the missions to the church. The buildings suffered from fire, earthquake, military and secular use; some have been entirely rebuilt.

San Diego de Alcalá, near San Diego. Restored. **San Luis Rey de Francia**, near Oceanside. Seminary for priests.

San Juan Capistrano, 30 mi. from San Luis Rey. Famous for tradition that swallows arrive on St. Joseph's Day, Mar. 19, depart on St. John's Day, Oct. 23.

San Buenaventura, Ventura. Restored.

Santa Barbara, Los Olivos St., Santa Barbara. Enlarged, restored since 1925 earthquake.

San Gabriel Arcangel, near Los Angeles.

San Fernando Rey de Espana, San Fernando. Oblate fathers. A museum.

Santa Ines, Solvang. Parish church.

La Purisima Concepcion, near Lompoc. State monument, rebuilt by CCC, 1935.

San Luis Obispo de Tolosa, San Luis Obispo.

San Miguel Arcangel, San Miguel.

San Antonio de Padua, 20 mi. SW of King City. Restored and rebuilt.

Nuestra Señora de la Soledad, Soledad. In course of restoration.

San Carlos de Borromeo de Carmelo, ■■■■ Carmel. Tomb of Father Junipero Serra.

San Juan Bautista, 18 mi. N of Salinas.

Santa Cruz, Santa Cruz. New church, 1858.

Santa Clara, Santa Clara. On campus of Univ.

San Jose, 15 mi. N of San Jose. Original destroyed; wooden church since 1891.

Mission Dolores (San Francisco de Asis) 16th and Dolores Sts., San Francisco. Restored chapel.

San Rafael Arcangel, A. and Fifth Sts., San Rafael. New church, 1917.

San Francisco de Solano, Sonoma. Owned by state; chapel museum. Stands on plaza where Bear Flag was raised June 14, 1846.

Not one of the original 21 missions is **San Antonio de Pala**, originally a dependency of San Luis Rey de Francia, erected 1810, abandoned 1846, restored 1959.

(See also Index for Los Angeles, Oakland, Sacramento, San Diego, San Francisco, San Jose.)

Colorado

Centennial State

CAPITAL: Denver. **AREA:** 104,247 sq. mi., rank, 8th. **POPULATION:** (1960 Census), 1,753,947, rank 33rd. **MOTTO:** Nil Sine Numine. Nothing Without Deity. **FLOWER:** Columbine. **BIRD:** Lark Bunting. **TREE:** Colorado Blue Spruce. **ANIMAL:** Big Horn Sheep. **SONG:** Where the Columbines Grow. **ADMISSION:** 38th.

Once primarily a mining and grazing state, Colorado now draws the largest segment of its income from manufacturing, with livestock and crops 2nd, mining 3rd. Its snow-capped peaks, ski centers, ghost towns and health spas make it a popular vacation-recreation area.

Colorado was organized as a Territory Feb. 28, 1861, and was admitted to the Union Aug. 1, 1876, 100 years after the Declaration of Independence; hence its nickname, the Centennial State. Est. pop. July 1, 1967, was 1,975,000.

Total of value added by Colorado's varied manufacturing industries is over \$1.2 billion yearly. Processing of meat, dairy and other food products ranks 1st, followed by stone-clay-glass products, chemicals and electrical machinery.

Farm receipts in 1967 totaled \$807,524,000, 75% from livestock products. Colorado was 4th among the states in number of sheep, 1,384,000 in 1968; 12th in cattle, 3,021,000. Its sugarbeet crop is 3rd

in the U. S.; other large crops are wheat, corn, barley, alfalfa, potatoes, apples, peaches, pears. Large areas are irrigated.

Gold was found on the Platte, 1858, and at Leadville, 1860. Climax, near Leadville, now produces 72% of the world's molybdenum; 1967 output was valued at \$76,408,000. Colorado is also 1st among the states in production of tin and vanadium, 2nd in tungsten and carbon dioxide, 3rd in uranium, 4th in lead, zinc and pyrites. Total 1967 mineral output was valued at \$352,347,000, with petroleum the biggest money-producer at \$99,445,000.

With Utah and Wyoming, Colorado shares the world's richest oil shale deposits, still to be developed.

Colorado is the highest state in the Union, with an average altitude of 6,800 ft. It has 52 of the nation's highest mountains and 1,500 peaks over 10,000 ft. Pikes Peak, 14,110 ft., was found by Lt. Zebulon M. Pike, 1806. Highest is Mt. Elbert, 14,433. Frozen Lake, altitude 12,940 ft., is the highest lake in the 48 conterminous states.

The Continental Divide, which forms the crest of the continent and separates watersheds of the Pacific Ocean and the Gulf of Mexico, runs through the west-central part in a general N-S direction.

Six major rivers—the Colorado, Rio Grande, Arkansas, North Platte, South Platte and Republican—rise in Colorado, supply water to 19 states. The western rivers have cut great canyons: the Black Canyon of the Gunnison and the Royal Gorge of the Arkansas, 1,000 to 1,500 ft. deep. One of the world's highest bridges crosses the Arkansas 1,053 ft. above the river at Royal Gorge.

The Federal government owns 36.4% of the land, including two National Parks, 6 Monuments, one Recreation Area, 12 Forests, one Indian reservation, 7 major military reservations.

Colorado has 9 state colleges and universities, 12 junior colleges and 5 private colleges.

Colorado was the 1st of several states which in 1966 liberalized their abortion laws.

Tourist attractions include Rocky Mountain National Park, Garden of the Gods, Great Sand Dunes and Dinosaur National Monuments, Pikes Peak and Mt. Evans Highways, Mesa Verde National Park (pre-historic cliff dwellings). The Grand Mesa tableland comprises Grand Mesa Forest, 659,584 acres, with 200 lakes stocked with trout. Other attractions include the U. S. Air Force Academy near Colorado Springs, Denver Western Stock Show, Colorado State Fair, horse, dog and auto races, rodeos and pioneer celebrations. Twenty ski areas operate from November to May.

Aspen and Central City, old mining towns, are also cultural centers.

Big game include deer, bear, elk, mountain lion, gray wolf, coyote. There are thousands of miles of trout streams and 2,000 fishing lakes.

Museums include the Colorado Springs Fine Arts Center which has paintings, prints and drawings by contemporary artists, exhibits of the cultural history of the SW and Latin America, and the John F. Huckel collection of 112 Navajo sand painting reproductions. The University of Colorado Museum, in Boulder, has more than a million objects in its exhibits of rocks, plants and early peoples as well as an art gallery.

(See also Index for Denver.)

Connecticut

Nutmeg State, Constitution State

CAPITAL: Hartford. **AREA:** 5,009 sq. mi., rank, 48th. **POPULATION:** (1960 Census), 2,535,234, rank, 25th. **MOTTO:** Qui Transtulit, Sustinet. He Who Transplanted, Sustains. **FLOWER:** Mountain Laurel. **BIRD:** American Robin. **TREE:** White Oak. Fifth of the Original 13 States to ratify Constitution.

Connecticut's heavily industrialized cities are in sharp contrast to its picturesque New England villages and scenic countryside. Despite its small size, the state has large and diverse manufacturing industries, mainly of high-value specialty products. Est. pop. July 1, 1967, was 2,925,000.

It is a leading maker of jet engines, helicopters, nuclear subs, pins and needles, silverware, hardware, clocks, typewriters, cutlery, and ball bearings. Ranking 48th in area, it is 13th in value added by manufacturing, a total of over \$4.8 billion annually. Its factories employ 43% of the working force. Hartford is headquarters for many of the nation's largest insurance companies.

Poultry and dairy products account for the large-

est part of farm receipts, which totaled \$159,722,600 in 1967. Much of the soil is stony, but tobacco, potatoes, fruits and vegetables are grown.

The vacation-recreation industry is important. Attractions include historic sites, charming villages, the American Shakespeare Festival in Stratford, Mystic Seaport and Marine Museum, trolley museums, skiing, boating on Long Island Sound. There are 83 state parks, recreation areas and historic sites, covering 22,237 acres.

Tourism brings Connecticut over \$200,000,000 a year from out-of-state vacationers.

Mineral production is mostly of sand, stone and gravel, feldspar and clays. Total value for 1967 output was est. at \$20,725,000.

Adriaen Block, Dutch, explored the Connecticut R., 1614. English from Massachusetts settled in 1630s. First practical constitution was the Fundamental Orders, adopted by Wethersfield, Windsor and Hartford, 1639; gave superior powers to legislature. The royal charter of 1662 was exceptionally liberal; when Gov. Edmund Andros tried to seize it, 1687, it was hidden in the Hartford Oak, commemorated in Charter Oak Place.

Free public schools were established in New Haven, 1642, Hartford, 1643. Compulsory education in elementary and Latin grammar schools was established in 1650.

Of 33 major colleges and universities, Yale Univ. (estab. 1701, named 1718) is the largest privately endowed. The public education system is topped by 4 state colleges and the Univ. of Connecticut, Trinity (Hartford), Wesleyan (Middletown), and Univ. of Hartford are well known; Connecticut College, for women, and U. S. Coast Guard Academy are at New London. Preparatory schools include Taft (Watertown), Choate (Wallingford), Hotchkiss (Lakeville), Kent (Kent) and Loomis (Windsor).

Museums include the P. T. Barnum Museum, Bridgeport; American Clock and Watch Museum, Bristol; Trolley Museums, East Haven and Warehouse Point; Hill-Stead Museum, a country house with paintings by famous Impressionists; Farmington; Museum of American Art, New Britain; Old Lighthouse, Stonington; Lyman Allyn Museum, New London; Bruce Museum, Greenwich.

In New Haven museums include the Winchester Gun Museum, with 5,000 items from the 15th Century to present. The Yale University Art Gallery's collections illustrate the ancient civilizations of Greece, Rome, Egypt, Mesopotamia; far east and Italian Renaissance art; European and American painting and sculpture, African and pre-Columbian arts. The Peabody Museum at Yale has collections in paleontology, mineralogy, zoology, archeology and a leading collection of dinosaurs.

Mystic Seaport, Mystic, is a recreated 19th Century village, including smithy, chapel and schoolhouse. At the docks lie the wooden whaleship Charles W. Morgan, the squarerigger Joseph Conrad; the Gloucester fishing schooner L. A. Dunton.

(See also Index for Hartford.)

Delaware

First State, Diamond State

CAPITAL: Dover. **AREA:** 2,057 sq. mi., rank, 49th. **POPULATION:** (1960 Census), 446,282, rank, 46th. **MOTTO:** Liberty and Independence. **FLOWER:** Peach Blossom. **BIRD:** Blue Hen Chicken. **TREE:** American Holly. **SONG:** Our Delaware. **First of Original 13 States to ratify Constitution.**

Delaware occupies part of the Delmarva Peninsula, so-called because Delaware and parts of Maryland and Virginia share the peninsula separating Delaware and Chesapeake Bays. Delaware is 96 mi. long and from 9 to 35 mi. wide. The land slopes from rolling hills (442 ft. highest elevation) in the N to a near sea-level plain.

Second smallest of the states in area, Delaware has a high level of income, with large chemical and other industries, the hqs. of many large corporations, prosperous farms and important shellfish production. A special Federal Census, Sept. 1967, showed the pop. at 526,414.

Chemicals are by far the largest industry, accounting for \$181,965,000 of the total est. value added by manufacture, \$666,245,000 in 1963. Frozen and canned foods, dairy and poultry products and grain milling were 2nd, \$56,143,000. Also important are apparel, rubber and plastics, metal products, leather, textiles.

Broiler chickens are the largest item of farm

income; farm receipts for 1966 were \$132,676,000. Fruit and vegetables are the most important crops. Mineral production is mainly sand, gravel, stone, clays, gem stones, valued at \$1,937,000 for 1966. Delaware ranks 6th among the states in value of its commercial fishing catch.

The state has several famed beaches, racing at Delaware Park, numerous historic sites. The Atlantic terminal of the Air Transport Command is at Dover Air Force Base. Wilmington is the largest city.

Delaware Bay was reported in 1609 by Henry Hudson, under Dutch commission, and in 1610 by Samuel Argall, in Virginia service. The latter called the estuary after his Governor, Thomas West, Lord de la Warr, a name soon extended to the river and its lower western shore, and later adopted by the state.

An attempted Dutch settlement at Zwaanendael (Lewes) in 1631, failed. Swedish colonization began at Fort Christina (Wilmington) in 1638. New Sweden fell to Dutch forces in 1655. English conquered the area in 1664 under the Duke of York, who in 1682 transferred the Counties on Delaware to William Penn. Though in his proprietorship to 1776, they were separately governed from 1704 and fought during the Revolution as a state. On Dec. 7, 1787, Delaware became the first state to ratify the Federal Constitution.

Fort Christina Monument marks the site of founding of New Sweden in 1638. Holy Trinity (Old Swedes) Church erected 1698 is the oldest Protestant Church in the U. S. still in use. Center New Castle comprises a unique survival of a colonial capital nearly in its late 18th century form. The home of John Dickinson, "Penman of the Revolution," and drafter of the Articles of Confederation, has been restored near Dover.

Museums include the Delaware Art Center in Wilmington which has collections of Pre-Raphaelite English paintings, American paintings and manuscripts and drawings. The Henry Francis du Pont Winterthur Museum, at Winterthur near Wilmington, has 100 American period rooms from 17th to early 19th Centuries (reservations are required to visit some of them). The Hagley Museum at Wilmington includes many of the old du Pont powder mills and other exhibits illustrating the development of American industry.

The Delaware State Museum at Dover includes a collection of early "talking machines."

WILMINGTON

Wilmington had 85,690 pop. (1967 Special Census); and 366,298 in the standard metropolitan area. Laid out near Fort Christina, 1730-1736, by Thomas Willing and others, it was chartered in 1739 as Wilmington. Early a milling, shipping and manufacturing center, its business has remained varied. Notable current industries include vulcanized fibre, glazed kid and morocco leather, the largest braided hose plant, and the largest single cotton dyeing and finishing works. It is a world chemical center, with the home office and central laboratories of the Atlas, du Pont and Hercules companies.

The E. I. du Pont de Nemours Co., makers of over 1,400 products including many synthetics, maintains its executive department and a number of its research laboratories in Wilmington. In 1802, Eleuthere Irenee du Pont established a powder works on the Brandywine, the forerunner of the present corporation. Its original nylon plant is at Seaford, Del.

Florida

Sunshine State

CAPITAL: Tallahassee. **AREA:** 58,560 sq. mi., rank, 22nd. **POPULATION:** (1960 Census), 4,951,560, rank, 10th. **MOTTO:** In God We Trust. **FLOWER:** Orange Blossom. **BIRD:** Mockingbird. **TREE:** Sabal Palm. **SONG:** The Swanee River. **ADMISSION:** 27th.

Florida's many miles of beaches and other resort areas offer fun in the sun to millions of vacationers, and its semi-tropical climate provides a pleasant retirement haven for thousands of oldsters. But the state also has a tremendous agricultural output, producing 80% of the nation's citrus fruits and ranking 2nd only to California in production of vegetables. And, its growing and diversified manufacturing industries provide even more income than its agriculture.

The Florida peninsula juts southward 500 mi. between the Atlantic and the Gulf of Mexico; Cuba

is only 90 mi. from its southern tip. It has some 30,000 lakes; Okeechobee, covering 700 sq. mi., is the 4th largest natural lake inside the U. S. Highest elevation in the state is 345 ft., in the NW.

Florida was discovered by Ponce de Leon 1513; acquired from Spain 1819 by treaty ratified 1821. It was organized as a Territory Mar. 30, 1822, and admitted to the Union Mar. 3, 1845. It seceded 1861 and was readmitted 1868.

Tourism is a major industry; about 18,000,000 visitors spend some \$4.3 billion annually in Florida. It offers a wide variety of tourist attractions in addition to climate, resorts and water sports.

Many of the tourists become permanent residents. The state's population has boomed from 4,951,560 in the 1960 Census to 5,996,000 in the official July 1, 1967, est.

Major tourist objectives are metropolitan Miami, with the nation's greatest concentration of luxury hotels at Miami Beach; Palm Beach; St. Augustine, founded 1565 and oldest city in U. S.; Daytona Beach, Fort Lauderdale, all on the E coast; Sarasota, Tampa, Key West, St. Petersburg on the W; Panama City on N Gulf Coast.

Everglades National Park, 1,258,670 acres of land and water, preserves the beauty of the vast Everglades swamp. Castillo de San Marcos (St. Augustine), Fort Mantanzas, Fort Jefferson (Dry Tortugas), De Soto National Memorial (Bradenton), and Fort Caroline (Jacksonville) are national monuments.

The USAF Missile Test Center is at Cape Kennedy, formerly Canaveral. From it the nation's first earth satellite was launched Jan. 31, 1958, first U. S. manned space flight, May 5, 1961, and the first manned orbital flight, Feb. 20, 1962, by Col. John H. Glenn.

Key West became the 1st U. S. city to get its fresh water from the sea when a desalting plant, capable of producing 2,620,000 gallons a day, was opened in 1967.

Florida produces most of the nation's oranges and grapefruit; 1967 output was 4,428,000 tons of oranges (almost 5 times California output) and 1,381,000 tons of grapefruit (almost 10 times California's). It is also 1st in watermelons and is 2nd to California in fresh vegetables. It also produces limes, tangerines, sugarcane, peanuts, cotton, tobacco. Citrus fruits are the most valuable, followed by livestock and vegetables.

The cattle industry is important; on Jan. 1, 1968, Florida had 1,788,000 hd. Farm receipts for 1967 were \$1.03 billion.

Manufacturing has made great gains and accounts for twice as much total personal income as agriculture. Leading industries, in terms of value added by manufacturing, are food processing, chemicals, paper and products, printing and publishing, stone-clay-glass, transportation, in that order.

Florida leads the U. S. in production of phosphate rock, is 2nd to New York in titanium and 3rd in rare-earth metals. Total mineral production in 1967 was valued at a record high of \$299,624,000.

The commercial catch of fish and shellfish is worth over \$34,000,000 a year; ranking 6th among the states. It includes a large portion of the nation's mullet, shrimp and blue crab.

Florida has 21 airports with scheduled service, 36 scheduled airlines and 7 major railroads. There are 14 deepwater ports which handle domestic and foreign trade valued at \$1.24 billion a year.

Construction of the Cross-Florida Barge Canal, linking the Atlantic just N of Jacksonville with the Gulf of Mexico at Yankeetown, 90 mi. N of Tampa, is to be completed in 1972. The canal will be open to pleasure and fishing craft, as well as commercial traffic.

There are 28 4-year colleges and 32 junior colleges, including Univ. of Florida (Gainesville); Univ. of Miami (Coral Gables); Univ. of Tampa (Tampa); John B. Stetson Univ. (Deland); Rollins College (Winter Park); Florida State Univ. (Tallahassee); Univ. of South Florida (Tampa); New College (Sarasota); Univ. of West Florida (Pensacola) and Florida Tech Univ. (Orlando).

Florida has no state income tax and no bonded debt. Its excise taxes (beverage, tobacco, parimutuel), sales and other taxes account for 69% of total state revenue.

Museums include the Florida State Museum in Gainesville, which does field work in natural and social sciences in the southeast U. S. and Caribbean area, displays exhibits in archeology, ethnology, paleontology, ornithology, history and industry. Castillo de San Marcos in St. Augustine is a well-

preserved Spanish fort built 1672-1696 which is now a national monument. Marineland of Florida, 18 mi. S of St. Augustine, has some 2,500 marine specimens ranging from sharks and porpoises to tiny tropical fish living in oceanarium tanks; visitors may view and photograph them through portholes; trained porpoises and pilot whales perform in shows. Miami's Seagarium has similar shows.

At Pensacola is the Naval Aviation Museum with exhibits tracing flight development into the space age; also several forts, including Fort Pickens, built 1829, where Geronimo was imprisoned; the T. T. Wentworth Museum, with exhibits of local historical interest; the Pensacola Historical Museum and Spanish Village Museum.

In Sarasota, the John and Mable Ringling Museum of Art, willed to the state, contains works by Rembrandt, Rubens, Hals, Tiepolo, Velasquez, Murillo, Gainsborough, Reynolds and other masters. The Ringling Museum of the Circus includes elaborately decorated wagons, costumes and printed bills showing performers at fairs and circuses from the 16th to 20th centuries; the Asolo Theater presents plays and operas.

Also in Sarasota, the Circus Hall of Fame gives circus acts and puppet shows, displays mementos such as a coach given Tom Thumb by Queen Victoria, a sleigh P. T. Barnum gave Jenny Lind, costumes, rigging and circus equipment.

(See also Index for Miami, Orlando, St. Petersburg, Tampa.)

Georgia

Empire State of the South, Peach State

CAPITAL: Atlanta. **AREA:** 58,876 sq. mi., rank, 21st. **POPULATION:** (1960 Census), 3,943,115, rank, 16th. **MOTTO:** Wisdom, Justice, Moderation. **FLOWER:** Cherokee Rose. **BIRD:** Brown Thrasher. **TREE:** Live Oak. **SONG:** Georgia. Fourth of the Original 13 States to ratify Constitution.

Largest in area of the states east of the Mississippi, Georgia is rich in a number of natural resources and in its growing, diversified industries.

There are large deposits of marble in the mountainous N, along with fertile plains and industry centers in the NW. The Central Georgia Piedmont plateau boasts rich farmlands and a flourishing textile industry. The SE Coastal Plain produces pecans and peanuts and its forests yield a wealth of pulpwood and turpentine. Off its 100-mi. Atlantic coast lie its famed Sea Islands. The state also has large deposits of clay, limestone and bauxite, bases for important industries.

Okefenokee in the SE is one of the largest swamps in the U. S., a wetland wilderness and peat bog covering 660 sq. mi. A large part of it is a National Wildlife Refuge, a home for wild birds, alligators, bear, deer, otter, etc.

Highest point in the state is Brasstown Bald in the NE, 4,784 ft.; Stone Mtn., near Atlanta, is 1,686 ft. Est. pop. July 1, 1967, was 4,511,000.

Manufacturing production in Georgia has increased about 9 times in value since the start of World War II, a rate twice the national average. The textile industry is Georgia's oldest and largest.

Georgia is by far the nation's largest producer of peanuts, harvesting 487,560 tons in 1967, almost 3 times as many as the next largest producer, North Carolina. It is 2nd in pecans and in chickens, and 4th among the states in tobacco. Total farm receipts for 1967 were \$1.03 billion, up from 1966; the increase in crop receipts more than offset a decline in livestock income.

Georgia ranks high in lumber production and its output of pulpwood is tops in the U. S. The state produces more than half the world's turpentine.

It is 1st in the U. S. in production of china clays; 2nd in zirconium; 3rd in bauxite, barite and kyanite. Value of total mineral production in 1967 was \$145,633,000, a drop of 2% from the record 1966 figure.

Leading manufacturing industries in 1965, in order of importance, were textiles, transportation equipment, food products, paper products, apparel, chemicals. The largest private employer is Lockheed-Georgia, producing large transport planes, etc.

There are 49 institutions of higher learning, including the Univ. of Georgia. The state is served by 5 major railroads and 9 airlines. Savannah and Brunswick are its main ports.

About 28,000,000 vacation travelers spent an est. \$429,900,000 in Georgia in 1966.

Notable among attractions are Warm Springs Memorial and Little White House where President Franklin D. Roosevelt died April 12, 1945, the

Roosevelt Museum and nearby Ida Cason Callaway Gardens and Roosevelt State Park; Stone Mtn. and Jekyll Island State Park.

Andersonville Prison Park and National Cemetery are on the site of the Confederate prison camp in which a total of 50,000 Union soldiers were confined, Feb. 1864 to Apr. 1865, in conditions so infamous that over 900 died in each of the 13 months the camp existed. Park and cemetery are administered by the U. S. Army Department.

Georgia was visited by DeSoto, 1540. It was a part of land granted to the lords proprietors of Carolina, 1663 and 1685; became an independent colony by charter of 1732 with first permanent settlement under James Oglethorpe, 1733. Georgia ratified the Confederate constitution, Mar. 1861, was readmitted to the Union, July, 1870.

(See also Index for Atlanta.)

Hawaii

Aloha State

CAPITAL: Honolulu. **AREA:** 6,450 sq. mi., rank, 47th. **POPULATION:** (1960 Census), 632,772, rank, 43rd. **MOTTO:** The Life of the Land is Perpetuated in Righteousness. **FLOWER:** Hibiscus. **BIRD:** Nene (Hawaiian Goose). **TREE:** Kukui (Candlenut). **OFFICIAL SONG:** Hawaii Ponoī. **ADMISSION:** 50th.

Hawaii, prosperous paradise of the Pacific, became the 50th state Aug. 21, 1959, and the 50-star U. S. flag became official the following July 4.

The Hawaiian Islands lie in the North Pacific, 2,395 mi. from San Francisco (5 hrs. by commercial jet). They consist of 8 major islands (7 inhabited) and 114 minor islands (4 inhabited). The principal islands are Hawaii (4,021 sq. mi.); Oahu (595 sq. mi.), on which are Honolulu and Pearl Harbor; Lanai, Maui, Molokai, Kauai, Ni'ihau and Kahoolawe (uninhabited).

The islands are volcanic. Highest point is Mauna Kea, on Hawaii, an extinct volcano 13,796 ft. above sea level. Its twin is Mauna Loa, 13,680 ft., largest active volcano in the world. Average annual rainfall is 22 inches at Honolulu Airport, 140 inches in Hilo, and 472 inches atop Waialeale, a mountain on Kauai. Honolulu is subtropical (all-time range, 56° to 88°) but Mauna Kea is often snow capped.

Lake Waiau, at 13,020 ft. near the summit of Mauna Kea, is the highest lake in the U. S.

Ka Lae, or South Cape, on the island of Hawaii, is the southernmost point in the 50 states.

The islands were settled by Polynesians, probably about 700-750 A.D. These Polynesians sailed to Hawaii from Tahiti, over 2,000 mi. to the south, in large outrigger canoes.

Hawaii was visited 1778 by British Capt. James Cook who called the group the Sandwich Islands. It was a kingdom until Jan. 17, 1893, when Queen Liliuokalani was deposed and annexation to the United States asked. President Cleveland blocked this on the ground of American collusion. Hawaii organized a republic, 1894, with Sanford B. Dole as president. Congress voted annexation July 7, 1898 under President McKinley. The Territory was established June 14, 1900.

Hawaii, among the states, has the most heterogeneous of populations, with Americans of Polynesian, Asian, European and African extraction living together with a notable lack of racial tensions.

Many of the Polynesians intermarried with the other racial groups, which arrived mainly in the 19th century.

The 1960 Census gave as racial origins: Japanese 32.2%, Caucasian 32%, part-Hawaiian 14.5%, Filipino 10.8%, Chinese 6%, Hawaiian 1.7%, Negro 0.8%, American Indian 0.1%. It has since been unofficially est. that the Caucasian-descent category slightly outnumbered those of Japanese descent. Total est. pop., July 1, 1967, was 741,000.

Tourism is Hawaii's 2nd largest industry, next to national defense and ahead of sugar, 3rd, and pineapples, 4th. Total visitors in 1966 were est. at 710,000, with an average of 21,866 present daily.

In 1966 gross state product was \$2.7 billion, construction completed was \$392,400,000 and bank assets (Jan. 1, 1967) totaled \$1.2 billion, all up.

Most mineral output is for local consumption; continued heavy demand for construction materials, such as cement and stone, kept total mineral production, 1966, above \$20,000,000 for the 2nd consecutive year. Volcanic cinder is used in roads, salt is obtained from sea water by evaporation, scuba divers get black coral for gems off Maui,

lime is used to clarify cane juice and cut acidity in pineapple juice, basalt and limestone are used for building.

More than 1,800 ships put into Honolulu each year. Honolulu International Airport has an average of 790 arrivals and departures daily.

(See also Index for Honolulu.)

Idaho

Gem State

CAPITAL: Boise. **AREA:** 83,557 sq. mi., rank, 13th. **POPULATION:** (1960 Census), 667,191, rank, 42nd. **MOTTO:** Esto Perpetua. Exist Forever. **FLOWER:** Lewis Mock Orange (Syringa). **BIRD:** Mountain Bluebird. **TREE:** Western White Pine. **SONG:** Here We Have Idaho. **GEM:** Star Garnet. **ADMISSION:** 43rd.

A land of rugged grandeur, Idaho nevertheless ranks high in agricultural production.

Exploration of Idaho began with the visits of the Lewis & Clark Expedition, 1805-6. Fur traders and missionaries followed and the area became part of Oregon Territory, 1848; Idaho Territory, Mar. 3, 1863, and a state July 3, 1890.

Est. pop. July 1, 1967, was 699,000.

Idaho was chiefly a farming, grazing, timber and mineral state for many years, but manufacturing has recently become second in importance to agriculture. There are rugged mountains, beautiful valleys, plateau regions, and extensive lava fields. Mt. Borah, in the Sawtooth Mts., is the highest peak, 12,662 ft. The Snake River, runs through Hells Canyon, which averages 5,510 ft. in depth for 40 mi., at one point 7,900 ft., exceeding Grand Canyon, and is 10 mi. from rim to rim at widest point. The Snake has several noted waterfalls, among them Shoshone, Twin and American.

Idaho is the nation's leading potato producer, with 63,900,000 cwt. in 1967, far ahead of the next state, Maine. It is 2nd in sugarbeets and 5th in barley, and has large crops of wheat, hay and apples. It ranks high in wool production and was 9th in number of sheep in 1968 with 834,000, more than one per person. Total farm receipts in 1967 were \$537,224,000, more from crops than from livestock.

Manufacturing's gains were mainly in processing of potatoes and other foods, phosphates, paper, etc. Total value added by manufacturing was an est. \$520,000,000 in 1967.

Discovery of silver in 1894 at Coeur d'Alene caused a stampede, and Idaho still leads the nation in production of that metal.

It also ranks 1st among the states in antimony, 2nd in lead, cobalt, garnet, phosphate rock and vanadium, 3rd in zinc and mercury. Total mineral production in 1967 was valued at \$106,187,000.

With 39% of its area in forests, Idaho produces much lumber, with the world's largest white pine lumber mill at Lewiston. Yellow pine, Douglas fir, white spruce, larch, hemlock abound; the Roosevelt Grove has cedars 1,000 years old.

Total value of forest products in 1967 was \$190,000,000.

Hells Canyon, Brownlee and Oxbow Dams, 3 recent hydroelectric projects on the Snake River, are in operation. The National Reactor Testing Station of the AEC on Upper Snake River Plains has 21 reactors in operation, more building.

Tourism brought in an est. \$202,000,000 from 6,100,000 visitors in 1967, ranking it 3rd to agriculture and manufacturing, and ahead of forest products and mining.

The state offers excellent hunting and fishing and Lake Pend Oreille, which has a 500-mile shoreline, is home of the world's largest trout, Kamloco rainbow.

Craters of the Moon National Monument, 18 mi. W of Arco, is a jagged landscape. Lava covers the land and subterranean explosions have created multitudes of caves.

The State Historical Museum in Boise has displays of early Idaho Indians, the fur trade, mining, farm and household gear of the pioneers.

Illinois

Prairie State

CAPITAL: Springfield. **AREA:** 56,400 sq. mi., rank, 24th. **POPULATION:** (1960 Census), 10,081,158, rank 4th. **MOTTO:** State Sovereignty, National Union. **FLOWER:** Native Violet. **BIRD:** Cardinal. **TREE:** Bur Oak. **SONG:** Illinois. **SLOGAN:** Land of Lincoln. **ADMISSION:** 21st.

Illinois ranks high among the states as both an

agricultural and industrial empire. It is rich in coal and oil reserves and boasts highly developed rail, water and air transportation facilities.

The soil is rich and level, with the high point, Charles Mound near the Wisconsin line, only 1,235 ft.

Est. pop. July 1, 1967, was 10,894,000.

In 1967 Illinois ranked 2nd among the states in income from crops, 4th for livestock products and 3rd in total agricultural receipts, \$2.6 billion. It was the nation's largest producer of corn and soybeans, 6th in winter wheat, 7th in oats. It was 2nd to Iowa in number of hogs, 6,772,000, and 11th in cattle.

Manufacturing employment in 1964 averaged 1,233,800, with payrolls est. at over \$8 billion. Non-agricultural employment was 4,132,900, a new high. Major manufacturing lines are food products (especially grain, beverages, candy, meat) and machinery (particularly construction and farm), each accounting for about \$2 billion annually in value added by manufacturing. Electrical machinery, primary metals (mainly iron and steel), printing-publishing, chemicals and fabricated metals each account for over \$1 billion in value added. Rockford is the nation's 2nd largest machine-tool center; Peoria is a distilling center.

Illinois has the largest coal reserves, an est. 137 billion tons, in the U. S.

In 1967 coal output was 65,500,000 tons, 4th highest in the nation and up 3% over 1966. Large oil deposits underlie much of the state; petroleum production in 1967 was valued at \$181,255,000. Illinois ranks 1st in fluorspar and tripoli, 2nd in stone, 3rd in peat. Total 1967 mineral production was valued at \$638,098,000.

A major research and development installation of the Atomic Energy Commission is the Argonne National Laboratory, Lemont, Ill., directed by the Univ. of Chicago, which also operates the Argonne Cancer Research Hospital in Chicago. Dresden Nuclear Power Station, using a boiling water type of reactor, has been built for Commonwealth Edison Co. and the seven other companies in Nuclear Power Group, Inc., near Joliet, Ill. It has a capacity of 180,000 kilowatts.

Illinois has 130 public and private colleges and universities, including Univ. of Illinois with campuses in Champaign-Urbana and Chicago and an enrollment of 37,164 in 1966. It has medical facilities in Chicago as do Northwestern Univ. and the Univ. of Chicago.

The Illinois State Fair is held annually in August in Springfield. A total of 35,000 entries compete for more than \$1,000,000 in cash awards. Annual attendance is about 1,000,000.

State forests, parks and conservation areas cover 100,000 acres. Some are associated with the history of the Middle West, including Lincoln's home and tomb in Springfield; the restored Fort de Chartres, seat of French 18th Century authority; old settlements, such as Kaskaskia. Illinois was part of the territory taken from the British by George Rogers Clark. It became a state 1818.

The Illinois State Museum in Springfield has large collections of local art and archeology; art and architecture of the ancient Near East, and antique clocks, glass, china and furniture.

Located in Springfield is a state memorial including Abraham Lincoln's tomb and the Lincoln home which the family occupied for 17 years beginning in 1844.

New Salem State Park, 20 mi. NW of Springfield, contains the restored pioneer village of New Salem where Lincoln lived as storekeeper, surveyor and postmaster, 1831-37. Annual performances are staged of Robert Sherwood's Abe Lincoln in Illinois.

(See also Index for Chicago.)

Indiana

Hoosier State

CAPITAL: Indianapolis. **AREA:** 36,291 sq. mi., rank, 38th. **POPULATION:** (1960 Census), 4,662,498, rank, 11th. **MOTTO:** Cross-roads of America. **FLOWER:** Peony. **BIRD:** Cardinal. **TREE:** Tulip (Yellow Poplar). **SONG:** On the Banks of the Wabash. **ADMISSION:** 19th.

Indiana is heavily industrialized, yet also ranks high as an agricultural state. It is 3rd among the states in output of both steel and corn; it quarries most of the building limestone used in the U. S. and also ranks high in coal production.

It was explored by LaSalle, 1679; French trading posts grew during the 18th Century. Vincennes,

the 1st permanent settlement, was taken over by the British, 1763, and its capture by George Rogers Clark in 1779 led to the opening of the old Northwest Territories to the U. S. Indiana became a Territory July 4, 1800, and a state Dec. 11, 1816.

Est. pop. July 1, 1967, was 4,999,000.

There are sand dunes and lakes in the N, a level plain through most of the central area, and hills in the S. Highest point is 1,257 ft. in Wayne Co., in the east central area.

The Calumet region in the state's NW corner, including Gary, Hammond, East Chicago and Whiting, has one of the world's greatest concentrations of heavy industry, especially steel, cement and oil refining plants. Gary was a sand dune in 1905 when U. S. Steel located mills there. In 1960 it had a pop. of 177,913. Inland Steel and Youngstown have large plants in East Chicago. Another vast steel complex is rising further E on Lake Michigan where a \$92,000,000 port is being planned at Burns Harbor in the famed Dunes area; Midland Steel Div. of the National Steel Corp. has erected a plant nearby and Bethlehem Steel Corp. is building a \$250,000,000 group of facilities.

While steel and other metal industries are responsible for \$1.4 billion of the \$7.6 billion in value added annually by manufacturing, electrical machinery, including television sets and household appliances, is a close 2nd with \$1.14 billion. Auto parts, aircraft and other transportation equipment is next, with \$1.1 billion, followed by industrial, farm and other machinery, 4th; chemicals, 5th; farm products, 6th.

Corn is the principal crop (447,804,000 bu. in 1967) and much of it goes to fatten the hogs (4,111,000 on farms Jan. 1, 1968). Indiana ranks 1st in popcorn, 3rd in grain corn, 4th in hogs and soybeans, 8th in chickens. Total farm receipts in 1967 were \$1.4 billion.

Coal accounted for a quarter of the total value of mineral production, est. at \$241,196,000 in 1967; petroleum output was about a seventh of the total. Cement, limestone, clay and gypsum are also important.

Indiana limestone, from vast quarries in the southern part of the state, sheaths tens of thousands of buildings, including the Empire State, Rockefeller Center, the United Nations, the Pentagon, the National Cathedral, many Federal buildings and many state capitols.

Indiana has 21 state parks and recreation areas, including Dunes State Park on Lake Michigan and prehistoric Indian mounds at Mounds State Park; over 1,000 lakes; French Lick and other mineral spas; Wyandotte Cave, 3rd largest in the U. S., and other caverns, and the famous postoffice, Santa Claus.

Lincoln's boyhood home in Spencer County and the grave of his mother, Nancy Hanks Lincoln, are part of the Lincoln Boyhood National Memorial. State memorials commemorate the capture of Vincennes by George Rogers Clark in the Revolution, the defeat of Tecumseh's Indians at Tippecanoe, and the Rappite and Robert Owen communities at New Harmony.

Spring Mill Village, 3 mi. E of Mitchell, is a restored pioneer settlement, with grist mill, general store, apothecary's shop, tavern, distillery and sawmill.

The Evansville Museum of Arts and Science has collections including paintings, sculpture, textiles, ceramics, period rooms and anthropology.

Among 38 institutions of higher education are Indiana Univ., Purdue Univ., Ball State Univ., Indiana State Univ., Notre Dame Univ., Indiana Central College, Valparaiso Univ., De Pauw Univ., Wabash College.

(See also Index for Indianapolis.)

Iowa

Hawkeye State

CAPITAL: Des Moines. **AREA:** 56,290 sq. mi., rank, 25th. **POPULATION:** (1960 Census), 2,757,537, rank, 24th. **MOTTO:** Our Liberties We Prize and Our Rights We Will Maintain. **FLOWER:** Wild Rose. **BIRD:** Eastern Goldfinch. **TREE:** Oak. **SONG:** Iowa. **ADMISSION:** 29th.

Iowa, the heart of the rich Midwest farm belt, is one of the nation's leading agricultural states, but its industrial buildup has been so great that in 1967 the value of its manufacturing output passed \$10.2 billion while the market value of its agricultural products was \$3.4 billion.

Many industries process farm products or produce farm implements. However, the fast-growing industrial economy includes a wide variety of manufacturing plants, with electronics items, washing machines, tires, railway equipment, furnaces, automobile accessories, chemicals and fertilizers, vending machines, office furniture, and gypsum wallboard among the diversified products. Iowa developed the pearl button industry from Mississippi River clamshells.

Iowa's broad plains contain much of the finest soil in the world. Its huge harvests support the nation's largest livestock industry. Iowa has by far the most hogs, 13,740,000 on Jan. 1, 1968, more than twice the number in Illinois, the next largest raiser. In cattle, with 7,183,000, Iowa was 2nd only to Texas.

Receipts for livestock and livestock products in 1967 totaled \$2.5 billion, \$1 billion more than Texas, the next-ranking state. Iowa stood 4th in receipts for crops, \$897,491,000. Its total farm receipts were \$3.4 billion, 2nd only to California.

In field crops, Iowa ranked 1st in popcorn, 2nd in soybeans and grain corn, 4th in oats and alfalfa. Mineral production was valued at \$114,775,000 for 1967. Products, in order of value, were cement, limestone, sand and gravel, gypsum and coal.

Highest point in the state is Ochevedan Mound, 1,675 ft., in the NW.

Est. pop. July 1, 1967, was 2,753,000. More than 12,000,000 travelers from other states visit Iowa annually, adding nearly \$250,000,000 to the state's economy.

Tourist attractions include the Herbert Hoover birthplace and library near West Branch, tulip festivals at Pella and Orange City in May, Iowa State Fair at Des Moines in August, several rodeos. The Little Brown Church in the Vale, near Nashua, inspired a well-known hymn and draws about 100,000 visitors annually. There are 90 state parks and other recreation areas. Effigy Mounds National Monument at Marquette is a prehistoric Indian burial site.

The Davenport Municipal Art Gallery has a collection of paintings and memorabilia of the Iowa painter Grant Wood, as well as other American, Mexican and European paintings. Old masters include Breughel, Constable, Reynolds. The Davenport Public Museum displays the history of the area from pre-historic Indians to the steamboat and modern eras; archeology and ethnology of Egypt, Greece, Rome, Europe, South America and Asia; extensive collections of birds, mammals, insects, fossils, minerals and a herbarium of 20,000 plants.

In Decorah, the Norwegian-American Museum preserves homes, household utensils, etc., of pioneers who came from Norway.

Waterloo's Museum of History and Science has exhibits on Iowa history, pioneer life, Indian lore and earth sciences and a planetarium.

Iowa's institutions of higher learning include 27 colleges, 24 junior colleges and 3 state universities. Best known are the Univ. of Iowa, Iowa City; Iowa State University, Ames; Univ. of Northern Iowa, Cedar Falls; Coe College, Cedar Rapids; Drake Univ., Des Moines; Grinnell College, Grinnell.

The first Europeans to visit the Iowa area were the French explorers, Father Jacques Marquette and Louis Jolliet, in 1673. It formed part of the Louisiana Purchase in 1803 and became a state Dec. 28, 1846.

(See also Index for Des Moines.)

Kansas

Sunflower State

CAPITAL: Topeka. **AREA:** 82,264 sq. mi., rank, 14th. **POPULATION:** (1960 Census), 2,178,611, rank, 28th. **MOTTO:** Ad Astra per Aspera. To the Stars Through Difficulties. **FLOWER:** Sunflower. **BIRD:** Western Meadow Lark. **TREE:** Cottonwood. **ANIMAL:** Buffalo. **SONG:** Home on the Range. **ADMISSION:** 34th.

Rolling fields of wheat, clusters of oil well derricks, great herds of cattle and towering grain storage elevators feature the landscape of Kansas, the geographical center of the 48 conterminous states. The land rises from broad plains in the E, 680 ft. above sea level, to Mt. Sunflower, 4,039 ft., in the W.

Manufacturing, farming and mining (especially petroleum and natural gas) are major factors in Kansas' economy. Growing industries include food products, paper, printing, chemicals, fabricated

metals, machinery and transportation equipment.

Farms cover 50,000,000 acres, 95% of the land area. They produce a sixth of the nation's wheat crop. The 1967 Kansas output was 221,620,000 bu. of winter wheat, almost twice that of Washington, next largest producer. Total farm income was \$1.5 billion in 1967, ranking 7th. It was 4th in number of cattle, 5,564,000 on Jan. 1, 1968.

Kansas City, Kan., borders on Kansas City, Mo., but is a separate city. It has huge stockyards and packing plants.

Wichita is the nation's 3rd largest aircraft center in employment; ranks 1st in production of personal aircraft. Major producers are Boeing, Beech, Cessna, Lear.

Kansas ranks high in petroleum production and has large reserves of natural gas and helium. The world's largest helium production plant was opened in Otis, Kan., in 1966. Kansas ranks 1st among the states in helium production.

Oil output in 1967 was valued at \$305,244,000, more than half the total mineral production value, \$579,964,000.

Est. pop. July 1, 1967, was 2,275,000.

Coronado in 1541 headed a Spanish troop in a vain search for wealth in the area. France claimed all territory drained by the Mississippi through LaSalle's explorations, 1682. France ceded the vast area to Spain, 1763, and received it back, 1800. In 1803 the U. S. obtained the land through the Louisiana Purchase. The Kansas part of it became a Territory May 30, 1854; a state Jan. 29, 1861.

During the fight over statehood Kansas was rent between free-state and pro-slavery forces. Kansas furnished one-fifth of her men for Union armies in the Civil War. Frontier posts were at Fort Leavenworth, now site of the U. S. Army Command and General Staff College; Fort Riley, Fort Scott, Fort Larned, Fort Hays, and other sites.

The boyhood home of President Eisenhower in Abilene is now a shrine and adjoins the Eisenhower Museum and the Eisenhower Presidential Library. Pioneer days are reproduced in Old Abilene Town.

The Agricultural Hall of Fame and National Center, 14 mi. W of Kansas City, Kan., displays farm equipment of the past such as a wooden-wheeled corn planter, anvil, wheat drills, etc.

The Wichita Art Museum has works by Bellows, Eakins, Copley, Sargent, Cassatt, Hopper, Ryder, Grosz, Marin, Andrew Wyeth, Stuart Davis, LaChaise, De Creeft, Zorach. The Kansas State Historical Society in Topeka has displays and period rooms of Midwest history and a library with newspaper and manuscript collections.

In Lawrence, the Univ. of Kansas has a Museum of Natural History which presents a panorama of North American mammals from the Arctic to the tropics; a Museum of Art, with European and American painting and sculpture and European and Oriental decorative arts; and the Snow Entomological Museum, with over 2,000,000 insects.

There are 6 state colleges, 1 municipal university and many private colleges.

Kansas has developed an extensive system of recreation around its federal reservoirs, lakes and roadside parks. The Interstate System and Kansas Turnpike are part of a large highway system.

(See also Index for Kansas City.)

Kentucky

Blue Grass State

CAPITAL: Frankfort. **AREA:** 40,395 sq. mi., rank, 37th. **POPULATION:** (1960 Census), 3,038,156, rank, 22nd. **MOTTO:** United We Stand, Divided We Fall. **FLOWER:** Goldenrod. **BIRD:** Cardinal. **SONG:** My Old Kentucky Home. **TREE:** Tuliptree. **ADMISSION:** 15th.

Kentucky was the first area W of the Allegheny Mtns. settled by American pioneers, and one of the first of them to arrive was Daniel Boone, 1769. The first permanent settlement was that of James Harrod at Harrodsburg in 1774; the following year Boone blazed the Wilderness Trail and founded Boonesboro. Originally part of Fincastle Co., Va., the area became Kentucky Co., Va., in 1776, and an independent state in 1792.

Kentucky rises from an elevation of less than 260 ft., at the Mississippi, to over 4,000 ft. in the Cumberland and Pine mountains. Over 45% of the state is forested, and lumbering, particularly of hardwoods, is an important industry.

Agriculture is Kentucky's largest single industry. Tobacco is the principal crop; with 418,959,000 lbs. in 1967, the output was 2nd to North Carolina's.

Corn, soybeans, wheat, fruit, cattle and hogs are also important. Farm receipts in 1967 totaled \$385,662,000 from crops, \$377,804,000 from livestock.

Kentucky ranked 3rd among the states in 1967 in production of coal, with 99,500,000 tons, up 7% from the record year, 1966. It ranked 2nd in the U. S. in fluorspar. Also important are petroleum, natural gas and clay. Total mineral production was valued at \$517,876,000 for 1967, up 4% from 1966.

Manufacturing is gaining, mainly of food and tobacco products, apparel, machinery, metals, wood products and furniture, chemicals. Value added by manufacture is over \$2.62 billion per yr.

Tourists bring in an est. \$425,000,000 a year. There are 40 state and national parks and shrines.

In 1966 Kentucky enacted a law requiring surface and strip miners of coal to restore and regrade earth removed by their operations.

Also adopted were a broad civil rights law and legislation to develop water resources and regulate water and air pollution.

Est. pop. July 1, 1967, was 3,191,000.

Two of the largest man-made lakes in the world, Kentucky Lake and Lake Barkley, parallel each other in Western Kentucky, creating a 170,000-acre isthmus called the Land Between the Lakes National Recreation Area, being developed by the Tennessee Valley Authority. Two major vacation resort parks, Kentucky Dam Village and Kenlake, are on the west shore of Kentucky Lake. Approximately 4,000,000 people visited this area in 1965. TVA estimates that this will increase to 10,000,000 yearly by 1970.

Lexington, heart of the Bluegrass country, is seat of Univ. of Kentucky and Transylvania, oldest college west of Alleghenies (1780), has a large tobacco market and holds annual trotting and running races and a horse show. Near Lexington are farms famous for blooded horses, including the Calumet, Castleton, Spendthrift, Walnut Hall, Greentree. It is also a manufacturing center.

Fort Knox, repository of the nation's gold reserve, also contains the George S. Patton, Jr., Military Museum of World War II equipment.

Mammoth Cave, 40 mi. from Bowling Green, is in a national park. Discovered 1799, it has 150 mi. of passageways, rooms with 200-ft. ceilings, gypsum flowers, blind fish and an Echo River 360 ft. below ground.

Old Fort Harrod State Park, Harrodsburg, contains the reconstructed fort with stockade, block-houses and cabins; the log cabin in which Thomas Lincoln and Nancy Hanks, Abraham Lincoln's parents, were married, and a museum with relics of Shakertown, Ky.

Abraham Lincoln Birthplace National Historic Site, 3 mi. from Hodgenville, contains the original Thomas Lincoln farm and the traditional Lincoln Birthplace cabin.

My Old Kentucky Home, 1 mi. E of Bardstown, was the home of John Rowan, senator and state chief justice. Stephen Foster, a relative, visited the Rowan family in 1852 and is said to have written My Old Kentucky Home on a desk preserved in the house.

(See also Index for Louisville.)

Louisiana

Pelican State

CAPITAL: Baton Rouge. **AREA:** 48,523 sq. mi., rank, 31st. **POPULATION:** (1960 Census), 3,257,022, rank, 26th. **MOTTO:** Union, Justice, Confidence. **FLOWER:** Southern Magnolia. **BIRD:** Eastern Brown Pelican. **SONG:** Song of Louisiana. **TREE:** Bald Cypress. **ADMISSION:** 18th.

Louisiana blends a wealth of historic charm, rich natural resources and giant modern industries. Fertile soil, huge mineral deposits and over 7,000 mi. of navigable waterways linking the nation's heart with deepsea ports are factors basic to the state's wealth.

Mardi Gras and other festivals, the beat of Dixieland jazz in the land of its origin, and the nostalgic relics of the days of French and Spanish rule and the prosperous pre-Civil War era are among the attractions which bring Louisiana an est. \$1 billion a year in tourist revenues.

In total value of its 1967 mineral output, \$3.4 billion, Louisiana was 2nd only to Texas among the 50 states. It was 1st in value of its sulphur and salt production, and 2nd to Texas in petroleum and natural gas output. Much of the oil and sulphur is from offshore deposits.

The lush Louisiana land produces the nation's

largest crop of sweet potatoes; the state is also 1st in output of sugarcane syrup. It is 2nd to Texas in rice. Also important are perique tobacco, cotton and corn.

Farm receipts for 1967 totaled \$602,182,000, up about 9% from 1966.

Total value added by manufacture is over \$2.22 billion annually.

Leading industry is chemicals and allied products, with nearly a half-billion dollars in value added annually by manufacturing. Other products, in order of value added, are food, petroleum and coal products, paper, transportation equipment, stone-clay-glass, metals.

With 7,409 sq. mi. under water, Louisiana marshes supply most of the nation's muskrat fur; nutria has become the state's leading fur; there are also opossum, raccoon, mink, otter, and large numbers of game birds. The annual catch of fresh and salt water fish, shrimp and oyster is valued at over \$39,000,000. Lake Pontchartrain covers 630 sq. mi., is the 5th largest wholly within the U. S.

Much of the land is a rich alluvial plain; there are also rolling hills, bluffs on the Mississippi and coastal marshes. The elevation ranges from 5 ft. below sea level, protected by vast levees, to 535 above.

Louisiana is rich in historical relics and traditions, with Spanish-French backgrounds, pirate lore, fashionable French society in the 18th Century, picturesque customs today. Early explorers were Pineda, 1519, de Vaca, 1528, De Soto, 1541, LaSalle, 1682. New Orleans was founded 1718. Louisiana became a French crown colony under Louis XV, 1731; was ceded to Spain, 1763, returned to France, 1801; sold by Napoleon to U. S. Dec. 20, 1803 (with large territory to N and NW). It became a U. S. Territory Mar. 26, 1804, effective Oct. 1. State was admitted to the Union, Apr. 30, 1812; seceded Jan. 26, 1861, and joined Confederacy; readmitted June 25, 1868.

The Louisiana State Exhibit Museum in Shreveport features dioramas depicting the state's agricultural and mineral resources; there are also art shows, and exhibits of antique china, ceramics and Indian relics.

Louisiana Creoles are descendants of early French and/or Spanish settlers. About 4,000 Acadians, French settlers in Nova Scotia, Canada, were forcibly transported by the British to Louisiana in 1755 (an event commemorated in Longfellow's Evangeline) and settled near Bayou Teche; their descendants became known as Cajuns. Another group, the Islenos, were descendants of Canary Islanders brought to Louisiana by a Spanish governor in 1770. Traces of Spanish and French survive in local dialects.

Est. pop. July 1, 1967, was 3,660,000.

(See also Index for New Orleans.)

Maine

Pine Tree State

CAPITAL: Augusta. **AREA:** 33,215 sq. mi., rank, 39th. **POPULATION:** (1960 Census), 969,255, rank, 36th. **MOTTO:** Dirigo. **I Direct.** **FLOWER:** Pine Cone and Tassel. **BIRD:** Chickadee. **TREE:** Eastern White Pine. **SONG:** State of Maine Song. **ADMISSION:** 23rd.

Maine is noted for its scenic and vacation attractions, lobsters, potatoes, poultry and forest products, fishing and hunting.

Largest of the 6 New England states, it is the farthest NE and borders on only one other state, New Hampshire. Its rugged coast, because of deep indentations, measures 3,478 mi. Tides are often high; in Passamaquoddy Bay they average 20 ft.

Mt. Cadillac, on Mt. Desert Is., 1,532 ft., is the highest Atlantic seacoast point N of Brazil; West Quoddy Head, Long. 66° 57', W, is the farthest east point on the U. S. Atlantic coast. Lubec is the most easterly town on the U. S. mainland.

John Cabot and his son, Sebastian, are believed to have visited the Maine coast in 1498. Long governed as a part of Massachusetts, Maine became a state in 1820.

Est. pop. July 1, 1967, was 973,000.

Maine's coastal waters produce an annual 20,000,000 lbs. of lobsters, 75% of the nation's total, and 30% of its soft shell clams. The state packs over 120,000,000 cans of sardines a year. The fish and shellfish catch is valued at over \$24,000,000 annually.

Maine grows about 8% of the nation's potatoes, second to Idaho, and is the leading supplier of

potato seed. It produces 90% of the nation's low bush blueberries and cans a third of this crop. Also grown are apples, sweet corn, peas, beans. Farm income totals about \$250,000,000 a year, with poultry and eggs the largest item.

With 87% of its area forested, Maine turns out wood products from boats to toothpicks, paper, lumber and Christmas trees. Over 98% of forest land is privately owned. The wood products industry is the largest in the state, employing 26% of all wage-earners. Spruce, white pine and birch are the most important species. Est. value of finished products is \$697,000,000 a year. Processed food, shoes and textiles rank next in factory products. It ranks 4th in shoe production.

Granite, cement and feldspar account for much of the total value of mineral products, est. at \$16,785,000 in 1967.

Maine's scenic seacoast, beaches, lakes, mountains and resorts make it a popular vacationland; tourism is a \$348,000,000-a-year industry. There are 20 state parks, including Baxter, where Mt. Katahdin, tallest of the state's 10 mountains over 4,000 ft., rises 3,268 ft. Maine has over 2,500 lakes, 1,300 wooded islands and 5,000 streams. Moosehead Lake is 40 mi. long and 2 to 10 mi. wide. Deer, grouse, black bear abound; game fish include salmon, bluefish, tuna, trout, bass. There are over 65 public skiing facilities. Acadia National Park and the famed resort of Bar Harbor are on Mt. Desert Island.

Museums include the Bowdoin College Museum of Fine Arts, Brunswick, which has portraits by Gilbert Stuart, Smibert, Peke, Blackburn, Copley, Winslow Homer, Cassatt, etc.; also Assyrian, Greek and Roman sculpture.

The Colby College Art Museum, Waterville, has paintings by classic and contemporary Europeans and by Americans—Hassam, Homer, Denn, Inness, Moran, Poor, Sterne, Andrew Wyeth.

The Farnsworth Library and Museum, Rockland, has 19th and 20th Century American paintings, drawings, prints and sculpture.

The Portland Museum of Art comprises the Sweat Museum of American art and the Sweat Mansion, a Federal-style house built in 1800. Other historic homes in Portland are the Tate House, 1755, and the Victoria Mansion, 1859.

Colleges and universities include the Univ. of Maine, Bowdoin (1794), Colby and Bates.

Maine has no state individual property, state income, corporate income or corporate excise taxes.

Maryland

Old Line State, Free State

CAPITAL: Annapolis. **AREA:** 10,577 sq. mi., rank, 42nd. **POPULATION:** 3,100,689 (1960 Census), rank, 21st. **MOTTO:** Fatti Maschii, Parole Femine, Manly Deeds, Womanly Words; and Scuto B-nae Voluntatis Tuae Coronasti Nos, With the Shield of Thy Good-will Thou Hast Covered Us. **FLOWER:** Black-eyed Susan. **BIRD:** Baltimore Oriole. **TREE:** White Oak. **SONG:** Maryland, My Maryland. Seventh of the Original 13 States to ratify Constitution.

Maryland stretches from the Atlantic Ocean to the Allegheny Mountains with 2 major interruptions, Chesapeake Bay and the District of Columbia. Both contribute importantly to the state's economy.

The bay cuts off the low coastal plain of the Eastern Shore from the rest of the state, provides both commercial and sports fishing and leads to the port of Baltimore, which handles some \$1.6 billion in imports and exports a year. The 7.11-mi. Chesapeake Bay Highway Bridge spans the bay near Annapolis, S of Baltimore.

The National Capital area provides a market for much of Maryland's produce as well as adding to the crowds which enjoy the state's many recreational facilities.

Backbone Mtn. in the far W part of the state is its highest point, 3,360 ft.

First settled was St. Clements Island, Mar. 25, 1634, by Leonard Calvert, brother of Cecilus Calvert, who moved to St. Mary's on mainland and formally established the colony. Settlement was Catholic, but Maryland in 1649 guaranteed religious tolerance to all.

Est. pop. July 1, 1967, was 3,685,000.

Gross state product in 1965 was \$12.4 billion, up 5.1%; unemployment was 3.4%, below national average. Industries are diversified, producing primary metals, food products and beverages, transportation equipment, chemicals, missiles, nuclear equipment, scientific instruments, electric tools and electronic products. Boat building is important.

Total value added by manufacture is over \$2.9 billion annually.

Almost half of the land area is covered with forests. About 50% of timber cut is softwood. Cement is the leading mineral product; there is some coal mining and coke production.

Seafood is an important industry. In a typical year fish and shellfish will reach 83,000,000 lbs. and be worth over \$14,000,000 to the fishermen. Striped bass is the chief contributor to fin fish revenues, oysters lead shellfish, but soft-shell clams have been gaining. Frozen, canned and cured fish have been increasing in production, but the industry is subject to variations.

Maryland has a large tomato crop and also produces tobacco, sweet potatoes, melons and vegetables. Commercial broilers are the largest agricultural revenue provider.

The 1st U. S. steam locomotive, Peter Cooper's Tom Thumb, was built in Baltimore and made its 1st run on the tracks of the Baltimore & Ohio R.R., 1830.

The University of Maryland (1807) has the Glenn L. Martin Institute of Technology. Other educational institutions: Johns Hopkins Univ. (estab. 1876), St. John's (1696), Goucher College (1885), U. S. Naval Academy (1845).

Famous racing events include Preakness, at Pimlico track, Baltimore; Grand National Steeplechase at Butler; the International at Laurel Race Course, and John B. Campbell Handicap at Bowie. Gibson Island is a center for yacht races.

Famous historic sites include Fort McHenry, Baltimore, restored, where in 1814 waved the flag that inspired Francis Scott Key to write the Star-Spangled Banner; Antietam Battlefield near Hagerstown (1862); South Mountain (1862); Edgar Allan Poe house, Baltimore. The State House, Annapolis (1772), is the oldest in the U. S.

The Chesapeake Bay Maritime Museum in St. Michael's exhibits typical bay boats, including the last surviving oyster sloop, a cottage-type light-house and models of Baltimore clippers, log canoes, bugeyes and skipjacks.

(See also Index for Baltimore, Washington, D. C.)

Massachusetts

Bay State, Old Colony

CAPITAL: Boston. **AREA:** 8,257 sq. mi., rank 45th. **POPULATION:** (1960 Census), 5,149,834, rank, 9th. **MOTTO:** Ense Petit Placidam Sub Libertate Quietem. By the Sword We Seek Peace, but Peace Only Under Liberty. **FLOWER:** Mayflower. **BIRD:** Chickadee. **TREE:** American Elm. **SONG:** (unofficial) Massachusetts. Sixth of the Original 13 States to ratify Constitution.

Massachusetts has played important roles in the political, intellectual and economic development of the U. S. Here the Pilgrims, seeking religious freedom, founded Plymouth Colony in 1620.

As Massachusetts grew, it became a leader in resisting British oppression. Its citizens staged the Boston Tea Party in 1773 to protest unjust taxation. The Minutemen battled British troops at Lexington and Concord, Apr. 19, 1775, launching the American Revolution.

The state became the home of great universities such as Harvard and Massachusetts Institute of Technology. In the 19th Century its authors were giants among the nation's men of letters. The state was also a hotbed of abolitionism.

In Massachusetts ports a great shipping industry, including the famed China trade, developed, along with vast whaling and fishing interests. Abundant waterpower helped create a variety of manufacturing industries.

While the Puritans demanded religious freedom for themselves, their leaders denied it to others; but some among them protested this, and the loudest protesters, Roger Williams, Anne Hutchinson and others were banished and settled Rhode Island in the 1630s as a haven for religious liberty. Meanwhile, in Massachusetts, Quakers and Baptists were persecuted and in Salem the infamous witchcraft trials and hangings were staged in 1692.

Eventually, religious freedom was achieved. In 1867, Mary Baker Eddy founded Christian Science in Lynn. Heavy immigration of Irish, Italians, Poles, Czechs and French Canadians brought many Catholics to the state.

Est. pop. July 1, 1967, was 5,421,000.

In addition to Harvard (founded 1636) and M.I.T., other respected institutes of higher learning include Amherst, Andover Theological, Boston College, Boston Univ., Brandeis, Clark, Hebrew

Teachers, Holy Cross, Lowell Technological, Mt. Holyoke, Northeastern, Radcliffe, Simmons, Smith, Tufts, Univ. of Mass., Wellesley, Williams and Worcester Polytechnic.

The state had the first tax to support free schools and its first school at Dedham, 1649, and a uniform system in 1840.

Commercial fishing, in the rich waters off Massachusetts and the Grand Banks off Newfoundland, was one of the area's earliest industries. Whalers sailed the oceans around the world. Modern trawlers with huge nets help bring in a catch valued at over \$49,000,000 a year, ranking 3rd behind Alaska and California.

Massachusetts pioneered in shoes, textiles and tools for them. The Bay State is 2nd to Pennsylvania in shoe production. Haverhill, Boston, Brockton, Lawrence, Lowell and Lynn are shoe centers. Francis Cabot Lowell perfected a power loom, 1822, started cotton manufacture at Lowell. Electrical machinery, including electronics and communications equipment, has become the state's leading product. Total value added by manufacture is over \$7.3 billion per yr. About 42% of all workers are employed in manufacturing.

Massachusetts' cranberry crop is the nation's largest, 560,000 bbl. in 1967. Also important are dairy and poultry products, cigar wrapper tobacco, apples, peaches, maple syrup. Farm receipts totaled \$159,157,000 in 1967. Mineral production for that year was valued at a record \$39,111,000, mostly stone, gravel and lime.

Cape Cod has summer theaters, sports and an artists' colony at Provincetown. Tanglewood, in the Berkshires, has the summer concerts of Boston Symphony Orchestra, and Jacobs' Pillow is a ballet center.

In New Bedford the Old Dartmouth Historical Society and Whaling Museum has a large and unique collection of whaling implements, scrimshaw and log-books as well as furniture, costumes, firearms, etc.

In Old Deerfield are Deerfield Memorial Hall (1799), Hall Tavern (1765), Parson Ashley House (1732) and other old buildings.

In Pittsfield, the Berkshire Athenaeum has memorabilia of Herman Melville, who lived there while writing *Moby Dick*, a scrimshaw and whaling collection and a large library. The Berkshire Museum, Pittsfield, has paintings by Rubens, Van Dyck, Reynolds, Murillo, the Hudson River artists, etc.; mineral and animal rooms; one of the sledges with which Robert E. Peary reached the North Pole.

In Plymouth, Pilgrim Hall contains relics of the Mayflower Pilgrims, including swords of Myles Standish, Bibles of Gov. William Bradford and John Alden, and the cradle of Peregrine White, first child born in the colony.

Old Sturbridge Village, in Sturbridge, is a recreated early New England village of 35 authentic homes and shops, shown functioning.

The Sterling and Francine Clark Art Institute, Williamstown, displays 14th-17th Century European paintings, a large collection of Impressionists, sculpture, silver and drawings.

The Worcester Art Museum presents a survey of art through 50 centuries, stressing early American painting, pre-Columbian and contemporary arts. Also in Worcester, the John W. Higgins Armory displays medieval armor, and the American Antiquarian Society has a collection of early printing, including newspapers and almanacs.

(See also Index for Boston.)

Michigan

Wolverine State

CAPITAL: Lansing. **AREA:** 58,216 sq. mi., rank, 23rd. **POPULATION:** 7,823,194 (1960 Census), rank 7th. **MOTTO:** Si Quæris Peninsulam Amœnam Circumspice. **IF YOU SEEK A PLEASANT PENINSULA, LOOK ABOUT YOU.** **FLOWER:** Apple Blossom. **BIRD:** Robin. **TREE:** White Pine. **SONG:** (unofficial) Michigan, My Michigan. **ADMISSION:** 26th.

Bordering on 4 of the 5 Great Lakes, Michigan is divided into an Upper and Lower Peninsula by the Straits of Mackinac, which link Lakes Michigan and Huron. The 2 parts of the state are connected by the Mackinac Bridge, which has the 3rd largest suspension span in the U. S. To the N, separating Michigan from Canada, is the Sault Ste. Marie (Soo) Ship Canal, one of the world's most heavily used waterways.

Michigan is the world's largest auto producer; its rich orchards near the shores of Lake Michigan

grow huge fruit crops; the Upper Peninsula produces important amounts of iron and copper, and the state's lakes and forests make it a highly popular vacationland. Highest point is Mt. Curwood, 1,980 ft., in the Upper Peninsula.

Est. pop. July 1, 1967, was 8,584,000.

It ranks 1st in the world in production of motor vehicles and parts, cereal preparations, machine tools, hardware, steel springs, public office furniture, padding and upholstering, industrial patterns, nonferrous castings, industrial leather belts, paperboard mills and gray iron foundries. It ranks 2nd in U. S. in average weekly earnings of production workers. Value added by manufacturing is over \$13 billion annually; \$4.9 billion of it in motor vehicles and equipment. Also important are paper, chemicals, lumber.

Tourist attractions are many and spending by tourists was est. at over \$1 billion for 1967. The state has 36,000 mi. of streams, over 11,000 lakes and the longest freshwater shoreline (facing 4 of the Great Lakes). Water sports, music festivals, skiing, winter carnivals, trout fishing and deer hunting are among attractions. Isle Royale in Lake Superior is a national park with 539,339 acres. There are 5 national forests, 73 state parks and recreational areas and numerous canoe trails.

Farm receipts in 1967 totaled \$382,144,000, more than half from livestock products. Among the states, it ranks 1st in tart cherries and dried beans, 3rd in sweet cherries and apples, 4th in pears, 5th in grapes. Fruit output totals over 850,000 tons a year.

Iron ore production, source of a quarter of Michigan's income from minerals, continued to increase in 1967, thanks to greater output of taconite pellets from low-grade ores.

Total mineral production for the year was valued at \$599,384,000. Michigan was 2nd only to Minnesota in value of iron ore output, \$159,000,000. It ranked 1st among the states in gypsum, peat, iodine, bromine and magnesium compounds; 2nd in lime and gravel; 4th in cement.

There are some 88 institutions of higher learning, headed by Michigan State Univ., East Lansing, and Univ. of Michigan, Ann Arbor. Also important are Univ. of Detroit and Wayne, Western Michigan, Eastern Michigan, Central Michigan and Michigan Technological Univs.

The Grand Rapids Art Museum, in addition to its permanent collections, holds special monthly and traveling exhibits and art classes conducted for adults by the Univ. of Michigan.

The state was originally explored by the French and many names (Detroit, Sault Ste. Marie) are of French origin. Etienne Brul  (1618), Jean Nicolet (1634), P re Allou  (1666), P re Marquette (1668) and Louis Jolliet (1669) were early visitors. France was ousted by Britain, 1763. Under the Ordinance of 1787 Michigan Terr. embraced parts of other western states. It was organized as a separate territory 1805, admitted to the Union Jan. 26, 1837.

(See also Index for Detroit.)

Minnesota

North Star State, Gopher State

CAPITAL: St. Paul. **AREA:** 84,068 sq. mi., rank, 12th. **POPULATION:** (1960 Census), 3,413,864, rank, 18th. **MOTTO:** L'Etoile du Nord, Star of the North. **FLOWER:** Showy Lady's-slipper. **BIRD:** Loon. **TREE:** Red (Norway) Pine. **SONG:** Hail! Minnesota. **ADMISSION:** 32nd.

Minnesota is a land rich in natural resources. Its fertile prairies support large crops and an important dairy industry. Its mines yield most of the iron ore produced in the U. S., its forests produce mountains of pulpwood, its manufacturing is varied and vigorous, its thousands of lakes and other attractions lure millions of sportsmen and vacationers.

The headwaters of 3 great water systems lie within Minnesota; the Mississippi, leading to the Gulf of Mexico, with its source at Lake Itasca; the Red River of the North, which flows into Canada's Lake Winnipeg, draining into Hudson Bay; the St. Louis and other rivers draining into Lake Superior and thence through the Great Lakes and the St. Lawrence to the Atlantic.

Known as the "land of 10,000 lakes," Minnesota actually has 15,291 larger than 10 acres. Two-thirds of the state is rolling prairie. Highest point is Eagle Mt. in the NE, 2,301 ft. Fishing, hunting and water sports attract close to 4,000,000 vaca-

tioners who spend over a half billion dollars annually.

The multiplicity of lakes has resulted in 99 being named Long, 91 Mud, 76 Rice, 43 Bass, 40 Twin, 39 Round, 36 Clear, 32 Sandy.

Est. pop. July 1, 1967, was 3,582,000.

Minnesota produces 60% of the iron ore mined in the U. S., despite depletion of the high-grade ore in the famed Mesabi and other ranges in the NE part of the state. Lost production from the huge open pit and underground mines is being replaced by high-grade pellets refined from low-grade taconite iron ore. Total iron ore production in 1967 was valued at \$467,000,000. Total mineral production was valued at \$518,794,000. Shipments of taconite pellets comprised 48% of total iron ore tonnage, up from 39% the previous year.

Manufacturing has shown steady growth and value added by manufacture in 1968 was est. at \$4.5 billion. Top industry is food processing, followed by machinery.

Much of the land is richly fertile. With \$1.8 billion in farm receipts for 1967, Minnesota ranked 5th among the states. Two-thirds of that income was from livestock products, the rest from crops. Minnesota was 1st among the states in butter, 2nd to Wisconsin in milk cows, 2nd to California in turkeys, 5th in hogs.

Minnesota's farms grew the most oats and sweet corn, were 3rd in rye, 4th in barley, 5th in soybeans, 6th in potatoes.

Forest products have a yearly est. value of over \$328,000,000, most of it in pulpwood.

Nationally known is the Mayo Clinic at Rochester, founded by Drs. Wm. J. and Charles H. Mayo. There are 27 private colleges, 6 state colleges, the Univ. of Minnesota and 14 junior colleges.

The Minneapolis Symphony Orchestra, Tyrone Guthrie Theater in Minneapolis and St. Olaf college choir in Northfield are highly regarded.

There are 85 state parks and many recreational facilities; Minnehaha Falls (54 ft.), in Minneapolis, was celebrated by Longfellow.

French traders and missionaries first penetrated Minnesota. Father Hennepin, 1680, named St. Anthony Falls, a 50-ft drop in the Mississippi in present-day Minneapolis. France ceded the land E of the Mississippi to Great Britain, 1763; Britain to U.S., 1783. It became part of Northwest Terr. The land W of the Mississippi was part of Louisiana Purchase, 1803. Henry R. Schoolcraft found source of Mississippi in Lake Itasca, July 13, 1832. Organized as a Territory in 1849, it became a state May 11, 1858.

(See also Index for Minneapolis, St. Paul.)

Mississippi

Magnolia State

CAPITAL: Jackson. **AREA:** 47,716 sq. mi., rank, 32nd. **POPULATION:** (1960 Census), 2,178,141, rank, 29th. **MOTTO:** Virtute et Armis. **By Valor and Arms.** **FLOWER:** Magnolia. **TREE:** Magnolia. **BIRD:** Mockingbird. **SONG:** Go, Mississippi! **ADMISSION:** 20th.

Cotton is king in Mississippi and the state is 2nd only to Texas in the amount produced, but other crops, livestock, forest products, petroleum and expanding factories are increasingly important.

The land slopes from the NE hills, where the high point is Woodall Mt. (806 ft.), to the Delta, a cotton-producing alluvial plain in the W and NW lying between the Yazoo River and the Mississippi, which flows along the state's western border.

The land also slopes to the S where the sandy beaches on the Gulf of Mexico have created a popular vacationland.

Indian tribes, including the Chickasaw, Choctaw and Natchez, inhabited the Mississippi area when the 1st Europeans, under Spain's Hernando de Soto, passed through in 1540. The first permanent settlement by Europeans was by a French group under Pierre le Moine, Sieur d'Iberville, in 1699, at Fort Maurepas near present-day Biloxi.

Great Britain took over the area in 1763 after the French and Indian War, ceding it to the U. S. in 1783 after the Revolution. Spain also claimed the land and did not relinquish it until 1798.

The population grew steadily and Mississippi became a state Dec. 10, 1817. It was the 2nd state to join the Confederacy, 1861, and was readmitted to the Union in 1870.

Est. pop. July 1, 1967, was 2,348,000.

Cotton has long been the mainstay of Mississippi agriculture; production in 1967 was 1,100,000 bales. But the state ranks 4th in the U. S. in sweet po-

tatoes and sugarcane syrup, 5th in rice, 6th in pecans and 7th in soybeans.

Biloxi has a large seafood canning industry, operating deep-sea trawlers for shrimp and oysters. Value of the commercial catch in 1966 was \$9,-502,000.

With 70% of the land classified as forest, timber products yield more than \$500,000,000 annually.

The state produces the most hardwood pulp wood, much hardwood lumber and slapsline products, including fibre board, kraft paper, newsprint.

Petroleum, natural gas and natural gas products represented 85% of the total value of mineral production, \$213,740,000 in 1967.

Industrial expansion in 1967 provided 12,237 new jobs, with new capital investment totaling \$218,-148,000, much of it for food processing and chemical plants. Factory employment reached 167,000.

A \$250,000,000 center for static testing of space rockets was put in operation by the National Aeronautics and Space Administration in 1967 in Hancock County.

Mississippi became the last state to abandon prohibition, adopting a local-option liquor law May 21, 1966. The state had adopted prohibition in 1908.

Tourism is of growing economic importance. About 17,600,000 out-of-state tourists spent an est. \$160,000,000 in Mississippi in 1967.

Gulftort holds an annual yacht regatta and a mackerel rodeo in July. Biloxi has a Mardi Gras in February, and Pass Christian, a tarpon rodeo. Natchez is famous for its formal antebellum houses, open in March and April. The mile-long Iberville Memorial bridge at Biloxi Bay and Vicksburg National Military park are of interest to tourists.

The Old Court House Museum in Vicksburg, built in 1858 by slave labor, has a museum with relics of the siege of Vicksburg, including flags, documents, newspapers printed on the back of wallpaper, guns, swords, etc., and exhibits of the ante-bellum South.

The Lauren Rogers Library and Museum of Art in Laurel contains works of 19th and early 20th Century Americans and Europeans, local artifacts and an unusual basket collection (about half of them Indian).

Missouri

Show Me State

CAPITAL: Jefferson City. **AREA:** 69,686 sq. mi., rank, 19th. **POPULATION:** (1960 Census), 4,319,-813, rank, 13th. **MOTTO:** Salus Populi Suprema Lex Esto. **The Welfare of the People Shall Be the Supreme Law.** **FLOWER:** Hawthorn. **BIRD:** Eastern Bluebird. **TREE:** Dogwood. **SONG:** Missouri Waltz. **ADMISSION:** 24th.

The gateway through which the pioneers passed on their way West, Missouri today is a leading manufacturing state, with aerospace and a wide variety of other industries; it is the nation's largest producer of lead; it ranks 10th among the states in agricultural products; its areas of scenic and historic interest attract some 20,000,000 vacationers each year.

Gently rolling hills in the N and W produce large crops and support cattle, sheep and hogs. The Ozark highlands in the S are famed for fishing, hunting and rugged scenery, including numerous caves and springs. The "delta" area in the SE produces long staple cotton and melons.

The Mississippi forms the state's boundary on the E; the Missouri forms part of the boundary in the W, then flows across the state to join the Mississippi above St. Louis. Highest point in the state is Taum Sauk Mt., 1,772 ft., in the E central area.

Missouri has endeared itself to generations of Americans with its river lore, folk tales and especially the writings of Mark Twain (Samuel L. Clemens). Statues of two of his creations, Tom Sawyer and Huckleberry Finn, stand in Hannibal, his boyhood home. His birthplace near Florida, Mo., has been enshrined in Mark Twain State Park.

The farm birthplace of notorious bandit Jesse James (1847-1882) is near Excelsior Springs. A log cabin built by U. S. Grant is near St. Louis. The farm where George Washington Carver, agricultural scientist, was born near Diamond is now a National Monument. The Harry S. Truman Library, near Independence, contains Presidential papers and memorabilia.

Est. pop. July 1, 1967, was 4,605,000.

Manufacturing, paced by the state's large aéro-

space industries, is the top income producer and employs more persons than any other segment of the economy. Value added by manufacture is over \$4.4 billion yearly. Transportation equipment, including space capsules, rocket engines, aircraft and auto assemblies, ranks 1st, followed by food processing, esp. meat packing, grain milling, beer and other beverages. Also important are chemicals, printing, metal products, machinery, shoes. Corn-cob pipes are a well-known product.

Agriculture ranks 2nd among income producers. Farm receipts in 1967 totaled \$1.4 billion, two-thirds from livestock products. Missouri ranks 3rd among the states in hogs, 5th in turkeys, 6th in cattle. It is 4th in soybeans, 7th in corn. Other crops are winter wheat, tobacco, apples, peaches, alfalfa, popcorn, rye.

Tourism, the 3rd largest industry, produced \$721,706,000 in 1966. Some 20,033,500 out-of-state auto tourists visited Missouri that year; 11,606,021 persons visited its 37 state parks, which cover 77,326 acres. There is a wide variety of vacation facilities; large resort areas include Lake of the Ozarks, Lake Taneycomo and Table Rock Lake.

Missouri is rich in minerals. Its output of lead, largest in the U. S., was valued at \$41,941,000 for 1967; total mineral production was worth a record \$234,642,000. It was also 1st in barite and 4th in lime. Other products are coal, iron ore, cement, asphalt, copper, zinc.

There are 59 institutions of higher learning. The Univ. of Missouri has campuses at Columbia, Rolla, Kansas City and St. Louis. The Univ. of Missouri at Rolla was formerly the Missouri School of Mines & Metallurgy. The Univ. of Missouri at Columbia has the country's first School of Journalism, founded 1908 by Walter Williams.

De Soto visited the Missouri area in 1541. French fur traders founded Ste. Genevieve about 1735, St. Louis 1764. It was part of the Louisiana Territory purchased by U. S. from France in 1803. Missouri was organized as a separate territory, 1812; admitted to the Union, Aug. 10, 1821.

The St. Joseph Museum in St. Joseph stresses the natural history and wildlife of the region and has exhibits on Indian tribes from Alaska to Florida. Also in St. Joseph is the Pony Express Museum.

(See also Index for Kansas City and St. Louis.)

Montana

Treasure State

CAPITAL: Helena. **AREA:** 147,138 sq. mi., rank, 4th. **POPULATION:** (1960 Census), 674,767, rank, 41st. **MOTTO:** Oro y Plata. **Gold and Silver.** **FLOWER:** Bitterroot. **TREE:** Ponderosa Pine. **BIRD:** Western Meadow Lark. **SONG:** Montana. **ADMISSION:** 41st.

The Rocky Mountains, with snow-capped peaks, forested slopes, broad valleys and many lakes, cover the western 40% of Montana; the rest is High Plains country devoted to grazing and farming. Montana is rich in minerals, hydroelectric power and impressive scenery. Highest mountain is Granite Peak, 12,799 ft. Est. pop. July 1, 1967, was 701,000.

Agriculture is the largest contributor to Montana's economy, followed by manufacturing, mining, and tourism and recreation.

Oceans of grain cover much of Montana's plains; it ranks 3rd among the states in wheat and barley output. Also grown are rye, oats, flaxseed, sugarbeets and potatoes. Montana ranks 5th in sheep and 13th in cattle. Farm receipts totaled just over a half billion dollars in 1967, more than half from livestock.

Manufacturing plays a growing role in the state's economy. Value added by manufacture reached \$284,809,000 in 1965. Processing of forest products is most important, followed by primary metal industries and food products. Wood products account for \$100,000,000 annually and include pulp, plywood and lumber. The state ships more than 3,000,000 Christmas trees annually.

Copper is normally king among Montana's minerals, but a nationwide strike cut production in 1967. Montana ranked 3rd among the states in copper and fluorspar, 1st in manganese and vermiculite. Petroleum produced the most income in 1967, \$83,960,000. Total mineral production, including zinc, gold, silver, coal, natural gas and others, was valued at \$186,182,000.

The tourist industry was valued at \$127,000,000 annually.

Tourist attractions include hunting, fishing, skiing, dude ranching. Montana has the nation's first luge course; luge is a sport similar to bobsledding.

Hunters annually take about 100,000 deer, 18,000 antelope, 10,000 elk, 1,100 black bear, 500 moose, 350 mountain goats.

Glacier National Park, on the Continental Divide, is a scenic and recreational wonderland, with 60 glaciers, 200 lakes and many streams with good trout fishing.

Flathead Lake, in the NW, covers 189 sq. mi. and is the largest natural body of fresh water within a single state W of the Mississippi in continuous U. S. Port Peck Reservoir, in the NE, covers 382.8 sq. mi., is 2nd largest (after North Dakota's Garrison Reservoir) man-made lake in U. S.

Important historical site is Custer Battlefield National Cemetery, in Big Horn County (near Hardin), site of defeat of Custer by Sioux, June 25, 1876. First visited by the French Verendryes, father and sons, 1743; Lewis and Clark, 1805. It became a Territory, 1864, and a state Nov. 8, 1889.

There are 7 Indian reservations, covering over 5,000,000 acres; tribes are Blackfeet, Crow, Confederated Salish & Kootenai, Assiniboine, Gros Ventre, Sioux, Northern Cheyenne, Chippewa, Cree. Population approx. 25,500.

The Museum of the Plains Indian, on the Blackfeet Res. near Browning, features exhibits of historic and contemporary arts and crafts of the Northern Plains Indians and an Indian craft shop; the museum is administered by the U. S. Interior Dept.

The Historical Society of Montana, in Helena, has paintings, dioramas and other exhibits of Montana's Indian and buffalo days, mining camps, frontier settlements, cattle roundups. Outstanding is the collection of nearly 100 Charles M. Russell paintings.

There are nine colleges and universities and two junior colleges. Great Falls is the largest city, with population (1960) 55,357.

Nebraska

Beef State, Cornhusker State

CAPITAL: Lincoln. **AREA:** 77,227 sq. mi., rank, 15th. **POPULATION:** (1960 Census), 1,411,330, rank, 34th. **MOTTO:** Equality Before the Law. **FLOWER:** Goldenrod. **TREE:** American Elm. **BIRD:** Western Meadow Lark. **ADMISSION:** 37th.

Fields of corn, rye and sorghum cover the Nebraska plain, sloping gently toward the Missouri River, the eastern border of the state; vast herds of cattle roam the grassy sandhills which rise to the W. ending in the broken table lands which mark the foothills of the Rockies. Highest point, 5,426 ft., is in the far SW corner.

With 22,000,000 acres under cultivation, Nebraska is an important grain and livestock producer; agriculture is the primary source of income and provides the most jobs. Oil and natural gas are also important products.

New chemical fertilizer, meatpacking and food processing plants have contributed to the growth of manufacturing in recent years. Est. pop. July 1, 1967, was 1,435,000.

Nebraska ranked 6th among the states in farm receipts in 1967, \$1.7 billion, two-thirds of it from livestock products. Its cattle herds ranked 3rd in size behind those of Texas and Iowa, 6,475,000 in 1968, a 2% increase over 1967. It was 6th in hogs, 2,738,000. Its crop yield ranked it 3rd in sorghum, 4th in winter wheat and rye, 5th in corn and alfalfa.

Mineral production continued declining in 1967, totaling \$75,846,000, a decline of \$2,700,000 from 1966, mainly because of depletion of older oil and natural gas fields. Oil was still the main product, valued at \$36,520,000. Also important are cement, pumice, sand and gravel.

Manufacturing has shown steady growth. During 1967, 53 industries announced new plants and 84 announced plant expansions; these were expected to create 4,800 new jobs.

Nebraska has a unicameral or one-house legislature with 49 members elected on a nonpartisan ballot. All electric power facilities are state or municipally owned.

The state university has campuses at Lincoln and Omaha; there are two sectarian universities and numerous colleges.

Arbor Lodge State Park at Nebraska City is a memorial to J. Sterling Morton, founder of Arbor

Day, which is observed as a legal holiday on his birthday, Apr. 22. Boys Town is 11 mi. W. of Omaha.

The Sheldon Memorial Art Gallery at the Univ. of Nebraska, Lincoln, housed in a building designed by Philip Johnson, has works by Bellows, Stuart Davis, Eakins, Gauguin, Homer, Hopper, Muro, O'Keeffe, Picasso, Ryder, Calder, Lachaise, Henry Moore, Rodin, Zorach, etc.

The Joslyn Art Museum, Omaha, has works by Titian, El Greco, Rembrandt, Goya, Renoir, etc.; exhibits of furniture, the early West, fur trade, Indian art, etc.

Pioneer Village, Minden, has some 30,000 items of Americana displayed in a rural schoolhouse, depot, general store, fort, fire house, school house, Pony Express station, etc., plus old locomotives, tractors, a steam-powered merry-go-round.

The House of Yesterday, Hastings, has exhibits of pioneer days and natural science and the J. M. McDonald Planetarium.

French fur traders visited the Nebraska area about 1700. It was part of the Louisiana Purchase, 1803, and was visited by Lewis & Clark, 1804-06. The Union Pacific began its transcontinental railroad at Omaha in 1865 (completed 1869). The Territory of Nebraska was created by the Kansas-Nebraska Act, 1854; it became a state Mar. 1, 1867.

OMAHA

Omaha, incorporated 1857, lies on the W bank of the Missouri River. It had more than 300,000 people in 1960 and an estimated 375,000 in 1967. It is the nation's largest livestock and meatpacking center. About 55% of its industry is food processing; it distributes more than \$1 billion worth of foodstuffs annually including frozen dinners.

Omaha has 4 colleges and universities. It is the site of the Strategic Air Command at Offutt AFB, and hq of the Naval Reserve Training Command. It is served by 9 trunk railroads and 5 airlines.

Nevada

Sagebrush State, Silver State

CAPITAL: Carson City. **AREA:** 110,540 sq. mi., rank, 7th. **POPULATION:** (1960 Census), 285,278, rank, 49th. **MOTTO:** All for Our Country. **FLOWER:** Sagebrush. **BIRD:** Mountain Bluebird. **TREE:** Single-leaf Piñon. **SONG:** Home Means Nevada. **ADMISSION:** 36th.

Nevada lies mostly in the Great Basin, a rugged plateau region broken by mountain chains running N-S. It is enclosed on the E by the Rockies and the Wasatch Range in Utah, and on the W by California's Sierra Nevada and Cascade Ranges which rob the clouds of moisture, making Nevada's climate extremely dry. Boundary Peak, near the SW border with California, is the state's highest point, 13,140 ft.

One of the smallest states in population, Nevada has attracted large numbers of outsiders, starting with the famed rush to the Comstock Lode (discovered 1859) and other fabulous gold and silver mines. Today, the attractions are legalized gambling, highly-developed entertainment and recreation facilities, and lenient divorce laws requiring only 6-weeks residence. Est. pop. July 1, 1967, was 444,000.

Spending by visitors is the biggest factor in Nevada's economy. Over 20,000,000 visitors (about 45 times the state's population) spent some \$713,647,000 in Nevada in 1967.

Tourist-connected industries—hotels, casinos, amusement and recreation facilities—make up the largest employment category.

State taxes and fees from casino entertainment were \$22,108,640 in 1966-67, up \$4,859,961 from the previous fiscal year and providing 35% of the state's revenue. Gross gambling revenues were \$358,000,000 for 1966-67.

There are big resort areas, with nearby skiing as well as sunbathing, near Lake Tahoe, Reno, Las Vegas and elsewhere. Ghost towns, rodeos, trout fishing and deer hunting are other attractions. There are 9 state parks, and recreation areas include those at Pyramid Lake, wholly within the state; Lake Tahoe, partly in California; Lake Mead, formed by Hoover Dam, and Lake Mohave, by Davis Dam, both in Lake Mead National Recreation Area, shared with Arizona.

Income from mineral production fell off during 1967, mainly because of a nationwide copper strike which also affected Nevada's normal output of lead and zinc. Of the total 1967 mineral production value, \$85,876,000, copper still accounted for \$35,-

394,000. The state ranked 2nd in the U. S. in mercury, antimony and lithium, 3rd in gold and barite.

Nevada is the largest manufacturer of gaming devices. Also important are electronic devices, chemicals, forest products, suntan lotion, stone-clay-glass products. About \$112,000,000 is the est. value added annually by growing manufacturing industries.

Farm receipts totaled \$63,864,000 in 1967, 82% of that from livestock; the dry climate makes much of the state more suitable for grazing than for crops, although large-scale irrigation has expanded growing areas.

The Nevada Test Site, NW of Las Vegas, is a proving ground for various atomic devices.

The Univ. of Nevada is at Reno and Nevada Southern Univ. at Las Vegas.

Trappers and traders entered the Nevada area in the 1820s, including Jedediah Smith and Peter Skene Ogden. It became U. S. territory at the end of the Mexican War. It became a state Oct. 31, 1864.

The Nevada State Museum, Carson City, occupies a former U. S. Mint, and exhibits coins, habitat groups of mammals and birds of the Great Basin area, Indian baskets, full-scale replicas of underground mining operations and thousands of arrowheads.

LAS VEGAS

Las Vegas (The Meadows), in southern Nevada, is the state's largest city and seat of Clark County; 1966 pop. was 144,000 and total in county 253,000. Over 13,000,000 visitors in 1965 spent \$350,000,000 in this resort and gambling mecca. Gross gaming revenues totaled \$168,111,179. The city has 16 major resort hotels, 280 motels, 35 other hotels, with a total of 25,000 rooms. It is served by 7 airlines which brought 1,700,000 passengers to McCarran Field in 1964, and the Union Pacific. There is a convention hall seating 8,500. Nearby are Valley of Fire Park, Lakes Mead and Mohave; Nellis and Indian Springs Air Force Bases, Las Vegas Air Force Station; Mt. Charleston Recreation Area.

New Hampshire

Granite State

CAPITAL: Concord. **AREA:** 9,304 sq. mi., rank, 44th. **POPULATION:** (1960 Census), 606,921, rank, 45th. **MOTTO:** Live Free or Die. **FLOWER:** Common Lilac. **BIRD:** Purple Finch. **TREE:** Paper (White) Birch. **SONG:** Old New Hampshire. Ninth of the Original 13 States to ratify Constitution.

One of the 6 New England states, New Hampshire is a land of impressive mountains, picturesque lakes, swift rivers and thick forests. Mountain slopes provide excellent ski trails. Numerous lakes and streams afford fishing for trout, bass, pickerel, perch, whitefish.

Abundant water power early turned New Hampshire into an industrial state, with manufacturing the principal source of income. Soil and climate have curtailed agricultural growth, but scenic and recreation resources have been developed and the tourist-vacation business, over \$200,000,000 a year, ranks 2nd in its contribution to the state's economy.

Est. pop. July 1, 1967, was 685,000.

In 1964, to raise funds to support education, the state ran the 1st legal sweepstakes lottery in the U. S. since 1894 (in that year, a lottery in Louisiana was outlawed). Profits from the state lottery are turned over to local school districts.

Most important industrial products are shoes and boots, followed by electrical and other machinery, wool and other textiles, and paper. Most factories are concentrated along the Merrimack River which furnishes hydroelectric power. More than 85,000 are employed in manufacturing. Value added by manufacture is over \$650,000,000 a year.

Farm receipts for 1967 totaled \$54,895,000, four-fifths from dairy and poultry products. Crops include apples, peaches, maple sugar and syrup, hay.

Mineral products, mainly sand and gravel, stone, clay, feldspar and gem stones, were valued at \$7,922,000 for 1967.

Recreation and vacation attractions include Lake Winnepesaukee, largest of 1,300 lakes and ponds; the White Mountains, with skiing and scenic beauty; beaches on the Atlantic Coast and numerous historic sites.

One-third of the state is over 2,000 ft. above sea level. Highest land in Northeast U. S. is the Presidential range of the White Mountains, with Mt. Washington, 6,288 ft. (First cog ry. in world opened 1869); Mt. Jefferson, 5,717 ft.; Mt. Adams, 5,789 ft. National forests cover 677,559 acres; 142

state forests and parks, 63,805 acres. State-owned are Crawford Notch, Dixville Notch and Franconia Notch the last near Profile, or Cannon Mtn., 4,077 ft. (with Hawthorne's Great Stone Face); Whiteface, 3,935 ft.

Portsmouth is the state's only port. Manchester is the largest city; pop. (1960 Census) 88,262.

New Hampshire was visited by Samuel Champlain in 1605. Under an English land grant, Capt. John Mason in 1623 sent two groups to establish a fishing colony at the mouth of the Piscataqua River. One group settled Little Harbor of Pannaway (now town of Rye); the other set up fishing stages at Northam, later named Dover. The colony was called after Hampshire, 1629. It declared its independence Jan. 5, 1776, and contributed to the victories at Bennington and Saratoga, entering the Union June 21, 1788.

New Hampshire shared the educational pioneering of Massachusetts Bay from 1642; established first free public library at Dublin, 1822. It has a Univ. of N. H., Durham; Dartmouth (1769), Phillips Exeter (1781), St. Paul's, Colby Junior College and others. The MacDowell Colony at Peterborough, estab. 1908 in honor of Edward MacDowell, is a summer haven for writers.

The Currier Gallery of Art, Manchester, exhibits silver by Paul Revere and others, textiles, hooked rugs, pewter and glass and a rich collection of works by Tintoretto, Ruissild, Monet, Copley, Constable, Picasso, Roualt, Copley, Stuart, Trumbull, Sargent, Homer, Wyeth, Marin, etc.

The New Hampshire Historical Society, Concord, has a museum displaying New Hampshire furniture, silver, pewter, glass, china, quilts, costumes, weapons, kitchen woodenware, etc.

New Jersey

Garden State

CAPITAL: Trenton. **AREA:** 7,836 sq. mi., rank, 46th. **POPULATION:** (1960 Census), 6,066,782, rank, 8th. **MOTTO:** Liberty and Prosperity. **FLOWER:** Purple Violet. **BIRD:** Eastern Goldfinch. **TREE:** Red Oak. Third of the Original 13 States to ratify Constitution.

Smallest of the Middle Atlantic states, New Jersey was settled by the Dutch early in the 17th Century and was the scene of much action during the American Revolution. Today it has the heaviest pop. per sq. mi. of the 50 states, ranks near the top in manufacturing, is rich in poultry and vegetable production, and has a flourishing resort industry.

There are vast shipping facilities and New Jersey divides authority over airports, harbors, tunnels and bridges with the Port of New York Authority and the states of Delaware and Pennsylvania.

Much of the tonnage total of the Port of New York is loaded or unloaded at piers on the New Jersey side of the harbor.

About 71% of the state's land area is in farms and forests. Highest point is High Point, Sussex County, 1,803 ft.

Small in area, New Jersey has a heavy concentration of factories, highways, railroads and farms, and is a leader in many fields. It also has the greatest pop. density (based on the July 1, 1965, Census est. pop. of 6,774,000), reaching 891.1 per sq. mi. and passing Rhode Island's corresponding figure, 869.1. Est. pop. July 1, 1967, was 7,004,000.

The state stands 7th in the U. S. in value added by manufacture. It ranks 1st in value of chemical products; 3rd in apparel; 4th in instruments, rubber and plastic products, petroleum and coal products; 5th in electrical machinery; 6th in food products, stone-clay-glass products; 7th in printing-publishing, fabricated metals; 8th in textiles; 9th in paper, leather, machinery, transportation equipment; 10th in primary metals. It has a heavy concentration of pharmaceutical plants and research installations.

New Jersey is 1st in gross income per farm acre. Chief crops are tomatoes, corn, asparagus, apples, cranberries, peaches, spinach. It holds high rank in poultry, dairying and processing of vegetables, especially tomatoes. The first dairy cattle artificial insemination project was launched in Hunterdon County; also the common-carrier shipment of day-old baby chicks.

Total farm receipts for 1967 were \$253,267,000. Mineral production dropped 3% in 1967, a decline mainly attributable to the cessation of iron mining, an important industry since colonial days. Of the total value, \$73,482,000, gravel and stone (including traprock, granite and marble) accounted for the largest part. Zinc is also important.

Seven refineries, processing oil from out of state, have a total crude capacity of 529,950 bbl. a day.

Among New Jersey's institutions of higher learning are Princeton and Rutgers (the state university); the Institute for Advanced Study; 3 other universities; 18 colleges, 11 junior colleges, 7 professional and technological colleges.

Atlantic City, Ocean City, Cape May, Asbury Park, Ocean Grove, Wildwood are among more than 100 resorts. The resort industry generates over \$2 billion in business annually. There are 36 state parks with 37,150 acres. The 11 state forests comprise 166,435 acres. There are many historic sites, mainly Revolutionary.

In Camden, the Walt Whitman House, home of the poet from 1884 until his death, Mar. 26, 1922, contains books, mementos and furnishings used by Whitman. The U. S. Army Signal Corps Museum, Fort Monmouth, contains communications equipment from the earliest visual methods to modern satellites.

The Montclair Art Museum exhibits art of many periods and lands, emphasizing the American. The Newark Museum is a museum of art, science and industry, including American paintings and sculpture; Chinese, Japanese and Tibetan art; collections of economic botany, birds, insects, minerals, shells, glass, ceramics and jewelry. The New Jersey Historical Society Museum, Newark, has old New Jersey rooms and collections of New Jersey furniture, paintings, china, silver, glass, costumes, etc.

The Garden State Arts Center, an amphitheater for concerts and stage shows, was opened at Telegraph Hill Park in 1968.

The Johnston Historical Museum, adjacent to the national hq. of the Boy Scouts of America, New Brunswick, depicts Scouting history, has a registered weather station, a ham radio station (K2BFW) and a 22-acre Outdoor Museum of Nature and Conservation.

The Edison National Historic Site, West Orange, displays in buildings set up by Thomas Alva Edison his chemical laboratory, machine shop and library; a reproduction of the "Black Maria," Edison's 1st movie studio; originals or replicas of his phonograph, incandescent lamp and movie camera. In South Orange, the New Jersey Fire Museum displays 19th Century hand-pumpers, hose carts, helmets, etc.

In Trenton, the New Jersey State Museum displays the state's achievements in the arts, sciences, history, technology and industry, and has a planetarium.

Extensive research projects in 1966 were aimed at eliminating pollution of shellfish areas and protecting beaches from erosion. To combat the prolonged northeast U. S. drought, construction was completed on Round Valley Reservoir (expected to reach full capacity of 55 billion gal. in 1968); Spruce Run Reservoir, also in Hunterdon Co., reached full level of 11 billion gal.

The state's network of modern highways gives New Jersey more miles of roads per sq. mi. of area than any other state. A new ferry between Cape May and Lewes, Del., opened in 1964. The Port of N. Y. Authority says its Newark Union Truck Terminal is the world's largest.

There are 13 airlines and 19 railroads. New Jersey has the most concentrated trackage per sq. mi. in the U. S.

New Mexico

Land of Enchantment

CAPITAL: Santa Fe. **AREA:** 121,666 sq. mi., rank, 5th. **POPULATION:** (1960 Census), 951,023, rank, 37th. **MOTTO:** Crescit Eundo, It Grows as It Goes. **FLOWER:** Yucca. **BIRD:** Road Runner. **TREE:** Piñon (Nut Pine). **SONG:** O, Fair New Mexico. **ADMISSION:** 47th.

New Mexico is a land of contrasts, presenting remnants of old Indian and Spanish cultures along with nuclear and space research centers; mountains over 13,000 ft. and a cavern 829 ft. below ground; ski slopes and desert resorts.

Vast areas are made fertile by irrigation via dams and reservoirs on the Rio Grande, San Juan, Pecos, Canadian, Cimarron, Gila, San Francisco Rivers. Wheeler Peak, 13,161 ft., is highest point.

Est. pop. July 1, 1967, was 1,003,000. The climate is dry and invigorating; annual rainfall is 7" to 18"; mean temperature is 50°, reaching 100° on plains in summer.

National forests cover 13,281 sq. mi. Douglas fir, Ponderosa pine and spruce are cut for timber. Over 34% of the land is Federally owned.

Minerals are New Mexico's richest natural re-

source and the state leads the U. S. in uranium output and produces 90% of the nation's potash.

Mineral production reached a record value of \$867,194,000 in 1967. Petroleum output was at a new high, valued at \$363,234,000, and natural gas brought \$139,149,000, also up. Also important are copper, helium, manganese, zinc, lead, gold, silver, molybdenum, gypsum, coal. New Mexico ranks 1st among the states in uranium, carbon dioxide and perlite production.

Farm receipts brought in \$286,989,000 in 1967, two-thirds of it from livestock products. Cotton, hay and sorghum account for 80% of the value of field crops. Also grown are corn, pecans, peanuts, beans, onions and lettuce.

Manufacturing production gained about 10.6% in 1966 and employment was up 8.1%. Principal lines are food products, chemicals, ordnance and transportation equipment, lumber, electrical machinery, stone-clay-glass products. Value added by manufacturing is over \$170,000,000 annually.

Federal government activities, especially nuclear and space research and testing, have played a large role in New Mexico's economic growth. Nuclear and space centers are at Los Alamos, White Sands, Holloman, Kirtland and Sandia.

New Mexico's most awe-inspiring natural wonder, Carlsbad Caverns, has more than a half-million visitors annually. A national park, the caverns are on 3 levels and have the largest natural cave "room" in the world, 1,500 by 300 ft., 300 ft. high.

There are 4 large Indian reservations and 18 inhabited pueblos, including Acoma, the "sky city," built atop a 357-ft. mesa. There are numerous pueblo ruins from 1000 A.D. in Chaco Canyon.

Skiiing, hunting, fishing, ghost towns and dude ranches help tourism show steady gains. Visitors spent about \$108,000,000 in the state in 1967.

Spaniards seeking gold explored New Mexico in the early 16th Century; the area was labeled New Mexico on a 1583 map. It was colonized 1598, with the 1st church at San Juan pueblo. The land remained under Spain until 1821, then under Mexico till U. S. troops occupied it in 1846.

It was formally ceded by Mexico to the U. S. in 1848, was made a Territory in 1850, was separated in 1863 from the part which was to become Arizona. New Mexico became a state in 1912.

There are 9 universities and 4-year colleges. Santa Fe (1610) is the 2nd oldest city in the U. S. It and Taos have large artist colonies. Albuquerque (1706) is the state's largest city, pop. 331,684 (1967).

The Museum of Navaho Ceremonial Art, Santa Fe, housed in a modernized version of a ceremonial hogan, contains over 600 sandpaintings, recordings of some 2,000 Navaho chants, books, manuscripts, baskets, blankets, silver, etc.

The Museum of New Mexico, Santa Fe, maintains the oldest public building in the U. S., the Palace of the Governors (built 1610), a hall of modern Indian culture, collected works of artists of the SW, international folk art exhibits.

The Roswell Museum and Art Center, Roswell, has 19th and 20th Century art collections, archeology and geology exhibits, the Robert H. Goddard rocket collection.

New York

Empire State

CAPITAL: Albany. **AREA:** 49,576 sq. mi., rank, 38th. **POPULATION:** (1960 Census), 16,782,304, rank, 1st (see text below). **MOTTO:** Excelsior. **Ever Upward.** **FLOWER:** Rose. **BIRD:** Bluebird (unofficial). **TREE:** Sugar Maple. Eleventh of the Original 13 States to ratify Constitution.

New York is the nation's leading manufacturing state and within its borders are the financial capital of the nation, the largest city and port, the United Nations hq., the head offices of many of the greatest national corporations and insurance companies and a variety of industries.

New York's manufacturing industries outrank those of all other states in number, employees, payrolls and value added by manufacture (\$22.7 billion annually). Value added by manufacture in New York exceeded that of every other state in apparel (\$2.6 billion), printing and publishing (\$2.9 billion), instruments (\$1.6 billion), paper and paper products (\$700,000,000), and in the miscellaneous group, which includes jewelry, silverware, toys and sporting goods, office supplies, musical instruments, pens and pencils, etc. (\$800,000,000), according to the 1965 Survey of Manufactures.

The state produces 69% by value of the nation's photographic equipment, 54% of the periodicals, 50% of leather gloves, 39% of books and 31% of apparel.

Average employment for 1967 was 7,715,000. Over \$42 billion in wages and salaries were paid in 1966.

The bi-state Port of New York (New York and New Jersey) handled 27.8% of the nation's foreign trade by value in 1967; 28.8% in 1966, by U. S. Commerce Dept. figures. The 3 customs districts (New York, Buffalo and Ogdensburg) handled 35.6% of U. S. exports and imports by value in 1967.

One of every 4 domestic air passengers in the U. S. lands or takes off from Port of New York Authority airports; Kennedy International Airport in N. Y. City handles about 54% of the nation's overseas air travel and is the world's largest air cargo center, handling 64% of export-import tonnage by value.

The State Barge Canal System is 800 mi. long. There are 36 railroads and 384 landing fields, including 27 seaplane bases and 28 heliports. The Verrazano-Narrows Bridge is the world's longest suspension bridge.

The Dewey Thruway runs from N. Y. City to the Pennsylvania border on Lake Erie, 559 mi.; most of the state's 1,226-mi. portion of the Interstate Highway System was completed in 1967. The Northway, which links the Thruway with the Canadian border, was completed in 1967.

Tourism and business travel provide \$3.2 billion a year to businesses in the state. Major vacation areas include the Adirondack and Catskill Mtns., Finger Lakes, Great Lakes, Thousand Islands, Long Island, N. Y. City and Niagara Falls.

Rich, rolling farmlands support a large agricultural output. It ranks 1st among the states in clover and timothy, buckwheat, maple syrup and ice cream; is 2nd to Washington in apples, 2nd to California in grapes (It has large wine and grape juice industries), 2nd to Wisconsin in milk production; 2nd to Michigan in tart cherries; 5th in vegetables and melons, sweet cherries, pears, potatoes. Also important are corn, oats, wheat, peaches, peas, beans, beets, cabbages. Farm production also supports a large food-canning, freezing and processing industry.

Farm receipts for 1967 totaled \$1.01 billion, up over 1% from 1966, more than two-thirds of the total from livestock and dairy products.

The state also has a rich mineral industry, ranking 1st in the U. S. in talc, titanium, emery, abrasive garnet and wollastonite; 2nd in zinc; 4th in salt, iron, sand and gravel. Other products include lead, petroleum, silver, gypsum. Total value for 1967 was \$299,871,000.

Highest point in the state is Mt. Marcy in the Adirondacks, 5,344 ft. The 88 state parks are visited annually by over 35,000,000 persons.

There are 207 institutions of higher learning, providing instruction to 645,000 students.

In 1967, a state lottery, with proceeds to be used for education, went into operation. In Nov. 1967, New York State voters approved a \$2.5-billion transportation bond issue to modernize the state's transportation system to meet the needs of an estimated 20,000,000 citizens in 1975.

New York was the nation's most populous state from 1820 through 1964. As of July 1, 1964, the U. S. Census Bureau estimated California's pop. reached 18,084,000, New York's 17,915,000 (including Armed Forces stationed in the 2 states; without them, New York still led 17,870,000 to 17,749,000). By July 1, 1965, the Bureau est. California led in both categories. Total New York pop. July 1, 1967, was est. at 18,335,000; total California, 19,163,000.

Giovanni da Verrazano, Italian-born navigator sailing for France, probably saw what is now New York Bay in 1524. Henry Hudson, an Englishman sailing for the Dutch, reached the bay in 1609.

Sunnyside, the home of Washington Irving, "as full of angles and corners as an old cocked hat," is in Tarrytown. The Dutch Church of Sleepy Hollow (1697), North Tarrytown, overlooks a bridge commemorating Irving's story of the "headless horseman"; Irving is buried close by in Sleepy Hollow Cemetery. Also in Tarrytown is Lyndhurst, 19th Century mansion of Jay Gould, maintained by the National Trust for Historic Preservation.

The Franklin D. Roosevelt National Historic Site, in Hyde Park, includes the graves of President and Mrs. Roosevelt, the home occupied by the Roosevelt family since 1867, greenhouse, etc. The Roosevelt Library has historic papers, trophies

and ship models.

Philipsburg Manor, in North Tarrytown, a trading center of the early 1700s, includes the restored Frederick Philips home, a dam and grist mill. Van Cortlandt Manor, Croton-on-Hudson, has the restored Van Cortlandt home and ferry house.

In Kingston, the Senate House, seat of the 1st Senate of the state, exhibits early historical objects; its Museum has works by John Vanderlyn, local historical painter. In Newburgh, Washington's Hq., the Jonathan Hasbrouck House, has Revolutionary relics.

The Suffolk Museum and Carriage House, Stony Brook, L. I., has early American paintings and furniture, apothecary shop, tavern, Wells Fargo stage, Conestoga and gypsy wagons, etc.

In Cooperstown are the National Baseball Hall of Fame and Museum with a wide collection of mementos of the national game; nearby is Abner Doubleday Field, said to be where baseball originated in 1839. Near Cooperstown are Fenimore House, hq. of the State Historical Society, with collections including James Fenimore Cooper memorabilia and an art gallery; the Farmer's Museum, with craft demonstrations, and the Village Crossroads, with blacksmith shop, country store, etc.; the Carriage and Harness Museum preserves the stables and vehicles of the early 20th Century.

The restored Fort Ticonderoga, overlooking the waters connecting Lakes George and Champlain, has a museum of relics of the French and Indian War and the Revolution, in which the fort played important roles.

The New York State Museum in Albany has exhibits of natural resources, Indian life, Louis Agassiz Puertres' paintings of birds, colonial houseware, etc.

The Corning Glass Center, Corning, has a museum and the Steuben factory, where visitors may see crystal glass formed and engraved. Also in the Finger Lakes area are the Curtiss Museum of aviation and the Wine Museum at Hammondsport and several wineries which offer tours to visitors. In Binghamton, the Roberson Center for the Arts and Sciences has art and historical collections.

In Utica, the Munson-Williams-Proctor Institute has a museum of 19th and 20th Century art and Fountain Elms, a restored mid-19th Century home.

The Remington Art Memorial Museum, Ogdensburg, has paintings and bronzes by Frederic Remington (1861-1909), who was born in nearby Canton.

(See also Index for N. Y. City, Buffalo, Rochester, Syracuse.)

North Carolina

Tar Heel State, Old North State

CAPITAL: Raleigh. **AREA:** 52,586 sq. mi., rank, 28th. **POPULATION:** (1960 Census), 4,556,155, rank, 12th. **MOTTO:** *Esse Quam Videri, To Be, Rather Than To Seem.* **FLOWER:** Dogwood. **BIRD:** Cardinal. **TREE:** Pine. **SONG:** *The Old North State.* Twelfth of the Original 13 States to ratify Constitution.

From a low coastal plain, with Capes Hatteras, Lookout and Fear jutting into the Atlantic, North Carolina rises to a central Piedmont plateau region and, in the W, to the scenic Blue Ridge and Great Smoky Mountains. Mt. Mitchell, 6,684 ft., is the highest peak E of the Mississippi.

Modernization of production methods has brought North Carolina increasing prosperity from its factories, farms and mines in recent years.

The state leads the U. S. in production of textiles, brick, and household furniture, and in both tobacco grown and cigarettes made. Tourism is an important industry. Est. pop. July 1, 1967, was 5,027,000.

In 1967, 130 new industrial plants opened and 338 expanded their facilities, creating 24,774 new jobs through an added investment of \$661,957,000.

About 665,000 are employed in factories. The textile industry is the state's largest with production valued at over \$3 billion annually.

North Carolina ranks 1st in tobacco production; in 1967 it totaled 842,530,000 lbs. It was 2nd to Louisiana in sweet potatoes and 2nd to Georgia in peanuts. Other large crops are cotton, corn and soybeans; also grown are wheat, oats, barley, peaches, apples. In field crop receipts the state ranked 5th in 1967 with \$845,069,000; livestock production receipts totaled \$454,134,000.

There is a large commercial broiler business; the state ranked 4th in chickens in 1968. It was also 4th in turkeys and 12th in hogs.

Mineral production was up 5% to a record high value of \$75,294,000 in 1967. North Carolina ranked 1st in mica, feldspar and lithium; 3rd in talc, 4th in asbestos.

Tourism is a large industry; in 1967 travelers spent \$647,000,000 in the state. There are 635,000 acres of game refuges, with bear, deer, opossum, raccoon, quail and rabbit, as well as wild ducks and geese.

Among attractions are the Great Smoky Mtns. (half in Tennessee), the Blue Ridge Parkway (partly in Virginia) and the Cape Hatteras and Cape Lookout National Seashores.

Other attractions include the restored Fort Raleigh National Historic Site, Roanoke Is., where Virginia Dare, 1st child of English parents in the New World, was born Aug. 18, 1587; Wright Brothers National Memorial, near Kitty Hawk, has aviation exhibits and a reproduction of the plane in which Wilbur and Orville Wright made their 1st flights, 1903; Guilford Court House and Moore's Creek parks, sites of Revolutionary battles. The Battleship North Carolina, a war memorial, is berthed at Wilmington.

In Asheville is one of the world's largest rayon plants as well as Biltmore Industries, native craft plants set up by Mrs. George W. Vanderbilt in 1901 to continue handweaving traditions of the area. Just S of Asheville is the 19th Century Biltmore mansion of the Vanderbilts, which has a large collection of paintings, antiques and Ming china. Also in Asheville, the Thomas Wolfe Memorial was the home of the author.

Bennett Place, 6 mi. NW of Durham, is the site where Gen. Joseph E. Johnston surrendered the last Confederate army to Gen. William Tecumseh Sherman.

The Mint Museum of Art, Charlotte, has collections of painting, sculpture and ceramics. The North Carolina Museum of Art, Raleigh, exhibits American and European paintings, sculpture and decorative art. Tryon Palace, New Bern, is the reconstructed colonial capital of 1770-1794, furnished with antiques.

Old Salem, in Winston-Salem, includes buildings erected by the Moravians from 1766 on. The R. J. Reynolds Tobacco Co. welcomes visitors at its plant and warehouses.

More than 120,000 students are enrolled in 70 senior and junior colleges and universities, 28 of them state-supported with enrollment of over 73,000; among them are Duke Univ. of N. C., Wake Forest, N. C. State Univ., and Campbell College.

Verrazano, 1524, touched the coast. DeSoto went into the Great Smoky Mts. in 1540. Sir Walter Raleigh sent an expedition to Roanoke Is., 1584; colony was settled 1585, 1587; this, the Lost Colony, disappeared. Albemarle was the first permanent settlement, 1660. Revolutionary battles were fought in the state. North Carolina seceded from the Union May 20, 1861; revoked secession, 1865; was readmitted 1868.

North Dakota

Sioux State, Flickertail State

CAPITAL: Bismarck. **AREA:** 70,665 sq. mi., rank, 17th. **POPULATION:** (1960 Census), 632,446, rank, 44th. **MOTTO:** *Liberty and Union, Now and Forever, One and Inseparable.* **FLOWER:** Wild Prairie Rose. **BIRD:** Western Meadow Lark. **TREE:** American Elm. **SONG:** *North Dakota Hymn.* **ADMISSION:** 39th or 40th, with South Dakota.

The eastern plains of North Dakota are rich in vast fields of grain and support large numbers of livestock, in sharp contrast to the rough, colorful Badlands in the W which have elements of scenic beauty and include Theodore Roosevelt National Memorial Park. Highest point is White Butte, 3,506 ft., in the SW.

North Dakota's economy is based on agriculture and mining; manufacturing, especially food processing, is gaining. Agriculture is the principal industry, with 93% of the land in farms or ranches. Est. pop. July 1, 1967, was 639,000.

North Dakota led the nation in production of spring and durum wheat, rye, barley and flaxseed; it was 5th in oats. Farm receipts for 1967 totaled \$727,034,000, more than half from its huge grain crops. In 1968 there were 2,132,000 cattle on farms.

Mineral production in 1967 was valued at \$97,729,000, a drop of 4%, mainly caused by a 6% drop in the value of oil produced, \$64,902,000; petroleum, natural gas and natural gas liquids account for 80% of the value of all minerals produced. Others include coal (lignite), uranium, vanadium, clays.

Tourism provided an est. \$60,000,000 in 1967.

There are 66 state parks and historic sites. The International Peace Garden, on a 2,200-acre tract extending across the border into Manitoba, commemorates the friendly relations between the U. S. and Canada. The state is known for its waterfowl, grouse and deer hunting, and bass, trout and northern pike fishing. Lake Sakakawea, formed by the Garrison Dam across the Missouri River, is 609 sq. mi. in area.

A museum with exhibits of pioneer life, the Northern Plains Indians and natural history of the area, is maintained by the State Historical Society on the State Capitol grounds, Bismarck.

Explorations in what is now North Dakota were made as early as 1738-1740 by French-Canadians. The Lewis and Clark expedition (1804-1806) passed through the territory and established Fort Mandan. With South Dakota and parts of Montana and Wyoming it comprised Dakota Territory, organized Mar. 2, 1861. It became a separate state Nov. 2, 1889.

Fort Abraham Lincoln, now a state park near Mandan, was the base from which Col. George Custer set out in 1876 on the campaign which ended in the deaths of Custer and 5 companies of the 7th Cavalry at the hands of Sioux Indians at the Little Big Horn in Montana.

Ohio

Buckeye State

CAPITAL: Columbus. **AREA:** 41,222 sq. mi., rank, 35th. **POPULATION:** (1960 Census), 9,706,397, rank, 5th. **MOTTO:** With God, All Things Are Possible. **FLOWER:** Scarlet Carnation. **BIRD:** Cardinal. **TREE:** Ohio Buckeye. **ADMISSION:** 17th.

Ohio is the nation's 3rd greatest industrial state; it ranks among the wealthier states in livestock and crop receipts, and is a leader in output of lime, coal and coke.

It leads the U. S. in a variety of products: tires, machine tools, playing cards, business machines, glassware, printing inks, clay and metal products. Industrial expansion continues at a rapid pace; in 1967 new capital invested in manufacturing totaled \$2.3 billion, a record for the state.

Total value added by manufacturing was \$18.4 billion in the 1965 Survey of Manufactures. Of this, autos, aircraft, boats and parts accounted for \$2.9 billion; iron, steel and other metals, \$2.7 billion; machinery, esp. industrial, \$2.6 billion; electrical machinery, esp. household appliances, \$1.7 billion. Also important are hardware, dairy and meat products, tires and other rubber and plastic products, chemicals.

Farm products were valued at over \$1.2 billion in 1967, more than two-thirds from livestock products. Ohio is the nation's largest producer of hot-house tomatoes and ranks high in milk, corn, grapes, clover, hogs, oats, soybeans and others.

Mineral production for 1967 was valued at a record \$495,118,000, with the largest part coming from bituminous coal. Ohio was the top state in lime production, 2nd in clays, 3rd in salt, sand and gravel. Among other products are cement, natural gas and gypsum.

Tourism produced an est. \$2.8 billion in 1967. Est. pop. July 1, 1967, was 10,462,000.

There are 71 state parks, over 275 roadside parks, and many historic memorials including Fallen Timbers Battlefield, prehistoric Indian mounds and the restored first settlement, Schoenbrunn (1772). The American Trapshooting Tournament is held annually at Vandalia. The state is served by 10 major railroads, 13 airlines and busy ports on Lake Erie and the Ohio River.

There are 100 institutions of higher learning, including Miami (Ohio), Oberlin, Ohio State, Antioch, Kenyon, Ohio Wesleyan, Wittenberg, Ohio Univ., Heidelberg, Case Institute, Western Reserve.

George Rogers Clark defeated the Indians at Pointe, 1780; thereafter Ohio had British-Indian raids and battles; Gen. Anthony Wayne defeated Indians at Fallen Timbers Aug. 20, 1794, imposed Treaty of Greenville, 1795. Oliver Hazard Perry defeated British on Lake Erie near Put-in-Bay, Sept. 10, 1813. As governor of Northwest Territory, Gen. Arthur St. Clair sat at Marietta (1789) and Cincinnati (1791). Ohio became a state in 1803. Columbus became seat of government in 1816.

Toledo, on Lake Erie, 4th largest Ohio city, is a major port, handling more than 38,000,000 tons annually. It is a center for bituminous coal shipments. Its glass industry has net sales of over \$1 billion a year. Its oil refineries handle up to 8,000,-

000 bbls. of crude. It is the home of the Kaiser Jeep Corp. It is the largest manufacturing center for motor car accessories. Est. pop. 1967, was 392,733.

The Toledo Museum of Art has paintings by El Greco, Velasquez, Goya, Holbein, Rembrandt, Cezanne, Gauguin, Van Gogh, Picasso, Samuel F. B. Morse, Gilbert Stuart, Benjamin West, etc.; ancient and modern sculpture, mummies and extensive glass collections. The Toledo Zoo has about a million visitors a year.

In Canton, the Pro Football Hall of Fame has a museum, library and daily movies; the Stark County Historical Society has science, industry and historical museums.

(See also Index for Akron, Cincinnati, Cleveland, Columbus, Dayton.)

Oklahoma

Sooner State

CAPITAL: Oklahoma City. **AREA:** 69,919 sq. mi., rank, 18th. **POPULATION:** (1960 Census), 2,328,284, rank, 27th. **MOTTO:** Labor Omnia Vincit—Labor Conquers All Things. **FLOWER:** Mistletoe. **BIRD:** Scissortailed Flycatcher. **TREE:** Redbud. **SONG:** Oklahoma. **ADMISSION:** 46th.

Most of Oklahoma is a great, rolling plain sloping S and E with a mean altitude of 1,300 ft. The Ozarks, in the NE, the Boston Mtns. in the E and the Ouachita Mtns. in the SE are heavily wooded. In the western Panhandle the land rises toward the Rockies with Black Mesa, 4,973 ft., the highest point.

Oil, wheat and cattle are the main ingredients of Oklahoma's economy, and oil is by far the richest.

The state's output of oil was valued at \$694.-710,000 in 1967, up 6% from the previous year, accounting for 70% of the total value of the state's mineral production, and ranking it 4th highest in the U. S.

Natural gas was another large income producer, providing \$203,203,000, or 20% of the total mineral value. Other minerals include helium, in which the state ranks 3rd, zinc, gypsum, cement, lead, coal.

Oklahoma's rich plains produced the nation's 3rd largest winter wheat crop in 1967 and the state ranked 5th in sorghum. Its cattle herd was the nation's 7th largest. Total income from farms was \$825,011,000, more than half from livestock products.

Much of the manufacturing industry is based on processing of the state's own wheat, meat and oil, but diversification is increasing. Value added by manufacturing totals over \$1 billion annually. Important lines, in order of value added, are food products (especially meat and flour), petroleum and coal products, machinery (especially construction and oil tools), metal products.

Est. pop. July 1, 1967, was 2,496,000.

There are 26 colleges and universities and 15 junior colleges. The state is served by 7 major railroads and 5 airlines. Attractions include 21 state parks, large lakes and reservoirs such as Eufaula (104,000 acres), Lake Texoma (93,080 acres); Ouachita National Forest (176,000 acres), the Will Rogers Memorial, rodeos, bass fishing and quail hunting.

The Will Rogers Memorial, Claremore, has collections of the great humorist's saddles and ropes, as well as trophies; his tomb is also here. In Anadarko, the Southern Plains Indian Museum and Crafts Center exhibits Indian arts and has a crafts sales shop. The Weolcar Museum near Bartlesville has 55,000 exhibits in a panorama of New World history, and a collection of paintings of the West.

The restored Fort Gibson Stockade, with many of the original buildings, near Muskogee, was erected 1824 and was the army's largest outpost in the Indian lands.

The Philbrook Art Center, Tulsa, has paintings by European and American masters, collections of Indian and Spanish cultures, and conducts an annual national competition for artists of Indian or Eskimo extraction, exhibited each May and June.

Also in Tulsa, the Thomas Gilcrease Institute has paintings by Remington, Catlin, Russell, Bierstadt, Meran, Copley, Sully, Homer, Eakins, etc., sculpture and Indian artifacts.

The 1st permanent white settlement in the area was made in 1796 by Maj. Jean Pierre Chouteau on the site of present-day Salina.

Part of the Louisiana Purchase, 1803, Oklahoma was known as Indian Territory (but was not given territorial government) after it became the home of the Five Civilized Tribes—Cherokee, Choctaw, Chickasaw, Creek and Seminole—1828-1846. The land was also used by Comanche, Osage and other plains Indians. As white settlers pressed west, land was opened for homesteading by runs and lottery, a run being a race for a claim at a specific time. The first run took place Apr. 22, 1889, the most famous was the run to the Cherokee Outlet, 1893. The portion thus opened was organized as a Territory; this and Indian Territory were joined by Congress in the State of Oklahoma, admitted to the Union Nov. 16, 1907. Oklahoma's Indian population (1960 Census) was 64,689, 2nd to Arizona.

(See also Index for Oklahoma City.)

Oregon

Beaver State

CAPITAL: Salem. **AREA:** 96,981 sq. mi., rank, 10th. **POPULATION:** 1,768,687 (1960 Census), rank 32nd. **MOTTO:** The Union. **FLOWER:** Oregon Grape. **BIRD:** Western Meadow Lark. **COLORS:** Navy blue and gold. **FISH:** Chinook salmon. **TREE:** Douglas Fir. **SONG:** Oregon, My Oregon. **ADMISSION:** 33rd.

Oregon is rich in timber, fish and wildlife, water power and scenic beauty, with lofty mountain ranges, deep river gorges and broad, fertile valleys.

Half of Oregon, or about 30,000,000 acres, is thickly forested and the state leads the nation in value of forest products, over \$1.5 billion a year. Production of lumber, paper and other forest products provides full-time jobs for about 85,000 workers and accounts for over 50% of the state's economy.

Also important are food products, fabricated metals and machinery. Value added by manufacture is over \$1.8 billion a year.

Agriculture is a large industry; the average number of agricultural workers was 60,200 in 1967. Farm receipts for the year totaled \$530,133,000, 56% from crops, the rest from livestock. Oregon is 1st among the states in pears and sweet cherries, 2nd in hops, 7th in turkeys, 12th in sheep.

Stone, nickel, cement, lime and pumice are important in mineral production, which was valued at \$77,259,000 in 1967.

The commercial fish catch, including salmon, tuna, halibut, sole, cod and shellfish, is worth over \$11,000,000 a year.

Tourism is also an important industry, est. at over \$253,000,000 annually. There are 210 state parks and both state and national forests. Crater Lake, a national park, is a body of sapphire blue water in a former volcano, 6 mi. in diameter and 1,932 ft. deep—deepest lake in the U. S. Fort Clatsop National Memorial includes a replica of the fort in which the Lewis and Clark expedition spent the winter of 1805-06. Oregon Caves National Monument contains stone waterfalls. Skiing and the annual Pendleton Round-Up are other attractions. By 1972, Oregon will spend \$730,000,000 on highway expansion. Mt. Hood, 11,235 ft., is the highest point in the state.

The Columbia River brings ocean shipping to Portland, 100 miles inland but one of the Pacific Coast's principal ports, and to other river ports. The Bonneville Power Administration, a federal agency, delivers electric power from 21 federal dams in the Pacific Northwest to 141 public and private utilities and industries. Seven more dams, under construction, will have a capacity of 3,605,000 kw.

Oregon has 39 colleges and universities and is served by 5 major railroads and 13 airlines.

The Univ. of Oregon in Eugene has a Museum of Art with Oriental, Pacific Northwest and other art collections. It also has a Museum of Natural History.

Est. pop. July 1, 1967, was 1,999,000.

Capt. Robert Grey, in the Columbia, discovered the river named after his ship May 11, 1792, and claimed the area for the U. S. President Jefferson sent the Lewis & Clark Expedition to the area, 1804-06. John Jacob Astor's fur depot, Astoria, was founded in 1811.

A provisional government was established in Champagoe, May 2, 1843, and U. S. title was established in 1846 in a settlement of U. S. and British claims to the area. Oregon became a state Feb. 14, 1859.

(See also Index for Portland.)

Pennsylvania

Keystone State

CAPITAL: Harrisburg. **AREA:** 45,333 sq. mi., rank, 33rd. **POPULATION:** (1960 Census), 11,319,366, rank, 3rd. **MOTTO:** Virtue, Liberty and Independence. **FLOWER:** Mountain Laurel. **BIRD:** Ruffed Grouse. **TREE:** Eastern Hemlock. Second of Original 13 States to ratify Constitution.

Pennsylvania has extensive mineral resources and fertile farmlands, is a leader in manufacturing and boasts a wealth of historic landmarks and scenic attractions. Est. pop. July 1, 1967, was 11,626,000.

Roughly rectangular in shape, Pennsylvania has prosperous farmlands in the SE and the W; through the center, running NE-SW, are parallel mountain ridges with valleys between. Highest point is Mt. Davis in the SW, 3,213 ft.

A third of the nation's steel plants are in Pennsylvania. It ranks 1st in iron and steel production with 24.4% of the U. S. total. Mill and factory products are many and varied; value added by manufacturing was est. at \$17 billion for 1965. Metals, \$3.1 billion, led, followed by dairy, beverage, candy and other food products, \$1.4 billion; electrical machinery, \$1.4 billion; machinery, \$1.3 billion, chemicals, metal products, transportation equipment, clothing.

The state ranked 1st in manufacturing of shoes in 1966 with 90,590,000 pairs.

Pennsylvania produces almost all of the nation's anthracite coal; it ranked 2nd in bituminous coal in 1967. Also important are stone, cement, natural gas, petroleum, clays, zinc, iron, gold, cobalt. Total mineral production value for 1967 was \$909,682,000.

Prosperous farms, such as those in the Pennsylvania Dutch country in the SE, increased total livestock and crops receipts in 1967 to \$913,447,000, much of it from dairy and poultry products.

The state ranks 1st in sausage products, scrap-ple, pretzels, cigar-filler tobacco, plantation-grown Christmas trees; 2nd in ice cream, 4th in grapes, 5th in milk and apples, 6th in peaches, 7th in chickens. Forest products are worth over \$1 billion annually.

The Commonwealth is rich in historic areas, including Valley Forge and the Gettysburg Battlefield, both national shrines. The Articles of Confederation, the Declaration of Independence and the Constitution were all adopted in Philadelphia.

There are more than 150 state and federal parks, recreation areas and historic sites. Scenic attractions include the Delaware Water Gap in the east and the 1,000-ft. deep Pine Creek Gorge in the north. Dutch folk festivals, county fairs, and fall foliage in the Poconos draw many visitors.

Valley Forge State Park, 22 mi. NW of Philadelphia, preserves the site of Washington's encampment during the winter of 1777-78; of 11,098 soldiers, close to 3,000, ill-equipped, died during the bitter weather; there is a museum, restored buildings, etc.

Longwood Gardens, near Kennett Square, include conservatories and rock, heather, flower and water gardens; arboretum, illuminated fountains, open-air theater; open every day of the year.

Lancaster County and nearby areas in the southeast are known as Pennsylvania Dutch Country. Descendants of early German (Deutsch) and Swiss settlers still maintain many of the early customs and "old world" culture which make their farms, festivals and market places attractive to tourists.

The William Penn Memorial Museum, Harrisburg, has collections of folk art, ironwork, glass, pewter, china, textiles, stage coaches, sleighs; replicas of artisans' shops, period rooms; fine arts exhibits and a planetarium.

There are 131 institutions of higher learning including Univ. of Pennsylvania (founded 1740), Univ. of Pittsburgh, Carnegie-Mellon-Univ., Bryn Mawr, Swarthmore, Lehigh, Lafayette, Dickinson, Drexel Institute, Temple, Villanova, Bucknell, Penn State, Duquesne.

First permanent settlement was in 1643 on Tinicum Is., near Chester, as part of New Sweden. In 1655, the Dutch took over; in 1664, the English. In 1681, Charles II granted land to Wm. Penn as payment for debts owed Penn's father. Penn made a treaty with the Indians, 1682, and called the land Pennsylvania (Penn's Woods) in honor of his father.

(See also Index for Philadelphia, Pittsburgh.)

Rhode Island

Little Rhody

CAPITAL: Providence. **AREA:** 1,214 sq. mi., rank, 50th. **POPULATION:** (1960 Census), 859,488, rank, 39th. **MOTTO:** Hope. **FLOWER:** Violet. **BIRD:** Rhode Island Red. **TREE:** Red Maple. **SONG:** Rhode Island. Thirteenth of Original 13 States to ratify Constitution.

Rhode Island is the smallest of the 50 states but has the longest official name: State of Rhode Island and Providence Plantations. It is not an island, although its Narragansett Bay, extending from the Atlantic 28 mi. inland, contains many islands, the largest of which is named Rhode Is. Highest point, Jerimoth Hill in Providence, is 812 ft.

Tiny Rhode Island is densely populated and highly industrialized. Population per sq. mi. of land (1960 Census) averaged 812.4, highest of the 50 states. But, by the July 1, 1965, Census pop. est. (920,000), Rhode Island pop. per sq. mi. was 869.6, 2nd to New Jersey which had 891.1.

Est. pop. July 1, 1967, was 901,000.

Industries show more than \$1.1 billion in value added annually by manufacturing, with textiles accounting for about 17% of that figure. Until 1940, textile mills, dating back to Samuel Slater's 1790 cotton mill, employed more workers than all other Rhode Island industries put together. Employment in the mills has fallen off sharply in recent years, but jobs in other areas have increased. The state also pioneered in jewelry and silverware manufacture and these are still 2nd to textiles in value added by manufacture followed by metals, machinery and rubber and plastics.

Rhode Island's recent economic gains, replacing with other industries the decline in its textile mills, have been dramatic; from 1947 to 1958, unemployment had been almost double the national average; by 1966, the state's unemployment rate fell below the nation's—3.7% for Rhode Island, 3.8% for the U. S.

Only 1% of the labor force is engaged in farming, and farm receipts in 1967 totaled \$20,353,000. Dairy and poultry (notably Rhode Island reds) are the most important lines; potatoes and apples are principal crops. The fish and shellfish catch is valued at over \$5,300,000 annually.

There are 16 colleges and universities, including Brown Univ. (1764), and 3 junior colleges. The Naval War College and Hq. of the Atlantic Cruiser-Destroyer Force are at Newport. A major Naval Air Station is at Quonset Point. Tourism produces about \$35,000,000 annually.

Rhode Island is distinguished historically for its battle for freedom of conscience and action, begun by Roger Williams, founder of Providence, exiled for religious dissent from Mass. Bay Colony, 1636. Wm. Coddington, John Clark, other religious exiles founded Pocasset, now Portsmouth, 1638, and Newport, 1639. First Baptist church in U. S. at Providence, 1638. Rhode Island gave protection to Quakers, 1657; to Jews from Holland, 1658.

Battle for individual rights brought resistance to British impressment of seamen, 1764, and to unjust taxation by burning of revenue vessel Gaspee, 1772. Rhode Island denounced allegiance to British King, May 4, 1776, before the Declaration of Independence. Ratified Constitution, May 29, 1790, 13th of original 13. Rhode Island had prohibition of liquor in 19th century, repealed it 1889, and refused to ratify the 18th amendment.

Providence is a major manufacturing and educational center and a port handling over 9,000,000 tons of cargo per year.

The Rhode Island Historical Society in Providence occupies the historic John Brown House, with rooms containing furniture by 18th Century cabinet makers and other items of local origin. Also in Providence, the Rhode Island School of Design has a museum with collections of classic art, 18th Century American furniture, 19th Century paintings, etc.

Newport became famous as the summer capital of society in the mid-19th Century, when industrial magnates built showy mansions. Easton's Beach and Bailey's Beach are noted resorts and Ocean Drive and Bellevue Avenue are showplaces. Touro Synagogue (1763) is the oldest in the U. S. and is a national historic site. Music festivals and water sports are among attractions.

The Newport Historical Society has a marine museum; extensive exhibits of silver, furniture,

china, etc.; a grist mill, several forts, a Seventh Day Baptist meeting house built 1729.

In Pawtucket, the Old Slater Mill Museum is a restored 1793 cotton mill, considered the 1st to spin yarn successfully in this country; it has demonstrations of hand spinning and weaving.

South Carolina

Palmetto State

CAPITAL: Columbia. **AREA:** 31,055 sq. mi., rank, 40th. **POPULATION:** (1960 Census), 2,382,594, rank, 26th. **MOTTO:** Dum Spiro, Spero—While I Breathe, I Hope, and Animis Opibusque Parati—Prepared in Spirit and Resources. **FLOWER:** Carolina (Yellow) Jessamine. **BIRD:** Carolina Wren. **SONG:** Carolina. **TREE:** Cabbage Palm. Eighth of the Original 13 States to ratify Constitution.

In South Carolina the land slopes from the Blue Ridge Mtns. in the NW, through thick pine forests and fertile farmlands with great fields of tobacco and cotton, to semi-tropic beaches and busy ports on the Atlantic. Deep-sea and inland fishing, hunting, the charm of ante-bellum houses, public gardens and famed shore resorts are among the state's attractions. Highest point is Sassafras Mtn. in NW, 3,560 ft.

Est. pop. July 1, 1967, was 2,603,000.

Efforts to diversify industry and expand foreign trade and tourism have been highly successful. Manufacturing is by far the major source of income; value added by manufacturing is about \$2.8 billion annually. The textile industry is still the most important, comprising 45% of the value of all manufactured products and employing the most workers. South Carolina's mills rank first in the nation in cotton consumption and in output of yard goods. They are also a major producer of synthetic and woolen goods. Other important lines, in order of value, are chemicals, apparel, paper, food products, machinery and stone-clay-glass products.

In 1967, new industrial investment was valued at \$305,797,000, providing an est. 11,176 new jobs.

Farms have become fewer but larger in recent years. South Carolina grows more peaches than any other state except California; it ranks 3rd in tobacco. Also grown are cotton, peanuts, sweet potatoes, pecans, etc. Poultry and eggs are important revenue producers; the state has large sales of chickens and turkeys. Total farm receipts for 1967 were \$414,792,000, two-thirds from crops, one-third from livestock.

The state's mineral production, mostly non-metallic, was up slightly in 1967 to a record \$46,029,000. It ranked 2nd among the states in vermiculite, used in insulation, and in kyanite, used in ceramics, and 4th in mica. Stone, including Winnsboro blue granite, accounts for 25% of income from the minerals industry.

Lumber for pulp and saw-timber is a major resource, especially the loblolly pine. Pulpwood production is over 2,800,000 cords annually.

Travel business was up 8% in 1967, travelers spending an est. \$307,000,000 in the state, \$189,000,000 of it by tourists from other states. Attractions include 28 state parks, famed gardens, historic sites, coastal islands and shore resorts such as Myrtle Beach, fishing and quail hunting. There are many historic churches and white-pillared houses in Charleston, Columbia and Beaufort. Gardens near Charleston include Middleton Place, Magnolia and Cypress; Brookgreen, south of Myrtle Beach, has 340 outdoor statues; other gardens are Edisto, at Orangeburg, Glencairn, at Rock Hill, Swan Lake, at Sumter.

Fort Sumter National Monument in Charleston harbor is the place where the Civil War began with bombardment of the fort by Confederate batteries, Apr. 12-13, 1861.

Charleston Museum, estab. 1773, has exhibits of interior paneling, furniture, arts, crafts and utensils from early South Carolina days.

The state has 32 institutions of higher learning, including the Univ. of South Carolina, Clemson and The Citadel. Columbia is the largest city, 97,433 (1960 Census).

South Carolina played an important part in American beginnings. First settled by Spaniards, 1526 and 1566, it was given by England's Charles I to Robert Heath as Carolina, 1629; had first royal governor, 1730. Charles Pinckney helped frame the Constitution of the U. S., 1787. The state was 1st to secede, Dec. 20, 1860; readmitted in 1868.

South Dakota

Coyote State, Sunshine State

CAPITAL: Pierre. **AREA:** 77,047 sq. mi.; rank, 16th. **POPULATION:** (1960 Census), 680,514, rank, 40th. **MOTTO:** Under God, the People Rule. **FLOWER:** American Pasque. **BIRD:** Ringnecked Pheasant. **SONG:** Hail South Dakota. **TREE:** Black Hills Spruce. **ADMISSION:** 39th or 40th with North Dakota.

South Dakota is a rectangle split down the middle by the Missouri and a chain of huge lakes formed behind dams on the river. In the E are rich farmlands which produce large crops of rye, oats and other grains. In the W are rolling grasslands which support millions of cattle and sheep, as well as vast acreages of wheat. In the far W are the Black Hills with Harney Peak, 7,242 ft., the highest point in the nation E of the Rockies.

With 55,000 farms occupying 93% of the land, agriculture is South Dakota's leading industry, and livestock produces over 80% of farm income. Mining and lumbering rank next in natural resource industries. Est. pop. July 1, 1967, was 674,000.

South Dakota led the nation in gold production in 1967 for the 19th consecutive year; the Homestake Mine in Lawrence Co. is the largest in the U. S. Gold accounted for \$21,000,000 of the state's total mineral production value, \$51,043,000 in 1967. The state also ranked 1st in beryllium and was 3rd in feldspar and 4th in lithium. Other products include petroleum, uranium, tin, vanadium.

The state ranked 1st in the U. S. in size of its rye crop, was 2nd to North Dakota in spring wheat, 2nd to Minnesota in oats, 3rd in durum wheat. The land supports twice as many sheep as people; in 1968 it had 1,382,000 sheep, ranking 5th among the states. It stood 8th in cattle and hogs.

With 130,000 acres under irrigation, plans were underway in 1966 to supply 300,000 acres in central South Dakota from the large Oahe Reservoir and to use Missouri River projects to provide for municipal water supplies.

Value added by manufacture is over \$157,000,000 a year; leading industries are food processing, electronics products, printing and publishing, stone-clay-glass products, in that order.

South Dakota has 8,400 sq. mi. of Indian Reservations. Indians, est. 28,000, are largely Sioux.

South Dakota has 17 institutions of higher learning—including seven state colleges and universities. There are 11 state parks and over 100 other state recreation areas totaling 90,000 acres. Pheasant, duck and geese are abundant. There are large herds of white-tail and mule deer and elk and about 3,800 bison in state and private herds.

Mount Rushmore in the Black Hills has an altitude of 6,200 ft. Sculptured on its granite face are the heads of Washington, Jefferson, Lincoln and Theodore Roosevelt. These busts by Gutzon Borglum are proportionate to men 465 ft. tall. Rushmore is visited by over 1,500,000 persons annually.

Other tourist attractions include Custer State Park, nation's largest state-owned park with the world's largest herd of bison; the Black Hills Passion Play, staged from June to Sept. in an amphitheater at Spearfish; the "Great Lakes of South Dakota," 4 reservoirs behind Oahe, Big Bend, Fort Randall and Gavins Point Dams on the Missouri with total water surface area of 571,000 acres. Out-of-state tourists spent an est. \$118,000,000 in South Dakota in 1965.

Fort Sisseton State Park, 18 mi. SE of Britton, is a restored Army frontier post of 1864. The Sioux Indian Museum in Rapid City features historic and contemporary arts of the Sioux and an Indian craft sales shop.

Discovery of this area dates back to 1743 when the first white men, the Verendrye brothers, Frenchmen, came in search of a route to the Pacific. South Dakota was admitted to the Union Nov. 2, 1889, together with its twin state, North Dakota, after 28 years as a part of Dakota Territory. South Dakota Historical Society asserts both states can be 39th or 40th state, since President Harrison intentionally shuffled the proclamations before signing.

Tennessee

Volunteer State

CAPITAL: Nashville. **AREA:** 42,244 sq. mi., rank, 34th. **POPULATION:** (1960 Census), 3,567,089, rank, 17th. **MOTTO:** America At Its Best. **FLOWER:** Iris. **BIRD:** Mockingbird. **TREE:** Tulip Poplar. **SONG:** Tennessee Waltz. **ADMISSION:** 16th.

Eastern Tennessee is rugged country with the Great Valley separating the Great Smoky Mtns., on the state's E border, from the Cumberland Mtns.; the Central Basin is a plateau area containing the famed Bluegrass country; from there the state slopes W to the bottomlands on the Mississippi River. Clingman's Dome, in the Great Smokies, is the highest point, 6,643 ft.

Est. pop. July 1, 1967, was 3,888,000.

Manufacturing has taken the top place in Tennessee's economy, with factory payrolls now twice farm income. Principal industries, in order of value, are chemicals, food products, apparel, textiles, paper, stone-clay-glass products, electrical machinery. Also important are furniture and other wood products.

There are 24 research centers including Oak Ridge, TVA and Arnold Engineering Development Center for airplane research. Value added by manufacture is over \$3.3 billion annually.

Farm income in 1967 included \$343,128,000 from livestock products and \$242,295,000 from crops. Tennessee ranked 6th among the states in tobacco production.

Lumbering is also important, providing full-time jobs to 40,000 persons. Wood products are valued at over \$500,000,000 annually and the state is known as the U. S. hardwood flooring center.

Tennessee produces a wide range of minerals and leads the other states in zinc and pyrites. Other products include silver, cement, copper, coal and phosphate rock. Total mineral production was valued at \$182,745,000 in 1967.

Tourism is of increasing importance; visitors spend about \$327,000,000 annually in Tennessee.

With six other states, Tennessee shares in Federal reservoir developments on the Tennessee and Cumberland River systems. About 41,000 sq. mi. are drawn on by Tennessee Valley Authority, which built Norris Dam on the Clinch River and operates a number of other dams in the state. Their reservoirs cover 756,321 acres.

Tennessee has a number of natural wonders—Reelfoot Lake, the reservoir basin of the Mississippi River formed by an earthquake (1811); Lookout Mountain a rock-faced promontory carved by the currents of the Tennessee River and overlooking Moccasin Bend, at Chattanooga; Fall Creek Falls, 256 ft. high; and the west half of Great Smoky Mountains National Park.

The American Museum of Atomic Energy in Oak Ridge has displays, models, lectures. The Hermitage, 13 mi. E of Nashville, home of Andrew Jackson, contains furniture and personal effects of the President. The Ancestral Home of James K. Polk, in Columbia, has portraits, furniture and various articles used by President Polk in the White House. The Parthenon, in Centennial Park, Nashville, is a full-size replica of the Parthenon of Athens, contains paintings and casts of the Elgin marbles.

There are 47 colleges and universities among them Univ. of Tennessee in Knoxville; Vanderbilt and Fisk in Nashville.

Tennessee is believed to have been reached by De Soto, 1541. La Salle built a fort 1682. It was part of the Carolina grant of Charles II and home of Cherokee tribes. During 1784-1788 settlers formed the "state" of Franklin, North Carolina ceded it to the Federal govt. 1790; it was part of the Territory South of the Ohio until it became a state in 1796. It seceded 1861, was the site of Civil War battles and was readmitted 1866.

(See also Index for Knoxville, Memphis, Nashville.)

Texas

Lone Star State

CAPITAL: Austin. **AREA:** 267,339 sq. mi., including 4,999 water, rank 2nd. **POPULATION:** (1960 Census), 9,579,677, rank 6th. **MOTTO:** Friendship. (Carrying out meaning of Indian word, Tejas—friends, from which Texas derives name). **FLOWER:** Bluebonnet. **TREE:** Pecan. **BIRD:** Mockingbird. **SONG:** Texas, Our Texas. **ADMISSION:** 28th.

Texas leads all other states in many categories, among them oil, cattle, sheep, cotton and rice. While these are basic to the Texas economy, manufacturing, as measured in terms of value added, makes an even greater contribution than either mineral output or farm receipts.

It is 2nd only to Alaska in area. Est. pop. July 1, 1967, was 10,873,000, ranking 5th among the states.

Texas oil fields produce 35% of the nation's petroleum; the state's 1967 output, 1.1 billion bbl., was valued at over \$3.3 billion. It is also the No. 1 producer of natural gas, asphalt, granite, natural gas liquids and magnesium chloride; it ranks 2nd in sulphur, salt, sodium sulphate, helium and bromine, and 3rd in cement and clays.

The total value of the state's mineral production is by far the greatest of any state, \$5.4 billion in 1967, up 8% from 1966 for a new record.

Texas stood 4th among the states in value of agricultural receipts, \$2.5 billion for 1967, 52% from livestock products, the rest from crops.

It led all states in number of cattle, 10,972,000 (about the same number as people) in 1968, and in sheep, 4,206,000; it ranked 3rd in turkeys and 5th in chickens. It grew the largest crops of cotton, rice and sorghum and was 3rd in peanuts, pecans and vegetables and melons. Also important are grapefruit, oranges, peaches, roses. Irrigation has reclaimed large arid areas in the W.

The Southwest Exposition & Fat Stock Show is held annually in Fort Worth; the nation's largest state fair in October in Dallas; the largest cattle auction in Amarillo.

Value added by manufacture was est. at \$12.4 billion for 1968, about 25% of it in chemicals, the largest industry—particularly petro-chemicals. Total manufacturing employment was 709,200 workers; largest employer is the transportation equipment industry with 95,400.

Texas is 4th among the states in commercial fishing with the annual catch valued at over \$42,000,000.

Tourists spend over a half billion dollars annually in Texas. There are 64 state parks, recreation areas and historic sites, including the Alamo, mountainous Big Bend National Park, Fort Davis National Historic Site and 4 national forests. Some 90 peaks reach altitudes of a mile or more; there are 640 miles of beaches on the Gulf of Mexico; there are numerous deep canyons and caverns.

The Texas Memorial Museum of the Univ. of Texas, Austin, has dioramas of oilfields, the Odessa, Tex., meteor crater, Texas mammals, Indian tribes; exhibits of fossils, minerals, guns, pioneers' tools; large relief maps illustrating the changing face of Texas through 250,000,000 years.

Texas has 56 colleges and universities and 47 junior colleges; enrollment 1964-65 was 223,000. Important schools include Univ. of Texas, Baylor, Rice, Southern Methodist, Texas Western, Texas A. & M., Texas Christian, Texas Technological, Univ. of Houston.

Texas is the only state that was an independent republic, recognized by the U. S., before annexation. Over it have flown the flags of Spain, France, Mexico, the Lone Star Flag of the Republic, the Confederate States and the United States.

The first Europeans to arrive in the area were Spaniards, Alonso de Pineda, in 1519, and Cabeza de Vaca, 1536, explored coastal areas; Francisco de Coronado crossed inland in 1541. The first missions were founded in 1659, 1690. Texas became a Spanish province in 1691 and a Mexican state in 1821.

American settlers revolted in 1835; after defeat at the Alamo, Mar. 6, 1836, they defeated the Mexicans at San Jacinto, Apr. 21, 1836. They formed the Republic of Texas and, in 1845, voted for annexation to the U. S. Texas was admitted as a state Dec. 29, 1845. It seceded and joined the Confederacy Feb. 1, 1861. It freed all slaves June 19, 1865, and was readmitted to the Union Mar. 30, 1870.

(See also Index for Dallas, Houston, San Antonio.)

Utah

Beehive State

CAPITAL: Salt Lake City. **AREA:** 84,916 sq. mi., rank, 11th. **POPULATION:** (1960 Census), 890,627, rank, 38th. **MOTTO:** Industry. **FLOWER:** Sego Lily. **BIRD:** California Gull. **TREE:** Blue Spruce. **EMBLEM:** Beehive. **SONG:** Utah We Love Thee. **ADMISSION:** 45th.

Wrested from the wilderness by Mormon settlers in the mid-19th Century, Utah is for the most

part a mountainous area, broken by fertile irrigated valleys, several deserts and two large lakes, Great Salt Lake in the N and Lake Powell in the S.

Great Salt Lake is 4,200 ft. above sea level, but has no known outlet. Its salt density varies from 20 to 25%, 2nd only to that of the Dead Sea; it covers more than 1,500 sq. mi.; it is crossed by a 13-mi., rock-fill, railroad causeway. Lake Powell, created by construction of the Glen Canyon Dam on the Colorado River just over the border in Arizona, is 186 mi. long, most of it in Utah. Highest point in Utah is Kings Peak in the NE, 13,528 ft.

Est. pop., July 1, 1967, was 1,022,000.

Manufacturing has become the state's major industry, well ahead of mining, agriculture and tourism. Value added by manufacture in 1967 was \$720,000,000 with primary metals accounting for \$212,000,000 and transportation equipment \$145,000,000.

Utah is an important center for research and production of intercontinental missiles, rocket engines, solid fuel propellants, supersonic engines, navigational systems for long-range, high-speed aircraft and electronic components for military computers. It has divisions of Thiokol, Hercules Inc., Boeing, Marquardt, Litton, Sperry.

Utah is a storehouse of many minerals. It ranks 2nd among the states in production of gold, silver, copper, asphalt, molybdenum and magnesium chloride; 3rd in lead, carbon dioxide, vanadium and potassium salts; 4th in uranium. Value of all minerals produced in 1967 totaled \$360,017,000, a decrease from the previous year, mainly because of a nationwide copper strike.

The nation's largest open-pit copper mine at Bingham Canyon normally hires about 7,100 men and produces about 20% of newly-mined copper in the U. S. Operations are being expanded in a 4-year program. Two great copper smelters are operated by Kennecott and International. An electrolytic refinery produces copper 99.96% pure and has a capacity of 384,000,000 lbs. annually. Geneva Works of U. S. Steel has a capacity of 2,300,000 ingot tons of steel a year.

The state ranked 6th in number of sheep in 1968, 1,074,000. Crops include barley, sugarbeets, alfalfa, winter wheat, potatoes. Farm receipts in 1967 included \$145,182,000 from livestock products, \$43,550,000 from crops.

Over 67% of the land is owned by the Federal government.

More than 5,000,000 visitors annually spend about \$183,600,000 in the state.

Utah is a great recreational area, with 11,000 mi. of fishing streams and 147,000 acres of lakes and reservoirs, numerous winter sports areas and camp grounds. Natural wonders may be seen at Zion and Bryce Canyon National Parks and Dinosaur, Rainbow Bridge and Natural Bridges National Monuments. A new national park, Canyonlands, the Lake Powell Recreation Area and Flaming Gorge Dam are other attractions.

Works by Utah artists and archeological, botanical, mineral and fossil collections may be seen at the Brigham Young Univ. Collections in Provo.

The Latter-day Saints number 72% of the population of the state (1960 census). The Mormons reached Utah July 24, 1847.

Utah was organized as a Territory Sept. 9, 1850; admitted to the Union Jan. 4, 1896.

(See also Index for Salt Lake City.)

Vermont

Green Mountain State

CAPITAL: Montpelier. **AREA:** 9,609 sq. mi., rank, 43rd. **POPULATION:** (1960 Census), 389,881, rank, 47th. **MOTTO:** Freedom and Unity. **FLOWER:** Red Clover. **TREE:** Sugar Maple. **BIRD:** Hermit Thrush. **ANIMAL:** Morgan Horse. **SONG:** Hall, Vermont. **ADMISSION:** 14th.

Vermont, 1st state to join the Union after the original 13, was the home of the Green Mountain Boys who played heroic roles in several victories of the American Revolution. They took their name from the Green Mountains which form the N-S backbone of the state. There are rich marble quarries in the western part of the state and large granite beds in the E. The Connecticut River runs along the E boundary, Lake Champlain forms much of the W line; among the many lakes is Memphremagog which lies partly in Canada to the N. Seven peaks rise over 4,000 ft. with Mt. Mansfield, 4,393 ft., the highest.

Est. pop. July 1, 1967, was 416,000.

Vermont has long been known for its stoneworking, forest and dairy industries, but manufacturing and the recreation-tourist business have expanded greatly.

Improved highways and truck facilities are credited with aiding the industrial growth. Principal manufactured goods are machinery (including business machines), stone and clay products, lumber, furniture and paper. Value added by manufacturing in 1967 was an est. \$449,000,000.

Recreation is a \$164,000,000-a-year business. Skiing accounted for most of the growth, with spending by skiers jumping from \$14,000,000 in 1958 to \$70,000,000 in 1966-67. There are over 60 miles of ski lifts in the state and 46 ski areas including Stowe, Killington, Mt. Snow, Stratton, Bromley, Jay Peak and Sugarbush.

Vermont has 68 state parks and forests covering nearly 100,000 acres. The Long Trail is popular for hiking and camping. There is fishing for trout, salmon, bass, muskellunge, and hunting for deer and game birds.

Vermont produced 310,000 gallons of maple syrup in 1967, the largest amount of any state. Large milk and butter production accounted for 80% of the total value of farm receipts in 1967, \$139,629,000.

The state ranks high in output of marble, granite, limestone; it ranks 2nd in asbestos and 4th in talc. Total mineral production value for 1967 was \$26,542,000.

The Shelburne Museum, 7 mi. S of Burlington, preserves 35 early American buildings, including furnished homes, doctor's and dentist's offices, stagecoach inn; covered bridge, sidewheeler, old trains, folk art, etc.; Webb gallery of paintings by Rembrandt, Goya, Corot, Manet, Cassatt. The Bennington Museum displays early American glass, furniture, pottery and what is said to be the oldest Stars and Stripes flag in existence.

The Vermont area was visited by Samuel de Champlain, 1609, and had its first permanent settlement at Fort Dummer near Brattleboro, 1724.

Jurisdiction over the area was disputed by New Hampshire and New York. During the Revolution, the Green Mountain Boys under Ethan Allen took Fort Ticonderoga and under Seth Warner captured Crown Point; later they helped defeat the British in the Battle of Bennington and at Saratoga.

In 1777 the colonists declared their independence, adopted a constitution, the first giving universal manhood suffrage without property qualifications, elected a governor. They chose the name Vermont, suggested by Dr. Thos. Young, Philadelphia, from Vert Mont (Green Mountain). Vermont ratified U. S. Constitution Jan. 1791, entered Union Mar. 4, 1791. Vermonters were intense anti-slavery men and supported Lincoln over their native son Stephen Douglas.

Vermont has 19 institutions of higher learning, including Univ. of Vermont at Burlington, Middlebury College and Norwich Univ.

Virginia

Old Dominion

CAPITAL: Richmond. **AREA:** 40,817 sq. mi., rank, 36th. **POPULATION:** (1960 Census), 3,966,949, rank, 14th. **MOTTO:** Sic Semper Tyrannis. **Thus Always to Tyrants.** **FLOWER:** Flowering Dogwood. **BIRD:** Cardinal. **TREE:** Flowering Dogwood (Unofficial). **SONG:** Carry Me Back to Old Virginia. Tenth of the Original 13 States to ratify Constitution.

The Commonwealth of Virginia is famed for its colonial heritage, for the statesmen it produced, its historic homes and estates, and the great battlefields on which the fate of the nation was decided in both the 18th and 19th centuries.

It was first settled, 1607, at Jamestown by English colonists and named for Elizabeth I, called the Virgin Queen. It had the New World's 1st representative legislature, the House of Burgesses, 1619; this assembly was elected by male suffrage. Virginia was active in resistance to the British Stamp Act and it provided much of the leadership that led to American independence and the writing of the Constitution.

Virginia's coastal plain, the Tidewater, consists mostly of 4 peninsulas formed by Chesapeake Bay and the Potomac, Rappahannock, York and James Rivers. The central Piedmont plateau rises, toward the W, to the Blue Ridge Mts. Beyond the Blue Ridge and between it and the Alleghenies on the W border lies the Shenandoah Valley, a rich farming region. Highest point is Mt. Rogers in the SW, 5,729 ft.

Est. pop. July 1, 1967, was 4,533,000.

Manufacturing has grown steadily and is diversified; it provides jobs for 320,186 while agriculture employs 91,100. Total value added by manufacturing is est. at over \$3.5 billion annually with payrolls totaling \$1.8 billion. Wood products, including furniture, paper and lumber, provided jobs for 58,300 in 1965; finished wood output was valued at \$700,000,000. Other leading products are chemicals, processed foods, textiles, clothing, cigarettes, machinery and ships. Hampton Roads is the major port, a leader in bulk export tonnage.

Agriculture remains a vital factor in the economy. In 1967 Virginia ranked 3rd among the states in sweet potatoes, 4th in apples, 5th in tobacco. Other important crops are peanuts, peaches, corn. It ranks 8th in turkeys; its Smithfield hams, from peanut-fed hogs, are famous. Farm receipts for 1967 totaled \$519,916,000.

Coal provides most of Virginia's mineral wealth. Record-breaking production of the fuel accounted for more than half the value of the state's total mineral output for 1967, \$290,738,000. Also important are lime, zinc, stone, natural gas, cement.

The commercial fishing catch is valued at over \$20,000,000 annually.

With its wealth of historical attractions and recreational facilities such as Shenandoah National Park in the Blue Ridge Mts. and Virginia Beach, the state has a large tourist business, est. at over \$800,000,000 a year. Tourism is 2nd to manufacturing and ahead of agriculture as a source of income.

Virginia was the birthplace of 8 Presidents: Washington, Jefferson, Monroe, Madison, Tyler, William H. Harrison, Taylor and Wilson—the last 3 elected from other states. It has many historic shrines, including Washington's birthplace, Wakefield; his home and grave at Mount Vernon; Jefferson's Monticello, near Charlottesville and the Univ. of Virginia he designed; Robert E. Lee's birthplace, Stratford Hall, and grave at Lexington.

Colonial Williamsburg is a restoration of the 18th Century buildings and living conditions in what was the capital of Virginia when Washington, Jefferson, Patrick Henry and George Mason were young men. There are more than 500 buildings, many of them the originals.

At Jamestown, 1st permanent English settlement, are foundations and ruins of early buildings, relics, statues and monuments and a nearby exhibit of early glassblowing.

At Yorktown, where the surrender of British Gen. Cornwallis to American and French forces, Oct. 19, 1781, virtually ended the American Revolution, may be seen Colonial buildings, the restored house in which terms of surrender were drawn up, earthworks and Revolutionary cannons.

In Fredricksburg, the James Monroe Law Office and Museum is the original building in which President Monroe practiced law in the 1780s; among other possessions is the desk at which he signed the Monroe Doctrine.

Appomattox Court House National Monument includes the rebuilt Wilmer McLean house in which Gen. Lee surrendered the Confederate Army of Northern Virginia to Lt. Gen. Ulysses S. Grant, Apr. 9, 1865.

Fort Monroe Casemate Museum has relics of the imprisonment in the fort of Jefferson Davis and Chief Black Hawk and of the battle between the Monitor and Merrimack. The Quartermaster Museum, Fort Lee, exhibits clothing, saddles, etc., of American soldiers from the Revolution on. The War Memorial Museum of Virginia, in Newport News, displays World War I and II weapons and equipment of many nations.

In Lexington are Washington and Lee Univ. and Virginia Military Institute, both closely linked with leaders and action in the Civil War. Also in Lexington is the George C. Marshall Research Library and Museum with displays of the life of the famed World War II general and statesman.

At Staunton is the Woodrow Wilson Birthplace, with memorabilia of his family. The Gen. Douglas MacArthur Memorial in Norfolk contains the general's sarcophagus, flags of 30 units he commanded, documents and murals of important events in his life.

Virginia seceded from the Union Apr. 17, 1861, and Richmond became the capital of the Confederate States. Virginia was readmitted Jan. 26, 1870.

There are 53 institutions of higher learning, including 31 colleges and universities, 7 professional schools and 15 junior colleges.

(See also Index for Norfolk, Richmond.)

Washington

Evergreen State

CAPITAL: Olympia. **AREA:** 68,192 sq. mi., rank 20th. **POPULATION:** (1960 Census), 2,853,214, rank, 23rd. **MOTTO:** Al-Ki, By and By. **FLOWER:** Coast Rhododendron. **TREE:** Western Hemlock. **BIRD:** American Goldfinch. **SONG:** Washington, My Home. **ADMISSION:** 42nd.

The state of Washington in the Pacific Northwest is a leader in many ways—in lumber, in fruit and other crops, and in aircraft production; its ports on Puget Sound are gateways to Alaska and the Far East; the great dams on the Columbia River provide power for production of aluminum and irrigation for the rich Columbia Basin.

The lofty Cascade Range splits the state N-S. To the W. the Puget Sound lowlands support dairy, poultry and truck-farming; in the extreme W. the Olympic Peninsula is studded with the peaks of the Olympic Mtns. and the Coast Ranges. On the E slopes of the Cascades are the state's great fruit orchards; further E, plateau country provides sheep and cattle lands and a rich wheat belt. Highest peak is Mt. Rainier in the Cascades, 14,410 ft.

The Columbia River cuts a zig-zag course across Washington from the NE, then flows W along the Oregon border to the Pacific.

Puget Sound has many deep harbors beside which Seattle, Tacoma, Everett and other great cities have grown.

Est. pop. July 1, 1967, was 3,089,000.

Manufacturing industries in Washington employ a quarter of a million workers with payrolls totaling \$2 billion and value added by manufacture est. at nearly \$3.5 billion a year. Transportation equipment, mostly aircraft but including ships and trucks, is itself a billion dollar industry. Other products, in order of value, are lumber, processed food, paper, chemicals and metals. The Atomic Energy Commission plant at Hanford produces nuclear fuels and electricity.

Washington's huge fruit and berry production and other crops place it 1st among the states in apples, hops, late summer potatoes, raspberries, blueberries, currants; 2nd in pears, sweet cherries, apricots, winter wheat, asparagus; 3rd in grapes, 4th in cranberries, 6th in peaches. Farm receipts for 1967 totaled \$767,531,000.

The commercial fishing catch is valued at over \$20,000,000 a year. Salmon accounts for half the total, followed by halibut and bottomfish.

Mineral production in 1967 was worth an est. \$68,577,000. Zinc, cement, uranium, gold, lead and silver were important.

Large aluminum reduction plants, using refined ore from out-of-state and low-cost electric power, expanded operations in 1967. Primary aluminum output was valued at \$378,728,833, compared to \$294,115,000 in 1966.

A series of great dams on the Columbia, including the massive Grand Coulee in the NE and Bonneville on the Oregon border, provide low-cost electric power.

More than half the state is in forests; one-sixth of the nation's standing sawtimber is in Washington. Towering Douglas firs and Ponderosa pines, western hemlocks and red cedars are among commercially important trees.

There are 37 institutions of higher education—15 colleges and universities, with Univ. of Washington, Washington State Univ. and Seattle Univ. the largest.

First visited by explorers in the late 18th Century, Washington was organized as a territory Mar. 2, 1853; admitted to the Union Nov. 11, 1889.

The state has two national parks, Mt. Rainier and Olympic National Park. Its state parks and national forests of nearly 10,000,000 acres have large hunting, fishing and recreation areas.

The Washington State Historical Society, Tacoma, has exhibits of the fur trade, Indian and Eskimo arts, and pioneer cabins, schoolhouse and covered wagon.

Tourism in 1967, it was est., would bring 8,600,000 visitors to the state, spending approx. \$300,000,000.

(See also Index for Seattle.)

West Virginia

Mountain State

CAPITAL: Charleston. **AREA:** 24,181 sq. mi., rank, 41st. **POPULATION:** (1960 Census), 1,860,421, rank, 30th. **MOTTO:** Montani Semper Liberi. **MOUNTAINEERS ALWAYS FREE.** **FLOWER:** Rosebay Rhododendron Maximum. **BIRD:** Cardinal. **TREE:** Sugar Maple. **ANIMAL:** Black Bear. **SONGS:** The West Virginia Hills. This Is My West Virginia, and West Virginia, My Home, Sweet Home. **ADMISSION:** 35th.

West Virginia's fortunes have long been based on those of the bituminous coal industry; the state leads all others in coal production with about 30% of the U. S. total. Increased output of coal and natural gas, plus growth in the chemical, steel, glass and tourist industries, have aided the economy. Highway development is underway.

The terrain is mountainous with Alleghenies running NE-SW in the eastern half of the state; the western half is a plateau sloping down to the Ohio River which forms most of the boundary on the W. Highest point is Spruce Knob in the NE, 4,862 ft.

Est. pop. July 1, 1967, was 1,798,000.

West Virginia was part of Virginia until that state seceded in 1861; delegates of 40 western counties adopted a state government at Wheeling. Nov. 27, 1861; West Virginia was admitted to the Union June 20, 1863.

Coal accounts for 80% of the state's total income from minerals and a substantial increase in coal output in 1967 set the pace for a 5% rise in total mineral income which reached \$936,093,000.

West Virginia produces and markets more natural gas than any other state east of the Mississippi. Also important are petroleum, salt, stone, cement, lime and clays.

Production of a wide variety of chemicals, based in the state's resources of salt brine, gas, oil and coal, and including synthetic fibers and plastics, dominates the manufacturing field, accounting for 43% of the \$1.8 billion in value added annually by manufacturing. Large plants are in the Ohio and Kanawha valleys, where electric power is abundant. The state is also a major producer of steel and iron, glass and pottery.

Investment in new plants and plant expansion reached a record \$437,000,000 in 1967, providing an est. 7,000 additional jobs.

Farm receipts totaled \$104,198,000 in 1967; the hilly terrain is not conducive to large-scale agriculture. Poultry, dairy products, cattle and sheep accounted for most of the receipts. Apples and peaches are profitable crops. About 65% of the state is in forests, including valuable hardwoods.

Tourism is being promoted and the influx of visitors grows at about 8% yearly. More than a million acres have been set aside for recreation in 20 state parks, 9 state forests, Monongahela National Forest and large reservoir recreation areas. Attractions include Harpers Ferry National Historical Park, mineral water resorts at White Sulphur and Berkeley Springs, trout fishing, turkey, deer and bear hunting.

Part of the town of Harpers Ferry is being restored to its condition in 1859, when John Brown seized the U. S. Armory. Still standing is the fire-engine house in which Brown and a score of followers were besieged and captured by a force of U. S. Marines under Robert E. Lee, then a U. S. colonel.

The State Museum in Charleston displays local relics and artifacts from prehistoric cultures (as early as 8,000 B.C.), Indians and pioneers, and the life of the area's people, past and present.

The Huntington Galleries, Huntington, has collections of 19th and 20th Century European and American paintings, furniture and decorative arts. The Oglebay Mansion-Museum displays Colonial furniture and 19th Century glassware.

There are 21 institutions of higher learning.

Wisconsin

Badger State

CAPITAL: Madison. **AREA:** 56,154 sq. mi., rank 26th. **POPULATION:** (1960 Census), 3,951,777, rank, 15th. **MOTTO:** Forward. **FLOWER:** Butterfly Violet. **BIRD:** Robin. **TREE:** Sugar Maple. **ANIMAL:** Badger. **FISH:** Muskegon. **WILDLIFE ANIMAL:** White-tailed deer. **SONG:** On, Wisconsin! **ADMISSION:** 30th.

Known as America's Dairyland, Wisconsin pro-

duces more milk and cheese than any other state and agriculture is a vital part of the state's economy. However, manufacturing, including processing of foods, has become the state's largest employer and biggest income producer.

Mining has declined with the near-cessation in 1965 of iron mining, but output of zinc and other minerals has increased. Reforestation has kept the paper and wood product industries important. There are 14 ports on Lakes Michigan and Superior with access to the St. Lawrence Seaway.

The state has an abundance of recreation resources; water and winter sports, hunting and fishing are among its attractions.

Est. pop. July 1, 1967, was 4,188,000. Highest point is Timms Hill in the N, 1,952 ft.

Wisconsin's rolling pastures and large crops support the nation's largest herd of milk cows, 2,147,000 in 1968; 80% of its farms are dairy farms. The state produces the most milk, cheese, malted milk, hay, alfalfa, peas; it ranks 2nd in butter, 3rd in oats, 6th in turkeys, 8th in corn, 9th in hogs.

Farm receipts for 1967 totaled \$1.4 billion, 8th highest in the U. S.

About 40% of income produced in Wisconsin comes from manufacturing and, with 493,000 factory employees, the state ranks among the top 12. Value added by manufacturing is over \$6.1 billion a year. Most important products, in order of value added, are: machinery, especially engines, turbines and construction; food products, including dairy, meat and beer; transportation equipment, particularly motor vehicles.

Mineral production for 1967 was valued at \$76,522,000, up 1%. Zinc, lime, cement and stone are important. Plans were underway to revitalize the iron ore industry through proposed production of pelletized low-grade ore.

Most of Wisconsin's timber production goes into pulp and paper, but the state is also a leading producer of hardwood, plywood and veneer.

Wisconsin has over 8,500 lakes, of which Winnebago is the largest, and fronts on both Lakes Michigan and Superior. Water sports, iceboating, and fishing for trout, bass and muskellunge are popular as are skiing and hunting for deer, bear and wildfowl. Public parks and forests take up one-seventh of the land area; there are 32 state parks, 9 state forests, two national forests. Other attractions include small towns which preserve Swiss, Scandinavian, German and other European cultures, visits to breweries and cheese factories, Indian festivals and the Dells (scenic gorges) of the Wisconsin River.

There are more than 40 institutions of higher learning, among them the Univ. of Wisconsin, Wisconsin State Univ., Marquette and Lawrence Univ.; Beloit, Ripon and Carroll Colleges.

The 1st European to visit the Wisconsin area was Jean Nicolet in 1634; he was followed by French explorers and missionaries and the land became part of New France. The French surrendered it to the British in 1763; the British ceded it to the U. S. in 1783, but were not completely dislodged until 1815. Wisconsin became a state May 29, 1848.

The Circus World Museum in Baraboo has over 100 circus wagons and other displays, and presents circus shows daily, early May-early Sept.

(See also Index for Milwaukee.)

District of Columbia

AREA: 67 sq. mi. POPULATION: (1960 Census), 763,956. MOTTO: *Justitia Omnibus*. Justice for All. FLOWER: American Beauty Rose. TREE: Scarlet Oak. BIRD: Wood Thrush. The City of Washington is co-extensive with the District of Columbia.

The District of Columbia is the seat of the Federal Government of the United States. It lies on the west central edge of Maryland on the Potomac, opposite Virginia. Its area was originally 100 sq. mi. taken from the sovereignty of Maryland and Virginia. Virginia's portion S of the Potomac was given back to that state in 1846.

The 23rd Amendment, ratified in 1961, granted residents of the District the right to vote for President and Vice President for the first time and gave it three members in the Electoral College. Residents cast the first such votes in Nov. 1964.

Wyoming

Equality State

CAPITAL: Cheyenne. AREA: 97,914 sq. mi., rank, 9th. POPULATION: (1960 Census), 330,066, rank, 48th. MOTTO: *Equal Rights*. FLOWER: Wyoming Paint Brush. BIRD: Western Meadow Lark. TREE: Plains Cottonwood (Balsam Poplar). SONG: Wyoming State Song. ADMISSION: 44th.

Wyoming's towering mountains and rolling plains provide spectacular scenery, grazing ranges for sheep and cattle, and a wealth of mineral resources. Most important industry is mining, including oil and gas; agriculture, including livestock, is 2nd; tourism is 3rd and manufacturing 4th. Est. pop. July 1, 1967, was 315,000.

Ranges of the Rockies cover the western two-thirds of the state; the eastern third is Great Plains country. Highest point is Gannett Peak in the W, 13,785 ft. The spectacular Teton Mtns. lie S of Yellowstone National Park, which is mostly carved out of Wyoming's NW corner.

Wyoming has large reserves of coal (deposits underlie 41% of the land), oil (it has 5% of the nation's proven reserves), natural gas (ranking 6th in the U. S.) and uranium (2nd in the U. S.).

Oil output for 1967 was valued at \$349,796,000, 66% of the total mineral production value for the year, \$530,792,000. The state ranked 1st in sodium carbonate production, 2nd in uranium, 3rd in sodium sulphate, 4th in vanadium. Also important are coal, clays and natural gas.

Wyoming is 2nd in the U. S. in wool production and in 1968 its sheep numbered 1,857,000, exceeded only by Texas; it also had 1,420,000 cattle. Principal crops include wheat, oats, sugarbeets, corn, potatoes, barley, hay, alfalfa. Livestock receipts for 1967 totaled \$166,794,000; crop receipts \$36,233,000.

Manufacturing includes petroleum and coal products, food products, soda ash, steel and iron, pumps and plumbing supplies. Value added by manufacturing is about \$94,000,000 annually.

Wyoming is a main source for 3 important river systems, the Missouri, Colorado and Columbia. Both power and irrigation are provided by a growing number of dams and reservoirs. Tourism produces an est. annual \$100,000,000.

Wyoming was organized as a Territory July 25, 1868; admitted to the Union July 10, 1890. Women were given the right to vote, for the first time in the U. S., by the Territorial Legislature in 1869.

Grand Teton National Park, with mountains 13,000 ft. high, comprises 299,326 acres; the National Elk Refuge covers 25,000 acres. Devils Tower, a cluster of rock columns 865 ft. high, became the first National Monument in the U. S. in 1906. Fort Laramie, partly preserved, partly restored, is a National Historic Site. The annual Cheyenne Frontier Days Celebration, last full week in July, is the state's largest rodeo. Hunting, fishing and skiing are other attractions.

The Buffalo Bill Historical Center in Cody has a museum with personal effects of William F. Cody (Buffalo Bill) and the Whitney Gallery of Modern Art with Indian art and paintings by Frederick Remington, Charles M. Russell, George Catlin, etc.

The Bradford Brinton Memorial Ranch, near Big Horn, has collections of western painting and sculpture, antiques, Indian arts, hunting trophies and firearms; open May 15-Sept. 15.

The University of Wyoming is in Laramie and there are six state community colleges.

(See Index for Yellowstone National Park.)

Congress governed the District 1878-1967 through 3 Commissioners appointed by the President. The Reorganization Plan of 1967 substituted a single Commissioner and assistant and a 9-member City Council, all likewise appointed by the President; budgetary funds are still appropriated by Congress; residents have no vote in local government (except for recently granted right to elect school board members) and no representative in Congress.

Est. pop. July 1, 1967, was 809,000.

Proposals for a "federal town" for the deliberations of the Continental Congress were made in 1783, four years before the adoption of the Constitution that gave the Confederation a national government. Rivalry between northern and southern delegates over the site appeared in the First Congress, meeting in New York in 1789. John Adams, presiding officer of the Senate, cast the

deciding vote of that body for Germantown, Pa. In 1790 Congress compromised by making Philadelphia the temporary capital for ten years. The Virginia members of the House wanted a capital on the eastern bank of the Potomac; they were defeated by the Northerners, while the Southerners defeated the Northerners attempt to have the nation assume the war debts of the 13 original states, the Assumption bill fathered by Alexander Hamilton. Hamilton and Jefferson arranged a compromise; the Virginia men voted for the Assumption bill, and the Northerners conceded the capital to the Potomac. President Washington chose the site in October, 1790, and persuaded landowners to sell their holdings to the government at \$25, then about \$66, an acre. The capital was named Washington.

Washington appointed Pierre Charles L'Enfant, a French engineer who had come over with Lafayette, to plan the capital on an area not over 10 miles square. The L'Enfant plan was considered grandiose, for streets 100 to 110 feet wide and one avenue 400 feet wide and a mile long on the

Potomac pastures seemed foolhardy. But Washington endorsed his plans. When L'Enfant ordered a wealthy landowner to remove his new manor house because it obstructed his vista, and demolished it when the owner refused, Washington had to step in and dismiss L'Enfant.

On Sept. 18, 1793, the cornerstone of the north wing of the Capitol was laid by President Washington. The occasion was expected to drum up sales of city lots, but there were few purchasers. Washington bought several lots. In the next few years Robert Morris and others invested. By 1799 the Senate wing of the Capitol had been roofed, the walls of the President's house were up and the Treasury building was ordered. On June 3, 1800, President John Adams moved to Washington and on June 10, Philadelphia ceased to be the temporary capital. The City of Washington was incorporated in 1802; the District of Columbia was created as a municipal corporation in 1871, embracing Washington, Georgetown and County of Washington.

(See also Washington, D. C.)

OUTLYING U. S. AREAS

Commonwealth of Puerto Rico

Estado Libre Asociado de Puerto Rico

CAPITAL: San Juan. **AREA:** 3,435 sq. mi. **POPULATION:** 1960 Census, 2,349,544. **FLAG:** Three red, two white horiz. stripes; white star in blue triangle at staff. **SONG:** La Borinquena.

Puerto Rico is a hilly, tropical island lying between the Atlantic to the N and the Caribbean to the S; it is the easternmost of the West Indies group called the Greater Antilles, of which Cuba, Hispaniola and Jamaica are the larger units. It lies about 1,600 mi. SE of New York, 500 mi. N of Venezuela. It is roughly rectangular, 105 mi. long by 35 wide. Numerous small islands include Vieques, Culebra and Mona.

The soil of the coastal plain is fertile and there are many lush valleys, but there are dry areas in the S which need irrigation and an extensive system has been constructed by the government. The climate is mild, with a mean temperature of 76°; the mean maximum is 82° and the mean minimum 73°. Highest point is Cerro de Punta, 4,389 ft., near the island's center.

President Truman, on Aug. 5, 1947, signed an act giving Puerto Rico the right to choose its chief executive by popular vote. An act of 1950, affirmed by special election, June 4, 1951, permitted Puerto Rico to draft its own constitution. One similar to that of the United States was approved in a convention Feb. 4, 1952, and ratified by a popular vote March 3, 1952. President Truman signed, July 3, 1952, a Congressional resolution approving the new constitution, elevating Puerto Rico to the status of a free commonwealth associated with the United States, effective July 25, 1952. In 1961 Pres. Kennedy appointed two Puerto Ricans to important posts in his administration.

In a July 23, 1967, referendum, Puerto Ricans strongly favored continuation of commonwealth status. The vote was: commonwealth, 425,081; statehood, 273,315; independence, 4,205.

The Legislative Assembly consists of a Senate and House of Representatives, whose members are elected by direct vote every 4 years. Eight senatorial districts elect two Senators each, and 40 representative districts one member each; also 11 Senators and 11 Representatives at large. Its Resident Commissioner in the U.S. Congress does not have a vote. Puerto Ricans were granted American citizenship under the Organic (or Jones) Act of 1917. They do not vote for President, unless they move to the U. S., where they come under local laws.

Executive power is vested in a governor elected by direct vote. There are 9 executive departments each headed by a secretary: State, Justice, Education, Health, Treasury, Labor, Agriculture, Commerce, and Public Works. The governor is Roberto Sanchez Vilella, elected Nov., 1964. The judiciary is vested in a Supreme Court and lower courts.

The Commonwealth's "Operation Bootstrap" program for economic development has radically raised the standard of living; per capita income for 1967 was \$1,047, up \$279 from 1963.

Puerto Rico derives its largest income from manufacturing, \$678,200,000 in 1967 (up \$66,000,000 from 1966). Products include textiles and apparel, electrical and electronic equipment, plastics and chemicals. The chemical products include pharmaceuticals, cosmetics, ammoniated super-phosphate,

ethylene glycol and potassium sulphate.

Agriculture is a large but declining source of income, valued at \$182,200,000 for 1967, down 1%. Income from dairy and livestock products has surpassed that from sugar. Also important are tobacco, coffee, pineapples, coconuts, fruits and garden truck. Sugar derivatives include rum and molasses.

Mineral production was valued at \$56,862,000 for 1967, up 12%. Cement accounted for almost half the total value.

Gross capital investment in 1966 reached \$754,000,000; gross product, 1967, \$3.4 billion, both up.

Off-island trade is chiefly with the United States.

	Imports	Exports
1966	\$1,659,400,000	\$1,154,000,000
1967	\$1,799,000,000	\$1,321,000,000

While migration to the U. S. mainland after 1945 varied from 28,000 to 45,000 annually, flow was reversed in 1963 when Puerto Ricans returning to the island exceeded those leaving by 5,479; in 1967 the flow to the mainland was greater by 26,553. These changes are mainly caused by employment conditions, mainland and Puerto Rican. Unemployment rate on the island is usually over 11%. Est. pop. July 1, 1967, was 2,697,000. About 765,000 of Puerto Rican origin live in N. Y. City.

San Juan, with its international airport and many resort hotels, is the center of the ever-growing tourist industry which, in 1967, attracted 819,000 visitors who spent some \$163,000,000.

Spanish is the official language but most persons also speak English. Public school education is free and compulsory at the elementary school level; English is taught as a language and is compulsory in all 8 grades. Chief religion is Roman Catholicism.

Puerto Rico (or Borinquen, after the original Indian name Boriquen) was discovered by Columbus, Nov. 19, 1493. Ponce de Leon conquered it for Spain, 1509, and established the first settlement at Caparra, across the bay from San Juan. Ruled by Spain until 1898, it was occupied by Maj. Gen. Nelson A. Miles in the Spanish-American war and ceded to the U. S. by the Treaty of Paris, Dec. 10, 1898.

Canal Zone and Panama Canal

For Panama Canal cargo traffic see Index.

The Canal Zone has been, in effect, a U. S. Government reservation. It is a strip of land extending 5 mi. on each side of the axis of the Panama Canal, under jurisdiction of the U. S. by treaty with the Republic of Panama.

In 1967 Panama and the U. S. jointly announced that agreement had been reached on 3 new treaties. The treaties, in part, would provide for the U. S. to relinquish its sovereignty over the Canal Zone, for operation of the Canal by a binational authority, for increased payments to Panama to come from tolls revenue, and for political integration of the Zone with Panama.

Another major treaty provision would give the U. S. an option to build a new, larger, sea-level canal in Panama. A U. S. commission is studying the feasibility of a route to the east of the present canal and alternate routes through northern Colombia and along the Nicaragua-Costa Rica border. The proposed new treaties were awaiting finalization.

Negotiations for the new treaties were launched

by U. S. President Johnson and Panama President Robles after Panamanian riots protesting the 1903 and 1955 treaties caused the deaths of 21 Panamanians and 3 U. S. soldiers, Jan. 9, 1964. (See *Panama* in *Index* for further developments.)

The canal connects the Caribbean with the Bay of Panama on the Pacific. Because of the geographic loop made by the Isthmus of Panama, the Caribbean end of the canal, which could be called the eastern end, is actually further west than the Pacific end.

The Zone has an area of 553 sq. mi. of which 371 are land. Est. pop., 1967, was 55,600.

The Canal Zone Government and the Panama Canal Co. are the two operating agencies, both headed by an individual who acts as Governor of the Canal Zone and President of the Company. The governor is appointed by the President of the U. S. As governor he reports directly to the Secy. of the Army. As president of the company he reports to the board of directors, appointed by the Secy. of the Army. The Canal Zone Government maintains civil government. The Company operates the Canal, the Panama Railroad and a ship between New Orleans and the Canal Zone.

A French syndicate under Ferdinand de Lesseps failed to complete a canal, 1880-89, and a second French company failed in 1899. The U. S. bought their rights and offered Colombia compensation for a canal zone, but Colombia failed to ratify the treaty Oct. 1903. Panama declared itself independent of Colombia Nov. 3, 1903, and was recognized by President Theodore Roosevelt Nov. 6. American naval forces discouraged action by Colombia. On Nov. 13 Panama granted the Canal strip to the U. S. by treaty, ratified Feb. 26, 1904, compensation \$10,000,000, with annual payments of \$250,000 after 9 years, and a guarantee of Panama independence.

Under terms of the 1903 treaty, Panama granted the U. S. perpetual sovereignty over the Canal Zone "to the entire exclusion of the exercise by the Republic of Panama of any such sovereign rights, power or authority."

The canal was opened to traffic Aug. 15, 1914. In 1922 Colombia accepted \$25,000,000 from the U. S. plus special land transportation privileges, and agreed to recognize Panama. The U. S. increased its annual payment to Panama to \$430,000 and withdrew its guarantee of independence, and agreed to bar all commercial enterprise with the Zone except that directly concerned with shipping.

A further treaty regulating relations between the U. S. and Panama was signed Jan. 25, 1955, increasing the annuity paid Panama to \$1,930,000. In addition, the U. S. gave Panama about \$28,000,000 worth of real estate and buildings no longer needed by the Canal Zone administration. U. S. citizen and non-citizen employees were guaranteed equality of pay and opportunity. In addition, the U. S. agreed to build the high level bridge over the Pacific entrance to the Canal, opened Oct. 12, 1962, as a link in the Inter-American Highway.

THE PANAMA CANAL

The Panama Canal is a lock and lake canal, crossing the Isthmus of Panama from the Caribbean Sea in a southeasterly direction to the Bay of Panama of the Pacific Ocean. It is 50 mi. long from deep water to deep water, at least 300 ft. wide at the bottom of excavated channels, 110 ft. wide in lock chambers, which have a usable length of 1,000 ft. Depth varies, but is not less than 41 ft. Average transit time is 8 hours.

Gatun Dam blocks the Chagres river near its Atlantic mouth, creating Gatun lake, 23 $\frac{1}{2}$ mi. long, 85 ft. above sea level, about 45 ft. deep. Ships ascend to the lake by locks and then pass through Gaillard (formerly Culebra) Cut, 8 mi.

Virgin Islands

CAPITAL: Charlotte Amalie, on St. Thomas Is. **AREA:** 133 sq. mi. **POPULATION:** (1960 Census), 31,904; (1968 est.) 60,000. **FLOWER:** Yellow Cedar.

The Virgin Islands of the United States, an unincorporated territory administered by the Interior Dept., lie to the E of Puerto Rico at the western end of the Lesser Antilles, 1,629 mi. SE of New York. There are about 100 islands in the Virgins, of which the western 65 belong to the U. S.; the remainder are the British Virgin Islands.

The three largest and most populous of the U. S. islands are St. Croix, St. Thomas and St. John. Formerly the Danish West Indies, the 65

islands were purchased by the U. S. from Denmark for \$25,000,000 (effective Mar. 31, 1917) for defense purposes. The islands were discovered by Columbus in 1493. About 80% of the population is of Negro descent.

Mean winter temperature is 78°; summer, 82°. Virgin Islands National Park occupies about three-fourths of St. John, smallest of the three principal islands.

The inhabitants have been citizens of the U. S. since 1927, but do not vote in U. S. elections. Legislation originates in a unicameral house of 15 senators, elected for 2 years. The Governor is appointed by the President of the U. S.

Tourism is the largest industry and is growing. Principal exports are watch movements, jewelry, rum, wool textile products, thermometers, bay rum.

Minor Caribbean Islands

The **Swan Islands** lie 97 mi. NE of Honduras; **Great Swan** is 2 mi. by $\frac{1}{2}$ mi. with pop. of 28 (1960 Census), chiefly employees of the U. S. Weather Bureau, which operates an upper-air observing station, and the Federal Aviation Administration, serving air navigation and communications functions; **Little Swan**, $1\frac{1}{2}$ by $\frac{1}{2}$ mi., is uninhabited. They are classified as unincorporated territory of the U. S.; they have also been claimed by Honduras.

The **Corn Islands**, consisting of **Great Corn** and **Little Corn**, lie 30 mi. off the SE coast of Nicaragua, have a pop. of 1,872 (1960 Census), were leased by the U. S. in 1914 from Nicaragua for 99 years.

Quita Sueno Bank, **Roncador Cay**, **Serrana Bank** and **Seranilla Bank** lie in the Caribbean between Nicaragua and Jamaica. They are uninhabited. Colombia also claims sovereignty over them, and Honduras claims ownership of Quita Sueno and Roncador.

Navassa lies between Jamaica and Haiti, covers about 2 sq. mi., is reserved by the U. S. for a lighthouse.

American Samoa

CAPITAL: Pago Pago. Island of Tutuila. **AREA:** 76 sq. mi. **POPULATION:** (1960 Census): 20,051; (1968 est.) 26,000.

Blessed with spectacular scenery and delightful South Seas climate, American Samoa is the most southerly of all lands under U. S. ownership. It is an unincorporated territory consisting of 6 small islands of the Samoan group: Tutuila (where Pago Pago, the capital, lies by a crescent bay beneath tall mountains), Aunu'u, the Manua Islands (Tau, Olosega and Ofu), and Rose. Also administered as part of American Samoa is Swain's Is., 210 mi. to the NW, acquired by the U. S. in 1925. The islands are 2,300 mi. SW of Hawaii.

American Samoa became U. S. territory by a treaty with the United Kingdom and Germany in 1899, confirmed by local chiefs in 1900 and 1904. Pago Pago had been a U. S. Navy coaling station under an 1872 commercial treaty.

Western Samoa, comprising the larger islands of the Samoan group, was a New Zealand mandate and UN Trusteeship until it became an independent nation Jan. 1, 1962. (See *Index*.)

Tutuila has an area of 52 sq. mi. Tau has an area of 17 sq. mi., and the islets of Ofu and Olosega 5 sq. mi., with a population of a few thousand. Swain's Island has nearly 2 sq. mi. and about 100 population. Highest peak is Lata, on Tau Is., 3,056 ft.

About 70% of the land is forest. Chief products and exports are fish products, copra and handicrafts. Taro, bread-fruit, yams, coconuts, pineapples, oranges and bananas also are produced.

Formerly under jurisdiction of the Navy, since July 1, 1951, it has been administered by the Interior Dept, which appoints a Governor and a Secretary. It has a bicameral legislature.

The American Samoans are of Polynesian origin. They are nationals of the U. S.

Educational television was started in Sept. 1964, and serves as the core of education in Samoa's public schools.

Wake, Midway, Other Islands

Wake Island, and its sister islands, **Wilkes** and **Peale**, lie in the Pacific Ocean on the direct route from Hawaii to Hong Kong, about 2,000 mi. W of Hawaii and 1,290 mi. E of Guam. The group is $4\frac{1}{2}$ mi. long, $1\frac{1}{2}$ mi. wide and totals about 3 sq. mi.

The United States flag was hoisted over Wake Island, July 4, 1898, by Gen. F. V. Greene, commanding Second Detachment, Philippine Expedition. Formal possession was taken Jan. 17, 1899; Wake is administered by the Federal Aviation Administration which provides civil and military air traffic control.

The Midway Islands, acquired in 1867, are a group of two, Sand and Eastern, in the North Pacific, 1,150 mi. NW of Hawaii, with area of about 2 sq. mi., administered by the Navy Dept.

Johnston Island, SW of Hawaii, and Kingman Reef, S of Hawaii, are under Navy control.

Howland, Jarvis and Baker Islands, south of the Hawaiian group, uninhabited since World War II, are under the Interior Dept.

Palmyra is an atoll SW of Hawaii, 4 sq. mi. until 1959 administered by Honolulu.

Certain islands taken from Japan in World War II were retained by the U. S. as possible military bases with the understanding they would eventually be returned to Japan.

On June 26, 1968, these islands were returned to Japanese control and administration. They included: the Bonin Islands, with an area of about 40 sq. mi., S of Japan; the Volcano Islands, S of the Bonins, including Iwo Jima (about 8 sq. mi.), scene of the famous World War II battle; Marcus Island, about 1 sq. mi., E of the Volcanoes.

The 1963 agreement provided that the U. S. would continue the use of Loran navigational stations on Iwo Jima and Marcus.

Ryukyu Islands (Okinawa)

The Ryukyu Islands, 73 in number, lie in an arc stretching SW from Japan toward Taiwan (Formosa), between the North Pacific and the East China Sea. They have an area of 848 sq. mi. and pop. (1967) of 952,000.

Okinawa, largest of the group, has an area of 454 sq. mi. and population of 746,742 (1966). Independent for centuries, they paid tribute to both China and Japan until they were annexed in 1874 by Japan.

Okinawa was taken by U. S. troops during World War II, June 21, 1945. Administration of the islands was vested in the U. S. by the Japanese peace treaty (1951), effective Apr. 28, 1952. The Ryukyus are an important American base. The nearby Daito Islands, also formerly Japanese, are included in the administrative area.

Naha, Okinawa, is the seat of the U. S. civil administration and of the local Ryukyuan government. Administration is carried out by a High Commissioner, responsible to the U. S. Secretary of Defense. The local Ryukyuan government has a popularly elected legislature, a chief executive elected since Nov. 1968 by popular vote (previously chosen by the legislature) and an independent judiciary.

High Commissioner: Lt. Gen. F. T. Unger; Civil Administrator: Stanley W. Carpenter; Chief Executive: Seiho Matsuoka.

Statements by U. S. officials have indicated that the islands eventually may revert to Japanese jurisdiction. Some of the islands, the Amami group, were returned to Japan in 1953.

Sugar, pineapples, vegetables, and marine products are the main exports.

Guam

CAPITAL: Agaña. **AREA:** 209 sq. mi. **POPULATION:** (1960 Census) 67,044; (1968 est.) 101,000.

Guam, the largest of the Mariana Islands, now an unincorporated territory, was ceded to the U. S. by Spain in the Treaty of Paris, Dec. 10, 1898. It is 30 mi. long and 4 to 8½ mi. wide. Distance from Manila, 1,499 mi.; from San Francisco, 5,053 mi. Mean annual temp. is 81°, average annual rainfall, July to September, 70 in. The island is volcanic and mountains rise 700 to 1,329 ft. Highest peak is Mt. Lamlam.

In March, 1967, President Johnson visited the island for talks with Vietnam advisers.

Magellan discovered the group of islands, Mar. 6, 1521, and called them the Ladrões (thieves). They were colonized in 1668 by Spanish missionaries who renamed them the Mariana Islands in honor of Maria Anna, queen of Spain.

When Spain ceded Guam to the U. S. it sold the other Marianas to Germany. Japan obtained a League of Nations mandate over the German islands in 1919; in Dec. 1941 it seized Guam; the island was retaken by the U. S. in July 1944. Guam is a base for both the Navy and Air Force.

Guam is under the jurisdiction of the Dept. of the Interior. It is administered under the Organic Act of 1950, which provides for a governor, named for 4 years by the President of the U. S., a 21-member unicameral legislature, elected biennially by the residents, who are American citizens but do not vote for President. Guamanians are of primarily Chamorro (Micronesian) stock.

School attendance is compulsory. There are a Territorial College and a vocational school. English is the official language. Chief religion is Roman Catholicism.

Principal products are fruits and vegetables; virtually all other commodities are imported. Except for metal scrap, there are virtually no exports.

Islands Under Trusteeship

CAROLINES, MARIANAS, MARSHALLS

The U. S. Trust Territory of the Pacific Islands includes 3 major archipelagoes: the Caroline Islands, Marshall Islands and Mariana Islands (except Guam: See above). There are 2,141 islands, 98 of them inhabited; land area total 687 sq. mi. but the islands are scattered over 3,000,000 sq. mi. of Micronesia in the western Pacific, N of the Equator and E of the Philippines. Total pop. (1967 est.) was 91,448.

In 1885, many of the islands were claimed by Germany. Others, held by Spain, were sold to Germany at the time of the Spanish-American War, 1898. After the outbreak of World War I, Japan took over the islands and, after the war, League of Nations mandates over them were awarded to Japan.

After World War II, the United Nations assigned them (1967) as a Trust Territory to be administered by the U. S. They are under administration of the U. S. Interior Dept.

Among the noted islands are: Saipan and Tinian in the Marianas, scene of a bitter engagement when they were taken by the U. S. from Japan in World War II; the former Japanese strongholds of Palau, Peleliu, Truk and Yap in the Carolines; Bikini and Eniwetok, where U. S. nuclear tests were staged, and Kwajalein, another World War II battle scene, all in the Marshalls.

Most of the islands are volcanic and picturesque, with luxuriant vegetation, but only a few are self-sustaining. Principal exports are copra, trochus shells, fish products, handicrafts and vegetables.

In 1967 U. S. President Johnson proposed that a plebiscite might be held in 1972 to allow the Micronesians to decide their future government. Opinion on the islands was divided on whether to seek independence or affiliation with the U. S. Islanders complained that some projects, such as schools, hospitals and roads, had been delayed or postponed by Federal economy measures.

Disputed Pacific Islands

In the central Pacific, S and SW of Hawaii, lie 25 islands and atolls claimed by the U. S.; 18 of them are also claimed by the United Kingdom, and 7 by New Zealand. All are S of the Equator with the exception of Christmas Island.

Those claimed by the U. K. are:

The Line Islands, S of Hawaii, including Christmas, Flint, Malden, Starbuck and Vostok Islands and Caroline Atoll; only Christmas is inhabited. All are administered by the U. K.

Also, the Phoenix Islands, SW of Hawaii, including Canton and Enderbury Islands and Birnie, Gardner, Hull, McKean, Sydney and Phoenix Atolls. All are inhabited and administered by the U. K. except for Canton and Enderbury which are uninhabited and are under joint U. S. and U. K. administration. A U. S. missile tracking station on Canton was discontinued in Dec. 1967.

Also, the Ellice Islands, further to the SW, including Funafuti, Nukufetau and Nukulalala Atolls and Nurakita; all inhabited and all administered by the U. K.

Those claimed by New Zealand are:

The Union (Tokelau) Islands, S of the Phoenix group, including Nukunono, Atafu and Fakaofu Atolls. All are inhabited and administered by New Zealand.

Also, the Northern Cook Islands, E of the Unions, including Danger, Manahiki, Rakahanga and Penrhyn (Tongareva) Atolls. All are inhabited and administered by New Zealand.

Origin of the Names of U. S. States

Source: State officials, and a study by John P. Harrington, Bureau of American Ethnology, Smithsonian Institution, Washington, D. C.

Alabama—Indian for tribal town, later tribe, of the Creek confederacy.

Alaska—Russian version of Aleutian (Eskimo) word for Alaska Peninsula.

Arizona—Spanish version of Pima Indian word for "little spring place," identified as in Arizona Creek.

Arkansas—French variant of Kansas, a Sioux Indian name for south wind people.

California—Bestowed by the Spanish Conquistadores, being the name of an imaginary island, near the earthly paradise, in "Las Serges de Esplandian," a romance of chivalry written by Montalvo, 1510. Baja California (Lower California, Mexico) was first penetrated 1533. The state later was Alta (Upper) California.

Colorado—Spanish, red, first applied to Colorado River.

Connecticut—From Mohican and other Algonquian words meaning "long river place."

Delaware—Lord De La Warre, first governor of Virginia Company, entered bay, 1610. Name first applied to river, then to Indian tribe and state.

District of Columbia—For Columbus, 1791.

Florida—Named by Ponce de Leon on Pascua Florida, feast of flowers, Easter Sunday, 1513.

Georgia—For King George II of England by James E. Oglethorpe, colonial administrator, 1732.

Hawaii—Possibly derived from native word for homeland.

Idaho—Shoshone derivation. State calls it "light on the mountains."

Illinois—French for Illini or land of Illini, Algonquian word meaning men or warriors.

Indiana—Named because Indians lived there.

Iowa—A Sioux word, meaning "one who puts to sleep."

Kansas—Sioux word for south wind people.

Kentucky—Wyandot word for plain, originally applied to Kentucky Plains, Clark County.

Louisiana—Part of territory called Louisiana by LaSalle for French King Louis XIV.

Maine—From Maine, ancient French province.

Maryland—For Queen Henrietta Maria, wife of Charles I of England.

Massachusetts—From Indian tribe named after "large hill place" identified by Capt. John Smith as near Milton, Mass.

Michigan—Alouet, 1672, makes it designate a clearing, but later writers mentioned Chippewa micigama, large water.

Minnesota—From Dakota Sioux word meaning "clouded or milky" water of Minnesota River.

Mississippi—Probably Chippewa: mishi, large; zibi, river. Tonti wrote it Michi Sepe.

Missouri—Algonquian word, "canoe haver," applied to tribe on river which received their name.

Montana—Latin for mountainous.

Nebraska—From Omaha Indian name for Platte River, both meaning flat.

Nevada—Spanish, meaning snow-clad.

New Hampshire—Named 1629 by Capt. John Mason of Plymouth Council for county in England.

New Jersey—The Duke of York, 1664, gave a patent to Lord John Berkeley and Sir Geo. Carteret to be called Nova Caesaria, or New Jersey.

New Mexico—Spaniards in Mexico applied term to land north and west of Rio Grande.

New York—For Duke of York and Albany who received patent to New Netherland from his brother Charles II and sent an expedition to capture it, 1664.

North Carolina—In 1629 Charles I gave a large patent to Sir Robt. Heath to be called Province

of Carolana, from Carolus, Latin name for Charles. A new patent was granted by Charles II to Earl of Clarendon and others. Divided into North and South Carolina, 1710.

North Dakota—Dakota is Sioux for friend or ally.

Ohio—Indian, great, applied to river.

Oklahoma—Choctaw coined word meaning red man, proposed by Rev. Allen Wright, Choctaw-speaking Indian.

Oregon—In 1765 Maj. Robert Rogers proposed to George III to seek Northwest Passage by travel from Great Lakes to "a river called by the Indians Ouragan." In 1772 he spelled it Ourigan. In 1778 his associate, Jonathan Carver, wrote of "River Oregon or River of the West." In 1817 William Cullen Bryant wrote "where rolls the Oregon." In 1822 Rep. John Floyd (Va.) proposed creation of Oregon Terr. Wauregan is Algonquian for beautiful water. Presumably Rogers and Carver meant the Columbia.

Pennsylvania—William Penn, the Quaker, who was made full proprietor by King Charles II in 1681, suggested Sylvania, or woodland, for his tract. The king's government owed Penn's father, Admiral William Penn, £16,000, and the land being granted in part settlement, the king added the name Penn to Sylvania, against the desires of the modest proprietor, in honor of the admiral.

Puerto Rico—Spanish for Rich Port.

Rhode Island—Red island, first named by Adrian Block because of its red clay. Roger Williams suggested Island of Rhodes. His settlement, Providence Plantations, was also used.

South Carolina—See North Carolina.

South Dakota—See North Dakota.

Tennessee—From 1784 to 1788 this was the State of Franklin, or Frankland. Tannasi was the name of Cherokee villages on the Little Tennessee river.

Texas—Variant of word used by Caddo and other Indians meaning friends or allies, and applied to them by the Spanish in eastern Texas. Also written texias, tejas, teysas.

Utah—From a Navajo word meaning upper, or higher up, as applied to a Shoshone tribe called Utes. Spanish form is Yutta, English Uta or Utah. Proposed name Deseret, "land of honeybees," from Book of Mormon, was rejected by Congress.

Vermont—From French words Vert, green, and Mont, mountain. The Green Mountains were said to have been named by Samuel de Champlain. The Green Mountain Boys were Gen. Stark's men in the Revolution. When the state was formed, 1777, Dr. Thos. Young suggested combining vert and mont into Vermont.

Virginia—Named by Sir Walter Raleigh, who fitted out the expedition of 1584, in honor of Queen Elizabeth, the Virgin Queen of England.

Washington—Named after George Washington. When the bill creating the Territory of Columbia was introduced in the 32nd Congress, the name was changed to Washington because of the existence of the District of Columbia.

West Virginia—So named when western counties of Virginia rejected secession, 1863.

Wisconsin—An Indian name, spelled Ouisconsin and Misconsin by early chroniclers. Means "grassy place" in Chippewa. Congress made it Wisconsin.

Wyoming—The word was taken from Wyoming Valley, Pa., which was the site of an Indian massacre and became widely known by Campbell's poem, Gertrude of Wyoming. In Algonquin it means "large prairie place."

ACCESSION OF TERRITORY BY THE UNITED STATES

Source: Statistical Abstract of the United States

Division	Yr.	Sq. mi. ¹	Division	Yr.	Sq. mi. ¹	Division	Yr.	Sq. mi. ¹
Total (1960)....		3,628,150	Texas.....	1845	390,144	American Samoa...	1900	76
United States....		3,615,211	Oregon.....	1846	285,580	Canal Zone ⁴	1904	553
Territory of 1790 ² ...		888,811	Michigan cession...	1848	529,017	Corn Islands.....	1914	4
Louisiana Purchase. 1803		827,192	Cadiz Purchase. 1853		29,640	Virgin Islands.....	1917	133
By treaty with			Alaska.....	1867	586,400	Trust Territory of		
Spain.....			Hawaii.....	1898	6,424	the Pacific Isl.....	1947	8,484
Florida.....	1819	58,560	The Philippines ³ ...	1898	116,000	All other ⁵		42
Other areas.....	1819	13,443	Puerto Rico.....	1899	3,435			
			Guam.....	1899	212			

¹Gross area (land and water). ²Includes drainage basin of Red River on the North, south of 49th parallel, sometimes considered a part of the Louisiana Purchase. ³Area not included in totals; became Republic of the Philippines July 4, 1946. ⁴Under U. S. jurisdiction by treaty with Panama. ⁵Leased from Nicaragua. ⁶See index for Outlying Areas, U. S.

States: Capitals, Settled, Entry into Union, Area, Rank

The Original Thirteen States—The 13 colonies that seceded from Great Britain and fought the War of Independence (American Revolution) became the 13 original states. They were Massachusetts, Rhode Island, Connecticut, New Hampshire, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina and Georgia.

State	Capital	Settled*	Entered Union	Extent in Miles Long	Wide	Area Land†	In square miles Inland water‡	Total†	Rank in Area
Ala.	Montgomery	1702	1819, Dec. 14	330	200	50,851	758	51,609	29
Alaska	Juneau	1784	1959, Jan. 3	(a) 900	800	566,432	19,980	586,412	1
Ariz.	Phoenix	1848	1912, Feb. 14	390	335	113,563	346	113,909	6
Ark.	Little Rock	1785	1836, June 15	275	240	52,175	929	53,104	27
Cal.	Sacramento	1769	1850, Sept. 9	770	375	156,537	2,156	158,693	2
Colo.	Denver	1858	1876, Aug. 1	390	270	103,797	450	104,247	8
Conn.	Hartford	1635	1788, Jan. 9	90	75	4,870	139	5,009	48
Del.	Dover	1638	1787, Dec. 7	110	35	1,983	74	2,057	49
Dist. Col.	Washington					61	6	67	51
Fla.	Tallahassee	1565	1845, Mar. 3	460	250	54,136	4,424	58,560	22
Ga.	Atlanta	1733	1788, Jan. 2	315	450	58,197	679	58,876	21
Hawaii	Honolulu		1959, Aug. 21			6,425	25	6,450	47
Idaho	Boise	1842	1890, July 3	490	305	82,677	880	83,557	13
Ill.	Springfield	1720	1818, Dec. 3	380	205	55,877	523	56,400	24
Ind.	Indianapolis	1733	1816, Dec. 11	265	180	36,189	102	36,291	38
Iowa	Des Moines	1788	1846, Dec. 28	300	210	56,043	247	56,290	25
Kan.	Topeka	1727	1861, Jan. 29	400	200	82,056	208	82,264	14
Ky.	Frankfort	1774	1792, June 1	350	175	39,851	544	40,395	37
La.	Baton Rouge	1699	1812, Apr. 30	280	275	45,155	3,368	48,523	31
Me.	Augusta	1624	1820, Mar. 15	235	205	30,933	2,282	33,215	39
Mid.	Annapolis	1634	1788, Apr. 28	200	120	9,888	689	10,577	42
Mass.	Boston	1620	1785, Feb. 6	190	110	7,833	424	8,257	45
Mich.	Lansing	1668	1837, Jan. 26	400	310	56,818	1,394	58,212	23
Minn.	St. Paul	1805	1858, May 11	400	350	79,275	4,790	84,068	12
Miss.	Jackson	1699	1817, Dec. 10	340	180	47,358	358	47,716	32
Mo.	Jefferson City	1764	1821, Aug. 10	300	280	69,046	640	69,686	19
Mont.	Helena	1809	1889, Nov. 8	580	315	145,603	1,535	147,138	4
Nebr.	Lincoln	1847	1867, Mar. 1	415	205	76,522	705	77,227	15
Nev.	Carson City	1850	1864, Oct. 31	485	315	109,889	651	110,540	7
N. H.	Concord	1623	1788, June 21	185	90	9,033	271	9,304	44
N. J.	Trenton	1664	1787, Dec. 18	160	70	7,532	304	7,836	46
N. M.	Santa Fe	1605	1912, Jan. 6	390	350	121,445	221	121,666	5
N. Y.	Albany	1614	1788, July 26	320	310	47,869	1,707	49,576	30
N. C.	Raleigh	1650	1789, Nov. 21	520	200	48,880	3,706	52,586	28
N. D.	Bismarck	1766	1889, Nov. 2	360	210	69,280	1,385	70,665	17
Ohio	Columbus	1793	1803, Mar. 1	390	205	41,108	41	41,149	33
Okl.	Oklahoma City	1889	1907, Nov. 16	585	210	68,984	835	69,819	18
Ore.	Salem	1811	1859, Feb. 14	375	290	96,209	772	96,981	10
Pa.	Harrisburg	1682	1787, Dec. 12	300	180	45,025	308	45,333	33
R. I.	Providence	1636	1790, May 29	50	35	1,049	165	1,214	50
S. C.	Columbia	1670	1788, May 23	285	215	30,280	775	31,055	40
S. D.	Pierre	1856	1889, Nov. 2	380	245	75,956	1,091	77,047	16
Tenn.	Nashville	1757	1796, June 1	430	120	41,367	877	42,244	34
Texas	Austin	1691	1845, Dec. 29	760	620	262,970	4,369	267,339	2
Utah	Salt Lake City	1847	1896, Jan. 4	455	275	82,381	2,535	84,916	11
Vt.	Montpelier	1724	1791, Mar. 4	165	90	9,274	335	9,609	43
Va.	Richmond	1607	1783, June 26	425	205	39,841	976	40,817	36
Wash.	Olympia	1811	1889, Nov. 11	340	230	66,663	1,529	68,192	20
W. Va.	Charleston	1727	1783, June 20	225	200	24,084	97	24,181	41
Wis.	Madison	1766	1848, May 29	300	290	54,464	1,690	56,154	26
Wyo.	Cheyenne	1834	1890, July 10	365	275	97,281	633	97,914	9

*First permanent settlement. †Revised 1967 by Geography Division, Bureau of the Census. (a) Aleutian Islands and Alexander Archipelago are not considered in these lengths.

Chronological List of Territories

Name of Territory	Date of Organic Act	Organic Act Effective	Admission as State	Yrs. Terr.
Northwest territory (a)	July 13, 1787	No fixed date	June 20, 1796	12
Territory south of Ohio River	May 26, 1790	No fixed date	Dec. 19, 1817	19
Mississippi	Apr. 7, 1798	When President acted	Dec. 11, 1816	16
Indiana	May 7, 1800	July 4, 1800	Mar. 1, 1803	2
Territory northwest of Ohio River	May 7, 1800	July 4, 1800	Apr. 8, 1812	2
Orleans	Mar. 26, 1804	Oct. 1, 1804	Jan. 26, 1837	31
Michigan	Jan. 11, 1805	June 30, 1805	Aug. 10, 1821	16
Louisiana-Missouri (c)	Mar. 3, 1805	July 4, 1805	Dec. 3, 1818	9
Illinois	Feb. 3, 1809	Mar. 1, 1809	Dec. 14, 1819	2
Alabama	Mar. 3, 1817	When Miss. became a State	June 15, 1836	17
Arkansas	Mar. 2, 1819	July 4, 1819	Mar. 3, 1845	23
Florida	Mar. 30, 1822	No fixed date		
Indian (organized 1834)*				
Wisconsin	Apr. 20, 1836	July 3, 1836	May 29, 1848	12
Iowa	June 12, 1838	July 3, 1838	Dec. 28, 1846	7
Oregon	Aug. 14, 1848	Date of act	Feb. 14, 1859	10
Minnesota	Mar. 3, 1849	Date of act	May 11, 1858	9
New Mexico	Sept. 9, 1850	On President's Proclamation	Jan. 6, 1912	61
Utah	Sept. 9, 1850	Date of act	Jan. 4, 1896	44
Washington	Mar. 2, 1853	Date of act	Nov. 11, 1889	36
Nebraska	May 30, 1854	Date of act	Feb. 9, 1867	12
Kansas	May 30, 1854	Date of act	Jan. 29, 1861	6
Colorado	Feb. 28, 1861	Date of act	Aug. 1, 1876	15
Nevada	Mar. 2, 1861	Date of act	Oct. 31, 1864	3
Dakota	Mar. 2, 1861	Date of act	Nov. 2, 1889	28
Arizona	Feb. 24, 1863	Date of act	Feb. 14, 1912	49
Idaho	Mar. 3, 1863	Date of act	July 3, 1890	27
Montana	May 26, 1864	Date of act	Nov. 8, 1889	25
Wyoming	July 25, 1868	When others were qualified	July 10, 1890	22
Oklahoma	May 2, 1890	Date of act	Nov. 16, 1907	17
Hawaii	Apr. 30, 1900	June 14, 1900	Aug. 21, 1959	59
Alaska	Aug. 24, 1912	Nov. 5, 1912	Jan. 3, 1959	47

(a) Included present Ohio, Indiana, Illinois, Michigan, Wisconsin, eastern Minnesota; (b) as the State of Tennessee; (c) as the State of Ohio; (d) as the State of Louisiana; (e) organic act for Missouri Territory of June 4, 1812, became effective Dec. 7, 1812.

*Indian Territory was set aside in 1834 for the 5 civilized Indian tribes—Cherokee, Choctaw, Chickasaw, Creek and Seminole. In 1839 part of it was included in the Territory of Oklahoma. In 1906 Indian Territory and the Territory of Oklahoma were merged to form the state of Oklahoma.

American Territorial Expansion

When the War of the Revolution ended the 13 original states—Massachusetts, Rhode Island, Connecticut, New Hampshire, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina and Georgia had a land and water area of 892,135 sq. mi., comprising New England, all land from Canada to Florida and from the Atlantic to the Mississippi. At the request of Congress (acting under the Articles of Confederation) the states gave their unorganized land to the Congress, which passed the Northwest Ordinance of 1787, and formed Northwest Terr., north of the Ohio river and another territory south of it.

France originally occupied and fortified a large area from Canada to the Gulf via the Great Lakes and the Mississippi, which it lost to Britain by the Treaty of 1763 after the French and Indian War. Britain yielded this territory to the U. S. by the Treaty of Paris, 1783. After fighting Indians and British in border campaigns, the U. S. took possession July 11, 1796.

LOUISIANA PURCHASE

The first accession to the United States was the Louisiana Purchase, 827,192 sq. mi. west of the Mississippi. This was held by Spain until ceded to France in 1800, with the proviso that it go back to Spain if France gave it up. In order to free navigation on the Mississippi President Jefferson sent James Monroe and Robert R. Livingston to Paris to buy the Isle of Orleans (New Orleans) and West Florida, for which Congress voted \$2,000,000. Napoleon, defeated in San Domingo, offered the vast Louisiana area. The treaty was signed Apr. 30, 1803; Congress ratified it in October; the U. S. took possession at New Orleans Dec. 20, 1803. The U. S. paid \$11,250,000 (60,000,000 francs), assumed claims of Americans against France, \$3,750,000. Total cost \$15,000,000.

Nobody knew the exact boundaries. After Mar. 10, 1804, the U. S. divided the Purchase into the Territory of Orleans, later the state of Louisiana, and the Territory of Louisiana. Included in the Purchase were the present state of Louisiana west to the Sabine River plus the port of New Orleans; the present areas of Arkansas, Missouri, Nebraska, Iowa and South Dakota; North Dakota except the northeast corner, held by Britain until the treaty of 1819; Minnesota west of the Mississippi; Kansas except a small part in the southwest; Oklahoma except the Panhandle no-man's-land; parts of Colorado and Montana. Sometimes Wyoming was claimed and the territory was thought to have run as far as the Pacific coast, but U. S., Britain, Spain and Russia had conflicting claims and settled them by treaty.

SPAIN GIVES UP FLORIDA

Spain, which still claimed East Florida and West Florida as far as Mobile, Ala., ceded all rights to the U. S. by treaty Feb. 22, 1819, ratified by Spain 1821. The U. S. gave up claims to an undetermined border in Texas and on the Rio Grande and assumed \$5,000,000 worth of Spanish obligations to Americans; total cost, \$6,674,057.

Spain, Britain, France and the Americans had fought in this territory. Spain's title was recognized in 1783. In 1810 the U. S. took possession of large areas along the Gulf, except Mobile, and West Florida declared itself independent and asked annexation. In 1814 Gen. Andrew Jackson took Pensacola from the British.

OREGON TERRITORY ORGANIZED

Organization of the Territory of Oregon in 1848 was not called an accession because the U. S. claimed title by (1) discovery and occupation; (2) a free interpretation of the Louisiana Purchase; (3) treaties with Spain, 1819, Great Britain, 1818, Russia, 1824. The northern boundary was settled by treaty with Britain in 1846.

The Territory extended from the crest of the Rockies to the Pacific coast, north of 42° N. Lat. and included the present states of Oregon, Washington, Idaho and parts of Montana and Wyoming.

ADMISSION OF TEXAS AS STATE

The third accession came when the Republic of Texas was admitted to the Union as a state, Dec. 29, 1845. This was part of a Mexican state settled by many U. S. citizens. Texas declared its independence in 1836, was recognized by the U. S. and applied for admission into the Union. It was bounded by the Rio Grande on the Southwest, and the Sabine, Red and Arkansas Rivers on the North and Northeast, and roughly comprised parts of present New Mexico, Colorado, Wyoming and a bit of Kansas as well as Texas of

today, 390,144 sq. mi. Today the state has 267,339 sq. mi. Texas had declared for slavery and its admission was opposed by anti-slavery men. Since a two-thirds majority of the Senate could not be attained it was admitted, Mar. 1, 1845, by a joint resolution of Congress, requiring only a majority of both houses. Texas ratified the agreement July 4, 1845.

Texas formally became a state Dec. 29, 1845. Congress gave Texas the right to divide itself into as many as five states "of convenient size" and sufficient population, at its own discretion. The Lone Star flag of the republic has been retained as the state flag of Texas. It can be flown by the side of the Stars and Stripes, but not above it.

TERRITORY FROM MEXICO

At the end of the Mexican War the U. S. and Mexico signed the treaty of Guadalupe-Hidalgo, Feb. 2, 1848, which gave the fourth large accession of territory. This included the present states of Arizona, New Mexico, California, Nevada, Utah, and Colorado west of the Rockies. The Gila river was a boundary line. The U. S. paid \$15,000,000 to Mexico and assumed claims of U. S. citizens against Mexico. The claim of Texas to part of New Mexico territory was settled in 1850 by paying Texas \$10,000,000. Interest increased both totals.

Inexact boundaries and agitation by railroad men for the Gila river valley to build the Southern Pacific led President Franklin Pierce to send James Gadsden as ambassador to Mexico to negotiate concessions of land. Gadsden got the Mexican dictator, Santa Anna, to yield 29,640 sq. mi. for \$10,000,000 in 1853. This made the Rio Grande the boundary line on the South and the Colorado river on the West.

ALASKA FROM RUSSIA

Russia, which operated Alaska as a fur and fishing station at a loss, first offered to sell it during President Pierce's administration, about 1856. President Buchanan wanted to pay \$5,000,000 for it in 1860. Secy. Seward, an expansionist, signed a treaty with Baron Stoeckl, Russian minister, Mar. 30, 1867, to buy it for \$7,200,000. Senate ratified it Apr. 9, 1867, and it was transferred to U. S. at Sitka Oct. 18, 1867, before it had been paid for. The House, by 113 to 43, appropriated the money July 14, 1868. The legend that the U. S. bought Alaska to repay Russia for checkmating Britain during the Civil War is without foundation.

ACQUISITION OF HAWAII

A British naval officer seized the kingdom of Hawaii, 1843, but was disavowed. Britain and France recognized its independent status 1843. France seized it, 1849, but restored it at once. In 1851 the King offered it to the U. S.; Danl. Webster, Secy. of State, refused it. Annexation was urged, 1854, but rejected. A reciprocity treaty with U. S., 1875, increased trade; it was renewed 1884 to include lease of Pearl Harbor as naval base. Jas. G. Blaine, Secy. of State, in 1881 had practically extended Monroe Doctrine to Hawaii. After revolution, 1893 (with American connivance) the republic, 1894, asked annexation. U. S. voted this July 7, 1898, effective Aug. 12, 1898, and assumed a national debt of \$4,000,000.

ISLANDS FROM SPAIN

After the 1898 war with Spain, Spain by treaty of Dec. 10, 1898, ceded Puerto Rico, Guam and the Philippine islands for \$20,000,000. An additional \$100,000 was paid later for islands of the Philippines not in the original treaty. Puerto Rico is a free commonwealth electing its own executives. Guam is administered by the Dept. of the Interior. The Philippine Islands received their independence July 4, 1946, as the Republic of the Philippines.

PACIFIC AND CARIBBEAN

American Samoa in the Pacific. Port of Pago Pago was ceded 1872. Tutuila and other islands ceded to U. S. by convention with Great Britain and Germany, Dec. 2, 1899. Swain's Isl. annexed 1925. Dept. of the Interior.

Wake annexed Jan. 17, 1899, from Spain. Midway Islands (Sand Isl., Eastern Isl.) occupied Sept. 30, 1867, Under Navy Dept.

Baker Island, discovered 1832, U. S. since 1857. Also Jarvis, and Howland. Under Interior Dept.

Virgin Islands in the Caribbean, the former Danish West Indies, comprising St. Croix, St. Thomas, St. John and islets, bought from Denmark Jan. 25, 1917, for \$25,000,000.

Panama Canal Zone, acquired from the Republic of Panama.

Public Lands of the United States

Source: Bureau of Land Management, U. S. Dept. of the Interior
Acquisition of the Public Domain 1781-1867

Acquisition	Area* (In acres)	Land	Water	Total	Cost†
State Cessions (1781-1802)		233,415,680	3,409,920	236,825,600	\$86,200,000
Louisiana Purchase (1803)		524,140,100	6,485,280	529,911,680	23,213,568
Red River Basin‡		29,066,880	535,040	29,601,920	
Cession from Spain (1819)		43,342,720	2,801,920	46,144,640	6,674,057
Oregon Compromise (1846)		180,644,180	2,741,760	183,386,240	
Mexican Cession (1848)		334,479,360	4,201,600	338,680,960	16,295,149
Purchase from Texas (1850)		78,842,880	87,840	78,926,720	15,196,148
Gadsden Purchase (1853)		18,961,920	26,880	18,988,800	10,000,000
Alaska Purchase (1867)		365,481,600	9,814,400	375,296,000	7,200,000
Total		1,807,681,920	30,080,640	1,837,762,560	\$85,079,222

*All areas except Alaska were computed in 1912, and have not been adjusted for the recomputation of the area of the United States which was made for the 1950 Decennial Census.

†Cost data for all except "State Cessions" obtained from U. S. Geological Survey.

‡Paid by Federal Government for Georgia Cession, 1802 (56,689,920 acres).

§Excludes areas eliminated by Treaty of 1819 with Spain.

¶Basin of the Red River of the North, south of the 49th parallel.

Disposition of Public Lands 1781 to 1967 (In acres)

Disposition by methods not elsewhere classified¹	301,800,000	Granted to States for:	
Granted or sold to homesteaders	287,300,000	Support of common schools	77,600,000
Granted to railroad corporations	94,300,000	Reclamation of swampland	64,900,000
Granted to veterans as military bounties	61,000,000	Construction of railroads	37,100,000
Confirmed as private land claims²	34,000,000	Support of misc. institutions³	21,500,000
Sold under timber and stone law⁴	13,900,000	Purposes not elsewhere classified⁵	18,700,000
Granted or sold under timber culture law⁴	10,900,000	Canals and rivers	6,100,000
Sold under desert land law⁵	10,600,000	Construction of wagon roads	3,400,000
		Total granted to States	229,300,000
		Grand Total	1,041,400,000

¹Chiefly public, private, and preemption sales, but includes mineral entries, script locations, sales of townships and townlots.

²The Government has confirmed title to lands claimed under valid grants made by foreign governments prior to the acquisition of the public domain by the United States.

³The law provided for the sale of lands valuable for timber or stone and unfit for cultivation.

⁴The law provided for the granting of public lands to settlers on condition that they plant and cultivate trees on the lands granted. Payments for the lands was permitted under certain conditions.

⁵The law provided for the sale of arid agricultural public lands to settlers who irrigate them and bring them under cultivation.

⁶Universities, hospitals, asylums, etc.

⁷For construction of various public improvements (individual items not specified in the granting act), reclamation of desert lands, construction of water reservoirs, etc.

Land Owned by Federal Government (In acres)

Agency (June 30, 1966)	Public Domain	Acquired	Total
U.S. Park Service	18,275,875.8	4,653,886.1	22,929,561.9
Bureau of Land Management	477,587,634.8	2,425,291.5	480,012,926.3
Forest Service	160,209,839.1	26,261,681.3	186,471,520.4
Fish & Wildlife	23,935,589.7	3,178,682.9	27,114,272.6
Bureau of Indian Affairs	4,204,692.7	3,700,552.7	4,935,245.4
Bureau of Reclamation	7,283,455.5	1,733,579.4	9,017,034.9
Atomic Energy Commission	1,432,167.8	719,977.4	2,152,145.0
Army	7,270,675.0	4,181,804.0	11,452,479.0
Air Force	6,958,174.0	1,669,893.0	8,628,067.0
Navy	2,259,597.5	1,367,467.5	3,657,065.0
Corps of Engineers	866,697.5	5,868,246.9	6,734,944.4
Other Agencies	506,910.7	1,149,975.9	1,656,886.6
Total	710,821,289.9	53,940,838.6	764,762,128.5

The Homestead Act; Sale of Public Land

The Homestead Act became effective Jan. 1, 1863, the same day that President Lincoln issued his Emancipation Proclamation. Its purpose was to open the vacant lands of America's vast public domain to agricultural settlement.

To qualify for a homestead a person had to be a citizen of the United States or express his intention of becoming one, be over 21 years of age or the head of a household, and own less than 160 acres of land.

To acquire title to 160 acres of public land the homesteader had to establish residence on the land and bring a portion under cultivation. After 6 months residence he could purchase the land for \$1.25 per acre, or after 5 years residence he could acquire title for a \$15 filing fee.

Originally passed by Congress on May 20, 1862, the Homestead Act was later amended to increase acreage limitations under certain conditions. Under the Homestead Act and its several amendments, more than a million families received title to over 248,000,000 acres of public land across the plains, prairies and mountains of western United States. But as subsequent waves of settlers moved onto vacant land the supply of arable land dwindled; by the late 1930s some homesteaders had settled on submarginal lands that would not support a farm family. In 1937 Congress passed the Bankhead-Jones Act authorizing the Government to

repurchase bankrupt farms to relieve the plight of such families. Under this program about 2,000,000 acres of homestead land was returned to Federal ownership.

Alaska is the last frontier for the homesteader, but with statehood most of that State's potential farm land has been acquired by the State under terms of the Alaskan Homestead Act.

By the time of its 100th anniversary the Homestead Act had accomplished its purpose—the transformation of a wilderness into productive farm-land. Now outdated, the Homestead Act will always be a part of the American heritage.

PUBLIC LAND SALE

From time to time the Bureau of Land Management sells public land to private individuals. Public land is always sold for its fair market value as determined by public auction. The Federal Government offers no free land. Persons wishing to purchase public land should contact the Bureau of Land Management, Washington, D. C. 20240, or one of the Bureau's Land Offices in the public land states.

The Bureau stresses that it is the only authoritative source of information on the sale of land under its jurisdiction. No person or firm outside of Government is authorized to dispense information regarding public land sales.

Confederate States and Secession, 1861-1865

The American Civil War, 1861-1865, grew out of sectional disputes over the employment of slavery in the South and the contention of southern legislators that the states retained many sovereign rights, including the right to secede from the Union.

The principal product of the South was cotton, harvested by slave labor. For 50 years Northern leaders had been trying to curtail slavery, but were checkmated in Congress by Southern legislators. Extreme partisans in the North, who demanded the immediate end of slavery for moral reasons, were called Abolitionists.

The Southern states argued that the U. S. Constitution was a contract between sovereign states, which could withdraw (secede) when state rights were violated. This has led Southern historians to call the Civil War the War Between the States. Actually the war was not fought by state against state but by one federal regime against another, the Confederate government in Richmond assuming control over the economic, political and military life of the South, under protest from Georgia and South Carolina.

The Census of 1860 gave the United States a population of 31,443,321. This included 487,690 free Negroes and 3,953,780 Negro slaves.

Earlier acts against slavery included the **Missouri Compromise of 1820** which admitted Missouri as a slave state but prohibited slavery in the Louisiana Terr. N of Arkansas; the **Compromise of 1850**, which admitted California as a free state, omitted action on slavery in organizing Utah and New Mexico as territories, ended slave trade in Dist. of Columbia, amended Fugitive Slave Act to punish any who aided a fugitive and abolished trial by jury for fugitive; **Kansas-Nebraska Act, 1854**, which left choice of slavery in Kansas and Nebraska to residents there. (Squatter sovereignty)

Harriet Beecher Stowe's *Uncle Tom's Cabin*, 1851-52, intensified feeling against slavery.

Tension increased when the Supreme Court ruled Mar. 6, 1857, that Dred Scott, a Negro, did not become free when taken to a free state and did not have rights as a citizen; also that the Missouri compromise on slavery was unconstitutional.

John Brown's attempt to arm slaves at Harpers Ferry, Oct. 16-18, 1859, inflamed partisans.

Abraham Lincoln's stand for free soil (no slavery) in new states and territories, and his general condemnation of slavery, caused Southern fanatics to threaten secession if he were elected. When Sen. Stephen A. Douglas split the Democratic party by his stand against secession, Lincoln's election was assured. Even before inauguration Lincoln had Sen. Wm. H. Seward (N. Y.) offer a resolution that the Constitution never be altered to interfere with slavery where established, that the Fugitive Slave Law be amended to include trial by jury, that all states repeal laws contrary to the Constitution.

SECESSION OF STATES

South Carolina voted an ordinance of secession from the Union, repealing its 1788 ratification of the U. S. Constitution, Dec. 20, 1860, proclaimed in effect Dec. 24. Other states seceding in 1861 and their votes in convention were:

Mississippi, Jan. 9, 1861 by 84 to 15

Florida, Jan. 10, 1861, by 62 to 7

Alabama, Jan. 11, 1861, by 61 to 39

Georgia, Jan. 19, 1861, by 208 to 89

Louisiana, Jan. 26, 1861, by 113 to 17

Texas, Feb. 1, 1861, by 166 to 7, ratified by popular vote Feb. 23, 1861; for secession, 34,794; against 11,235.

Virginia had delayed action, but when President Lincoln called for troops after Sumter fell it voted for secession April 17, 1861, by 88 to 55, ratified by popular vote May 23, 1861; for secession, 128,884; against, 32,134.

Arkansas, May 6, 1861, by 69 to 1.

North Carolina, May 21, 1861, voted secession but refused by two-thirds vote to submit it to people for ratification.

Tennessee, May 7, 1861, entered a military league with the Confederacy; popular vote, June 8, for secession, 104,019; against 47,238.

Missouri Unionists stopped secession in the convention at Jefferson City Feb. 28 and at the second session in St. Louis Mar. 9. The legislature condemned secession Mar. 7. Under the protection of Confederate troops secessionist members of the legislature adopted a resolution of secession at Neesho, Oct. 31, 1861. The Confederate Congress seated representatives.

Kentucky did not secede and its government remained Unionist. In a part occupied by Confederate troops Kentuckians passed an act of secession and the Confederate Congress admitted representatives.

Maryland legislature voted against secession Apr. 27, 53 to 13. Delaware did not secede. Western Virginia held conventions at Wheeling, named a pro-Union governor June 11, 1861; admitted to Union as West Virginia June 20, 1863; its constitution provided for gradual abolition of slavery.

CONFEDERATE GOVERNMENT

Forty-two delegates from South Carolina, Georgia, Alabama, Mississippi, Louisiana and Florida met in convention at Montgomery, Ala., Feb. 4, 1861. Howell Cobb of Georgia was chosen to preside. On Feb. 6 delegates from North Carolina arrived to plead in vain for conciliation. The first delegate from Texas came Feb. 13. The congress adopted a provisional constitution of the Confederate States of America Feb. 8, 1861, and on the next day elected Jefferson Davis (Miss.), provisional president, and Alexander H. Stephens (Ga.), provisional vice president. Davis was inducted into office at Montgomery, Feb. 18, 1861.

A permanent constitution was adopted Mar. 11, 1861. It provided that the president should be elected for a single term of 6 years and abolished the African slave trade. The congress moved to Richmond, Va., July 20, 1861. Jefferson Davis was elected president, October, 1861, inaugurated Feb. 22, 1862.

Jefferson Davis (1808-1889) was a West Point graduate, 1828; served in Black Hawk and Mexican wars; Senator from Mississippi, 1847-1851; Secretary of War, 1853-1857; Senator, 1857-1861.

The congress adopted a flag, consisting of a red field with a white stripe in the middle third, and a blue jack with a circle of white stars, going two-thirds of the way down the flag. This flag was unfurled in Montgomery Mar. 4, 1861. Later the more popular flag was the red field with blue diagonal cross bars that held 13 white stars, designed by Gen. P. G. T. Beauregard.

Nicknames of the States

Aloha State—Hawaii

Badger State—Wisc.

Bay State—Mass.*

Beaver State—Ore.

Beef State—Nebr.*

Beehive State—Utah

Blue Grass State—Ky.

Buckeye State—Ohio

Centennial State—Colo.

Constitution State—Conn.*

Cornhusker State—Nebr.*

Cotton State—Ala.*

Coyote State—S.D.*

Diamond State—Del.*

Empire State—N.Y.

Empire State of the South—Ga.*

Equality State—Wyoming

Evergreen State—Wash.

First State—Del.*

Flieckertall State—N.D.*

Free State—Md.*

Garden State—N.J.

Gem State—Idaho

Golden State—Calif.

Gopher State—Minn.*

Grand Canyon—Ariz.

Granite State—N.H.

Green Mountain State—Vt.

Hawkeye State—Iowa

Heart of Dixie—Ala.*

Hoosier State—Ind.

Keystone State—Pa.

Land of Enchantment—N.M.

Land of Opportunity—Ark.

Little Rhody—R.I.

Lone Star State—Texas

Magnolia State—Miss

Mountain State—W.Va.

North Star State—Minn.*

Nutmeg State—Conn.*

Old Colony—Mass.*

Old Dominion—Va.

Old Line State—Md.*

Old North State—N.C.*

Palmtoe State—S.C.

Peach State—Ga.*

Pelican State—La.

Pine Tree State—Me.

Prairie State—Ill.

Sagebrush State—Nev.*

Show Me State—Mo.

Silver State—Nev.*

Sioux State—N.D.*

Sooner State—Okla.

Sunflower State—Kans.

Sunshine State—Fla.

Sunshine State—S.D.*

Tar Heel State—N.C.*

Treasure State—Mont.

Volunteer State—Tenn.

Wolverine State—Mich.

Yellowhammer State—Ala.*

*States with more than one nickname.

National Parks and Other Units of the National Park System

Source: National Park Service

The year is that of creation of the park; figures in parentheses show Federal land acres.

NATIONAL PARKS

Acadia, 1919, Maine (32,264)—The group of granite mountains upon Mount Desert Island, also Schoodic Point on mainland.

Big Bend, 1944, Texas (706,538) on Rio Grande.

Bryce Canyon, 1928, Southwestern Utah (36,010)—By canyon filled with countless array of fantastically eroded pinnacles of vivid coloring.

Canyonlands, 1964, Southeastern Utah (257,640)—at junction of the Colorado and Green rivers.

Carlsbad Caverns, 1930, Southeastern New Mexico (46,433)—Stupendous caverns not yet wholly explored, limestone decorations.

Crater Lake, 1902, Southwestern Oregon (160,290)—Lake of extraordinary blue in crater of extinct volcano. Sides 500 to 2,000 feet high.

Everglades, 1947, Southern Florida (1,325,895)—Portion of only subtropical area in the United States; extensive watercourses; abundant bird life.

Glacier, 1910, Northwestern Montana (1,010,936)—Rugged mountain region of great beauty; more than 200 glacier-fed lakes, 60 small glaciers.

Precipitous thousands of feet deep.

Grand Canyon, 1919, North Central Arizona (673,203)—vast and picturesque example of erosion with spectacular color effects.

Grand Teton, 1928, Northwestern Wyoming (303,174)—Includes most spectacular portion of Teton Mountains, an uplift of unusual grandeur.

Great Smoky Mountains, 1930, North Carolina and Tennessee (512,655)—Massive mountain uplift; magnificent forests.

Guadalupe Mountains, 1966, Texas (19,640).

Haleakala, 1961 Hawaii (17,130)—Huge dormant volcano on the island of Maui.

Hawaii Volcanoes, 1916, Hawaii (201,007)—Interesting volcanic areas—Kilauea and Mauna Loa, active volcanoes on the island of Hawaii.

Hot Springs, 1921, Middle Arkansas (1,035)—Hot Springs said to have therapeutic value. Bathhouses under Government supervision.

Isle Royale, 1940, Michigan (539,341)—Largest island in Lake Superior; rugged forested wilderness.

Kings Canyon, 1940, Middle Eastern California (459,468)—Sierra wilderness with numerous peaks 13,000 to 14,000 feet high; park also contains groves of giant sequoias.

Lassen Volcanic, 1916, Northern California (106,277)—Only recently active volcano in United States proper. Lassen Peak, 10,453 feet; Cinder Cone, 6,913 feet; hot springs; mud geysers.

Mammoth Cave, 1936, Southwestern Kentucky (51,351)—Series of caverns including spectacular onyx cave formation. Became nationally known in the war of 1812 when saltpeter from the cave was used in making gunpowder.

Mesa Verde, 1906, Southwestern Colorado (51,525)—Most notable and best preserved prehistoric cliff dwellings in the United States.

Mount McKinley, 1917, South Central Alaska (1,939,493)—Highest mountain in North America; caribou, Dall sheep, and other unusual wildlife.

Mount Rainier, 1899, West Central Washington (241,781)—Greatest peak-glacial system in the United States; radiating from the summit and slopes of an ancient volcano; dense forests.

Olympic, 1938, Northwest Washington (888,927)—Notable as finest remnant of the Pacific Northwest forests, including the famous "rain forests," and for its numerous glaciers; also as the summer feeding ground for the rare Roosevelt Elk.

Petrified Forest, 1962, Arizona (94,189).

Platt, 1906, Southern Oklahoma (912)—Numerous cold mineral springs.

Rocky Mountain, 1915, North Middle Colorado (260,591)—Heart of the Rockies, snowy range, peaks 11,000 to 14,255 feet altitude. Remarkable records of glacial period.

Sequoia, 1890, Middle Eastern California (385,413)—Great groves of giant sequoias, world's largest and probably oldest living things; magnificent High Sierra scenery, including Mount Whitney, highest mountain in United States proper.

Shenandoah, 1935, in Northern Virginia (193,533)—Outstanding scenic section of the Blue Ridge Mts.

Virgin Islands, 1956, V. I. (1,055).

Wind Cave, 1903, Southwestern South Dakota (28,059). Limestone caverns having galleries containing peculiar formations. Buffalo herd.

Yellowstone, 1872, Northwestern Wyoming, Southwestern Montana, and Northeastern Idaho (2,213,207)—More geysers than in all rest of world together. Boiling springs; mud volcanoes; petrified forests. Grand Canyon of the Yellowstone, remarkable for gorgeous coloring. Large lakes; many large streams and waterfalls. Wild animal herds.

Yosemite, 1890, Middle Eastern California (759,080)—Mountainous region of unusual beauty; Yosemite and other inspiring gorges; many waterfalls of extraordinary height; 3 groves of giant sequoias.

Zion, 1919, Southwestern Utah (136,271)—Magnificent gorge (Zion Canyon), depth from 1,500 to 2,500 feet, with precipitous walls.

NATIONAL HISTORICAL PARKS

Appomattox Court House, 1954, Virginia (937), **Chalmerte, 1939, Louisiana (141)**—Site of Battle of New Orleans, Jan. 8, 1815.

City of Refuge, 1961, Hawaii (181)—Until 1819, vanquished Hawaiian warriors, noncombatants, and taboo breakers found sanctuary here.

Colonial, 1936, Virginia (7,205)—Includes most of Jamestown Isl., the first permanent English settlement in America; historic Yorktown; the parkway connecting these and other Colonial sites with Colonial Williamsburg and Cape Henry Memorial.

Cumberland Gap, 1955, Ky., Tenn., Va. (20,169)—Wilderness Road Crossing, used by pioneers.

George Rogers Clark, 1966, Indiana (17) Commemorates the winning of the northwest.

Harpers Ferry, 1963, West Virginia-Maryland (1,280). Site of important events of Colonial times and of the famous John Brown raid.

Independence, 1956, Philadelphia, Pa. (16)—Scene of adoption of the Declaration of Independence, meeting place of the Continental Congress and of the Constitutional Convention of 1787; Federal Capital, 1790 to 1800.

Minute Man, 1959, Massachusetts (435)—Tract of natural setting where, on April 19, 1775, British troops retreating from Battles of Lexington and Concord were fired on by Colonial Minute Men.

Morristown, 1933, New Jersey (1,215)—Sites of important military encampments during the Revolution; Washington's Headquarters, 1779-80.

Nez Perce, 1965, Idaho (83), a group of 22 sites. **San Juan Island, 1966, Wash., 1859** Canadian agreement.

Saratoga, 1948, New York (2,432)—Scene of the American victory over the British General Burgoyne, 1777; turning point of the Revolution.

NATIONAL MILITARY PARKS

Chickamauga-Chatanooga (8,190) Ga., Tenn. **Fort Donelson (197) Dover, Tenn.**

Fredericksburg & Spotsylvania Co., Battlefields Memorial Va., (2,546) Va.

Gettysburg (3,277) Pa. **Gulford Courthouse (221) Greensboro, N. C.**

Horseshoe Bend (2,040) Tallapoosa County, Ala. **Kings Mountain (3,550) S. C.**

Moore Creek (42) Currie, N. C. **Pea Ridge (4,279) Arkansas.**

Shiloh (3,511) Pittsburg Landing, Tenn. **Vicksburg (1,543) Miss.**

NATIONAL BATTLEFIELDS

Big Hole (536) Montana. **Fort Necessity (352) SE of Uniontown, Pa.** **Petersburg (1,523) Virginia.**

Stones River (331) Murfreesboro, Tenn. **Tupelo (1) Miss.**

NATIONAL BATTLEFIELD SITES

Antietam (781), Sharpsburg, Md. **Bears Cross Roads (1), Bethany, Miss.** **Cowpens (1), near Gaffney, S. C.**

NATIONAL BATTLEFIELD PARKS

Kennesaw Mountain, 1947, Georgia, (2,883)—Commemorates the Battle of Kennesaw Mountain, a major battle of Sherman's flanking movement during the Atlanta Campaign.

Manassas, 1946, Virginia (2,541). Site of Bull Run and Manassas battles.

Richmond, 1944, Virginia (747)—Scene of battles in defense of Richmond during Civil War.

Wilson's Creek, 1965, Missouri (1,008) Site of early battles in Civil War to determine control of Missouri.

NATIONAL RECREATIONAL AREAS

Amistad, Texas (43,559); Arbuckle, Okla. (5,646); Bighorn (57,810) Wyo.-Mont.; Coulee Dam, Wash. (95,500); Curecanti, Colo. (41,103); Delaware Water Gap, Pa.-N. J. (4,801); Flaming Gorge, Utah-Wyo. (84,412); Glen Canyon, Ariz.-Utah (1,174,970); Lake Mead, Ariz.-Nev. (1,910,319); Sanford, Tex. (41,097); Shadow Mountain, Colo. (15,540); Whiskeytown-Shasta-Trinity, Calif. (18,194).

NATIONAL SEASHORE

Assateague Island (1,063) Md.-Va.; Cape Cod (16,645) Mass.; Cape Hatteras (28,500) N. C.; Cape Lookout, N. C.; Fire Island (2,158) N. Y.; Padre Island (133,840) Texas; and Point Reyes (32,217) Calif.

NATIONAL PARKWAYS

Baltimore-Washington, Md.-D. C. (2,490) 39 ml. **Blue Ridge, Va., N.C. (70,173)** follows Blue Ridge Mountains. Length when completed 469 miles.

George Washington Memorial (6,119) along Maryland and Virginia shores of the Potomac River. Length, when completed, 49 miles.

Natchez Trace (36,720) follows old Indian trail between Nashville, Tenn., and Natchez, Miss. Length, when completed, 450 miles.

Saultland, Md.-D. C. (731).

NATIONAL MONUMENTS

Name	State	Area in acres	Name	State	Area in acres
Agate Fossil Beds (nr. Scottsbluff)	Nebr.	1,970	Glacier Bay	Alaska	2,803,522
Alibates Flint Quarries	Texas	500	Grand Canyon	Ariz.	193,019
Archaeol.	Utah	34,010	Grand Portage	Minn.	594
Aztec Ruins	N. M.	27	Gran Quivira	N. M.	611
Badlands	S. D.	104,355	Great Sand Dunes	Colo.	35,530
Bandelier	N. M.	29,661	Homestead	Nebr.	153
Black Canyon of the Gunnison	Colo.	13,150	Hovenweep	Utah-Colo.	505
Booker T. Washington	Va.	218	Jewel Cave	S. D.	1,275
Buck Island Reef	Virgin Isl.	839	Joshua Tree	Calif.	511,580
Cabrillo	Calif.	81	Katmai	Alaska	2,697,590
Canyon de Chelly	Ariz.	83,840	Lava Beds	Calif.	46,239
Capitol Reef	Utah	37,906	Lehman Caves	Nev.	640
Capulin Mountain	N. M.	680	Montezuma Castle	Ariz.	783
Casa Grande Ruins	Ariz.	473	Mound City Group	Ohio	68
Castillo de San Marcos	Fla.	20	Muir Woods	Calif.	484
Castle Clinton	N. Y.	1	Natural Bridges	Utah	7,126
Cedar Breaks	Utah	6,155	Navajo	Ariz.	360
Chaco Canyon	N. M.	20,989	Ocmulgee	Ga.	683
Channel Islands	Calif.	18,167	Oregon Caves	Oreg.	480
Cheapeake and Ohio Canal	Md.-W. Va.	4,477	Organ Pipe Cactus	Ariz.	328,691
Chiricahua	Ariz.	10,561	Pecos	N. M.	341
Colorado	Colo.	17,311	Perry's Victory Memorial	Ohio	21
Craters of the Moon	Idaho	53,545	Pinnacles	Calif.	13,618
Custer Battlefield	Mont.	765	Pipe Spring	Ariz.	40
Death Valley	Calif.-Nev.	1,882,999	Pipestone	Minn.	276
Devils Postpile	Calif.	798	Rainbow Bridge	Utah	160
Devils Tower	Wyo.	1,267	Russell Cave	Alabama	310
Dinosaur	Utah-Colo.	197,265	Saguaro	Ariz.	76,188
Effigy Mounds	Iowa	1,374	Saint Croix	Maine	4
El Morro	N. M.	960	Scotts Bluff	Nebr.	2,208
Fort Frederica	Ga.	210	Sitka	Alaska	54
Fort Jefferson	Fla.	47,125	Statue of Liberty	N. Y.	58
Fort Matanzas	Fla.	299	Sunset Crater	Ariz.	3,040
Fort McHenry	Md.	43	Timpanogus Cave	Utah	250
Fort Pulaski	Ga.	5,364	Tonto	Ariz.	1,120
Fort Stanwix	N. Y.	18	Tumacacori	Ariz.	10
Fort Sumter	S. C.	34	Tuzigoot	Ariz.	43
Fort Union	N. M.	721	Walnut Canyon	Ariz.	1,642
George Washington Birthplace	Va.	184	White Sands, destroyed by Spaniards, 1565	N. M.	140,247
George Washington Carver	Mo.	210	Wupatki	Ariz.	35,233
Gila Cliff Dwellings	N. M.	533	Yuca House	Colo.	10

NATIONAL HISTORIC SITES AND MEMORIALS

(Acres in parentheses)

HISTORIC SITES

Abraham Lincoln Birthplace, Hodgenville, Ky. (117).
 Adams House, Quincy, Mass. (5). Home of Presidents John and John Quincy Adams.
 Allegheny Portage RR, (Penn. Canal) Pa. (838).
 Andrew Johnson, Greenville, Tenn. (17).
 Ansley Wilcox House, Buffalo, N. Y. (1) Teddy Roosevelt took oath 1901.
 Bent's Old Fort near La Junta, Colo. (178).
 Christiansted Virgin Islands (27). Commemorates colonial development of the Virgin Islands.
 Edison Home, West Orange, N. J. (20).
 Eisenhower Home, Gettysburg, Pa. (230).
 Fort Bowie, Ariz. (900).
 Fort Davis, Texas (447).
 Fort Laramie, Wyo. (563).
 Fort Larned, Kan. (403).
 Fort Raleigh, N. C. (140). First attempted English settlement.
 Fort Smith, Ark. (13).
 Fort Union Trading Post, N. D.-Mont. (49).
 Fort Vancouver, Wash. (89).
 Franklin D. Roosevelt Birthplace, Hyde Park, N. Y. (186). The library is administered by the Archivist of the United States.
 Golden Spike, (Utah) (908) linking of railroad tracks joining east and west about 31 miles NE of Brigham City.
 Hampton, Md., Georgian mansion, 1783 (45).
 Herbert Hoover, West Branch, Iowa (12).
 Hopewell Village, Pa. (848). Early iron-making.
 Hubbell Trading Post, Ariz. (156).
 Jefferson Memorial, Mo. (85). Commemorates national expansion.
 John F. Kennedy birthplace, Brookline, Mass. (69).
 John Muir, Martinez, Calif. (9).
 Pennsylvania Avenue, Washington, D. C.
 Sagamore Hill, Oyster Bay, Long Island, N. Y. (85). Home of Theodore Roosevelt.
 St. Gaudens, Cornish, N. H. (83) home of sculptor Augustus St. Gaudens.
 St. Thomas, Virgin Islands (2). Includes Fort Christian, oldest standing structure in the Virgin Islands.
 Salem Maritime, Mass. (9).
 San Juan, Puerto Rico (38). Ancient Spanish fortifications.
 Theodore Roosevelt Birthplace, (11) 28 E. 20 St., New York City.
 Vanderbilt Mansion, near Hyde Park, N. Y. (212). With arboretum.
 Whitman Mission, Washington (98).

NATIONAL MEMORIAL PARK

Theodore Roosevelt, 1947, North Dakota (69,351) —Badlands along Little Missouri River; part of Theodore Roosevelt's Elkhorn Ranch.

MEMORIALS

Arkansas Post, Ark. (221) First white settlement in lower Mississippi Valley.
 Chamizal, Tex. (55) Twin memorials, Mexico and Texas.
 Coronado, Ariz. (2,834). Route of Spaniards, 16th century.
 Custis-Lee Mansion, Arlington, Va. (3) Antebellum home of Robert E. Lee.
 De Soto, Fla. (25). Commemorates 16th-century explorer.
 Federal Hall, Nassau and Wall Sts., New York City (45). First seat of U.S. Government.
 Ellis Island, N. Y. (12). French settlement in Florida, 1564 destroyed by Spaniards, 1565.
 Fort Clatsop, Oregon (125).
 Frederick Douglass home, Wash., D. C. (8).
 General Grant (Grant's Tomb) New York City. (76).
 Hamilton Grange, New York City (71).
 House where President Lincoln died, Washington, D. C. (65).
 Johnstown Flood, Pa. (55).
 Lincoln Boyhood in Indiana (128).
 Lincoln Memorial, Washington, D. C. (164). Classical monument with statue.
 Lincoln Museum, Washington, D. C. (18). Ford theatre where Lincoln was shot.
 Mount Rushmore, S. D. (1,246). Colossal profiles of 4 Presidents.
 Roger Williams, R. I. (5).
 Thomas Jefferson Memorial, Washington, D. C. (18). Classical circular colonnade.
 Washington Monument, Washington, D. C. (106). Obelisk commemorates first President.
 Wright Brothers, N. C. (330). Site of first motor-propelled airplane's flight.

Not Owned by Federal Government

Chicago Portage, Ill. (91).
 Chimney Rock, Nebr. (83).
 Dorchester Hgts., Mass. (5).
 Fort Scott, Kansas (24).
 Jamestown, Va. (21).
 McLoughlin House, Ore. (1).
 St. Paul's Church, N. Y. C. (6).
 San Jose Mission, Tex. (4).
 Touro Synagogue, R. I. (23).

NATIONAL LAKESHORES

Indiana Dunes, near Mich. City, Indiana (94).
 Pictured Rocks, Munising, Mich.

NATIONAL CAPITAL PARKS

National Capital Parks total 7,978 acres—comprises 727 units in the District of Columbia and vicinity.

GREAT CITIES OF NORTH AMERICA

Their History, Business and Industry, Educational Facilities, Cultural Advantages, Tourist Attractions and Transportation

Akron, Ohio

The World Almanac is sponsored in the Akron area by the Akron Beacon Journal, 44 E. Exchange St., Akron, Ohio 44309; telephone (216) 253-1111; founded 1809 by Hiram Bowen; circulation daily 176,656, Sunday 202,221; president & editor, John S. Knight; executive editor & publisher, Ben Maidenburg; general manager, Sam McKeel.

Akron, "The Rubber Capital of the World," is on the Ohio Canal and Big and Little Cuyahoga Rivers 30 miles south of Lake Erie in northeastern Ohio, and covers 56 sq. mi. within the 413-sq. mi. metropolitan Akron area of Summit County.

Founder was Gen. Simon Perkins, who served in the area during the War of 1812. He returned after the war and began to acquire vast areas of the wilderness.

In 1825 the Legislature authorized construction of the Ohio Canal from Lake Erie to Portsmouth on the Ohio River, with 17 locks to be built in a two-mile stretch all owned by Gen. Perkins. Workers and tradesmen poured in and Gen. Perkins started a town; the plat was recorded Dec. 1825.

The name, Akron, comes from the classical Greek and means "High Point"; 395 ft. above Lake Erie, it is the highest point on the Ohio Canal. Incorporated as a city Jan. 21, 1865, it is Ohio's 5th largest, est. population 299,341. It has a mayor-manager charter government.

Growth of the rubber industry in Akron can be traced to Nov. 1870, when an eastern physician, Dr. Benjamin Franklin Goodrich, enticed by a booster pamphlet, arrived in town. With \$16,000 pledged by local townspeople, he opened a small, two-story building on the site of the present B. F. Goodrich complex and started making fire hoses and beer tubing.

Many earlier firms have passed out of existence, but home offices and plants of 4 of the world's 5 largest rubber firms—Goodrich, Goodyear, Firestone and General—employ 45,000 Akronites.

With 113 motor freight carriers and 58 contract carriers located here, Akron is the largest trucking center in the nation, as well as home of the Quaker Oats Co., one of the world's largest cereal manufacturing firms. Other Akron-produced products include automobile bodies and wheel rims, fishing tackle, matches, salt,

clay products, rubber toys, batteries, synthetic rubber, road-building machinery and missile components.

Two airports, Akron Municipal and Akron-Canton, handle more than 60 jet and propeller plane flights daily through four airlines, and six railroads serve the city through two passenger stations. Greyhound bus lines averages 73 daily arrivals and departures through the city. Akron Municipal Airport is the site of the Goodyear Zeppelin Dock, one of the largest buildings without interior supports.

Also in the Akron Airport vicinity are Derby Downs, home of the All-American Soap Box Derby, and a 36,000-seat municipal stadium, "The Rubber Bowl," home of the University of Akron Zips.

Another well-known sports center in Akron is the Firestone Country Club, home of the American Golf Classic, World Series of Golf, and twice since 1960 site of the PGA championship.

One of the nation's top cultural attractions is Akron's Stan Hywet, the former baronial mansion of F. A. Seiberling, founder of the Goodyear and Seiberling Rubber Cos.

The city is the seat of the University of Akron. Other points of interest include the Akron Art Institute, the Goodyear Rubber Exhibit in Goodyear Hall, and the Akron Children's Zoo.

Urban renewal and downtown revitalization are the theme of multi-million dollar construction projects now under way. There are plans for \$13,000,000 private construction in the business district.

Specialized information may be obtained from the Area Development Committee, First National Tower, Akron, Ohio 44308, and the Akron Area Chamber of Commerce, Delaware Building, Akron, Ohio 44308.

Atlanta, Georgia

Atlanta is the capital of Georgia, largest state in area east of the Mississippi, and is the center of the first metropolitan statistical area in the Southeast to reach 1,000,000 population (1966 U. S. Census). The U. S. Census estimates rank Metropolitan Atlanta, with 1,258,000, as the 21st such area in population in the nation. Atlanta is the county seat of Fulton. The metro area includes Fulton, Clayton, Cobb, DeKalb and Gwinnett Counties.

Financial, manufacturing, industrial and communications center of the region, Atlanta also is a transportation hub. It has the nation's fourth busiest airport, 7 airlines, 7 bus lines and 13 rail lines. Six legs of 3 Federal Interstate Highways converge at an interchange behind the State Capitol, itself a symbol of the Midas-touched economy. The Capitol dome is covered with gold leaf beaten from nuggets donated by citizens of Dahlonega, in northern Georgia, once the site of a U. S. mint and where gold may still be panned.

Diversity of manufacturing keeps the economy stable. Over 1,650 manufacturers produce more than 3,500 commodities, in-

cluding automobiles, aircraft, textiles, chemicals, furniture, food, iron and steel. Annual retail sales exceed \$2.3 billion.

Atlanta's first official marker was the Zero Mile Post of 1850, marking the Southeastern terminus of the Western and Atlantic Railroad. Not far away, the original 1837 surveyor's stake had been pounded to connect the Western and Atlantic with the Georgia Railroad and the Central of Georgia. There grew a settlement appropriately called Terminus. Incorporated in 1843 and named Marthasville after Gov. Wilson Lumpkin's youngest daughter, the city's name was changed to Atlanta Dec. 26, 1845. One theory is that the word Atlanta was the feminine of Atlantic.

At the time of its incorporation, the city's limits extended one mile in all directions from the area of the Zero Mile Post. In almost the same spot today towers the First National Bank Building at Five Points, still the center of the city. A block away begins famous Peachtree Street.

Situated on the Piedmont Plateau of the Blue Ridge Mountains' foothills, Atlanta has an altitude of 1,050 feet with a

7-month casual living season stretching from April through October.

Nearby Stone Mountain, looming 630 feet above a surrounding memorial park, is the largest piece of exposed granite in the world. On one side are carved likenesses of 3 colossal figures of the Confederacy—Robert E. Lee, Stonewall Jackson and Jefferson Davis. At the park is the detailed diorama and map of Georgia depicting Union Gen. William Tecumseh Sherman's sweep through Georgia.

As a U. S. Army lieutenant, Sherman was stationed near Atlanta for 6 weeks in 1864, when he had an opportunity to study the area's terrain. Twenty years later, as Gen. Sherman, he came back to capture Atlanta in September, 1864. He burned most of it to the ground before his March to the Sea.

For the same reasons Sherman militarily had to destroy this key point of the Confederacy—transportation, communications, commerce—Atlanta grew again. In New York City in 1866 Henry Woodfin Grady, editor of the Atlanta Constitution, made his famous New South speech, which urged the putting aside of hate and slavery and predicted the glowing future to come. In his audience was Sherman.

Symbolically Atlanta's official seal, adopted in 1877, is the phoenix, fabled bird that rose from the ashes to begin a new life. The city government is administered by a mayor and aldermen.

With the world's largest Bell System

toll-free dialing area, one of the world's largest television installations, one of the nation's 5 TV-radio control centers and the South's largest Sunday newspaper in circulation, Atlanta is a vital communications center.

Atlanta has extensive hospital, medical research and educational facilities. It is national headquarters of the Communicable Disease Center of the U. S. Public Health Service.

Recreational and cultural facilities include a regional amusement park, Six Flags Over Georgia; the multimillion dollar Atlanta Sports Stadium, home of the baseball Braves (National League), Falcons (National Football League), and Chiefs (North American Soccer Assn.). Also in Atlanta are the Hawks (National Basketball Assn.).

The Memorial Arts Center encompasses the Atlanta Symphony Orchestra, Atlanta Ballet, Opera Company and Repertory Theatre, and the High Museum of Art, where some of the famous Kress collection of Renaissance paintings hang. Another point of interest is the Cyclorama, huge circular painting of the Battle of Atlanta. The \$10,000,000 Civic Center, auditorium-exhibition hall complex, offers 70,000 sq. ft. of exhibit space.

Among institutions of higher learning are the Georgia Institute of Technology, Georgia State College, Emory University, Agnes Scott College, Oglethorpe College and the Atlanta University Complex.

Baltimore, Maryland

The World Almanac is sponsored in the Baltimore area by the Baltimore News-American, 301 E. Lombard St., Baltimore, Md. 21203; telephone 752-1212; founded Aug. 20, 1773, as The Maryland Journal and Baltimore Advertiser, merged with Baltimore News founded Nov. 2, 1872, adopted present name Jan. 13, 1964; circulation daily 219,580, Sunday 318,425; publisher, Mark F. Collins; executive editor, Sterling Noel; managing editor, Thomas J. White; business manager, W. Melvin Street; winner American Medical Association award and Albert Lasker Medical award; sponsors 1 Am an American Day parade, Teen-Age Fair, Old Newsboys' Day, Hole-in-one golf tournament.

Baltimore City is the core of a metropolitan area extending into 4 adjacent counties (Baltimore, Anne Arundel, Harford and Howard) which covers 2,259 square miles and has 2,035,700 inhabitants. The city itself has a population of 912,500 (June, 1968, estimate) and includes 92 sq. mi., 13 of which are water-covered.

Important to the city's development has been that it is a seaport 50 to 200 miles nearer the Midwest than other North Atlantic ports. Alone among Atlantic ports, it has two routes to the sea: by way of Chesapeake Bay, and through the Chesapeake and Delaware Canal.

The port has 45 miles of waterfront, a 42-foot channel, and handles some 45,000,000 tons of freight per year. Leading imports are ores, steel and bananas. Baltimore is the leading receiver of foreign autos. It has 3 trunk line railroads and over 150 certified truck transport lines. Truck and auto tourist traffic are aided by a twin-tube tunnel through the city under the Patapsco River. Friendship International Airport, used by 11 major airlines, is 15 minutes from downtown Baltimore.

Industries are highly diversified, with none dominating the city's economy. Among the most important are shipbuilding and repairing, steel fabricating, manufacture of electrical equipment and food containers, processing of foods, sugar, petroleum, chemicals and copper. Research and development activities, chiefly in the fields of aerospace, bioscience, oceanography, chemistry, metallurgy and

electronics are carried on by 122 firms employing 90,700 persons.

Sixteen colleges offering 4-year courses and 6 junior colleges are in the Baltimore area. Johns Hopkins University and the University of Maryland each has two campuses, including a large hospital, at Baltimore. Among other educational institutions are Goucher, Morgan State, Loyola, Towson State, Mt. St. Agnes and Western Maryland colleges, the University of Baltimore and the Maryland Institute. Other cultural facilities include the Baltimore Art Museum, Walters Art Gallery, Baltimore Symphony Orchestra, Baltimore Civic Opera, Center Stage Theater and the Enoch Pratt Free Library.

A downtown renewal project, begun in 1958, cleared 32 acres of the central business section and erected on the site a Civic Center, office buildings, a hotel and the Morris A. Mechanic Theater. Another project, to include a World Trade Building, office buildings, apartment houses and a marina is now under way.

In sports, Baltimore is the home of the Orioles (baseball), the Colts (football), the Bullets (basketball), the Bays (soccer), and the Clippers (ice hockey). Pimlico race track, where the famous Preakness race is held annually, is within the city limits. Two other mile tracks and two half-mile tracks are nearby, including Laurel where the Inter. Race is held.

An outstanding tourist attraction is Fort McHenry, which withstood 25 hours of bombardment from British ships during the War of 1812, during which Francis

Scott Key, a Maryland lawyer who was held captive on a British ship, wrote "The Star-Spangled Banner." His original manuscript is at the Maryland Historical Society building in Baltimore and the fort is a National Shrine and Historic Museum.

Among other places of historic interest are the first architectural monument erected to George Washington, the U. S. frigate Constellation, the Baltimore and Ohio Railroad Museum at Mt. Clare, first passenger railroad station in the country, and the Peale Museum building. The grave of Edgar Allan Poe is in Westminster Church yard, and the city in 1968 purchased as a memorial the house in which baseball star Babe Ruth was born.

Baltimore was founded in 1729 by an act of the Provincial Assembly of the Maryland colony which was established by members of the Calvert family, Barons of Baltimore. Its early economy was based largely on trans-Atlantic and coastal shipment of tobacco, grain and flour and on shipbuilding. By the time of the Revolution it was an important port which sent

privateers that harassed British shipping. In the War of 1812, similar activities caused the British to term Baltimore a "nest of pirates" and to try to capture the city by land and sea attacks. Both were repulsed.

After this war, Baltimore's economic growth was threatened by New York's completion of the Erie Canal and the city's business leaders countered by building the nation's first railroad, the Baltimore and Ohio. During the Civil War the sympathies of Baltimoreans were sharply divided, and the war's first blood was shed when a mob attacked Union troops who were marching from one railroad station to another en route to protect Washington. Though Maryland did not secede, Federal troops occupied Baltimore for 5 years.

Much of downtown Baltimore was destroyed by fire in 1904. No lives were lost and the rebuilding resulted in improvements to the area which, though great, have been far surpassed by the accomplishments of the last 10 years.

Birmingham, Alabama

The World Almanac is sponsored in the Birmingham area by the Birmingham Post-Herald, 2200 Fourth Ave., North, Birmingham, Alabama 35202; telephone (205) 323-5381; Post founded Jan. 21, 1921, by Scripps-Howard Newspapers; Herald founded 1887 by W. P. Pinckard, Rufus N. Rhodes and Frank P. O'Brien; circulation 82,230; editor, Duard Le Grand; vice president W. H. Metz; managing editor, George Cook; major public service projects include Goodfellow Christmas Fund and Alabama Favorite Teacher Selection.

Birmingham, situated in the north central portion of Alabama, is the state's largest city and one of the world's youngest major cities. It is located in Jones Valley, named for the family that settled the area in the early 1800s. Between its incorporation on December 19, 1871, and the turn of the century, Birmingham acquired the name "Magic City" for its rapid growth rate.

Overlooking Birmingham from nearby Red Mountain is Vulcan, the mythical god of the forge, in a cast iron statue that is second only to the Statue of Liberty in size. Vulcan symbolizes the reason for Birmingham's rapid growth into a metropolis, the iron and steel industry, which expanded quickly because of the availability of the three basic elements of iron making—ore, coal and lime—in the area. The related mining industry also grew rapidly, but has now declined because of the relatively low grade of ore and the scarcity of new coal seams. Most ore used locally is now imported from rich fields in South America.

The city is still a heavy manufacturing center. U. S. Steel Corporation has its southern headquarters in Fairfield, a suburb, and a large Republic Steel Corporation mill is in Birmingham. Dozens of other plants manufacture steel and iron products.

For the past two decades, however, Birmingham has been involved in a switch from blue to white collar workers. A focal point of the change is the sprawling University of Alabama Medical Center a few blocks south of the downtown business area. At the end of a current expansion, the Medical Center will encompass 60 square blocks with nearly a dozen hospitals, research facilities, related businesses and the University of Alabama in Birmingham's College of General Studies. The Medical Center is now the second largest employer in the Birmingham area, ranking behind U. S. Steel.

Birmingham has a population of 340,887 (1960 census), and a 3-county metropolitan area of almost a million. It is sur-

rounded by 35 municipalities within Jefferson County.

Birmingham has been the scene of major civil rights incidents, starting with the Mother's Day "freedom riders" disturbance of 1961 and mostly ending by the time 16th Street Baptist Church was bombed, killing 4 Negro girls on Sept. 15, 1963. There has been little racial trouble since that time, largely because of policies established by a new mayor and 9-member city council voted in to replace the old 3-man city commission. The new government took office in 1963, has been more moderate on the racial issue, and is leading the city in its biggest building boom in 40 years. Birmingham's skyline, with only about 4 new, large buildings added since 1925, is now undergoing a major change, with 3 new skyscrapers under construction. Among them is the multi-million dollar headquarters for South Central Bell Telephone Company, formed in 1968 from the Southern Bell area.

Now in the planning stages is a civic center, already funded by new taxes, which will cost more than \$25,000,000 and will include a coliseum, theater, music hall and exhibit hall. The complex is due to be finished by the beginning of the city's centennial year, December, 1971.

In addition to the University of Alabama complex, Birmingham has 6 colleges and universities—Samford University, Birmingham-Southern College, Miles College, Daniel Payne College and Wenhatch and Jefferson State Junior Colleges.

The city's Municipal Airport, served by 4 major airlines, is due to undergo expansion in the near future. A recent \$12,500,000 bond issue was approved to expand the modern terminal, completed in 1961, and the runway system. Birmingham is also served by 13 railroads, and the two interstate highways due to serve the city are under construction, I-59 and I-65.

Specialized information may be obtained from the Birmingham Area Chamber of Commerce, 1914 Sixth Avenue North.

Boston, Massachusetts

The World Almanac is sponsored in the Boston area by the Boston Herald-Traveler, 300 Harrison Ave., Boston, Mass. 02106; telephone (617) 426-3000; Traveler founded 1825, Herald 1846, consolidated July 10, 1967; daily circulation, 216,000, Sunday, 301,000; chairman of the board, George E. Akerson; president and publisher, Harold E. Clancy; executive editor, Eugene J. Moriarty; editor, John R. Herbert; major awards include four Pulitzer Prizes for editorial writing (to Herald staff members), two for photography (to Traveler staff members); sponsors Herald Traveler Charity Fund, Repertory of Classical Drama and Festival of Music.

Boston, founded in 1630 by a company of Puritans under the leadership of John Winthrop and incorporated as a city Feb. 23, 1822, has been known variously as The Hub and the Athens of America; more recently, as a result of broad programs of urban renewal and a quickening of civic interest, commercial and cultural, as The New Boston.

It is the capital city of the Commonwealth of Massachusetts, with the Governor's Office and the Senate and House of the Legislature (officially the Great and General Court) meeting in the historic Bulfinch State House with its striking gold-sheathed dome.

Boston itself is governed by a Mayor and 9-man City Council, elected at large in non-partisan elections, the Mayor for a 4-yr. term, councilmen for two-yr. terms. A 5-member school committee directs the public school system, with an enrollment of 90,000, the members also elected at large on a non-partisan basis for two-yr. terms.

The city has a population of 616,326 (1965 state census), its standard metropolitan area a population of 2,605,452. Recent years have seen a steady drop in the population of the city proper, a corresponding rise in the residential suburbs.

City planners hope to arrest that trend with construction of high and middle income apartment complexes, such as Charles River Park, overlooking the river and Cambridge, and along the historic waterfront.

The city's unhappy experience with massive low-income housing has brought a change of thinking in that field, with new emphasis on smaller projections and rehabilitation of existing properties.

Beacon Hill, so evocative of London, had been declared a historical district to preserve it from drastic or startling change.

Renewal has had its biggest impact downtown, where a new glass-and-concrete government center now stands in what was the old honky tonk area of Scollay Square.

In the Back Bay, there is the Prudential Center, with its 52-story tower rising from a complex of low-rise buildings which includes a new War Memorial Auditorium.

A terminus for three major railroads, the New York, New Haven & Hartford, the Penn Central (Boston & Albany) and the Boston & Maine, the city in recent years has become a center of experiments in mass transportation.

The Massachusetts Bay Transportation Authority was established by the Legislature to take over operation of the deficit-plagued municipal transportation network of subways and surface lines and to extend service to a total of 78 cities and towns.

To keep the railroad commuter lines in operation, the MBTA is paying the deficits incurred in operations of the B&M and the New Haven which service more than 20,000 riders from the suburbs daily.

The city is also served by Logan International Airport, on 2,200 acres of "made" land in Boston Harbor, and by 18 major airlines.

In 1967, the field handled 178,446 domestic and international flights, carrying a total of 6,691,246 passengers. With completion of new terminals now under construction or in design in 1972, the field expects to handle 22,000,000 to 25,000,000 passengers annually, with parking for 12,000 cars.

Boston is the world's leading wholesale wool market, has a thriving shoe manufacturing industry and lands annually a fish catch valued at more than \$10,000,000.

Major corporations based in or near the city include Raytheon, General Electric, Gillette Co., Prudential Insurance Co. of North America and John Hancock Mutual Life Insurance Co.

Boston is a major medical center, with such institutions as Massachusetts General Hospital, Children's Hospital Medical Center and Peter Bent Brigham Hospital, and Harvard, Boston University and Tufts Medical Schools. It ranks third in the country in the number of persons employed in the field of medicine.

Today, there are 52 colleges and universities in the immediate area of the city, among them Harvard, Massachusetts Institute of Technology, Tufts, Boston College, Boston University, Northeastern University, Radcliffe, Wellesley, Jackson, Simmons, Emmanuel, Regis, Brandeis, Wentworth Institute, Emerson College and a new campus of the University of Massachusetts.

The city's museums and cultural activities reflect the broad range of intellectual interest which runs back to Emerson, Thoreau, Hawthorne and Parkman.

They include the Boston Museum of Fine Arts, the Museum of Science, a new aquarium on the waterfront, the Isabella Stewart Gardner Museum, the Museum of Contemporary Art.

Cultural activities include the Boston Symphony, the Pops Concerts in the spring, those on the Esplanade in early summer, a Winterfest and a Christmas Festival which sees thousands of lights sparkling on Boston Common.

Places of historical interest include Paul Revere's House, Park Street Church at "Brimstone Corner" on the Common, Old Granary Burying Ground, King's Chapel, Old South Meeting House, the Old State House, the Old North Church of Paul Revere fame, Copp's Hill Burying Ground.

Among the famous churches are Trinity in Copley Square, the Mother Church of Christian Science in the Back Bay, Holy Cross Cathedral in the South End. The Boston Public Library in Copley Square is considered one of the finest examples of Italian Renaissance architecture.

Professional sports is represented by the Red Sox, 1967 American League baseball champions; the Celtics (National Basketball Association); the Bruins (National Hockey League); the Patriots (American Football League); and by the Beacons (North American Soccer League).

The city is served by 6 television stations, four VHF and two UHF, and a number of radio stations.

Buffalo, New York

The World Almanac is sponsored in the Buffalo area by the Courier-Express, 785 Main St., Buffalo, N. Y. 14240; telephone (716) 852-5353; founded June 14, 1926, as a merger of the Courier and the Express by William J. Conners, Sr. circulation morning 154,165, Sunday 311,112; publisher, William J. Conners, III; asst. to publisher, Howard W. Clother; gen. mgr., A. Gordon Bennett; business mgr., Richard C. Lyons, Jr.; sponsors hole-in-one tournament, learn to swim program, ski school, Goodfellows.

Buffalo, the hub of the "Niagara Frontier," is located in Western New York at the end of Lake Erie and the beginning of the Niagara River. The first white settlers came to the area then called New Amsterdam in 1784. The British and hostile Indians burned the settlement of 1,500 in 1813. It was rebuilt and incorporated as the Village of Buffalo in 1816. With the opening of the Erie Canal in 1825, Buffalo's growth began as the village became the transfer point of immigration and commerce for the movement to the west. Buffalo was chartered as a city in 1832 when the population reached 10,000.

The city now operates under the mayoral form of government with the mayor being elected every four years. The Buffalo Metropolitan area, referred to as the Niagara Frontier, consists of Erie and Niagara counties and ranks 16th in metropolitan population in the nation (1965 Census Bureau estimate). The City of Buffalo itself, according to a special 1966 U. S. Census, has a population of 481,453 with Erie County, in which the city is located, having 1,087,183. The Niagara county portion of the metropolitan area including the City of Niagara Falls, has a population of 234,477 (1967 special census).

The Niagara Frontier trade market has 1,300,000 population with an annual income of \$3.5 billion. Some 55% of the U. S. population and two-thirds of the Canadian population live within a 500-mile radius.

With ample hydro-electric power from Niagara Falls augmented by the Niagara Power Project, industry on the Niagara Frontier has flourished. The area has over 2,000 manufacturing firms representing 99% of all major categories listed by the Census Bureau. Corporations with headquarters in the area include National Gypsum, Carborundum, Hooker Chemical, Trico Products and Houdaille Industries.

The Niagara Frontier is a research center of growing importance with 115 research operations. It is the home of Textron's Bell Aerosystems Co., Cornell Aeronautical Laboratory, the Western New York Nuclear Research Center on the campus of the State Univ. at Buffalo.

The city's flour milling and grain distribution facilities are among the world's largest, with 27 grain elevators having a total storage capacity of 51,915,000 bushels. In 1967, Buffalo had retail sales estimated at \$2.1 billion for the metropolitan area and \$700,422,000 for the city itself.

Buffalo became a world port with the opening in 1959 of the St. Lawrence Seaway. The port handled more than 15,000,000 tons of cargo from both the Great Lakes and ocean-going shipping in 1966. During the year 67 ocean-going vessels with 103,901 tons of cargo visited Buffalo.

The Greater Buffalo International Airport is serviced by 6 airlines. The airport handled 147,842 scheduled and non-scheduled flights with a total of 2,010,000 passengers. It is being expanded.

Buffalo also is one of the largest railroad centers in the U. S., with 15 freight terminals scheduling 25,000 trains annually. It is serviced by 8 major railroads. Approximately 150 motor carriers serve industries on the Niagara Frontier, while cross-country bus lines operate in and out.

The city currently is in the midst of a major redevelopment program highlighted by a privately-financed renewal of a large section of the downtown area. Already completed is a \$16,000,000 (22 stories) bank and office building for the Manufacturers & Traders Trust Co. and completed in 1968 a \$20,000,000 shopping mall and 26-story building for the Erie County Savings bank. Government-sponsored projects also are underway.

A progressing cultural city, Buffalo is proud of its Albright-Knox Art Gallery and Kleinhans Hall, the home of the Buffalo Philharmonic orchestra. A full-time professional theater, Studio Arena, was founded in Buffalo in 1965. Also here are the Buffalo Museum of Science, Historical Museum and Zoological Gardens.

Metropolitan area universities and colleges include the State University at Buffalo, which is about to build a new \$130,000,000 campus in suburban Amherst; State College at Buffalo, Canisius College, D'Youville College, Rosary Hill College, Niagara University, Medaille College, Villa Maria College, Trocaire College, Erie County Technical Institute, Niagara Community College.

In the world of sports, Buffalo is noted for the Buffalo Bills, twice champions of the American Football League. The city also has the Buffalo Bison baseball team in the International League and the Buffalo Bisons in the American Hockey League.

Information about Buffalo can be obtained from the Chamber of Commerce or the Boost Buffalo Committee, both at 238 Main St., Buffalo, N. Y. 14202.

Calgary, Canada (see Edmonton-Calgary)

Chicago, Illinois

The World Almanac is sponsored in the Chicago area by the Chicago Tribune, 435 N. Michigan Ave., Chicago, Ill. 60611; telephone (312) 222-3232; founded June 10, 1847. by Joseph Medill; circulation daily 831,257, Sunday 1,166,904; publisher, J. Howard Wood; president and general manager, Harold F. Grumhaus; editor, W. D. Maxwell; executive editor, Clayton Kirkpatrick; major awards include 3 Pulitzer Prizes won by staff members; sponsors college-pro all-star football game, Miracle of Books Fair, Good Fellows program, annual presentation of Nutcracker ballet.

Chicago, Illinois, is located just north and east of the center of population of the United States. Geography has helped in making Chicago the nation's center of industrial distribution and transportation.

Indians named the area Checagou for its strong-smelling wild onions. Wagon trains set up camp south of Fort Dearborn

in the 1830s on what was to become Michigan Avenue. On Mar. 4, 1837, Chicago was incorporated by 4,170 pioneers on the lower western shores of Lake Michigan.

At the time of the great Chicago fire in 1871 it had 300,000 residents. Now, as the nation's second largest city, Chicago proper has 3,538,000 people, according to Sales

Management. The same source shows Metropolitan Chicago, defined as the Illinois counties of Cook, Lake, McHenry, Du Page, Kane and Will, and the Indiana counties of Lake and Porter, with 7,492,400 people. The city, seat of Cook County, has 1,721,400 households; the 8-county area has 2,281,200. Some 64,000,000 people live within a 500-mile radius of the city. Chicago Tribune Research Dept. estimates project Metropolitan Chicago population to 8,012,000 in 1970, and 9,520,000 in 1980.

Chicagoans earn an average of \$12,650 per household, 26.3% higher than the national average. Per capita income is \$3,039, 28.2% more than the national average. Approximately 3,455,000 persons are employed in the area. Metropolitan Chicago, with 3.8% of the population of the U. S., accounts for 6.2% of the national output.

Voters elect the mayor, the city council of 50 aldermen, a city treasurer, city clerk, municipal court clerk, bailiff, judges.

Chicago leads all U. S. metropolitan areas in the production of steel, telephone equipment, radios, television sets, confectionery products, household appliances, metal wares, electrical machinery, non-electrical machinery, plastic products, diesel engines, sports and athletic goods, mirrors, picture frames, gloves and mittens, soaps, perfumes, cosmetics, window screens, blinds, shades, tin cans, snuff.

Chicago's biggest industry is primary metals, \$5.5 billion. Next is food and kindred products at \$5.2 billion; then electrical machinery, non-electrical machinery, chemical products, fabricated metal products, printing and publishing.

In the 8-county area, 14,384 manufacturers have sales of \$35.6 billion compared to \$22.5 billion only 5 years ago. More than 54,000 retail businesses in the area have combined sales of \$13.8 billion, up from \$8.5 billion 10 years ago. An \$11.4 billion climb in sales from 1958 was achieved by the area's 12,700 wholesalers. Service establishments have doubled annual sales in 10 years, reaching \$2.9 billion. The area's share of the gross national product is \$40.3 billion.

Chicago's Midwest Stock Exchange provides a market for more than 478 different kinds of stocks and bonds, and has 415 members with more than 3,000 offices. The city is headquarters for the nation's Seventh Federal Reserve District Bank, home to world's leading grain futures market, the Chicago Board of Trade, the world's biggest farm produce market, and the Chicago Mercantile Exchange.

More than 1,200 industrial laboratories are spending more than \$2 billion annually for private research and development. Argonne National Laboratory will soon be joined by the Atomic Energy Commission's 200 billion electron volt particle accelerator in nearby Weston.

Chicago hosts more than 900 trade shows and conventions annually; nearly

1,300,000 persons attend.

Chicago has more than a dozen major highways, tollways and expressways. Twenty trunk line railroads operate on half the nation's total railway mileage. Chicago's 3 principal airports handle more than 26,000,000 persons annually. Chicago combines lake, ocean and river shipping, serving as the link between the Mississippi River and the St. Lawrence Seaway.

Chicago's railroads handle more than 34,000 freight cars daily in the switching districts. Chicago is the terminal for western and eastern railroads.

The Port of Chicago handles 28.2% of all overseas cargo entering or leaving the Great Lakes, and is served by more than 100 steamship lines.

Twenty-six scheduled commercial airlines serve the city. The city originates 15.3% of the nation's air cargo. O'Hare Field is the world's largest and busiest commercial airport and handles as many as 2,000 aircraft movements a day. One of every 5 foreign visitors to the U. S. passes through customs at O'Hare Field.

Chicago's industrial complex has grown by more than 2,000 factories in the past 15 years. More than \$900,000,000 in private and public funds have been scheduled for port and waterway developments. Announcements of new commercial construction since 1960 total \$1.6 billion.

Higher education is provided by 83 colleges and universities including the University of Chicago, Illinois Tech, Roosevelt University, the new Chicago Circle Campus of the University of Illinois, Loyola, De Paul, and Northwestern. The city has 5 medical schools, 3 dental colleges, a pharmacy college, and a college of osteopathy. There are 154 hospitals in metropolitan Chicago.

Chicago's Art Institute is famous for its French impressionists and oriental collections. The Museum of Science and Industry displays wonders of space technology, electronics and industry. The Field Museum of Natural History has exhibits on anthropology, botany, zoology, and geology. The Shedd aquarium is the first and largest of its kind in the world. The Adler planetarium has a dome-shaped central chamber to show images of the heavens. Lincoln Park zoo and Brookfield zoo are popular year-round attractions.

The city's professional sports teams include the Chicago Bears, National Football League; Chicago White Sox, American (Baseball) League; Chicago Cubs, National (Baseball) League; Chicago Black Hawks, National Hockey League; Chicago Bulls, National Basketball Association; Chicago Spurs, National (Soccer) League; Chicago Mustangs, United (Soccer) Assn.

Information on the city may be obtained from the Visitors Bureau and Information Center of The Chicago Association of Commerce and Industry at 30 W. Monroe, Chicago 60603.

Cincinnati, Ohio

The World Almanac is sponsored in the Cincinnati area by the Cincinnati Post & Times-Star, 800 Broadway, Cincinnati, Ohio 45202; telephone (513) 721-1111; founded Jan. 3, 1881, by Alfred and Walter Wellman; circulation 243,618; editor, Dick Thornburg; business manager, Arnold L. Royer; sponsors annual Zoo Food and Home Show, co-sponsors annual Post-Firemen's Mile of Dimes; major awards received include 1967 Scripps-Howard Roy Howard Award.

Cincinnati, with a population of 498,400 (Census estimate, 1968) is the hub of a 7-county metropolitan area of 1,393,200 (Ohio Development Dept. 1967 estimate) on the Ohio River in southwest Ohio.

The compact downtown, on a flat plain facing the river, is surrounded on 3 sides by steep, green hills. The metropolitan

area spreads in a 30-mile circle over the hills and up industrialized valleys between, and encompasses parts of Kentucky and Indiana.

The first settlement was founded Nov. 11, 1788, by 23 settlers under Benjamin Stites. They flatbatted down the Ohio. Their settlement, Columbia, is now a sub-

urb. On Dec. 28, 1788, another group came by flatboat and founded Losantiville 6 miles downstream. Losantiville's name was changed to Cincinnati. It was where today's downtown river front is.

The river was responsible for the city's early growth. Surplus crops were sent to markets down river by boat. Cincinnati already had established itself as a river port when the steamboat came along about 1816 and let the city capitalize on its reputation.

Cincinnati is governed by a 9-member council, elected in odd years and a city manager appointed by the council. The council elects a mayor from its ranks. Cincinnati's 1968 budget is \$73,981,550.

No one industry dominates the city. Cincinnati is the home of Procter & Gamble, world's largest soap manufacturer (1967 sales \$2.4 billion); the Kroger Co., world's third largest retail food chain (1967 sales \$2.8 billion); the world's largest department store chain, Federated Department Stores, Inc. (1967 sales \$1.7 billion), and the world's largest maker of playing cards, the U. S. Playing Card Co. (1967 sales \$30,000,000).

The Cincinnati Milling Machine Co. (1967 sales \$273,000,000) is the largest of several companies that make Cincinnati the world's leading producer of machine tools.

Cincinnati is a world leader in the production of jet engines, shoes, leather goods, pianos, cosmetics, chemicals, and in printing and publishing.

Total retail sales in the 7-county metropolitan area in 1967 were \$1.950 billion (Sales Management Magazine estimate).

Cincinnati is a transport hub linking the South, the Great Lakes states, and the trans-Appalachian East. Seven railroads serve the city—Pennsylvania, New York Central, Chesapeake & Ohio, Baltimore & Ohio, Norfolk & Western, and Southern. The city owns the Southern's right-of-way to Chattanooga.

Six trunk airlines (TWA, American, Delta, Eastern, Piedmont, Lake Central) made 146,975 scheduled flights in 1967 into

and out of Greater Cincinnati Airport. The city-owned Lunken Airport handled 192,355 flights, mostly business and private craft.

River shipping on the Ohio in 1967 exceeded 110,000,000 tons and 24 billion ton-miles.

Cincinnati is in the midst of a \$100,000,000 urban renewal program in which all or part of 12 downtown blocks will be razed and rebuilt. The city has a new \$11,000,000 Convention-Exposition Center, and is getting 3 new high-rise downtown motels, garages for 2,500 cars downtown, and 4 new office buildings.

Downtown renewal includes a system of second-story-level "skywalks" linking major blocks by footbridges, covered arcades, second-story sidewalks, and corridors within buildings, all connected to street level by escalators and stairways.

A new \$32,000,000 stadium planned for the downtown river front will be the new home of the Cincinnati Reds National League baseball team and of the city's new entry in the American Football League. The Cincinnati Royals of the National Basketball Assn. play in the 14,000-seat Cincinnati Gardens.

The urban renewal program also includes a \$24,000,000 effort to rehabilitate and upgrade two older suburban neighborhoods. It also includes a now completed 296-acre industrial-commercial development adjacent to downtown, where the squalid West End slums once stood.

Cincinnati is the home of the University of Cincinnati, founded in 1819, one of the oldest municipally controlled universities. It has one of the nation's leading medical centers, where Dr. Albert Sabin, developer of the oral polio vaccine, works.

The Cincinnati Art Museum is famous for the quality of its permanent collections, reviewing the world's major civilizations of the past 5,000 years. The Taft Museum contains a famous art collection.

The Cincinnati Symphony Orchestra under director Max Rudolf, plays in Cincinnati Music Hall, also the home of the annual Cincinnati May Music Festival.

Cleveland, Ohio

The World Almanac is sponsored in the Cleveland area by the Cleveland Press, 901 Lakeside Ave., Cleveland, Ohio 44114; telephone (216) 623-1111; founded Nov. 2, 1878, by E. W. Scripps; circulation 400,000; editor, Thomas L. Boardman; managing editor, Harding Christ; business manager, George E. Carter; major awards received, Pulitzer Prize, Lasker Award; sponsors Helping Hand Charity Fund, Cleveland Open Golf Tournament, NFL Pro Football doubleheader.

Visitors to "The Best Location in the Nation," as Cleveland calls itself, are greeted by a big sign as they leave the city's Hopkins International Airport. Within 500 miles, it tells them, are 53% of the U. S. population, 54% of the nation's retail sales, 59% of the nation's industries and 67% of the billion-dollar markets.

Location is a big part of the Cleveland story. It was here—where the twisting Cuyahoga River flows into Lake Erie—that Gen. Moses Cleaveland and his hardy band of pioneer-surveyors established the first settlement in the summer of 1796. The group had been sent here by the Connecticut Land Co. to found a "capital" town for the Western Reserve, a tract of western land reserved by the new state of Connecticut.

The new settlement was given the name of its founder, but spellings in early official documents omitted the "a," and the community became known from its first years as "Cleveland." Its strategic location along the waterways—the river, the Great Lakes and, in 1827, the Ohio Canal which penetrated the state's heartland—spurred

its growth. In 1836, it became a city.

This largest city in Ohio, 8th largest in the United States, lies along the south shore of Lake Erie east and west of the Cuyahoga River along whose winding valley lies the wealth of its heavy industries. The Public Square, commercial hub of the city, is marked by the 52-story Terminal Tower, one of the tallest U. S. buildings outside New York. From the Square radiate the main streets of the city like spokes on a wheel to the east and west and south.

Many of the people who live here are descendants of immigrants from more than 60 nations around the world. They live within the city's corporate limits of some 76 square miles or within city and suburbs (included within Cuyahoga County or Greater Cleveland) which embrace some 458 square miles. Population of the City of Cleveland (according to the 1965 special census) is 810,858. For Greater Cleveland the count is 1,738,797 (according to estimate by Real Property Inventory in 1965). City government is by mayor and council.

No single industry dominates Cleveland's economy, but the making of steel and the manufacturing of metal products are mainstays. Again the city's location is a factor, for it is in Cleveland that iron from the upper Great Lakes meets the coal from the lower Great Lakes. The city is basically a "hard-goods town," its manufacturing complex occupied essentially with the creation of capital goods—machine tools (Cleveland is second only to Cincinnati), steel (its flat-roll stock used heavily by automakers), automotive products, primary metals, fabricated metal products.

Important Cleveland industries include such diversified enterprises as the manufacture of electric motors, petroleum products, chemicals, paints, rubber products, wearing apparel, measuring instruments, electronic components. Value of Cleveland's products totals almost \$7 billion a year. Greater Cleveland's retail sales come to \$2.5 billion.

Eighteen Cleveland industrial firms are included in the 1967 Fortune Magazine listing of the nation's top 500 giants. These are Republic Steel Corp., TRW Inc., Eaton, Yale & Towne, Inc.; White Motor Co., Standard Oil Co. of Ohio; Sherwin-Williams Co., Midland-Ross Corp., Addressograph-Multigraph Corp., Diamond Alkali Co., Automatic Sprinkler Corp., Hupp Corp., Reliance Electric Co., Harris-Intertype Corp., White Consolidated Industries, Cleveite Corp., Hanna Mining Co., Warner & Swasey Co., and Parker-Hannifin Corp.

Cleveland is a transportation crossroads and one of the city's most important facilities is its port. Cleveland is the largest city on Lake Erie, the third largest city on the Great Lakes, a competitor with Chicago in overseas tonnage, handling some 22,000,000 tons of bulk cargo and some 531,209 tons of general cargo. Forty steamship lines offer service to more than 140 ports in 70 countries.

Four major railroads serve the Cleveland area—the Baltimore and Ohio, Erie Lackawanna, Penn. Central and the Norfolk and Western. Some 4,000,000 passengers arrive at and leave from Cleveland Hopkins Airport each year. Another 170,-

000 or so each year use the city's Burke Lakefront Airport, just 5 minutes from the center of Cleveland and capable of handling intermediate jets.

Cleveland's giant downtown rebuilding plan has seen the completion of a 40-story office building and plaza, and a nearby 32-story Federal Bldg. A number of other high-rise apartment and office buildings are under construction downtown.

The city's new Convention Center is the largest city-owned convention facility in the country. And Cleveland's cultural treasures are manifold.

There are the Cleveland Orchestra, world famous; the Cleveland Play House, the nation's oldest and largest resident professional theater; the Cleveland Museum of Art, with its internationally known collections housed in one of the most beautiful museum buildings in America; Karamu House, nationally acclaimed for its interracial artistic accomplishments; the Western Reserve Historical Society, and the Cleveland Health Museum. And there are the lovely Cultural Gardens, the Cleveland Zoo, the Natural Science Museum and an expansive system of metropolitan parks which has helped earn for Cleveland the title of "Forest City."

Cleveland is a sports-minded city, home of the Browns of the National Football League, the Indians of the American (baseball) League, the Barons of the American Hockey League. Professional soccer has become a part of the sports scene, too, and area fans have their calendars full the year around with such attractions as horse racing, stock car racing, basketball, even curling and judo.

Colleges and universities include Case Western Reserve University, Baldwin-Wallace College, Cleveland State University, Cuyahoga Community College, John Carroll University, Notre Dame College, St. John College and Ursuline College.

Companies or persons seeking information on Cleveland business and living conditions may write to the Greater Cleveland Growth Assn., Union Commerce Bldg., Cleveland, Ohio 44114.

Columbus, Ohio

The World Almanac is sponsored in the Columbus area by the Columbus Citizen-Journal, 34 S. Third St., Columbus, Ohio 43216; telephone (614) 461-5000; The Citizen founded in 1899, The Ohio State Journal in 1811; circulation 117,940 six mornings of the week; owned by the E. W. Scripps Co.; editor, Charles Egger; business manager, Paul W. Ream; sponsors Citizen-Journal Spelling Bee, Adopt-A-Family, Sweepstakes Night at Scioto Downs, Outstanding Women's Tea, Broadway Theater Party; co-sponsors of Golden Age Hobby Show, Charity Newsies.

The capital city of Ohio, Columbus has an estimated population of 581,883 (1968) and is the state's largest city in area, the second largest in population.

Columbus is in the heart of Ohio, on rolling plains 777 feet above sea level at the confluence of the Scioto and Olentangy Rivers (both Indian names), and ever since its founding in 1812 has been a crossroads and mecca.

The central location led to its creation as the capital, the original streets being laid out in a forest in the gridiron pattern set by Philadelphia, Pa. Today the gridiron is surrounded by the Innerbelt, the Outerbelt, suburbs with winding streets, industrial parks and greenbelts.

Minerals and clay of the Hocking Valley coal field southeast of Columbus balanced agricultural areas north and west, leading to spectacular growth in wholesaling, which still supplies a vast sector of Ohio and two states to the south. Investment in Hocking Valley enterprises contributed greatly to the city's wealth.

Columbus has more than 900 manufacturing plants. The city produces jet planes, refrigerators, telephones, mining machinery, wheel assemblies for railroad cars, auto parts, electrical machinery, shoes, paint, food, packaging, plastics, wall coverings, bearings, grave vaults, tools, glassware, printing, cement mixers, heating and air-conditioning units. Columbus manufacturers employed 74,556 persons in 1967 with annual payroll of \$485,405,577.

The city government has a council. Its members and the mayor are chosen in nonpartisan elections. The 1968 budget included \$32,750,000 for general-fund operating expenses and \$62,500,000 for capital improvements.

Ohio State University is largest among Columbus' colleges, other major ones including Capital University, Franklin University, Ohio Dominican College (formerly St. Mary of the Springs) and St. Charles Seminary. The horseshoe-shaped 84,000-seat Ohio Stadium has become a symbol

of the city, the OSU home football games attracting capacity crowds. Professional teams include Columbus Jets (baseball), Checkers (hockey) and Comets (basketball). Tracks are Beulah Park (thoroughbreds) and Scioto Downs (harness horses).

Worldwide in its research assistance to industry and government is Battelle Memorial Institute. Global also is Chemical Abstracts. Situated between them is the OSU Medical Center.

The Armed Forces has the world's largest materiel depot in Columbus. Thirty-six insurance firms have their home offices in Columbus, which is the seat of Franklin County that has a projected 1970 population of 942,386. Columbus retail sales were an estimated \$1,462,318,976 in 1967, an increase of 61.7% over 1960. The city has 4 railroads; there are 9 airlines, most of them using Port Columbus International Airport. Yearly import-export business of Columbus firms is over \$60,000,000.

The Ohio State Fair is held in late summer at the in-city Ohio Expositions Center, where the Ohio Historical Society has

built a spectacular museum. Tentative discussions have been held on a 1992 World's Fair inasmuch as the city is the largest in the world named for Christopher Columbus.

Downtown developments include a marina, a convention center and a sports arena. Two slum areas have been replaced by new, bright buildings. Tallest tower in the city is the LeVeque-Lincoln Tower, matching the 555 feet of the Washington Monument. High-rise apartments and dormitories overlook valleys.

Other attractions include the Park of Roses (world's largest), Columbus Symphony Orchestra, Ohio Railway Museum and German Village, an urban restoration. German immigrants were a major factor in the city's growth, and each year an Oktoberfest is held. The Columbus Gallery of Fine Arts has an outstanding collection of oils by George Bellows, artist born in Columbus.

Those wanting more information on Columbus can write or phone the Columbus Area Chamber of Commerce, 30 E. Broad St., Columbus, Ohio 43216.

Dallas, Texas

The World Almanac is sponsored in the Communications Center, Dallas, Tex. 75222; by Samuel Bangs; circulation 236,273 daily, 275,699 Sunday; president, Joseph M. Dealey; executive editor, Jack B. Krueger; managing editor, Thomas J. Simmons; major awards received include Pulitzer Prize and National Headliner Award; sponsors Dallas Beautification award, Teenage Citizenship Tributes, Fly-the-Flag campaign, etc.

The second largest city in Texas, Dallas is the financial, transportation, trade and cultural capital of its region.

According to Chamber of Commerce estimates based on employment figures, metropolitan Dallas with an estimated population of 1,430,500 in June 1968, had experienced since 1960 the fastest growth rate of the 20 leading U. S. standard metropolitan areas. Dallas County's population was estimated at 1,229,600, a gain of about 278,000 since the 1960 census. The incorporated area's population was estimated at 840,900.

The city sits astride the Trinity River in North Texas, about 75 miles south of the Oklahoma border, at an elevation ranging from 450 to 750 feet in an area of plains.

Lacking any significant natural advantage as a city site, Dallas was built largely through aggressive personal efforts of numerous commercial and civic leaders who promoted the city's interests. It is still noted for a "booster" spirit exemplified by its nickname "Big D."

The first settler was a frontiersman from Tennessee, John Neely Bryan, who chose a natural fording place on the Trinity, near the Three Forks of that stream, as the site for a trading post for the Caddo and Cherokee Indians of the vicinity. White settlers soon drove the Indians westward, however. Neely operated a ferry, and plotted the townsite in 1844. The log cabin he built in 1843, the first home in Dallas, still stands on the Old Courthouse grounds in downtown Dallas near its original site. Dallas County was created in 1846, named for Vice President George Mifflin Dallas, and the city was incorporated in 1856 with about 300 inhabitants.

Since 1931 the city has had a council-manager form of government. Although the fertile "Blackland" that made Dallas County productive of wheat and cotton in earlier years is rapidly being converted to industrial and residential use, the city remains the agribusiness capital of the Southwest, with a large trade in farm equipment, feeds, fertilizers and cotton

Dallas area by the Dallas Morning News, telephone (214) RI 7-4611; founded in 1842 by Samuel Bangs; circulation 236,273 daily, 275,699 Sunday; president, Joseph M. Dealey; executive editor, Jack B. Krueger; managing editor, Thomas J. Simmons; major awards received include Pulitzer Prize and National Headliner Award; sponsors Dallas Beautification award, Teenage Citizenship Tributes, Fly-the-Flag campaign, etc.

gin machinery.

Its spectacular population growth began with the post-World War II move of aircraft manufacturers to the Dallas suburban area, augmenting an economy that had been built first on cotton, then on oil, banking and insurance. The East Texas oil boom of the 1930s brought oil company offices and oilfield suppliers to Dallas.

Diversified economic expansion, marked by notable increases in aviation, aerospace and electronics manufacturing, has fed the growth of the 1960s.

Dallas ranks fourth among U. S. cities in the number of million-dollar-net-worth companies' headquarters. Four leading science-oriented industries (Texas Instruments, Ling-Temco-Vought, Dresser Industries and Collins Radio) together recorded sales over \$1.8 billion in 1966.

Retail sales in the metropolitan area totaled \$1.809 billion in 1963 and were estimated at \$2.353 billion in 1966, while effective buying income per household in 1966 was estimated at \$9,508.

Dallas is an important wholesale apparel center, with several seasonal market showings, and a regional retail trade center. Neiman-Marcus specialty store has built an international reputation for fashion leadership and merchandising.

In the past three years, more than 30 new first-class office buildings have been constructed, including the city's tallest skyscrapers, the First National Bank and the Republic National Bank Tower. A new county government center was completed in 1966. Major construction scheduled, newly completed or under way includes a \$26,000,000 Federal center; a \$30,000,000 post office; a \$23,900,000 downtown municipal center; the Army and Air Force Post Exchange Service headquarters; a \$65,000,000 shopping center in the southwest section of the city, to be the largest such facility in the South; One Main Place, a downtown "superblock" of shops and offices to rise 34 stories at a cost of about \$41,000,000.

The city is served by 8 airlines, 9 railroads, two transcontinental bus lines and

37 motor freight lines. They move an estimated 20,000 tons of freight into Dallas daily and carry more than 15,000 passengers a day. The city has 6 outlets on the interstate highway system. A long-sought canalization of the Trinity River for barge traffic awaits Federal appropriations.

Love Field is the nation's 7th busiest airport. In fiscal 1967, 3,807,760 passengers enplaned there. Dallas and its neighbor city of Fort Worth, 30 miles to the west, are building a new regional airport midway between the cities by the early 1970s.

Higher education is served by Southern Methodist University, the University of Dallas, Bishop College, Dallas Baptist College, Christian College of the Southwest, Dallas County Junior College, the Southwestern Medical School of the University of Texas and the Baylor University College of Dentistry.

Dallas is the site of the Texas State Fair for 16 days each October, the largest such exposition in the nation in attendance. Within Fair Park, open the year round, are the Hall of State historical museum, Dallas Museum of Fine Arts, Aquarium,

Museum of Natural History, Health and Science Museum, Dallas Garden Center, State Fair Music Hall, Cotton Bowl.

Also of interest to visitors are the Mar-salis Park Zoo, Dallas Theater Center (designed by Frank Lloyd Wright), and SMU's Owens Fine Arts Center with a collection of paintings and sculpture. Leading musical events are the Dallas Symphony and Dallas Civic Opera seasons, an annual spring tour of the Metropolitan Opera and professional Summer Musicals at Fair Park.

The Cotton Bowl is the site of an annual New Year's Day football game as well as home games of the professional Dallas Cowboys (National Football League). Other sports are represented by the Dallas-Fort Worth Spurs (Texas League baseball) the pro basketball Chaparrals (American Basketball Assn.), the Black Hawks hockey team and the Dallas Tornado soccer team.

Information about Dallas business and living conditions may be obtained from the Chamber of Commerce, Fidelity Union Tower Building, Dallas, Tex. 75201.

Dayton, Ohio

The World Almanac is sponsored in the Dayton area by The Journal Herald, 37 South Ludlow Street, Dayton, Ohio 45401; telephone (513) 223-1111; founded Sept. 18, 1808, as Dayton Repository by William McClure and George Smith; circulation 111,062 daily (six months ending March 31, 1968); editor, Glenn Thompson; managing editor, Charles T. Alexander; editor, editorial page, Theodore Bingham; community projects include Neighborhood Beautification Awards, Senior Citizens' Tours, Fishing Clinic, Father-Son Sports Night, National Industrial Bowling Tournament, Learn-To-Swim, Cincinnati Reds' Baseball Clinic, Area Football and Basketball All-Stars Banquet and TV Program.

Dayton, the "Birthplace of Aviation," is one of the nation's major industrial and research centers, located in the rolling hills of west central Ohio where the Miami, Stillwater and Mad Rivers join.

Dayton is the fastest growing metropolitan area in Ohio and the center of the 10th largest local service market in the nation. Retail sales in the city totaled \$539,606,000 in 1966 and \$1,248,499,000 in the Dayton metropolitan area.

Dayton was the first major metropolitan city to install the commission-manager form of municipal government (1913); and the first area to have a comprehensive flood control project, the Miami Conservancy District, which was financed entirely by local funds (started in 1913). Dayton was also the first Ohio city to enact an income tax by popular election after the courts declared a council-enacted income tax unconstitutional (1950).

Dayton was settled by a score of men, women and children in 1796 when a group headed by Samuel Thompson left Cincinnati by boat for Dayton. The city was incorporated in 1805 and chartered as a city in 1841. It is the 4th largest standard metropolitan statistical area in the state.

The city of Dayton has a population of 272,000, while the metropolitan area is 851,100. Projections are for a population of 300,000 in the city and 1,081,800 in the metropolitan area by 1975.

From almost 1,000 industrial plants in the Dayton area come a variety of widely-known products. It is the home of the world's largest cash register manufacturing plant (National Cash Register Company), the world's largest magazine production facility (McCall Corporation); and the third largest concentration of General Motors Corporation operations (Delco Moraine, Delco Products, Frigidaire, Inland Mfg. and AC Electronics).

Dayton is the home of Wright-Patterson Air Force Base, which stands on land where the Wright Brothers did much of their early flying.

WPAFB is the worldwide headquarters

for the Air Force Logistics Command and headquarters for the Aeronautical Systems Division which conducts research and development and manages procurement of all aircraft used by the Air Force.

Other organizations at the base include the Foreign Technology Division, Aerospace Medical Research Laboratories, four other major laboratories (Avionics, Materials, Flight Dynamics, and Aero Propulsion), the Air Force Institute of Technology, the Air Force Museum (which draws an estimated one million visitors a year) and the 17th Bombardment Wing of the Strategic Air Command.

A second major defense installation is the Defense Electronics Supply Center which handles procurement of more than 500,000 electronic components for all branches of the military service.

Dayton is a growing city and has plans for an extensive new county government complex downtown as well as a redeveloped downtown section known as Center City West. In 1967, 264 commercial building permits were issued in Dayton, valued at \$20,590,207. In the same year, 482 permits were issued in the metropolitan area, with a value of \$37,465,906. Through April, 1968, 77 commercial building permits were issued in the city, valued at \$11,726,757, and 141 in the metropolitan area for a value of \$15,046,337.

Under construction in 1968 were a 22-story office building, an 11-story hotel and large buildings for Ohio Bell Telephone, Price Bros. Construction Company (64,000 square feet), a 3-story Senior Citizens Center (25,000 square feet), and a new Post Office (213,000 sq. ft.). Planned is a 30-story bank and office building.

Located in the center of a business center containing 7 metropolitan areas with a population of 3,700,000, Dayton is served by five airlines and 3 trunk line rail systems. Seven motor bus lines offer local and national service and a trolley system operates within the city.

Dayton is the home of the 118-year-old Catholic University of Dayton and Wright

State University, which accepted its first students in 1964 as a branch of two other state universities. It is now an independent state university. There are also two junior colleges, Sinclair with programs in business, liberal arts and engineering and Miami-Jacobs, an accredited junior college of business. The city is also home for the School of the Dayton Art Institute and United Theological Seminary.

College football and basketball are provided by the University of Dayton teams. UD's basketball team was the National Invitational Tournament champion in 1968. Other spectator sports include a professional hockey team, the Dayton Gems, and two stock-car raceways.

Dayton's Philharmonic Orchestra, a Civic Music Association and the Dayton

Opera Association all present annual program series. Outdoor summer concerts are offered at the Diehl Memorial Shell and Deeds Carillon. Dayton Art Institute houses both permanent and special exhibits throughout the year. Four amateur theatrical groups perform in winter, two professional companies in summer.

Points of interest include the Amateur Trapshoot Association headquarters in suburban Vandalia, where the annual Grand American Trapshoot is held in August; Carillon Park, containing Deeds Carillon and historical exhibits pertinent to Dayton history; Paul Lawrence Dunbar homestead, home of the famed Negro poet now maintained as a national shrine; Wright Brothers Memorial; and the national Aviation Hall of Fame.

Denver, Colorado

The World Almanac is sponsored in the Denver area by the Rocky Mountain News, 400 W. Colfax Ave., Denver, Colo. 80201; telephone (303) 892-5000; founded Apr. 23, 1859, by William N. Byers; circulation daily 195,448, Sunday 212,872; editor, Jack Foster; business manager, Edward W. Estlow; sponsors Colorado-Wyoming spelling bee, Golden Wedding party, Huck Finn Day, Ski School.

Denver, Colorado's capital, is exactly one mile above sea level at the far western edge of the Great Plains, near the foothills of the Rocky Mountains, lending it the dual designation of "Mile High City" and "Queen City of the Plains."

Largest city between Chicago, St. Louis and West Coast, its government is non-partisan with mayor and nine councilmen.

Founded in 1858 with discovery of placer gold at the junction of South Platte River and Cherry Creek, now in geographical center of city, Denver rapidly became the supply center for mining camps in nearby mountains. It remains the largest distribution center in the region extending from Canada to Mexico and embracing one-third of the U. S. geographical area.

Since World War II, Denver has become center for "smokeless industries" with 1,400 manufacturing companies. A tourist mecca, Denver is a gateway to vast recreational areas, including more than 20 major winter sports resorts and more mountains than Switzerland.

The 1960 U. S. census gave Denver a population of 493,887. Today, population of its standard metropolitan area is estimated at 1,201,800, total effective buying power of \$3.2 billion. Total retail sales in 1967 were \$3.476 billion.

Denver-headquartered companies include the Gates Rubber Co., world's largest producer of V-belts and hose, sixth largest U. S. rubber company with plants in 8 U. S. cities and 5 foreign countries. It is family-owned, widely diversified.

Samsonite Corp., world's largest luggage manufacturer, also produces folding furniture and toys. It has 11 plants in U. S. and foreign cities.

Other large Denver-based firms include: Great Western Sugar, Ideal Cement, American Crystal Sugar, Colorado Milling & Elevator, and CF&I Steel.

Adults in Metro Denver have average of 12.2 years of formal education, second among major U. S. cities to Washington, D. C. Leading higher education institutions are: University of Colorado; University of Colorado Medical School; University of Denver; Iliff School of Theology; Colorado School of Mines; Regis College; Loretto Heights College; Temple Buell College (formerly Colorado Woman's College), and Metropolitan State College.

Denver is served by six Class I railroads; 68 major interstate and 42 intrastate motor carriers; two transcontinental and two intrastate bus lines, and 10 commercial airlines.

Stapleton International Airport in 1967 handled average daily arrivals and departures of 420 commercial flights daily, or a total of 153,515 for the year. Passengers in and out, 1967, totaled 5,078,502. In addition, general aviation aircraft in and out averaged 791 planes daily for a yearly total of 288,735, making the airport the eighth busiest U. S. Airport. Air Freight in 1967 totaled 94,242,966 pounds, air express 8,679,403 pounds and air mail 43,320,359 pounds.

An airport improvement plan of \$25,000,000 has been completed. A new \$50,000,000 million expansion is under way.

Until recently, buildings were limited to 12 stories. In the last 15 years, 16 buildings, up to 32 stories, were built in the downtown area. Tallest building, a 42-story apartment, office and shop complex, is completed. More than 35 high-rise apartments have been built.

Military establishments include Lowry Air Force Base; Air Force Accounting and Finance Center; Army's Rocky Mountain Arsenal (fire bombs, nerve gas, etc.); Fitzsimons General Hospital.

Denver has the largest number of U. S. Government offices of any city outside of Washington, D. C. Also, site of Atomic Energy Commission's Rocky Flats plant and U. S. Mint.

A \$25,000,000 urban renewal project was recently completed. A new, \$250,000,000 project is under way, including an \$11,800,000, 3-square-block convention center.

Although in a semi-arid region with annual precipitation averaging less than 15 inches, Denver is known for its beautiful lawns and trees, thanks to the far-sighted municipal water department which has spent \$120,000,000 to provide 520,000 acre feet of water storage.

Denver has more than 100 named parks and a 20,000-acre mountain park system.

Other points of interest include: Colorado Capitol Bldg., with its dome covered by 250 ounces of 28 karat Colorado gold leaf; world-renowned Colorado Museum of Natural History; City Park Zoo; Denver Art Museum; Denver Botanic Gardens; Metro Denver's 28 private and public golf courses (where golf is played 324 out of 365 days a year); and the 12,000-seat Red Rocks open-air theater.

Denver offers 4 professional sports teams—Denver Bears of the Triple-A Pacific Coast Baseball League; Denver Broncos of American Football League; Denver Rockets of the American Basketball Assn.; and Denver Spurs of the Western Hockey League.

Des Moines, Iowa

The World Almanac is sponsored in the Des Moines area by the Des Moines Register & Tribune, 715 Locust St., Des Moines, Iowa 50304; telephone (515) 284-8000; founded July 26, 1849, by Barlow Granger; circulation Morning Register 255,474, Evening Tribune 116,722, Sunday Register 526,033; president, Gardner Cowles; board chairman, John Cowles; editor & publisher, Kenneth MacDonald; general manager, David Kruidenier; writers and photographers have won 11 Pulitzer Prizes; sponsors Tribune Community Service Award, Drake University-Register summer workshop.

Des Moines, Iowa's capital city, is located at the junction of the Des Moines and Raccoon rivers in south central Iowa. Its rolling hills and wooded areas make it a city of beautiful parks and residential sections.

A military post was established at this site in 1843 to protect Indian rights. In 1845 the surrounding land was thrown open to settlers. Des Moines was incorporated in 1851 and became the capital in 1857. The fort was disbanded in 1847, but a new Fort Des Moines was built in 1902 as a cavalry post. During World War Two it was the headquarters for the Women's Army Corps (WAC). Today military reserve forces use the remaining buildings.

The Greater Des Moines Chamber of Commerce estimates the present metropolitan area population to be 272,000. The city has had a council-city manager form of government since 1950.

Des Moines is an important retail center with annual sales of \$662,000,000. Manufacturing plants produce more than 500 products valued at more than \$1 billion annually. There are more than 700 wholesaling and jobbing firms.

Among the manufacturing plants are the North American headquarters of Massey-Ferguson, Inc., John Deere and Ford Motor Implement, manufacturers of farm implements, Firestone Tire and Rubber Co. and Armstrong Rubber Co. have large Des Moines plants.

Des Moines is a major publishing center. Located there are The Des Moines Register and Tribune, circulation offices of Look Magazine; Meredith Publishing Co. which publishes Better Homes and Gardens and Successful Farming; and Wallace Homestead Co., publisher of Wallace Farmer Magazine. There are 11 radio and four television stations.

Des Moines contains home offices of 56 insurance companies. The Equitable Life Insurance Co. of Iowa, founded in 1867, is the oldest life insurance company west of the Mississippi River. Bankers Life Insurance Co. of Des Moines is the largest west of the Mississippi.

The city is served by 3 commercial air-

lines, 7 railroads, 46 truck lines and two major bus lines. The municipal airport recorded 664,968 arriving and departing passengers in 1967. Two major interstate highways intersect at Des Moines.

New buildings recently completed or under construction include a 10-story Federal Office Building, regional post office, and a 300-unit, \$3,800,000 low rent housing project by the Des Moines Area Council of Churches. Recently built homes and buildings have been designed by such renowned architects as Mies van der Rohe, Eliel Saarinen, Richard Neutra and Skidmore, Owings and Merrill. An older area just north of the downtown area is being revitalized by a large urban renewal project.

Other major buildings include the gold-domed State Capitol, built in the late 1800s atop a majestic hill; the Saarinen-designed Des Moines Art Center with an addition designed by I. M. Pei; Veterans Memorial Auditorium, a 15,000-seat convention and sports center; and civic buildings and a beautiful YMCA along the Des Moines River front. Construction began in 1968 on a new YWCA.

KRNT Theater seats 4,200 and is one of the largest legitimate theaters in the world. The Des Moines Community Playhouse, with 8,000 members, stages conventional theater and is supplemented by a theater-in-the-round called the Drama Workshop. The Iowa State Fair, one of the largest agricultural expositions in the world, is held in August. A Children's Zoo was opened in 1966. Des Moines has a professional hockey team and is the site of both the boys' and girls' state high school basketball tournaments.

Drake University is the home of the Drake Relays, an important annual track meet. Also in Des Moines are Grand View College, a two-year school, and the College of Osteopathic Medicine and Surgery. Iowa State University is located 25 miles north of Des Moines in Ames.

The Greater Des Moines Chamber of Commerce, Eighth and High streets, provides information on business and living conditions.

Detroit, Michigan

The World Almanac is sponsored in the Detroit area by the Detroit News, 615 W. Lafayette Blvd., Detroit, Mich. 48231; telephone (313) 222-2000; founded 1873 by James E. Scripps; circulation daily 702,591, Sunday 953,929; board chairman, Warren S. Booth; president & pub., Peter B. Clark; executive v.p. & gen. mgr., Edwin K. Wheeler; editor, Martin S. Hayden; major awards won include University of Missouri Award, Pulitzer Prize; community projects include Policeman and Fire Fighter of Month awards, NCAA Championship Indoor Track Meet, Detroit Soap Box Derby, Science Fair, Scholastic Writing and Art Awards, Spelling Bee, Michigan Industrial Education Awards, and Green Pennant Safety Awards.

Detroit, "The Motor City," is the nation's fifth largest, with a 1967 population of 1,620,000 and a 3-county metropolitan area population of 4,214,000, by estimate of the regional planning commission. The city covers 139.6 square miles on the Detroit River, a Great Lakes connecting link and the world's busiest inland waterway.

The city government is headed by a mayor and 9 councilmen elected at large on a nonpartisan ballot, under a "strong mayor" city charter.

Detroit was founded in 1701 by the Frenchman Cadillac as a strategic frontier fort and trading post, ceded to the British

in 1763 and turned over to the U. S. in 1796, a village of 2,500. Destroyed by fire in 1805 and rebuilt, it was reoccupied by British for a year in the War of 1812.

Completion of the Erie Canal in 1825 opened a cheap water transport route from New York to the Northwest and made Detroit an important commercial center. Rail service reached Chicago in 1852, New York in 1854.

Population in 1860 was 45,619. Detroit was an important terminus of the Underground Railroad by which fugitive slaves reached freedom.

By 1880 Detroit was a major industrial

city, with 116,000 people and 825 factories. Tobacco and metal products were leading industries, especially stoves and railroad cars. Pharmaceuticals and industrial chemicals (based on vast underlying strata of salt and brines) grew in importance by 1900, but metalworking industries led. Its thriving machine and foundry industries, carriage and wagon shops laid the foundation for Detroit's emergence as the nation's auto capital, along with the fact that several pioneer auto experimenters lived in the city.

Among them were R. E. Olds, who built Detroit's first auto factory in 1899, and Henry Ford, who hand-built his first car in 1896, formed his first company in 1899 and the present Ford Motor Co. in 1903.

Auto production, the World War I boom and the Roaring Twenties pushed Detroit's population from 285,000 in 1900 to 993,000 in 1920 (fourth largest in the U. S.) and 1,568,000 in 1930. The area's industries made it the "Arsenal of Democracy" in World War II.

Despite postwar decentralization, Detroit remains the capital of the auto industry. Area plants produce 25% of the nation's cars and trucks, employing 225,000. Transportation equipment accounted for 42% of the total \$6.6 billion value added by area manufacturers in 1963. But the area's business is highly diversified, with only 16% of its labor force in the auto industry. Nonautomotive manufacturing employs 354,000; 835,000 are in nonmanufacturing employment. Other leading products are machine tools, gray iron products, metal stampings, hardware, industrial chemicals, drugs, paints, wire products and office machinery.

In addition to the major auto firms, leading companies headquartered in Detroit include Parke, Davis & Co., drugs; Burroughs Corp., business machines; Excelsior Corp., milk carton machinery; R. P. Scherer, gelatin capsules.

Total metropolitan area personal income in 1967 was \$14.25 billion, \$11,804 per household. Area retail sales were \$7.2 billion.

Detroit is served by 9 railroads, 200 truck lines, 15 airlines and 3 air freight carriers and 50 ship lines. Air passengers totaled 5,760,000 in 1967; rail freight tonnage was 26,750,000 in 1967. Port of Detroit cargo tonnage was 33,300,000 in 1966, of which 1,423,604 was overseas traffic. More than 7,500,000 vehicles a year cross the international border between Detroit and Canada.

Hub of the downtown business district

is the 75-acre, \$100,000,000 Civic Center, including Cobo Hall and Convention Arena with its 400,000 square feet of exhibit space, which replaced a district of rundown riverfront warehouses. Other major urban rebuilding projects include 660 acres in the Lafayette and Elmwood downtown residential developments, valued at \$284,000,000 when completed, a 235-acre, \$151,000,000 midtown medical center and a 182-acre expansion of the Wayne State University campus.

Detroit's city-owned water system, now supplying 3,503,800 people in 70 communities, is in a \$475,000,000 expansion program to serve 6,500,000 by 1985. Nearby Lake Huron affords an unlimited water supply. Expenditure of \$36,000,000 was scheduled for 1968 in an area pollution control program to cost \$922,000,000 by the year 2000.

Points of interest to visitors include Chrysler, Ford and General Motors auto plants, Henry Ford Museum and Greenfield Village historical displays, Cranbrook Institute (science museum and arts), Belle Isle (1,000-acre island park), Zoological Park (natural animal settings), Institute of Arts, Public Library, Historical Museum, and Fort Wayne Military Museum. There are 1,000 inland lakes within an hour's drive.

Cultural institutions and events include the Detroit Symphony Orchestra, International Institute, Meadow Brook music and drama programs and the annual Freedom Festival, celebrating Canada's Dominion Day, July 1, and the U. S. Independence Day, July 4.

Eleven colleges and universities are located in the metropolitan area, including Wayne State University, among the nation's leading urban universities, Univ. of Detroit, and branches of the Univ. of Michigan and Michigan State Univ.

Detroit is represented in professional sports by the Detroit Tigers baseball club (American League), Detroit Lions (National Football League), Detroit Red Wings (National Hockey League), Detroit Pistons (National Basketball Assn.) and Detroit Cougars (United Soccer Assn.).

Among Detroit-area "firsts" are the world's first mile of concrete highway, 1909; first scheduled radio broadcast station, WWJ-The Detroit News, 1920; first U. S. pouring of Bessemer steel, 1864.

Information about Detroit is available from the Greater Detroit Board of Commerce, 150 Michigan Ave., Detroit, Mich. 48226, and Mayor's Committee for Industrial and Economic Development, 322 Veterans Memorial Building, Detroit 48226.

Edmonton-Calgary, Canada

Fort Edmonton, built in 1795, was related to the fur trade but today's Edmonton, a supply center for Canada's northland and of a mixed farming area, is expanding on a solid industrial base.

The economy of the region was transformed by the discovery of oil at Leduc (20 miles south) in 1947, and now agriculture and livestock-producing are balanced by refining and manufacturing operations. Edmonton is the originating terminus of 5 pipelines transporting Alberta crude oil and natural gas to eastern Canada and the U. S. The city is located on a transcontinental railroad, a new trans-Canada highway through the all-weather Yellowhead Pass, and is linked north and south via the Alaska Highway.

The city's population doubled in the decade 1950-1960. Now, with a population of 420,000, its 5-year growth rate is the fastest in Canada. Twenty-story towers

have become commonplace and current construction is highlighted by an office structure reaching to 40 stories.

Edmonton boasts a 2,700-seat auditorium, new \$2,000,000 art gallery, new provincial Museum and Archives, new \$5,000,000 Centennial Library, its own symphony orchestra and many live stage production groups.

Points of interest include the Alberta Game Farm, Storyland Valley Zoo, Canada's first public planetarium, and the University of Alberta.

In July the city relives the 1898 Yukon gold rush during "Klondike Days" as the 89-year-old Edmonton Exhibition is now known. Edmonton's amateur athletic teams have established an enviable record dating from the international champion Grads, a girls' basketball team that won 502 games and lost 20 between 1915 and 1940. The Superiors (1933) and the Mer-

cury (1950) hockey teams won world titles and the Mercury team (1952) won an Olympic title.

The Eskimos of the Canadian Football League are the sole professional sports organization, but Canada's largest motor

sports complex is Edmonton's Speedway Park, site of many international races.

Specialized information about Edmonton is obtainable through Leo LeClerc, Industrial Development Coordinator, City Hall, Edmonton, Alberta.

Calgary, Canada

The World Almanac is sponsored in the Calgary and southern Alberta area by The Calgary Albertan, 830 Tenth Ave., S.W., Calgary 3, Alberta; telephone (403) 263-7730; founded April 10, 1902; circulation 34,472; publisher, G. Max Bell; general manager, Frank McCool; managing editor, David Humphries; business manager, Al Vogt.

Calgary, one of Canada's highest cities (elevation: 3,440 feet) lies at the foothills of the Rocky Mountains, 180 miles south of Edmonton and 150 miles north of the Montana-Alberta border. The city began as a Mounted Police outpost and as early as 1885, when the railway arrived, it had a population of 1,800. The city now encompasses an area of 155.8 square miles with a population of 360,000. Its growth rate of 4.8% is the fastest in Canada in the latest 12-month census period.

Calgary became the trading center for southern Alberta in the early days and continues to hold a wholesale and manufacturing function. Oil was discovered in 1914 at Turner Valley, just south of the city and 400 firms directly connected with the oil industry have headquarters in Calgary. Although ninth in population, the city is fifth in bank clearings. Its industry includes oil refineries, chemical, fertilizer and supply industries and the older agricultural industries. Shipment of goods reaches \$375,000,000 annually. Calgary is served by 5 airlines and two railroads.

The city's location close to the mountains (resulting in "chinook" winds that can provide pleasant spring-like interludes in the middle of a prairie winter) and its connection through history to the old west attract tourists from all parts

of the continent. The civic symbol, the white cowboy hat, is an outgrowth of the Calgary Stampede, held each July. The city's motto is "Onward."

Calgary has a 2,700-seat auditorium, a gift of the province during Alberta's Jubilee year; the provincial government Glenbow Museum, Allied Arts Center, a Centennial Planetarium, symphony orchestra and live theatre. Attractions to visitors center on the western theme. Heritage Park reconstructs the early days; at the Horseman's Hall of Fame life-like figures recall western historical events; and at the Calgary Zoo and Natural History Park life-size dinosaurs do battle. Happy Valley, a 460-acre park, is Canada's largest man-made recreation area. The 626-ft. rotating Husky Tower provides a panoramic view of the city with room for 200 for dining and 300 in its observation area. The University of Calgary has 6,000 students.

Every active sport is displayed in the city and newly-constructed facilities for hockey, football and curling rank with the finest in the nation. The professional Stampeders of the Canadian Football League often draw capacity crowds.

Assistance in locating industrial information is provided by Ken Ford, Industrial Coordination, City Hall, Calgary, Alberta.

Hartford, Connecticut

The World Almanac is sponsored in the Hartford area by the Hartford Times, 10 Prospect St., Hartford, Conn. 06101; telephone (203) 249-8211; founded 1817 by Frederick D. Bolles and John M. Niles; circulation 145,000; general manager, Robert R. Eckert; editor, Stuart A. Dunham; Pulitzer Citation as one of Gannett Newspapers, Pulitzer Prize to staff member; major community projects included series on education, housing, urban renewal.

Hartford, capital and most populated city (165,000 residents) of Connecticut—core city of the Capitol Region (Greater Hartford) of 28 surrounding towns—is located generally in the center of the state midway between New York City and Boston via highway, rail or air, at the head of navigation on the Connecticut River 50 miles inland from Long Island Sound. Population of Capitol Region: 647,000.

First settlers were the Dutch, who erected a fort (1633) at the present site of Hartford, and in 1636 the Rev. Thomas Hooker and a company of settlers journeyed overland from Newtown (Cambridge), Mass., founded the city. Hooker and other leaders adopted the "Fundamental Orders" (1638-1639) which historian John Fiske called "the first written constitution known to history that created a government. . . ."

Hartford has a council-manager form of government, adopted by the voters and approved by the General Assembly (1947).

Hartford, the center of the insurance industry, is known as "The Insurance City" with 15 insurance companies headquartered in and around the city, and employing 26,000 locally. Combined assets of all the insurance firms: over \$25 billion. Well-known companies include The Travelers Insurance Companies, Connecticut General, Aetna Life & Casualty and the Hartford Insurance Group.

Greater Hartford's second major industry is aircraft engines; East Hartford is home office of United Aircraft Corp., one of world's largest aircraft firms.

Rail passenger and freight service is provided by the New York, New Haven and Hartford Railroad, with direct service to New York and connections at Springfield to Boston or the West. High-speed service is expected soon.

The Hartford area, and many sections of the state, are serviced by Bradley International Airport in Windsor Locks, 20 minutes by car from Hartford on Interstate 91. The airport is served by 7 scheduled passenger and cargo carriers and one all-cargo carrier. Direct airline service is available from Bradley to 50 major cities in the U. S. International service is available, with passenger service direct to London; other cities for export cargo. Expansion of the airport is presently underway.

Hartford is the hub of a trunk-line highway network. And more than 3,000,000 tons of cargo, mainly fuels, are now carried annually by barge or tanker via the 15-foot-deep channel of the Connecticut River to Hartford and Wethersfield.

Hartford is now being redeveloped in what Architectural Forum has called, "one of the best-rounded renewal examples yet attempted in the United States." An example is the multi-million dollar Constitution Plaza, a 15-acre tract in the

center of the city which once contained deteriorated residential and commercial properties. The entire renewal package is expected to total \$165,000,000 over 20 years. In 1968, several insurance and other companies planned new buildings in the Trumbull St. Redevelopment area, where a civic center with an arena is to be developed.

Educational and cultural institutions include Trinity College, the University of Hartford, Rensselaer Polytechnic Institute, St. Joseph College and, at nearby Middletown, Wesleyan University; the Wadsworth Atheneum is the oldest and

one of the best-known public art museums in America. Mark Twain's House, where Samuel Clemens wrote "Tom Sawyer," "Huckleberry Finn" and "A Connecticut Yankee" is now a museum. The city also is the home of the Hartford Symphony Orchestra, the Connecticut Opera Association and the Hartford Stage Company, a resident professional theater.

Information on the city and its surrounding towns may be obtained from the Greater Hartford Chamber of Commerce, 250 Constitution Plaza, Hartford, Conn. 06103 or from the Mayor or City Manager, City Hall, Hartford, Conn. 06101.

Honolulu, Hawaii

The World Almanac is sponsored in Honolulu by The Honolulu Advertiser, P. O. Box 3110, Honolulu, Hawaii 96802; telephone 52-977; founded July 2, 1856, as the Pacific Commercial Advertiser by Henry M. Whitney; circulation 66,499 mornings, 156,123 Sunday; president and publisher, Thurston Twigg-Smith; editor George Chaplin; managing editor, Buck Buchwach; major awards received from Alicia Patterson Fund, American Medical Association, Overseas Press Club of America, National Headliners Club and J. C. Penney-University of Missouri.

Honolulu (Hawaiian for "sheltered bay") was a small native Hawaiian village called Waikiki when first visited by two British ships in 1786, eight years after Capt. James Cook discovered the Hawaiian Islands. Today, with nearly 400,000 inhabitants, it is the capital of Hawaii.

The City and County of Honolulu has a total population of about 650,000 and covers all 595 square miles of Oahu, an island traversed by two rugged parallel mountain ranges. The city itself occupies 20 miles of Oahu's southeast coast—from Pearl Harbor to Koko Head—and its residential subdivisions reach back through lush fingerlike valleys and climb the ridges of the Koolau Range at its back. The combined city-county has a strong-mayor form of government, with an elected 9-member city council.

In the early 19th century, Honolulu became a favored port for whaling ships in the Pacific. Shortly after 1900 the U. S. Navy built its famous base at Pearl Harbor, now headquarters of the U. S. Pacific Fleet. Honolulu is the only American city to have been bombarded in modern times—when Japan launched its surprise attack on Pearl Harbor Dec. 7, 1941.

Tourism is rapidly becoming the dominant industry in Honolulu; the city greeted more than 1,000,000 visitors in 1967. The other big industries are sugar and pineapple (there are two large pineapple canneries in the city). The military is also big business in Honolulu, with facilities for all branches of the service, the largest being Pearl Harbor Naval Base and Hickam Air Force Base.

The city has become a business and financial center for the Pacific Basin; one of its major corporations does international construction work, another operates a large steamship line. Smaller industries include manufacturing of wooden bowls, serving trays and furniture from locally grown monkeypod and koa woods, and sewing of brightly colored Hawaiian-print shirts and dresses.

The University of Hawaii enrolls over 17,000 students and is especially noted for its departments in marine biology and tropical agriculture. Students from halfway around the world attend the East-West Center, an institution of higher learning co-sponsored by the university and the U. S. State Department. Other 4-year colleges are Chaminade College, operated by the Catholic Church, and the Church College of Hawaii, run by the

Church of Jesus Christ of Latter-day Saints (Mormon).

The Bernice Pauahi Bishop Museum houses artifacts from throughout the Pacific and is a center of archaeological study of Hawaii. Art objects from all over the world are on display at the Honolulu Academy of Arts. The city has a 70-member symphony orchestra, a spring opera festival and several community theater groups. Other cultural institutions include Sea Life Park and the Waikiki Aquarium, displaying local marine life; Hawaiian Paradise Park, a bird sanctuary; and the Polynesian Cultural Center and Ulu Mau Village, both live re-creations of ancient Polynesian and Hawaiian culture.

The usual "outside" image of Honolulu is of Waikiki Beach and its famous view of Diamond Head. Waikiki, of course, is the hub of the tourist and convention industry; its high-rise hotels are mushrooming so fast the City Council has had to set limits to prevent them from blotting out Diamond Head altogether. But Honolulu's main attraction is a combination of its Polynesian heritage, cloud-topped majestic mountains, palm-fringed beaches along the deep-blue Pacific, and the most enjoyable sunny weather anywhere. Daytime temperatures average in the high 80s in summer, low 80s in winter; nighttime temperatures usually range 10 to 15 degrees lower. There is year-round surfing, swimming and fishing.

Three major U. S. airlines serve Honolulu from the West Coast, and two additional ones have been recommended. Foreign airlines connect Hawaii directly with most countries around the Pacific. Two steamship lines provide regular passenger service from the West Coast.

Most of Honolulu's incoming and outgoing cargo travels by ship, but airlines are winning an increasing share of the business. The airlines' share is expected to jump tremendously when "jumbo jets" begin flying in 1970.

There is bus service to most parts of the city, but outlying suburbs and small towns on Oahu have no public transportation. Studies are underway for a possible subway or other fixed-rail mass-transit system to relieve Honolulu's growing traffic congestion. New freeways connect the city with its suburbs, and tunnels carry two four-lane highways through the Koolau Range to the communities of Windward Oahu.

Houston, Texas

The World Almanac is sponsored in the Houston area by The Houston Post, 2410 Polk Ave., Houston, Texas 77001, telephone (713) CA3-3131. Founded originally in 1836, the first edition was published with The Houston Post masthead on Feb. 1, 1880. Circulation: morning—280,268, Sunday—318,984. Chairman of the board and editor, Oveta Culp Hobby; president and executive editor, William P. Hobby, Jr.; executive vice president, John C. Stetson. Major awards include Pulitzer Prize. Sponsors Houston Post Charities, Inc.

Industrial giant of the Southwest, Houston is the nation's sixth largest and fastest growing major city. Located on the upper Gulf Coast prairies, connected to the Galveston Bay by a 50-mile ship canal, it enjoys an average temperature of 68.6°.

The fine weather helps to draw more than 3,000,000 visitors and tourists each year to see such points of interest as the new growing complex of concert music halls, theaters, art centers and museums which encircle the million dollar Jones Hall for the performing arts, in downtown Houston. Houston's Alley Theatre is considered to be one of the nation's foremost repertory theaters and represented the U. S. at the Brussels World's Fair. The Houston Music Theatre is one of the most successful theaters "in the round." Houston has two wide-screen cineramas, 66 movie theaters, and a symphony of 90 musicians conducted by Andre Previn.

The world famous Texas Medical Center represents an investment of more than \$125,000,000 in 10 major hospitals and clinics, 3 medical schools, and 3 research institutes where many notable heart and organ transplants have been reported. The Astrodome, one of America's largest enclosed sports stadiums, is the home of the National League Astros baseball team, the American Football League Houston Oilers, Houston Stars soccer team, and the University of Houston football team, the Cougars, making Houston a sports center.

The Museum of Fine Arts houses a permanent collection valued at \$6,000,000 plus 23 major art institutes. Twenty-two mi. from the downtown area is the Manned Spacecraft Center, controller of space orbit communications, which gives Houston its nickname, "Space City, U.S.A." A \$250,000,000 complex, the installation is the center of astronaut training, equipment testing and flight control for the Project Apollo moon landings.

The San Jacinto Monument and Museum are on the San Jacinto Battleground. This 460-acre state park, 22 mi. east of Houston, honors the 910 Americans led by Gen. Sam Houston who routed Mexican forces of more than 1,200 under Gen. Santa Anna, April 21, 1836. The museum depicts the region's history from the early Indian civilization to Texas, a State in the Union.

Houston ranks first in the nation as a refinery center, housing 9 refineries which convert 830,000 bbl. of crude oil daily into gasoline and other products; first in the manufacture and distribution of petroleum equipment, and first in pipeline transmission with 14 major companies operat-

ing 83,000 mi. of natural gas pipelines.

Houston has the third largest seaport in the country, two major airports, the William P. Hobby Airport and the International Airport, and ranks third in the number of private aircraft. Other major industries are chemicals and petrochemicals, food products, primary and fabricated metals, lumber and wood products, synthetic rubber and plastics, electronic instruments, printing, and publishing. Nearly 60% of total U. S. sulphur is produced within 250 mi. of Houston.

To transport Houston's goods there are 23 airlines, 131 steamship lines, 6 major rail systems, 34 truck lines and 6 bus lines. In 1968, Houston's new International Airport handled 200 arrivals and departures daily. An elaborate 245-mi. inner and outer loop freeway system expedites traffic.

Population of the city of Houston is estimated at 1,187,000—up 26% from the 1960 Census. The metropolitan area (1,839,000) is up 30% and is one of the fastest growing major metropolitan areas. Its average growth is 1,000 a week.

In 1966, retail sales for the metropolitan area increased 46% over 1960 to \$2.8 billion, while wholesale sales have increased 25% to \$5.3 billion. It is estimated that the annual manufacturing payroll for Houston is \$1 billion. Through industrial expansion and diversification, Houston has become the largest industrial and manufacturing center in the South and Southwest.

The University of Houston has the largest of Houston's 14 college campuses. Houston is also the seat of the widely known Rice University.

The Houston metropolitan area is also an important agricultural center. The 13-county region, with less than 5% of the state's land area, receives approximately 7% of the state's farm cash income. Rice, grain, sorghum, and cattle are highly important in the farm picture of the area. The region produces about 86% of the state's rice, nearly 30% of the nation's total production, and contains the top cattle producing county in Texas. More than 50% of the export tonnage of the Port of Houston is agricultural.

The Houston region has extraordinary supplies of oil, gas, sulphur, salt, lime, timber, industrial soil, sea water, and fresh water. The value of annual mineral production in the Houston area is approximately \$457,000,000.

Houston has a mayor-council form of government with the mayor and 8 councilmen serving as the legislative body. These 9 officials and the city controller are elected for 2-year concurrent terms.

Indianapolis, Indiana

The World Almanac is sponsored in the Indianapolis area by the Indianapolis Star and the Indianapolis News, 307 N. Pennsylvania St., Indianapolis, Ind. 46206; telephone (317) 633-1240; News founded 1869 by John H. Holliday, Star 1903 by George F. McCulloch; circulation Star daily 229,954, Sunday 378,817, News 197,111; president & publisher, Eugene C. Pulliam; asst. publisher, Eugene S. Pulliam; Star editor, Jameson G. Campaigne; News editor, M. Stanton Evans; major awards include Pulitzer Prize to News, National Headliners first prize to Star; Star sponsors annual Indiana-Kentucky all-star basketball game, News sponsors Women's Anti-Crime Crusade, Junior Olympics.

Indianapolis, capital and largest city in Indiana, is located near the center of the state at the junction of White River and Fall Creek. Most early settlers came from Connorsville 60 miles to the southeast,

including George Pogue, who arrived first in 1819, and others who formed the first settlement in 1820. It was selected as the state capital in 1821 because of its central location and was named Indianapolis.

The city was laid out by Alexander Ralston, who earlier had assisted Major L'Enfant in laying out Washington, D. C. Because it was not on a navigable waterway, growth of Indianapolis was slow until the arrival of the first railroad in 1847 started its development as a major rail center. Today the city has a population of 519,400, with 1,049,000 in its metropolitan statistical area (estimated by Sales Management). It is governed by a mayor and city council.

Indianapolis is an industrial and trade center with more than 1,100 diversified plants turning out products valued at \$1.362 billion annually (1963 Bureau of the Census). Its leading industries are transportation equipment (\$374,392,000 annually), chemicals and allied products (\$200,154,000) and electrical machinery (\$162,560,000). Major firms with headquarters in Indianapolis include Allison Division of General Motors Corp., Eli Lilly & Co., P. R. Mallory & Co., Inc., and the Home Instruments Division of Radio Corporation of America. Western Electric Co. makes most of the nation's telephones in its Indianapolis plant. The U. S. Army Finance Center at Ft. Benjamin Harrison employs 5,600 and handles the payroll for the entire Army. Retail sales in Indianapolis total \$1.361 billion annually and \$1.755 billion in the metropolitan statistical area.

The city is served by 5 railroads, 6 major airlines and 3 commuter airlines, 4 interstate bus lines and more than 100 truck lines. There are 144 scheduled airline arrivals and departures daily, and the city is the hub of four interstate highways.

Indianapolis is in an era of great progress. Major downtown projects underway include a 37-story Indiana National Bank Building which will be the tallest in the state and a 20-story Hilton Hotel, both to

be completed in 1969. Preliminary work has begun on a new \$10,000,000 Federal Building and an \$18,000,000 convention-exposition center. A multi-million-dollar expansion of the Indiana University regional complex will make it a four-year campus, and Purdue University also plans to expand its regional center. On the north side of the city a new \$10,000,000 art center is under construction.

Passenger facilities at Weir Cook Municipal Airport have been doubled in the last year by a \$6,500,000 expansion program, and construction is now underway on a six-story administration building and other facilities. Some 3,200 housing units for low income and elderly persons are being completed, and more are planned. Most of the city's traffic problems will be solved with the completion of an inner loop and outer loop of expressways.

Monument Circle in the center of downtown has as its apex the Soldiers & Sailors Monument, 284½ feet tall, built in 1901. Five-block-long Memorial Plaza on the northern edge of downtown includes the World War Memorial and American Legion National Headquarters.

Indianapolis is the home of Butler University, on the campus of which was completed in 1963 a new center for the performing arts, Clowes Memorial Hall. This is headquarters for the Indianapolis Symphony Orchestra. The city also is the home of Indiana Central College, Marian College and Indiana University Medical Center.

The Indianapolis Indians baseball team plays in the Pacific Coast League, and the Indiana Pacers are in the American Basketball Association. The "500" Festival is an annual series of events in conjunction with the Indianapolis 500-Mile Race on Memorial Day.

Kansas City, Missouri

The World Almanac is sponsored in the Kansas City area by the Kansas City Star, 1729 Grand Ave., Kansas City, Mo. 64108; telephone (816) HA1-1200; founded 1880 by William Rockhill Nelson; circulation evening 332,364, morning 340,013, Sunday 404,547; president, Richard B. Fowler; executive v.p., Paul V. Miner; gen. mgr., Frank McKinney; editor, W. W. Baker; executive editor, Cruise Palmer.

Its location at the confluence of the Missouri and Kansas Rivers amid the agricultural lands of the Middle West was important in the founding and development of Kansas City, which had a population of 599,100 in July, 1968 (City Plan Commission estimate). Its area of 316.3 sq. mi. is one of the nation's largest.

The beginnings of Kansas City can be traced to the establishment by French trappers of a trading post at the merging of the rivers about 1826. It became an important trade and transportation center as the overland routes of the Oregon and Santa Fe Trails spread westward. As agricultural production boomed, it became an important market and distribution center for crops from throughout the Middle West. Presently Kansas City is a leading hard wheat center, stocker and feeder market, and is among the top 5 cities in flour production, grain elevator capacity and meat packing. Its stockyards are among the nation's busiest.

Growing steadily as a market, Kansas City became important in transportation. It remains one of the busiest rail centers. Twelve railroad trunk lines had 108 arriving and 103 departing freight trains and 74 passenger trains daily in 1966.

The city's air facilities in 1966 handled nearly 3,400,000 persons with 8 airlines and 320 scheduled daily flights. Approval of \$150,000,000 in revenue bonds in December, 1966, for construction of the Kansas

City International Airport is expected to place the city among world leaders as an airline center with capacity for supersonic jumbo jets. More than 9,300 trucks from 197 truck lines serve the city over a growing network of interstate roadways. Four barge companies continue barge operation on the rivers.

Kansas City has emerged as an industrial, as well as an agricultural leader. Second in nation in car and truck assembly with large Ford and General Motors plants, the city is first in production of vending machines and sixth in production of wearing apparel. National firms with headquarters in Kansas City include Hallmark Cards, Interstate Bakeries, Farmland Industries, Panhandle Eastern Pipeline company, H. D. Lee company, Western Auto and Nelly Don. Trans World Airlines has maintenance and training headquarters, with plans for a multi-million dollar training center announced in July, 1967. Top employers include the U. S. Government, General Motors, TWA, Bendix, Western Electric, and Ford. A newly-constructed Federal office building houses 20,000 workers. A new state office building is now open. Plans are being studied for a civic plaza in the area of City Hall, County Courthouse, and Federal Buildings, including new facilities for police and municipal courts.

Total retail sales in 1967 were \$311,550,889. In January, 1967, Hallmark announced

plans to convert 85 acres just south of the downtown district into a model urban community. Several other plans have emerged for revitalization of the downtown district. Country Club Plaza was one of the first shopping centers.

More than 100 parks cover 5,345 acres, including Swope Park, second largest in the nation. Swope Park houses one of the few remaining free zoos in the country. Kansas City's boulevard and parkway system is a subject of pride.

Cultural activities include the Starlight Theater, the country's second largest outdoor theater; Kansas City Philharmonic; Lyric Theater; the William Rockhill Nelson Gallery of Art and Mary Atkins Museum of Fine Arts, among 6 top American museums with furnishings and displays valued at more than \$25,000,000 including third largest Oriental collection outside China; and the Performing Arts Foundation, a group formed in 1965 to present festival events of all arts.

The American Royal Livestock and Horse Show each fall attracts entries from throughout the country. Kansas City is the home of the Chiefs of the American

Football League, Royals of American Baseball League, Blues of Central Hockey League and K. C. Spurs of North American Soccer League.

Kansas City's government is manager-council form. The 29-story city hall was, when built, highest in the world.

A distinguished citizen of the area is Harry S. Truman, 33rd President of the United States, who was born in Lamar, Mo., and lives in Independence, a suburb.

The University of Missouri at Kansas City, Rockhurst College, Kansas City Institute of Art, and the University of Kansas Medical Center are in the metropolitan area. Within commuting distance are the University of Kansas, Park College, William Jewell College, and Central Missouri State College. Linda Hall Library of Science and Technology on the U. M. K. C. campus is one of the largest privately endowed technical reference libraries with more than 375,000 volumes and 11,500 current scientific journals. The Truman Library in Independence contains primary research material from the Truman Administration.

Knoxville, Tennessee

The World Almanac is sponsored in the Knoxville area by The Knoxville News-Sentinel, 204-208 West Church Avenue, Knoxville, Tenn. 37901; telephone (615) 523-3131; Sentinel founded in 1886 by John T. Hearn, News in 1921 by Scripps-Howard Newspapers, Sentinel purchased by Scripps-Howard in 1926 and combined with News; circulation 107,390 daily and 157,342 Sunday; editor, Ralph L. Millett Jr.; managing editor, C. W. Orcutt; public service projects include Empty Stocking Fund, General Knox Mercy Fund, Southern Appalachian Spelling Bee and Science Fair.

Knoxville is an important commercial and manufacturing center in an area noted for its scenic beauty. Its first settler was James White, who came to the site in 1786, built a small fort and planted a turnip patch in the area of what now is the First Presbyterian Church Cemetery.

It became a city in 1791 and was designated capital of the Territory South of the Ohio River in 1792. Blount Mansion, home of the territorial governor, William Blount, still stands and is preserved as a national monument. It is the city's major historic visitor attraction and is believed to be the first frame house built west of the Allegheny Mountains. When Tennessee became a state in 1796, Knoxville was its first capital.

The city has an estimated population of 185,000 and it is the center of a 3-county metropolitan area of about 400,000.

The Holston and French Broad Rivers join immediately east of the city to form the Tennessee, which has a 9-foot channel linking Knoxville with the Ohio and Mississippi Rivers and the Inland Waterway System.

The administrative headquarters of the Tennessee Valley Authority is at Knoxville, and the city is situated on TVA's Fort Loudoun Lake, impounded by a TVA dam 53 river miles downstream. The city is within less than an hour's drive of 5 other major TVA lakes.

Situated near the lakes and between two mountain ranges of exceptional beauty, Knoxville and some of the smaller cities in the area thrive on tourist business. Great Smoky Mountains National Park, with 600 miles of hiking trails and nearly that many miles of productive trout streams, along with an exceptional variety of plant life, is 40 miles southeast of Knoxville. About 40 miles westward are the Cumberland Mountains, increasing in popularity with visitors.

Knoxville is in the heart of the Southern Appalachian dogwood region, and is the scene each April of the Dogwood Arts Festival, a 10-day event featuring about

45 miles of Dogwood Trails of outstanding beauty, along with hundreds of cultural and sports events.

The major manufacturing industry in Knoxville proper is clothing. Standard Knitting Mills, established in 1900, is the leader in the field. It employs about 3,000 persons and is the largest manufacturer of knitted clothing under one roof in the nation. Levi Strauss & Co., Palm Beach Co. and Apparel Corp. of America also have Knoxville clothing plants. Dempster Brothers, one of the nation's leaders in manufacturing of garbage collection equipment, was established in Knoxville in 1933. It employs about 775.

By far the biggest employer in the Knoxville area is Union Carbide Corp.'s Nuclear Division, at Oak Ridge, about 20 miles west of Knoxville. Carbide, which operates the Atomic Energy Commission's nuclear plants at Oak Ridge, employs more than 12,800. All told, nearly 15,000 are employed in AEC-related work at Oak Ridge.

Many Oak Ridge workers are Knoxville residents. The same is true of many workers at Aluminum Co. of America's plant at Alcoa, about 15 miles south of Knoxville. ALCOA, with about 6,800 employees, is the second largest employer.

Two rail lines, 5 airlines, two bus lines and 23 motor freight carriers serve Knoxville. Interstate Highways I-40 and I-75 intersect in the heart of the city; I-40 and I-81 intersect several mi. east of the city.

The Downtown Knoxville Association was formed in 1957 to rejuvenate the city's business district. One of its outstanding projects was the Market Mall, completed in 1961. The Mall, which replaced an old market house, has trees, flowers and fountains; it is flanked by stores with modernistic masonry sidewalk roofs which run the length of the Mall. At the north end is a covered area where vendors sell home-grown flowers and vegetables. The Mall was a joint project of the Association and the city.

One of the cultural and entertainment centers of the city is the James White Memorial Auditorium-Coliseum, opened in 1961. The six-story structure covers two and a half acres. The auditorium seats 2,536 and the coliseum 7,250. A Holiday on Ice troupe puts together a new show each year on the coliseum ice.

Los Angeles, California

The World Almanac is sponsored in the Los Angeles area by the Los Angeles Herald-Examiner, 1111 S. Broadway, Los Angeles, Calif. 90054; telephone (213) 748-4141; founded Mar. 27, 1871; circulation daily 623,474; Sunday 650,991; publisher, George R. Hearst, Jr.; managing editor, Donald Goodenow; general manager, George W. Sjostrom; sponsors annually American History Awards, Youth Forum, Bill of Rights Essay Contest, Carrierboy Scholarship Award, Junior Diplomat Program, etc.

When Juan Rodriguez Cabrillo, the Spanish explorer, anchored his caravel in Los Angeles Harbor in 1542, he wasn't too impressed. Looking over the broad mud flats, he saw the smoke of many primitive Indian fires drifting over the steep slopes and wide bay. He named the harbor the Bay of Smokes and Fires and sailed on.

Things hadn't changed much when on Sept. 4, 1781, Father Junipero Serra and Don Felipe de Neve, Spanish governor of California, founded a pueblo alongside the Indian village of Yang-na. They named it El Pueblo de Nuestra Senora la Reina de Los Angeles de Porciuncula (the City of Our Lady the Queen of the Angels of Porciuncula). The name was actually bigger than the city as 44 settlers built small adobe houses around a plaza by the Porciuncula River.

Until 1817, Los Angeles alternated with Monterey as the capital of the Mexican territory of Alta California. On Mar. 9, 1842, the first gold discovery in California was made at Placerita Canyon, in the northern part of Los Angeles County, 6 years before the famous strike was made at Sutter's Mill.

In 1846, the city was captured in a bloodless battle by U. S. Navy Commodore R. F. Stockton.

Today, the City of Los Angeles has an estimated population of nearly 3,000,000 and covers 458.2 square miles. It is the seat of Los Angeles County, which has a population of 7,087,667 and extends for 4,071 sq. mi., according to Chamber of Commerce surveys.

The City of Los Angeles was incorporated Apr. 4, 1850, and today is governed by a Mayor, 15-member Council, and commissions as provided for by a charter effective July 1, 1925. The Mayor, Council, City Controller and City Attorney are elected every 4 years. Members of commissions are appointed by the Mayor, subject to City Council approval.

As the city grew, its name was shortened to Los Angeles. Its growth came about for many reasons: the driving of the golden spike at Southern Pacific's Lang Station in Soledad Canyon Sept. 5, 1876, connecting Los Angeles by rail with the energetic East; the beginning of the greatest man-made harbor in the world at San Pedro Bay in 1899; the first complete motion picture in the city manufactured in 1908 in a rented house at Eighth and Olive Streets; only dry subtropical climate in North America with mild, sunny winter days and rainless summer days with cool nights; the annual average rainfall of 14.68 inches and the average mean temperature of 64.4 degrees, and proximity to the ocean, mountains and desert.

The smoky harbor dismissed with a shrug 426 years ago at San Pedro is today known as "The Cargo Capital of the West." General cargo for the 1965-66 fiscal year exceeded the 7,300,000-ton mark and total tonnage handled was a record 26,-

Knoxville in 1968 became the first of Tennessee's 4 major cities to provide both primary and secondary treatment for its sewage. Three treatment plants remove from 85 to 98% of suspended solids and biochemical oxygen demand from the sewage before the effluent is discharged into Fort Loudoun Lake.

293,560 tons. Ships of 30 nations, along with U. S. flagships, made 3,964 port calls with steel mill products, molasses, pipes, tubing, bananas, frozen fish and copra.

In the next 20 years, the new harbor headquarters on Terminal Island will oversee the development of 850 acres of land for 75 new deep-water berths for the Port of Los Angeles. The future Los Angeles World Trade Center also will be located on Terminal Island.

The economy of Los Angeles is diversified, composed of a variety of enterprises in agriculture, manufacturing, trade, fishing, mining, entertaining and other services. Los Angeles has a higher proportion of small business than any other large metropolitan area yet is the most popular location west of Chicago for branch plants as well as management headquarters for nationally-recognized companies. Major growth industries are electrical machinery and electronics, ordnance, instruments, rubber, petroleum refining, printing and publishing, furniture and chemicals.

The Greater Los Angeles area has more savings and loan holding companies than any other area of the United States. It is an important insurance center, housing 90 companies with home offices.

Sales of \$3.4 billion were recorded in 1963 for the more than 600 electronics firms in the area. Los Angeles is the sportswear center of the nation and the second largest garment manufacturing center in the world. It ranks as one of the nation's leading fishing ports in both volume and value.

The Los Angeles Metropolitan Area ranks third in the nation as a banking center with a total of 860 banks and branches with deposits of over \$13 billion.

Retail sales currently total over \$12 billion for the area and by 1970, the Chamber of Commerce estimates that retail sales should exceed \$13,250,000,000.

Los Angeles is a city on wheels. There are over 3,400,000 automobiles registered in the Los Angeles Metropolitan Area, a car for every 2.2 persons, a higher ratio than any other major city in the world.

The area has 3 transcontinental railway systems; 22 certificated air carriers, carrying 18,000,000 passengers a year; 111 steamship lines and agencies with 5,290 ships carrying more than 37,000,000 tons of cargo annually, and 6 major passenger bus lines. Los Angeles ranks as the West's largest trucking center.

Each day 1,800 planes arrive and depart at the Los Angeles International Airport.

Since the first movie made in Los Angeles in 1908, Los Angeles has become the film capital of the world. Hollywood was annexed to the city in 1910 and a recent report showed 617 firms engaged in the production, distribution and service of motion pictures, including those made for television. Many of the nation's top television shows originate from Hollywood studios.

Los Angeles leads the nation in the

manufacture of aircraft and parts. Since Galbraith Rodgers, completing the first transcontinental flight, landed at nearby Pasadena on Nov. 5, 1911, and the first round-the-world flight started from Santa Monica on Mar. 17, 1924, the area has been an aviation center.

Added to the natural recreational advantages of ocean, desert and mountains within an hour's drive, Los Angeles residents enjoy such man-made facilities as the Hollywood Bowl, the Huntington Library and Art Museum, the new Music Center, Griffith Park Planetarium, the Los Angeles Museum of History, Science and Art; Mt. Wilson Observatory, Pasadena's Rose Bowl, Marineland, Disneyland, Knott's Berry Farm, the new zoo in Griffith Park, and Pacific Ocean Park.

The Los Angeles Dodgers and Los Angeles Lakers keep baseball and basketball fans busy, while the Los Angeles Rams

football team attracts capacity crowds.

Los Angeles County has such leading higher schools of learning as the California Institute of Technology, Loyola University, Occidental College, Pomona College, the University of California at Los Angeles, the University of Southern California, Whittier College, and 27 others.

Los Angeles has 154 parks totaling 9,875 acres, and 129 recreation centers.

The County of Los Angeles was established Feb. 18, 1850, and was one of California's original 27 counties. The county has a governing body consisting of a 5-member Board of Supervisors, each elected for a 4-year term. With a population in excess of 7,000,000, greater than that of any other county in the nation and exceeded by only 7 states, Los Angeles County is 800 square miles larger than the combined areas of the States of Delaware and Rhode Island.

Louisville, Kentucky

Though Louisville is steeped in the leisurely traditions of the South, its location on the Ohio River makes it a major industrial and distributing center and a key city in the accelerating industrialization of the Southern states. The city was founded by the explorer George Rogers Clark, who in 1779 established a small community which would later be a base of supply for his exploration of the Northwest. In 1780, the city was given its name by the Virginia Legislature, which formally established the town, naming it after King Louis XVI of France.

The opening of the Louisville and Portland Canal in 1830 to allow river boats to circumvent the 25-ft. falls in the Ohio River, led to a rapid growth of the city. Today, Louisville is Kentucky's largest city with an estimated metropolitan area population of 775,000 in 1966.

Louisville is probably most famous as the site of the Kentucky Derby, which is held the first Saturday in May at Churchill Downs. The "Run for the Roses," as the race is often called, is traditionally preceded by the playing of "My Old Kentucky Home" and the winner is draped in a blanket of roses. The race has been held annually since 1875.

The city is one of the largest tobacco manufacturing centers in the world, and the counties of Louisville and Jefferson produce about 25% of all the liquor distilled in the country.

One of the largest manufacturing plants

in Louisville is General Electric's Appliance Park, with 4,000,000 sq. ft. of space located on a 1,000-acre site.

The "Louisville Slugger," long a favorite bat with American youngsters and professional baseball players, is manufactured here by Hillerich & Bradshaw Co., which has a Museum of Bats open to the public. The American Printing House for the Blind, the largest publishing company in the world producing Braille books and magazines as well as talking books, is also open to the public.

In addition to places of historic interest, such as the site of Ft. Nelson and the grave of George Rogers Clark in Cave Hill Cemetery, the visitor to Louisville will find many other attractions.

There are many municipal parks, Shawnee, Seneca, Cherokee and Iroquois being the largest. The J. B. Speed Art Museum houses outstanding collections of 19th century sculpture, paintings, tapestries and other art objects as well as paintings of American Indians by Kentucky artists. The University of Louisville, founded in 1798 and one of America's oldest municipal universities, has on its campus the Rauch Memorial Planetarium, which is open to the public at a nominal charge.

The Kentucky Fair and Exhibition Center, covering 357 acres, has a stadium which can seat some 20,000 people and is the site of the Kentucky State Fair and Horse Show usually held the last week in August.

Memphis, Tennessee

The World Almanac is sponsored in the Memphis area by the Memphis Press-Scimitar, 495 Union Ave., Memphis, Tenn. 38101; telephone (901) 526-2141; Scimitar founded 1880 by G. P. M. Turner, Press 1906 by Scripps-McRae League, predecessor of Scripps-Howard Newspapers; circulation 133,644; editor, Charles H. Schneider; managing editor, Ed. Ray; associate editor, J. Z. Howard; major public service projects include Goodfellows Christmas Fund and Cynthia Milk Fund.

Memphis is on a bluff on the east bank of the Mississippi River, in the southwest corner of Tennessee. The city occupies 179 sq. mi. and is the center of a metropolitan area that includes large parts of Shelby County, Tenn., DeSoto County, Miss., and Crittenden County, Ark. There are 3 bridges across the Mississippi at Memphis—one highway bridge and two railroad bridges. A new 6-lane highway bridge is under construction and will be part of the Federal Interstate highway network.

The site of Memphis is a point where DeSoto stopped in 1541 when he discovered the Mississippi River. In 1797 a U. S. military post, Fort Adams, was established at the site of Memphis. In 1801 Fort Pickering was built, and a section of the city where the fort stood near the river

now bears that name. In 1818 the U. S. purchased West Tennessee, including the Memphis site, from the Chickasaw Indians, and settlement of the area began. The town of Memphis was laid out in 1819 by owners of land grants, and incorporated in 1826. The following year Marcus B. Winchester was elected the first mayor.

A major yellow fever epidemic struck in 1878 and the city was nearly depopulated. The following year it surrendered its charter and became a taxing district. But by 1890 population was up to 64,589 and by 1900 to 102,320.

Latest population count for the city is 536,585, according to a special census by the U. S. Bureau of Census made in 1967. Population of Shelby County, which includes Memphis, is estimated at 772,200

and for the metropolitan area at 829,000, both by the Memphis Area Chamber of Commerce.

Memphis has a mayor-council form of government.

The city is the center of an important trade area ranging over much of Tennessee, Arkansas, and Mississippi and parts of Missouri and Alabama.

Memphis is the world's largest hardwood lumber center, and consequently has manufacturing of furniture and hardwood flooring. The city is the site of the world's largest inland spot cotton market, centered along picturesque Front St., overlooking the Mississippi River. The city is the nation's 10th largest distribution center, supplying dry goods, hardware, etc., for a large area of the South. It is headquarters for Plough, Inc., world-wide drug concern founded in Memphis by Abe Plough in 1908, and also for Holiday Inns of America, Inc., the world's largest motel chain, founded in Memphis in 1952 by Kemmons Wilson.

The city is served by 9 airlines with a total of 114 arrivals and 114 departures a day at Memphis Metropolitan Airport. The city is served by 8 trunk line railroads, 89 motor freight lines and 5 barge lines. Memphis is one of the nation's largest inland river ports, having handled 8,400,000 tons of freight in 1966.

On Presidents Island, once an island in the Mississippi River but now part of the city and joined to the mainland by a causeway, a 963-acre industrial park is now 83% filled with industries. Just across the harbor from that area, the city will soon open the 6,800-acre Frank C. Pidgeon Industrial Park.

Memphis is the home of the Cotton Carnival each May. The city's picturesque

Beale Street, at the south end of downtown is famous in the world of blues music; it is where W. C. Handy, the composer, lived.

Colleges and universities include Southwestern at Memphis, Memphis State University, Christian Brothers College, Siena College, LeMoyné-Owen College, University of Tennessee Medical Units, Mid-South Bible College, Southern College of Optometry, and the State Technical Institute at Memphis.

Memphis Memorial Stadium is the home of the annual Liberty Bowl football game plus Memphis State's home games. The Mid-South Coliseum, adjacent to the stadium, is the site of Memphis State's basketball games and is home of the Memphis South Stars, which is a farm team of the Minnesota North Stars and plays in the Central Hockey League.

Also adjacent are the Fairgrounds, site of the annual Mid-South Fair, and Blues Stadium, home of the Memphis Blues baseball team, which is a farm club of the New York Mets and plays in the AA Texas League.

The annual Memphis Open Golf Tournament, on the PGA tour, is held at Colonial Country Club.

The Municipal Auditorium has annual performances of New York's Metropolitan Opera, as well as regular performances of the Memphis Symphony Orchestra and many other traveling cultural attractions.

Inquiries should be addressed to Dan Dale, director of industrial development, Memphis Light, Gas and Water Division, Madison and Third Sts., or to James Pirtle, manager of Industrial Department, Memphis Area Chamber of Commerce, Memphis, Tenn. 38101.

Mexico City, Mexico

Mexico City (Ciudad de Mexico) is the oldest and one of the largest and most beautiful cities of North America.

Set in the lofty Valley of Mexico at an altitude of 7,349 ft., nearly a mile and a half above sea level, the city is the capital of Mexico and is the political, economic, cultural and transportation hub of the nation. Population of Mexico City (1968 est.) was 3,118,059. Including the suburbs, which make up the Federal District, the population was 6,815,800.

The art and architecture of the city present a striking exhibit of the three great cultures embodied in Mexican history: that of the Aztec Indians who founded the city on islands in Lake Texcoco in 1325; that of Europe imported by the Spaniards who conquered the Aztecs in 1519, and that created by the Mexicans of today in distinctive, ultra-modern design.

Here are the remains of grim pyramids from the days when Tenochtitlan, as the Aztecs called their capital, was a city of 300,000 or more.

Here, too, are the huge, ultra-baroque Metropolitan Cathedral, the arcaded buildings and the broad avenues, studded with a profusion of monuments, which were created by the Spaniards and the descendants of both races under the influence of European styles.

Finally, here are the daring forms of modern Mexican architecture, ranging from a glass-sided, skyscraper pyramid to the towering block of a university library whose exterior walls are entirely covered by colorful mosaic murals.

Places of particular interest include: Xochimilco and its "floating gardens" and flower-decked gondolas; the National University (founded 1551) which has 90,000 students; the National Palace with its famed Diego Rivera murals, on the site where stood the palace of Moctezuma II, last of the Aztec emperors; the Palace of Fine Arts and its much-acclaimed Ballet Folklórico; the National Museum of Anthropology and the 22-ton, remarkably accurate Aztec Calendar Stone; Chapultepec Castle, where the ill-fated Maximilian and Carlota lived briefly as the French-supported Emperor and Empress of Mexico, 1864-67.

Mexico City has large low-cost housing developments, fine residential areas created by its new and affluent middle class, and large new apartment houses erected to house, during their visits, the athletes of the 1968 Olympics. In dramatic background to the city stands a ring of mountains, including the perpetually snow-capped volcanoes, Popocatepetl (17,887 ft.) and Iztaccihuatl (17,343 ft.).

The altitude and tropical latitude combine to give the city a perpetually spring-like climate.

In shops and markets visitors will find the distinctive artistic and craft products of Mexico: silver, tin and copperwork, jewelry, leather goods and textiles. The city is a sports center, from bullfights and jai alai to baseball and golf.

There are 23 international airlines serving the city and a network of modern highways. The city is 5 hrs. by jetliner from New York, 3 hrs. from Los Angeles.

The city is governed, as part of the

Federal District (Distrito Federal), by a Governor appointed by the President, and a council.

The tempo of business and industry, which show steady growth, is that of any great city. The traditional siesta is no

longer observed in Mexico City.

For more information, write Mexican National Tourist Council, Mariano y Escobedo 726, Mexico, D.F.; or 677 5th Ave., N.Y. 10022; or 9445 Wilshire Blvd., Beverly Hills 90212.

Miami, Florida

The World Almanac is sponsored in the Miami area by the Miami Herald, 1 Herald Plaza, Miami, Fla. 33101; telephone (305) 350-2111; founded Dec. 1, 1910, by Frank B. Shutt; circulation 369,609 daily, 463,782 Sunday; publisher, John S. Knight; president, James L. Knight; general manager, Alvah H. Chapman, Jr.; editor, Don Shoemaker; major awards include 1968 Pulitzer Prize to Publisher Knight for editorial writing, previous Pulitzer Prize to paper and one to staff member, Headliners Awards, and a Sigma Delta Chi 1st prize; sponsors annual Silver Knight Awards to high school seniors, fishing tournament, Science Fair, Dolphin Charity Football Game, program to send underprivileged children to summer camp.

Miami (Seminole for "Sweet Water") is wedded to the sea. Located at the southern tip of the Florida peninsula and brushed by the warm Gulf Stream, this sub-tropical city is surrounded by the Atlantic Ocean, Biscayne Bay and the "River of Grass," Everglades National Park.

It is America's newest big city. In 1895 there were only 3 houses and a handful of residents living in what was then called Fort Dallas, site of a military outpost used during the Seminole Indian wars in the 1830s. In that year, a hard freeze destroyed the Florida citrus crop upstate and a Miami widow, Julia Tuttle, convinced millionaire Henry Flagler to extend his railroad from West Palm Beach to Miami by sending him a green sprig, undamaged by frost, cut from her backyard orange tree. Flagler's trains began arriving in Miami the following year, bringing people and the migration south hasn't stopped yet. Except for a few months following the disastrous 1926 hurricane, Miami and its population have grown rapidly.

Incorporated in 1896, the year the first trains arrived, the City of Miami now has 343,500 year-round residents. But the metropolitan Miami area, which includes the cities of Miami, Miami Beach and 25 other municipalities, now has a permanent population of an estimated 1,200,000.

Dade County's 2,352 sq. mi. (more than half is under water and cannot be developed) are administered by a government in which 8 county commissioners and a mayor establish policy and the routine of administration is headed by a professional county manager. The City of Miami turned over many of its municipal functions to the county to avoid duplication as urban residents followed a national trend and moved to the suburbs. The city is governed by a 5-man commission, including a mayor, with a city manager.

Miami takes pride in calling itself "The Gateway to Latin America." It is increasingly the center of U. S.-Latin American trade with 4,000 small manufacturing plants serving virtually all of the Caribbean islands, Central and South America.

Tourism is still king although it is no longer the only industry in Miami. More than 20,000,000 visitors a year flock to Florida, producing a \$5 billion annual tourist economy. Most head for Miami—"The Magic City"—and Miami Beach, which offers the world's largest concentration of luxury hotels. There are 45,000 first class hotel and motel rooms and 100,000 rental apartments in Miami Beach.

While its reputation as an international playground is unchallenged, Miami is also on the road to becoming a center of business and commerce and science. It is the home base for Eastern Airlines, National Airlines and Family Finance Service, Inc. It also serves as international headquarters for Minnesota Mining and Manufac-

turing Co., Dow Chemical, Eastman Kodak, International Petroleum, Owens-Corning Fiber Glass Corp., and Pan American World Airways.

Miami, with the anticipated opening in the early 1970s of the Environmental Science Services Administration's Oceanographic Laboratory, will lead the world in undersea study. It is already the home for the University of Miami's famed Institute of Marine Science and the U. S. Bureau of Commercial Fisheries' Tropical Atlantic Laboratory.

Total retail sales in Miami in 1967 hit \$2.6 billion.

Miami International Airport, as hub of air traffic between North and South America, is one of the world's busiest air terminals, served by all the major certified domestic and foreign airlines, 92 in all. An average of 47 commercial flights arrive or take off at Miami every hour—a total 446,867 flight movements in 1967, carrying 8,722,032 passengers. Two railroads serve the city, the Florida East Coast and Seaboard Coast Line.

Dodge Island Seaport, currently in the middle of an expansion program, was visited by 2,200 ships in 1966 and 865,000 tons of cargo were handled. The port is home for cruise ships making regular runs to the Bahamas and Jamaica and some 260,000 passengers passed through the seaport's terminal in 1966.

The Greyhound and Trailways bus systems provide service to all major U. S. cities with 62 departures daily.

Fifteen major inter-intrastate motor common carriers service Miami.

Since the 1959 takeover by Castro in Cuba, Miami has become the refugee center for fleeing exiles. Some 125,000 Cubans now make Miami their home.

Urban renewal plans and a comprehensive revitalization program submitted by city planner Constantinos Doxiadis are now under examination as the city prepares massive rehabilitation of the downtown business and financial district.

Completion of the \$200,000,000 expressway system connecting the quadrants of the city is expected by early 1969.

The Orange Bowl is the home stadium for the University of Miami Hurricanes football team and the Miami Dolphins of the American Football League. It also hosts the traditional New Year's game between two of the nation's top-ranked teams and, in 1969, will again provide the setting for the Super Bowl game and the National Football League Playoff Game.

The University of Miami is the largest independent institution of higher learning in the Southeast, and Miami-Dade Junior College, which opened in 1960, is already the nation's largest junior college.

For information write: Dade County Development Department, 330 Biscayne Blvd., Miami, Fla. 33132.

Milwaukee, Wisconsin

The World Almanac is sponsored in the Milwaukee area by the Milwaukee Journal, Journal Square, Milwaukee, Wis. 53201; telephone (414) 271-6000; founded 1882 by Lucius W. Nieman; circulation 374,623 daily, 570,342 Sunday; chairman of the board, Irwin Maier; president and publisher, Donald B. Abert; executive vice president and general manager, Robert K. Drew; business manager, Francis D. Kelly; editor, Richard H. Leonard; major awards include two Pulitzer Prizes to newspaper and two to staff members; sponsors various sports events, major home shows and cultural events annually.

Milwaukee, the largest city in Wisconsin and an important manufacturing center, was founded by Solomon Juneau, one of the many French explorers, traders and trappers who visited the Midwest in the early 1800s. Marquette, Joliet and La Salle had visited the site during their earlier explorations.

The name of Milwaukee was originally "Mahnawaukee-Seepe," or "gathering place by the rivers," referring to the level of land at the confluence of the Milwaukee, Menomonee and Kinnickinnic Rivers, all entering the Bay of Milwaukee on Lake Michigan.

Incorporated in 1846, the city now covers 96.5 sq. mi. and has an estimated population of 774,000. Its standard metropolitan statistical area, including Milwaukee, Waukesha, Ozaukee and Washington Counties, covers 1,458 sq. mi., with an estimated population of slightly over 1,400,000, and with 427,100 households.

Milwaukee has a mayor-council government, with aldermen elected for 4-year terms.

A leading brewing center, Milwaukee also is a major grain market. Its leading manufactured products include electrical machinery, outboard motors, motorcycles, chemicals and textiles. The metropolitan area is second in the U. S. in percentage of the labor force in manufacturing. Ten Milwaukee manufacturers are in Fortune magazine's list of the 500 top U.S. corporations in sales volume.

Total retail sales in the Milwaukee metropolitan area in 1967 were estimated at \$2.4 billion, ranking 17th in the U. S. The metropolitan area ranked 7th in retail sales per household.

Milwaukee's General Mitchell Field, with facilities for the largest jet transports, is served by 5 major airlines; the field's passenger volume in 1967 was 1,378,400. Five important rail systems serve the area; car ferry lines also operate out of Milwaukee's harbor. Railroad freight tonnage is over 10,000,000 annually. The area is served by 62 truck lines and there are 4 intercity bus lines.

A leading Great Lakes port, Milwaukee is an important export and import gateway between mid-America and overseas points. The municipally-owned port serves lake vessels, barges, and ocean-going vessels of 43 lines.

An intensive program of building construction involving private, city, state and Federal enterprise has been under way in Milwaukee for the past 8 years.

The University of Wisconsin at Milwaukee and Marquette University are notable among the area's 18 universities and colleges, which have a total estimated enrollment of almost 43,000.

Notable buildings include the Greek Orthodox Annunciation Church, designed by Frank Lloyd Wright, and the Eero Saarinen-designed War Memorial Center on the lakeshore, housing the Milwaukee Art Center. By the end of 1969 Milwaukee will have a \$9,500,000 Center for the Performing Arts and a Music Hall Theater, mostly financed by public subscriptions.

Milwaukee County has 12,630 acres of parks in 108 locations. The new Horticultural Conservatory in Mitchell Park consists of 3 glass conoidal domes duplicating climate and plant life found throughout the world.

Milwaukee's annual Fourth of July parade has been changed to a large exhibit of circus animals and reconstructed circus wagons from the Circus Museum in Baraboo, Wis.

Cultural enterprises include a permanent Milwaukee Repertory Theater and the Milwaukee Symphony Orchestra.

The Green Bay Packers of the National Football League play 4 regular league games a year in Milwaukee's County Stadium. The Chicago White Sox played 10 of their regular season games in Milwaukee in 1968.

Detailed information on the area can be obtained from the Milwaukee Journal's marketing research department and the Metropolitan Milwaukee Association of Commerce.

Minneapolis, Minnesota

St. Anthony's Falls in the Mississippi River provided the geographical nucleus for Minneapolis—a city that would use the power of the 50-foot falls to become a flour-milling and lumber center and the urban heart of a vast agricultural region. The site of the city was first visited by Father Louis Hennepin in the 1680s. French fur traders next used it as a base of operations, and in 1805-06 the Sioux Indians gave up all rights to the land in a treaty concluded by Lt. Zebulon Pike. The city was incorporated in 1871.

Today, Minneapolis, along with its Twin City sister, St. Paul, is a manufacturing, wholesaling, retailing, financial and educational center with a combined population of 1,629,000, according to a provisional estimate of the Census Bureau.

Minneapolis has 25 industrial parks and such corporate giants as Honeywell Inc., General Mills, Pillsbury Co., National Biscuit Co., and Control Data, call the city home. In a move that is expected to attract more industry to the area, the city

is constructing Upper Harbor, a 12-acre river terminal that will handle the shipping and storage of grain, fertilizer, petroleum products, sand, gravel, salt and coal.

Massive freeway and urban renewal programs have been undertaken by both cities, with Minneapolis' \$286,000,000 Gateway Center, already underway, transforming a 17-block area in the heart of the city into a modern building complex.

The Twin Cities are served by the Minneapolis-St. Paul International Airport which in 1966 handled more than 3,000,000 passengers and 50,000,000 pounds of cargo.

Minneapolis is an enthusiastic sports town featuring the Minnesota Twins of baseball's American League and the Minnesota Vikings of the National Football League, both of whom play their home games in Metropolitan Stadium at nearby Bloomington.

The Minneapolis Symphony Orchestra and the Tyrone Guthrie Theater are the two brightest lights in the city's cultural sky. The city plays host all year long to

national touring companies of ballet, opera and local performing arts groups.

The Minneapolis Institute of Arts is one of the foremost museums in the country with outstanding collections highlighted by masterpieces of El Greco, Van Gogh, Rembrandt, Gauguin, Matisse and other prominent artists. The Walker Art Center, primarily devoted to current trends in painting, sculpture, drawing and print

making, is connected to the Tyrone Guthrie Theater by a sculpture court.

There are 153 parks in the city comprising 5,906 acres with 22 lakes offering sailing, boating, fishing and various other summer and winter activities. The Minneapolis Aquatennial is held in July.

The University of Minnesota, Northwestern College, Augsburg College and Seminary are among the institutes of higher learning located in Minneapolis.

Montreal, Canada

The World Almanac is sponsored in the Montreal area by The Gazette, 1000 St. Antoine Street, Montreal, Quebec, Canada; telephone (514) 861-1111; founded 1778 by Fleury Mesplet; circulation 138,613 daily; president, Charles H. Peters; general manager, H. J. Larkin; editor, Edgar Andrew Collard; managing editor, John A. Meyer; major prizes include four National Newspaper Awards to staff members; sponsors annual Christmas Fund for needy families; participates in various community service projects.

There is something for everybody in Montreal—after Paris, the second-largest French-speaking city in the world, and one of North America's most cosmopolitan centers.

The island city in the St. Lawrence River is Canada's largest urban center, ranks 9th on the continent with a metropolitan area population of 2,321,000 (with 1,400,000 in the city itself) and is the nation's financial, commercial and industrial hub. Two-thirds of its people are of French origin and 20% have an Anglo-Saxon heritage.

An international flavor is reflected in Montreal's theaters, shops, boutiques, its 4,000 restaurants which make it a gourmet's delight, and its celebrated night life—it has been called "the Paris of North America."

Located in the St. Lawrence where the Ottawa and Richelieu Rivers flow into it and at the head of the St. Lawrence Seaway, Montreal has become a great transportation center. The Seaway is a \$1 billion Canadian-American waterway and power project which runs 1,300 miles to the Great Lakes in the heart of North America. It has helped Montreal, 1,000 miles from the sea, become the world's second greatest inland port, after only Rotterdam. Its harbor limits extend for 42 miles and its port annually produces revenues of more than \$240,000,000, handles more than 2,000,000 tons of cargo and sees 125,000 passengers pass through it.

Montreal also is known as the air capital of the world, with the headquarters of both the International Civil Aviation Organization and the International Air Transport Association—the two global regulatory bodies—located in the city and 17 airlines serving its huge international airport. It also is Canada's railroad hub, and a leading truck and bus center.

The city is a leader—it has been called "the only 20th Century city in the world"—in terms of the redevelopment of its core and its underground, weather-proof facilities. Its most spectacular development is the \$125,000,000 Place Ville Marie, a cruciform-shaped building of 42 stories which has more office space than any other complex in the world except Rockefeller Center in New York. The underground city covers 40 acres, connecting office skyscrapers, railroad stations, hotels; Place Bonaventure, the world's second largest trade and convention center, the Montreal and Canadian Stock Exchanges, cinemas and theaters, restaurants, hundreds of shops and boutiques; and the Metro, the city's two-year-old, \$225,000,000, 16-mile subway system.

Montreal is a major cultural center. Facilities include the Place des Arts, which has a fine 3,000-seat concert hall and two theaters. It serves as the home of the Montreal Symphony Orchestra and at-

tracts the finest in drama, opera, ballet and music. The city has excellent art galleries, including the Montreal Museum of Fine Arts and the modern Musee de l'Art Contemporain. Its many specialized museums run the gamut.

Montreal also boasts some of the continent's most beautiful churches, including the Roman Catholic Mary Queen of the World Basilica, a half-size replica of St. Peter's in Rome, and it is the home of two of Canada's most famous universities, McGill and l'Universite de Montreal.

The city has more than 100 playgrounds covering more than 5,000 acres including one centered about the 764-foot-high Mount Royal, its most dominant physical characteristic. The parks include an outdoor art gallery, a children's zoo, theater and concerts, excellent sports facilities of all kinds and the Botanical Garden, one of the world's largest and most beautiful.

The city has remembered its history, too. Old Montreal, some 1,000 acres in all, is the largest such area undergoing restoration in North America and retains unchanged the general atmosphere of the 18th Century.

Finally, among its many attractions, there is Man and His World, the largest permanent exhibition anywhere and the successor to the fabulously-successful Expo 67 on two man-made islands in the St. Lawrence. The 1968 version had participation by 45 nations, exhibiting both artistic treasures and commercial goods in their own pavilions, and a 135-acre amusement and entertainment area called La Ronde, which has been compared favorably with such places as the Tivoli Gardens in Copenhagen and California's Disneyland. The 1969 exhibition promises to be even bigger and better.

Montreal has a mayor-council form of government with elections each four years, and the major project now underway is a massive urban renewal scheme. The city is the home of two professional sports teams—the world champion Canadiens of the National Hockey League and the Alouettes of the Canadian Football League. Major league baseball is due to come to Montreal in 1969, with a National League franchise.

Montreal was first visited by Jacques Cartier in 1535 and was founded under the name of Ville Marie in 1642. Today, it shares the island with 29 other autonomous municipalities—its suburbs—and occupies 18 sq. mi. of the island's 60.

Its major industries include oil refining, petro-chemicals and chemicals, aircraft manufacturing, textiles, sugar refining, flour milling, meat packing, brewing and construction products. It boasts more head offices of major Canadian companies than any other city.

Nashville, Tennessee

The World Almanac is sponsored in the Nashville area by The Nashville Tennessean, 1100 Broadway, Nashville, Tenn. 37202; telephone (615) 255-1221; founded as The Tennessean, May 12, 1907 by Col. Luke Lea; but other incorporated publications date to 1812; circulation daily 146,000, Sunday 240,000; publisher, Amon C. Evans; editor, John Seigenthaler; associate editor, Lloyd Armour; major public service projects include continuing efforts to further economic development of the Tennessee Valley region; a series of free concerts annually; an Outdoor Show to aid Girl Scouts; and annual publication of tabloids with proceeds going to local charities.

Nashville sits 500 feet above sea level on the banks of the Cumberland River in north central Tennessee. The state's capital city, it was settled in 1780 as a fort built by James Robertson and a group of settlers in what was then North Carolina. In 1783, the land around Fort Nashborough became a county under an act of the North Carolina legislature and was called Davidson County after Gen. William Davidson of Mechlenburg, N. C.

A year later Fort Nashborough was incorporated under the name Nashville; it had the first written constitutional government west of the Alleghenies. In 1778 a transient horseman named Andrew Jackson made Nashville his home and later put it on the map as the state's first congressman and the first of its three U. S. Presidents. His home, the famous Hermitage, still stands as a major Nashville landmark.

Federal troops occupied the city during the Civil War, and it was there that Gen. Thomas Hood's Confederate army suffered a disastrous defeat in 1864.

More than a century later, Nashville has grown into a major cultural, educational and commercial complex and the heart of a great regional trading area. It is served by nine major airlines, providing 83 flights daily, and is served by six routes of the Interstate Highway System.

Education has been a traditional trademark since the first public school system in the South opened its doors on a Nashville street Feb. 26, 1855.

Now 13 universities and colleges, 141 public schools and more than 40 commercial and vocational schools dot its landscape. Among the institutions of higher learning are Vanderbilt University, Fisk University, Tennessee A & I State University, a branch of the University of Tennessee, George Peabody College, Belmont College, David Lipscomb College and Meharry Medical College.

Rich in schools, it is even richer in churches and church-related industries, including several large publishing houses that have helped to make printing the city's largest single industry. Among them are the National Baptist Publishing Board, The Methodist Publishing House and the National Baptist Sunday School Publishing Board.

But printing is only a small part of Nashville's diversified economy, which boasts more than 500 individual manufacturers employing more than 28,000

workers and more than 40,000 individual business concerns.

It is also a banking and investment center and ranks second to Hartford, Conn., in the number of major insurance company offices. Two of the industry's largest, National Life and Accident Ins. Co. and Life and Casualty Ins. Co., have skyscraper headquarters in Nashville.

Other major employers include E.I. du Pont de Nemours Co., Ford Motor Co., Genesco Inc., Avco Corp. and Gates Rubber Co.

In 1925 radio station WSM, a National Life operation, went on the air and in November of that year presented a program of folk music known as the Grand Ole Opry. That program, still on the air, snowballed into a multi-million dollar music industry.

The music business now pumps an estimated \$60,000,000 annually into the Nashville economy and the famous "Nashville sound" has made the city second only to New York as a recording center.

Recording studios and music publishing houses occupy a burgeoning section of the city, with an entire street now named "Music Row."

On it stands the "Country Music Hall of Fame," a relatively new building which must be numbered along with the Hermitage and a replica of the Greek Parthenon among Nashville's top attractions.

The city has a symphony orchestra and art showings are continuous at the Parthenon and at Cheekwood Botanical Gardens, a fine arts center.

On April 1, 1963, the local governments of Nashville and Davidson County were consolidated in a unique form of Metropolitan Government which encompasses all the county's 533 square miles.

The consolidation boosted Nashville's population to more than 465,000, second largest in the state. Nashville is ruled by a mayor-council form of government and constitutes the 5th Congressional District.

The city lies in the heart of a fertile valley served by the Tennessee Valley Authority, the source of electrical power and flood control for millions.

TVA dams in the area have surrounded Davidson County with major lakes and all the recreational facilities which accompany them.

Additional information on Nashville can be obtained from the Nashville Area Chamber of Commerce, 310 Union St., Nashville, Tenn. 37201.

New Orleans, Louisiana

The World Almanac is sponsored in the New Orleans area by the New Orleans States-Item, 3800 Howard Ave., New Orleans, La. 70140; telephone (504) 821-1411; founded Jan. 3, 1880, by Maj. Henry J. Hearsey; circulation 140,201; executive editor, George W. Healy, Jr.; managing editor, Walter G. Cowan; general manager, Robert E. Gough; major awards received, Pulitzer Prize and two Sigma Delta Chi awards; sponsors Visual Education Program for High School Students, slum clearance campaigns and Football Fund for Underprivileged Children.

New Orleans, having completed its 250th anniversary year in 1968, combines Old World charm with New World progress and industry as the nation's second port, based on value of imports and exports.

Named after the Duke of Orleans, the city was founded on the edge of a swamp

within a crescent of the Mississippi River 100 miles upstream from the Gulf of Mexico by Jean Baptiste le Moyne, Sieur de Bienville.

The new settlement struggled for existence until 1722, when Bienville persuaded the French to make it the capital

of the Louisiana Territory. In that year Adrien de Pauger laid out the city, with a square on the bank of the river around which important public buildings stand. The area occupied by the original city is known as the Vieux Carre or French Quarter, which attracts millions of tourists to its museums, shops, restaurants, markets, jazz centers and residential patios.

Above Canal street, modern New Orleans is the banking and business center of the Deep South. For many years the city relied almost solely on shipping for economic support. Then agriculture—principally sugar, rice and cotton—manufacturing, trapping, fishing, production of petroleum and tourism became vital parts of its economy. Lands surrounding the city, including offshore areas, are the most productive sources of oil in the United States. The city produces Saturn rockets for the space program.

The port, served by the river, the Gulf Tidewater Channel, Inner Harbor Navigation Canal, Intracoastal canal and Lake Pontchartrain, moved cargo valued at \$2.34 billion in 1967.

The city proper, covering 363.5 square

miles, of which 199.4 are land, is governed by a mayor and city council. The population of the metropolitan area was estimated at more than 1,076,600 in 1967.

Three airports, for scheduled airlines, commercial and private aviation and military use, serve the city. The Union Passenger Terminal, opened in 1954 in the center of the city, consolidated passenger services of six railroad stations.

Among New Orleans' educational institutions are Tulane University, Louisiana State University in New Orleans, the LSU Medical College, Loyola University and 4 other institutions of higher learning. Museums include the Louisiana State Museum, Isaac Delgado Museum of Art, the Middle American Research Institute of Tulane and many small galleries.

Ideally placed geographically for handling foreign and domestic commerce, the city had to conquer threats of yellow fever, of river floods and of hurricanes to achieve eminence as a world trade center.

Through its vicissitudes it has remained a play capital of America—home of North America's most lavish Mardi Gras celebrations and birthplace of jazz.

New York, N. Y.

The World Almanac is sponsored in the greater New York City metropolitan area by the Daily News and Sunday News, 220 E. 42nd St., New York, N. Y. 10017, which this year celebrates its 50th Anniversary of publication; telephone (212) MU 2-1234; News Syndicate Co., Inc., founded June 26, 1919, by Joseph Medill Patterson; circulation daily 2,080,906, Sunday 3,221,849; president and publisher, F. M. Flynn; executive vice president, W. H. James; executive editor, W. A. Casselman; associate editor, Floyd Barger; treasurer, J. J. Lynch; business manager, V. E. Palmer; major awards include Pulitzer Prizes (news photography, international reporting, cartoon, editorial writing); sponsors Golden Gloves, Harvest Moon Ball, New York Relays, Ike Golf Championship and many community and school activities.

New York is the nation's largest city, its richest port and its leader in business, manufacturing, service industries, communications, fashion, art, music and literature, as well as the world's chief financial center and, as host to the headquarters of the United Nations, the "capital" of the world.

The city credits Giovanni da Verrazano with discovering its magnificent harbor in 1524. Henry Hudson explored Manhattan Island (now the seat of central government for the city's five boroughs) in 1609. Settlement by the Dutch soon followed, with the first houses built by Adriaen Block in lower Manhattan in 1613.

In 1626 Peter Minuit, first director general of the Dutch province of New Netherland, bought the island from the Manhattan Indians "for the value of 60 guilders," or about \$24, probably in goods and trinkets. The settlement at the lower end of Manhattan was named New Amsterdam; Fort Amsterdam was built where the U. S. Customs House now stands.

The Dutch erected a church in 1633; in 1642 they built a public meeting house on the site of 73 Pearl St.; in 1653, to protect the settlement, they erected a wall from which Wall St. takes its name. On Feb. 2, 1653, when New Amsterdam reached 800 in population, it was incorporated as a city.

On Sept. 8, 1664, British troops occupied New Amsterdam without resistance, took over the government from the Dutch director general Peter Stuyvesant and named the city New York to honor the Duke of York, brother of King Charles II of England. Without notice to the Dutch, Charles had conferred on the Duke title to all Dutch land in North America, including much of the present states of New York, New Jersey and Connecticut.

Thomas Willert was named the first English mayor in June 1665. The Treaty of Breda, 1667, confirmed British owner-

ship, giving the Dutch in exchange the former British colony of Surinam in South America. On Aug. 9, 1673, the Dutch recaptured New York and renamed it New Orange in honor of the Prince of Orange. In Nov. 1674 it was restored to the British and again named New York.

The British made easy terms for the Dutch and many prominent Dutch merchants and landowners became loyal subjects. The city was divided into 6 wards Dec. 8, 1683, with an alderman for each. The first charter was granted Apr. 27, 1686. The first printing press arrived Apr. 12, 1693, and the first newspaper was issued Oct. 16, 1725.

In 1700 the city built a city hall at the northeast corner of Broad and Wall Sts. A library was founded 1754. A stage service to Philadelphia was opened 1756. Streets were first lighted at public expense, 1762. Trinity Church, first of the Anglican communion, was first erected 1698.

New York was a focal point for both Continentals and British during the American Revolution. Washington had his headquarters for a time in the Kennedy house, which stood at present No. 1 Broadway and later became British headquarters. The Declaration of Independence was read to the American troops July 9, 1776, in the presence of Washington near the present City Hall. The Americans lost the Battle of Long Island Aug. 27, 1776, and the British occupied New York Sept. 15, 1776. Over 500 houses were destroyed by fire Sept. 21, 1776. The Americans entrenched on Harlem Heights, where they fought several actions; on Nov. 16, 1776, they lost Fort Washington, in upper Manhattan, to the British and left the island.

Washington reentered New York on Evacuation Day, Nov. 25, 1783. On Apr. 30, 1789, Washington took the oath of office as first President on the balcony of Federal Hall, Broad and Wall Sts., where a bronze

statue by J. Q. A. Ward now stands. New York was the national capital until 1790, when it had a population of 33,131. Until 1797 it was the capital of the state.

A new city hall was built 1803-12 in City Hall Park, bounded by Broadway, Park Row and Chambers St. It is still in use.

By act of the state legislature, Kingsbridge, West Farms and Morrisania, NE of Manhattan, were joined to the city Jan. 1, 1874. In 1894 adjacent towns voted on annexation. Eastchester and Pelham Manor voted favorably; Mount Vernon and Westchester (town) unfavorably, the latter by one vote. The legislature overrode Westchester and joined it to the city with Eastchester and Pelham Manor, total over 39 sq. mi., or 26,017 acres.

On Jan. 1, 1898, Manhattan and large areas to the NE, E and S were consolidated into one City of New York, a metropolis with 5 boroughs (which also are counties of the state). Manhattan became the Borough of Manhattan. The areas to the N became the Borough of the Bronx; originally parts of Westchester County, they had become part of New York County along with Manhattan; later they became Bronx County, and New York County was limited to Manhattan. The City of Brooklyn (Kings County) became the Borough of Brooklyn. Staten Island (Richmond County) became the Borough of Richmond. Areas on Long Island which are now Queens County became the Borough of Queens (see also pages 436-438).

Population of New York City by Boroughs

Year	Manhattan	Bronx	Brooklyn	Queens	Richmond	Totals
1790 (U. S. Census)	33,131	1,781	4,495	6,159	3,835	49,401
1850	515,547	8,032	138,882	18,593	15,061	696,115
1900	1,850,093	200,507	1,166,582	152,999	67,021	3,437,202
1910	2,331,542	430,980	1,631,351	284,041	85,969	4,766,883
1920	2,284,103	732,016	2,018,356	469,042	116,531	5,620,048
1930	1,867,312	1,265,258	2,560,401	1,079,129	158,346	6,930,446
1940	1,869,924	1,394,711	2,698,285	1,297,634	174,411	7,454,995
1950	1,900,101	1,451,277	2,738,175	1,550,849	191,555	7,891,957
1960	1,698,281	1,424,815	2,627,319	1,809,578	221,991	7,781,984
1967 (estimated)	1,750,000	1,470,000	2,650,000	1,985,000	270,000	8,125,000

Norfolk, Virginia

The World Almanac is sponsored in the Norfolk Metropolitan Area by The Virginian-Pilot and Ledger-Star, 150 W. Brambleton Ave., Norfolk, Va. 23501; telephone (703) 625-1431; Virginian founded 1865 by G. A. Sykes & Co., Ledger founded 1876 by J. Richard Lewellen & Co.; circulation: L-S daily 105,470, V-P daily 126,393, Sunday 172,241; chairman of the board and publisher, Frank Batten; president, Paul S. Huber, Jr.; senior vice pres. and assistant publisher, Harold G. Sugg; V-P editor, Robert H. Mason; L-S editor, William H. Fitzpatrick. Major awards include two Pulitzer Prizes for The Virginian-Pilot. Both newspapers sponsor area-wide Christmas Joy Fund, founded 34 years ago; a scholastic achievement award program for high school students; other community relations projects.

Norfolk is the financial hub of the South Hampton Roads Metropolitan Area which encompasses the four contiguous cities of Norfolk, Portsmouth, Chesapeake and Virginia Beach. The metropolitan area covers 667 square miles; there are no counties. Its 88% urban population attests to its close knit nature. Estimated population for the four-city area is 690,360. It is Virginia's top-ranking area in population, income, and retail sales.

The cities of Norfolk and Portsmouth date back to the 17th Century. Chesapeake, the largest city in land area, and Virginia Beach were recently formed in annexation with surrounding counties. The town of Norfolk was established in 1682 on the site of an Indian village. Sold by its owner, Nicholas Wise, to the colonial government in Williamsburg for \$400 worth of tobacco, it was chartered as a borough in 1736. Lt. Gov. Robert Dinwiddie, honorary citizen of Norfolk, presented the borough with a seal and silver mace, the city's official symbol still in ceremonial use. During the Revolutionary War Norfolk was destroyed by fire. Old St. Paul's Church, built in 1738, was the only major building to survive; an English cannonball remains embedded in its wall. The Norfolk Naval Shipyard, founded in Portsmouth in 1738, was also destroyed. By 1831, however, the rebuilt shipyard housed the oldest drydock in the western hemisphere. Here the engines for the Powhatan, Commodore Perry's ship, were built and installed. The world's first armored warship was built here on the scuttled hulk of the man-of-war, the Merrimack.

World War I saw the building of the first aircraft carrier, the U. S. S. Langley. But full recognition of the port's value came only with the founding of the Norfolk Naval Base on Independence Day in 1917.

From this beginning, the area has grown to house the greatest concentration of naval installations in the world. Among the 38 major commands in Norfolk alone are the Atlantic Fleet, the Second Fleet, NATO's Supreme Allied Command Atlantic (SACLANT), the Armed Forces Staff College and the Commandant 5th Naval District. Naval facilities have mushroomed to include a 1967 payroll for the Navy and Civil Service of more than \$400,000,000, with nearly \$26,000,000 in other new construction for Norfolk's naval installations. An additional \$364,000,000 is paid to fleet personnel, most of whom have families residing in the area.

As a port Hampton Roads has the world's finest natural harbor. Close to 6,000 ships from over 350 world ports navigate its deep, ice-free channels each year. Its temperate climate is ideal for the handling of all types of cargo. Among Atlantic ports, Norfolk holds first place in export tonnage. Both Portsmouth and Norfolk have new berths for containerized cargo. Norfolk International Terminals has projected a \$50,000,000 investment in its port development.

Eight railroads, with Norfolk-Portsmouth as the terminus of a 7,400-mi. rail system, reach directly into the manufacturing heart of the nation. Over 50 common and contract motor carriers offer flexible service. The Chesapeake Bay Bridge Tunnel provides a direct North-South highway system from New York to Florida. Four airlines provide direct flights to major cities in the nation.

Educational institutions in Norfolk include 3 4-year liberal arts colleges. Old Dominion College has an engineering school and technical institute. Two-year colleges are located in Portsmouth and Chesapeake.

Norfolk has 7 hospitals; Portsmouth

has 3, including the nation's oldest naval medical center recently enlarged by a \$17,000,000 addition. Virginia Beach has complete facilities in its new hospital.

Civic, social and recreational activities abound in the South Hampton Roads area. Norfolk has an excellent symphony orchestra, chamber group and civic chorus, a Little Theater and civic ballet. Norfolk has just begun construction of a \$24,000,000 cultural and convention center. Numerous dinner theaters operate in the area. The city's arts and sciences museum recently more than doubled its facilities. The Norfolk Tour includes the MacArthur Memorial, final resting place of Gen. Douglas MacArthur; the Adam Thoroughgood House, built in 1636 and the oldest brick home in the nation, and Norfolk's

Botanical Gardens which include 175 acres of azaleas to furnish a background for the annual NATO Azalea Festival.

Portsmouth is known for its Old Towne District and harbor tours. Much of the world famous Dismal Swamp is located in Chesapeake, with its vast rural area, woodlands, wild rivers and dense forests. The famed resort city of Virginia Beach offers 174 hotels, motels and tourist homes. Its 38 miles of beach provides excellent swimming, fishing and surfing area. Camping facilities are available at Seashore State Park. Each year Virginia Beach sponsors a Boardwalk Arts Festival where over 200 artists display their works.

The South Hampton Roads area is served by 11 AM, 9 FM and 5 television stations.

Oklahoma City, Oklahoma

The World Almanac is sponsored in the Oklahoma City area by The Daily Oklahoman and Oklahoma City Times, Oklahoma City, Okla. 73125; telephone (405) 232-3311; The Oklahoman founded in 1894, Times in 1888; Oklahoma Publishing Co. acquired The Oklahoman 1903 and the Times 1916; circulation (March 31, 1968) Oklahoman, 185,306; Times, 115,541 and 274,785 Sunday; editor and publisher, E.K. Gaylord; managing editor, Charles L. Bennett.

Oklahoma City, capital and most populous city in Oklahoma, is located near the center of the state on the North Canadian River. Its population in 1968 was 405,000, with 635,000 in its metropolitan statistical area. The city is about 300 miles south of the exact center of the continental United States.

Oklahoma City exploded into being Apr. 22, 1889. In the morning, its site was a peaceful and quiet Indian Territory railroad stop. Twelve hours and the Run of '89 later, it boasted 10,000 residents, a tent city that spread over 3 townsites.

In the center of a rich agricultural area, the city is a manufacturing and distributing center of farm products.

Livestock plays a major role in the economic life of the area, with dairying and broiler growing increasing.

Oklahoma City lies in the heart of a rich oil producing area. Heaviest production in the state lies within 60 miles of the city, with approximately 1,800 producing wells in the metropolitan area. The original Oklahoma City field has produced more than 750,000,000 barrels of oil and the city is the gateway to heavy development taking place in western Oklahoma. In 1968 an estimated 39,500 Oklahoma Cityans were earning their living from the oil industry.

Oklahoma City, an aviation pioneer, is a major aeronautical center. Located here is Tinker Air Force Base, headquarters of the Oklahoma City Air Materiel Area, world's largest air depot. The \$100,000,000 installation employs more than 26,000 civilians and 4,000 military personnel. The Federal Aviation Administration operates major facilities in the city, worth over \$222,000,000, including the FAA Aeronautical Center and the Civil Aeromedical Institute. Some 38,000 city residents were employed in aviation occupations in 1968, with an estimated annual payroll of \$287,500,000.

Manufactured products include aircraft, telephone exchange equipment, space electronic components, auto bodies and parts, iron and steel products, oil field and refinery equipment and supplies, oil and greases, aviation gasoline, building materials, flour, feed, meat, cottonseed products, and paper products.

The city is a growing regional, national and international marketing center, and the Bureau of Customs opened an office in 1967 to expedite exports and imports.

Effective buying income in the city for 1967 was reported as \$1.015 billion. In the Oklahoma City trade area, effective buying income was \$2.863 billion. Consumer sales in 1967 totaled \$1.052 billion.

Oklahoma City is served by 5 passenger airlines, American, Braniff, Trans World, Continental and Frontier. Four primary federal highways and 3 major state highways traverse the city; two Federal Interstate Highways (I-40 and I-35) pass through the city and I-44 terminates here. The city boasts a fully-planned urban expressway system, major bus lines and through railway service.

Points of interest include the National Cowboy Hall of Fame and Western Heritage Center, \$5,000,000 center with exhibits of art, sculpture and relics and dance performances by authentic Plains Indians; Mummies Theater; the State Historical Society Building and Museum; State Capitol building; Oklahoma City Symphony and Junior Symphony; Oklahoma Art Center, and Oklahoma City Zoo.

In addition, Oklahoma City is one of the nation's leading convention centers. Some 350 conventions in 1967 attracted 160,000 delegates. Other attractions bring an additional 1,000,000 visitors annually.

Among universities and colleges in the metropolitan area are Oklahoma City University, the University of Oklahoma (18 miles to the south at Norman), Central State College, Oklahoma Christian College, Bethany Nazarene College, Southwestern Bible College and Midwest Christian College. Also in the city is the U. of Oklahoma School of Medicine.

Oklahoma City is one of the Southwest's leading medical centers. The city has fine hospitals and medical clinics and is currently expanding a research and treatment center.

The city is among the nation's largest in area, with a total of 647.5 sq. mi. The metropolitan statistical area includes 2,141 sq. mi.

Oklahoma City is in the midst of 3 major Urban Renewal renovation projects with an estimated total cost of \$77,000,000.

Big Eight Conference sports are at the University of Oklahoma, 18 miles south, and at Oklahoma State University, 60 miles away. The city boasts the nation's oldest college basketball tournament classic, the All College Tournament, hosted by Oklahoma City University.

Professional sports teams include the Oklahoma City baseball 89ers (Pacific Coast League) and the Blazers (Central

Hockey League), performing in the city's spacious new State Fair Arena, which seats more than 10,000.

Orlando, Florida

The World Almanac is sponsored in the Orlando area by the Orlando Sentinel and Orlando Evening Star, 633 N. Orange Ave., Orlando, Fla. 32802; telephone (305) 423-4411; The Sentinel and Evening Star, published as dailies since 1913, were merged in 1931 under Publisher Martin Andersen; acquired by Tribune Company of Chicago in 1965; circulation 149,398 daily; 148,646 Sunday; Editor Publisher William G. Conomos; public service projects include Shoes for the Shoeless Fund and Florida Symphony \$1 Charity Concert; sponsors annual Shad Fishing Derby, Cooking School, Spelling Bee in nine county area and Easter Parade Contest.

Orlando, "The City Beautiful," has been praised as one of the 14 most pleasant communities in the United States. In Orange County in east-central Florida, Orlando encompasses 30.55 sq. mi. of rolling countryside dotted with over 50 lakes.

Orlando had its beginning in 1842 at the end of the Seminole Indian War when Aaron Jernigan settled on land which is now a part of the city and gave his name to the small community. In 1857, Jernigan was changed to Orlando in memory of Orlando Reeves, a soldier killed in a skirmish with the Indians.

Incorporated in 1857 with a one-sq.-mi. area and only 75 citizens, Orlando now has more than 109,238 residents.

Current estimated population of metropolitan Orlando, consisting of Orange and Seminole Counties, is 406,100. But according to present-day estimates, the impact of almost unmatched industrial, commercial and recreational expansion will cause the population to reach 813,860 by 1982.

The \$600,000,000 Florida Disney World, developing on a 27,400-acre tract 14 mi. southwest of downtown Orlando, is scheduled to open in 1971. Expected to attract 6,000,000 visitors during the first year, Disney World will include an amusement area, an unusual group of hotels surrounding the park, a jet airport and an Experimental Prototype Community of Tomorrow (EPCOT) planned for 20,000 permanent residents.

Another feature will be an industrial park covering approximately 1,000 acres of the Disney tract where some 10,000 employees will work.

The new Orlando Naval Training Center, officially commissioned July 1, 1968, is one of the Navy's largest recruit training centers. It will have a capacity to train 8,000 recruits at a time and accommodate 6,500 military personnel and 2,000 civilian workers when completed.

Florida Technological University, with an opening class of 1,500 students, Sept. 1968, will have a student body of more than 15,000 by 1978. Valencia Junior College, a public junior college, opened in 1967 and joined Orlando Junior College and Rollins College in the field.

Orlando is the home of the Martin-Marietta Co. plant, largest single industrial employer in Florida with some 9,000 persons on its payroll.

Orlando has become the most important insurance center in Florida with 7 home

offices and 7 regional home offices. By the fall of 1970, an \$8,500,000, 19-story building in downtown Orlando will be completed by Continental Casualty Co.

With new companies arriving on the average of two a week, Orlando has become more than the citrus capital of the past. There are 12 beautiful and well planned industrial parks and districts. Among already established industries in larger parks are: Xerox Corp., du Pont, National Biscuit Co., Sealtest Co. and Sealy Mattress Co. Industries with more than 200 employees include: American Bakeries, General Dynamics' Dynatronics, Frito-Lay, Minute Maid Co. and the Sentinel Star Co., publisher of Orlando's two daily newspapers, the Sentinel and the Evening Star.

Rapidly becoming a convention city, Orlando has a total of 143 hotels and motels with over 5,000 modern rooms.

One of the prime reasons for the concentration of new industry is the available transportation. Orlando is less than 4 hours from every major Florida market. In the geographic center of the state, it is the natural hub of Florida's network of modern highways and expressways.

National, Eastern and Delta airlines serve Orlando with 51 flights daily. Orlando is also served by Shawnee Airlines, Seaboard Coast Line Railroad, Greyhound and Trailways bus systems, 21 common carrier truck lines and 8 freight forwarding companies.

The City of Orlando operates under the Mayor-Council form of government.

Orlando's Tinker Field is the site of spring training and exhibition games of the major league Minnesota Twins. The local Orlando Twins are members of the Florida State League. The Orlando Panthers belong to the Continental Football League. In December the city has two nationally recognized post-season bowl games, the Tangerine Bowl and the Mistle Bowl.

Orlando is also the home of the \$115,000 Florida Citrus Open Golf Tournament held in March of each year at Rio Pinar Country Club.

City-owned Ben White Raceway gives Orlando the distinction of being the world's largest winter training headquarters for trotters and pacers.

The Orlando-based Florida Symphony Orchestra, the only all-professional symphony in Florida, gives 8 subscription concerts each season with renowned guest artists and conductors.

Ottawa, Canada

The World Almanac is sponsored in the Ottawa area by the Ottawa Journal, 237 Queen St., Ottawa, Ontario; telephone (613) 236-7511; founded 1885 by A. S. Woodburn; circulation daily 78,220, Saturday 88,210; president and editor, I. Norman Smith; vice president and general manager, Lucien A. Lalonde; managing editor, W. H. Metcalfe; affiliation, FP Publications; Head Office, Winnipeg; sponsors annual Cup of Milk Fund, Unitarian Church; bicycle safe driving contest; Regional Water Safety Program.

Ottawa, Canada's national capital, is the country's 5th largest city.

Founded as Bytown in 1827, it was renamed Ottawa and incorporated as a city in 1855. Two years later, the progressive

young community was chosen as capital of the United Province of Canada, which became the Dominion of Canada in 1867.

Now spread over 30,481 acres of land, of which 3,256 acres are covered with water,

the city itself has a population just shy of 300,000.

The capital is located on the provincial border of Ontario and Quebec at a point where the Ottawa River tumbles over the Chaudiere Falls. A short distance downstream, the Gatineau and Rideau Rivers flow in from the north and south.

The sprawling urban area surrounding Ottawa on the Ontario side was combined in mid-1963 to form the first regional government area of its kind in the province. The new regional municipality of Ottawa-Carleton covers an area of 1,100 sq. mi. with a population of 420,000. It includes the cities of Ottawa and Eastview and 14 other neighboring villages and townships.

The infant area-wide administration is headed by regional Chairman Denis Cooclain, who receives an annual salary of \$30,000. Mayor Don Reid is the city's chief administrator.

Just across the Ottawa River to the north in the Province of Quebec, the city of Hull and environs provide homes for another 116,000 people.

Ottawa is the Anglicized form of Outaouac or Outaouais, the name of a tribe of Indians from Lake Huron who were prominent in trade with the French in the 17th Century. They carried their furs along the Ottawa River in canoes.

The Parliament buildings—housing the nation's House of Commons and Senate—provide the city's main tourist attraction. Designed in the Gothic style and situated on Parliament Hill overlooking the city's main downtown business district, the seat of government occupies 3 main buildings. The Peace Tower, a famous landmark and memorial to Canada's war dead, towers above the main center block.

Not including the 22-mile Gatineau Parkway in a mountainous, lake-dotted district just north of the city in Quebec Province, there are 23 miles of parkways

and driveways in and around Ottawa. All have been designed and maintained by the Federally-operated National Capital Commission.

The Federal Government's continuing drive to develop the capital area has resulted in construction of a \$45,000,000 National Arts Center in the heart of the city. The center, to be opened some time in 1969, will feature an opera house-concert hall, a theater, and an experimental studio.

Every summer, the Central Canada Exhibition, which runs for 10 days, provides the full variety entertainment of a fair including midway, grandstand performances, horse shows, and varied exhibits. The exhibition takes place at Lansdowne Park, where the new \$9,000,000 Civic Center multi-purpose arena-stadium provides homes for the Canadian Football League Ottawa Rough Riders and the Ottawa 67's, a junior hockey team. The Ottawa Winter Fair takes over the Lansdowne facilities for a week every fall.

The Civil Service provides the bulk of employment for residents of the Greater Ottawa area, but in recent years the city has stepped up its drive to attract industry. However, the E. B. Eddy Co., producer of paper products and one of the area's oldest industries, is still the largest private employer.

Ottawa International Airport, 5th busiest in the nation, handles 60 scheduled flights daily for Air Canada and Eastern Airlines. It also serves as an alternate for Montreal's giant International Air Terminal, 120 miles away. Charter flights from almost all the world's major airlines make Ottawa stops.

Ottawa is served by both the Canadian Pacific and Canadian National Railways.

For further information contact Ottawa Tourist and Convention Bureau, 70 Besserer Street, Ottawa 2, Ontario, Canada.

Oakland, California (See San Francisco-Oakland)

Philadelphia, Pennsylvania

The World Almanac is sponsored in the Philadelphia area by The Philadelphia Inquirer, 400 N. Broad St., Philadelphia, Pa. 19101; telephone (215) LO 3-1600; traces its lineage to The Pennsylvania Packet, founded 1771; circulation 504,669 daily, 935,458 Sunday; editor and publisher, Walter H. Annenberg; editorial page director, Harold J. Wiegand; managing editor, John S. Gillen; sponsors Delaware Valley Science Fair, Old Newsboys' Day, Book and Author luncheons, awards

scholarships and grants-in-aid to newsboys.

Birthplace of the nation, Philadelphia today is a major center of commerce, finance and culture, rich in both history and renewal, with a population of 4,690,000 in the metropolitan area.

The English Quaker, William Penn, founded the city in 1682, giving it a name that means "city of brotherly love." His grid pattern of streets and public squares dictated the modern shape of the center city area from the broad Delaware River to the smaller Schuylkill.

The original two sq. mi. of Penn's "greene Country Towne" has grown to 129, and the early population, 400, to more than 2,000,000. But the Quaker influence remains strong in the fields of finance and private education.

Philadelphia was the largest and wealthiest of American cities in Colonial days. It held a pre-eminent position through the Revolution as the seat of the Continental Congress and for 10 years afterward during which it was the national capital.

The city abounds in relics of those days. The restored mansions of merchant princes dot the 4,000-acre Fairmont Park and there are buildings which still bear

the scars of the Battle of Germantown.

The Betsy Ross House in which the seamstress is said to have fashioned the Stars and Stripes still stands on Arch St., around the corner from Old Christ Church where George Washington worshipped.

The major historical shrines are clustered in Independence National Historical Park, focal point of which is Independence Hall where the Declaration of Independence was signed and the Constitution was framed. The Liberty Bell, symbol of freedom, occupies a place of honor in the building. (See Index for Independence Hall, Liberty Bell and American Revolution.)

Other buildings of outstanding interest in the park include Carpenters' Hall, meeting place of the First Continental Congress in 1774; Philosophical Hall, home of the American Philosophical Society founded in 1743 by Benjamin Franklin; the First Bank of the United States, erected in 1795 and probably the oldest bank building in the U. S., and the Bishop White House, home of the Rt. Rev. William White, "Father of the American Protestant Episcopal Church."

A new U. S. Mint is located on Independence Mall, and in the Delaware River a few blocks away is berthed the U.S.S. Olympia, Admiral Dewey's flagship in the Spanish-American War.

Adjoining the national park in what has been described as "America's most historic square mile" is Society Hill whose town houses of the Colonial and Federal periods have been restored amid modern apartment towers as part of Philadelphia's \$600 million urban renewal program.

This program has spurred the development of a "new city" in the Penn Center complex of transportation terminals, office buildings and apartment houses. It has given Philadelphia a modern Food Distribution Center and has created on open land a community called Eastwick, the nation's largest renewal project.

One of the principal modernization projects of the 1960s has been the construction of a \$16,000,000 exhibition hall addition to the Philadelphia Civic Center, which includes the 12,000-seat Convention Hall and a museum devoted primarily to the subject of trade.

Philadelphia's industrial base is widely diversified, embracing 87% of all the classifications listed by the U. S. Department of Labor. It is the largest petroleum refining center on the East Coast and the second largest in the nation.

In terms of employment, the building trades rank first among the city's industries, followed in order by machinery manufacturing, primary metals and metal fabrication, textile and clothing manufacturing, electrical machinery, food processing, chemicals, printing and publishing, paper manufacturing and instrument making.

Philadelphia has the largest fresh water port in the world with 50 miles of waterfront. Total foreign tonnage in 1967 was 49,175,803 tons, second highest in the nation. The vessels of more than 100 shipping lines link the city to 273 ports in 75 countries.

Serving the growing transportation needs of the Delaware Valley region is Philadelphia International Airport, which accommodated more than 5,000,000 passengers in 1967.

Philadelphia is corporate headquarters for the Penn-Central Railroad and has pioneered in subsidizing rail commuter service on an extensive network of lines of the Penn-Central and Reading Railroads through the Southeastern Pennsyl-

vania Transportation Authority.

The financial base of the city's economy is in 11 commercial banks and four mutual savings funds which have combined resources of more than \$6.5 billion. Philadelphia is third in the nation in bank clearings. A number of nationwide insurance companies are headquartered in the city.

Philadelphia has a cultural tradition with its roots in Colonial times. The Philadelphia Orchestra of international renown makes its home in the Academy of Music, built in 1856 with an auditorium modeled after the La Scala opera house in Milan, Italy. The academy also plays host to the Pennsylvania Ballet Co. and to the Lyric Opera Co. and the Grand Opera Co.

The Philadelphia Museum of Art contains more than 100,000 works. It houses the Johnson Collection of Western art from the 14th through the 19th Centuries and the Arensburg Collection of modern masterpieces. The Rodin Museum is devoted to the works of the French sculptor, Auguste Rodin.

The Franklin Institute, dedicated to scientific research and education, provides visitors to its science teaching museum with the opportunity to operate exhibits illustrating basic scientific principles and to study the heavens as projected on the dome of the Fels Planetarium.

The Academy of Natural Sciences, founded in 1812, is the oldest scientific institution of its kind in the U. S. Exhibits feature lifelike animal groups in natural settings.

There are 17 colleges and universities in Philadelphia, the largest among them being the University of Pennsylvania and Temple University. Nearby are Villanova University and Bryn Mawr, Swarthmore and Haverford colleges.

The Philadelphia Phillies are the National League baseball team. Professional football is represented by the Philadelphia Eagles. The Philadelphia Flyers hockey club and the Philadelphia 76ers professional basketball team play in the 15,000-seat Spectrum, which opened in 1967. Crowds of more than 100,000 annually watch the traditional Army-Navy football game in John F. Kennedy Stadium.

Further information may be obtained from the Office of the City Representative and Department of Commerce, 1660 Municipal Services Building, Philadelphia, Pa. 19107, and from the Greater Philadelphia Chamber of Commerce, 121 South Broad Street, Philadelphia, Pa. 19107.

Phoenix, Arizona

The World Almanac is sponsored in the Phoenix area by the Phoenix Gazette, 120 E. Van Buren St., Phoenix, Ariz. 85004; telephone (602) 271-8000; founded Oct. 28, 1880 as Arizona Gazette by Charles H. McNeil; circulation 95,952; publisher, Eugene C. Pulliam; managing editor, S. Lowell Parker; sponsors Golden Gloves, Science Fair, nutrition and medical forums, Music Memory programs and nine other events each year.

Phoenix is the capital and largest city of Arizona, with 1968 population estimated as 530,000. Metropolitan Phoenix covers 250 sq. mi. and includes satellite communities of Glendale, Scottsdale, Paradise Valley, Tempe, Mesa, Chandler, Buckeye and the remainder of Maricopa County, with 940,000 residents.

The first white settlement, a hay camp, was established in 1866 by John Y. T. Smith. He held a Government contract to supply mounted troops from Fort McDowell, 30 miles to the northeast.

In the winter of 1867 the John Swilling Co. began clearing out prehistoric canals to carry water from Salt River to the fertile lands of the valley.

Like the prehistoric people who lived here in 200 B.C., the white man found the

Valley of the Sun blessed by a mild climate with plentiful water. Cotton, citrus and cattle accounted for more than \$260,000,000 of farm income in 1967.

Phoenix, in south-central Arizona, was incorporated Feb. 11, 1881, and is governed by the mayor-council form of government with a city manager as executive officer.

It is a major Southwestern trading center and haven for winter tourists. Light manufacturing continues increasingly important to the city's economy.

The tourist business and conventions contributed \$240,000,000 in 1967 and is projected to reach \$260,000,000 in 1968.

Veterans Memorial Coliseum, a \$6,000,000 convention and sports facility opened in 1965 at the state fairground. With 10,294 permanent seats, it can accommodate

15,000 for many events.

Phoenix Civic Plaza, a \$19,000,000 convention and cultural complex in the heart of Phoenix, will be completed in 1970.

Manufacturing is the area's major source of income, contributing \$1.3 billion in 1967 and a predicted \$1.5 billion in 1968.

Major employers are Western Electric, Cudahy, Swift and Company, Motorola, Reynolds, E. L. Gruber, Sperry Phoenix, General Electric, AiResearch, Goodyear Aerospace and Dickson Electronics. Both Motorola and Dickson Electronics are undergoing extensive plant expansions.

Transportation facilities include 9 airlines, two railroads, two transcontinental bus lines, 30 interstate and 39 intrastate truck lines.

Over 2,500,000 arrivals and departures are expected at Sky Harbor airport during 1968.

There are 111 shopping centers in the Metropolitan Phoenix area. Retail sales for 1967 were \$1.62 billion while 1968 estimates are \$1.75 billion.

A new \$5,000,000 Post Office was dedicated in May, 1968. Pepsi-Cola Management Institute also opened during the year. In September of 1967 Arizona State University opened its new Law School on the campus at Tempe, Arizona.

Phoenix boasts a symphony orchestra, an art museum, Indian museum, zoo, musical theater, community theaters, and botanical garden. Nearby is Taliesin-West. Home of the late Frank Lloyd Wright, now an architectural school directed by Mrs. Wright.

A legitimate theater, running for 35 weeks, opened in October of 1968.

Sports events include horse, dog and auto racing, the Phoenix Open Golf Tournament, spring baseball with the San Francisco Giants, Chicago Cubs, Oakland Athletics and Seattle Pilots, Phoenix Suns, new member of the National Basketball Association, Phoenix Giants of the Pacific Coast Baseball League, and the Phoenix Roadrunners of the Western Hockey League.

Higher educational institutions include Arizona State University, Phoenix College, Grand Canyon College, the American Institute for Foreign Trade, a two-year community college at Mesa and Glendale, Southwestern College and Arizona Bible College.

Additional information on Phoenix may be obtained from the Arizona Development Board, Chamber of Commerce, Convention Bureau, and the Research Department of The Phoenix Gazette.

Pittsburgh, Pennsylvania

The World Almanac is sponsored in the Pittsburgh area by the Pittsburgh Press, 34 Boulevard of the Allies, Pittsburgh, Pa. 15222; telephone (412) 263-1100; founded June 23, 1884, as Evening Press by Thomas J. Keenan; circulation 350,000 daily, 760,000 Sunday; editor, John Troan; business manager, Barney G. Cameron; major awards received include Edward J. Meeman Conservation Award; public service projects include campaigns for legislative action against ravages of strip mining, campaign to push mass immunization against polio.

Pittsburgh, one of the nation's top steel-making and coal mining areas, is a city of many hills and valleys through which run 3 major rivers as the Allegheny and Monongahela join to form the mighty Ohio, America's Gateway to the West for more than 200 years.

The first hunters and trappers came through here around 1714; the city itself dates from Nov. 25, 1759, when English forces under Brig. General John Forbes occupied the ruins of Fort Duquesne which French soldiers had burned and abandoned, and built a new and bigger fortress called Fort Pitt.

Protected by the fort and endowed by nature with fabulous riches, the area's first residents prospered as farmers and manufacturers. And the city grew steadily.

By the time it was incorporated as a city in 1816, it had already gained a reputation as a "Smoky City" because of the factories and coal-burning homes. It took 130 years to get rid of this grime.

Today, led by Mayor Joseph M. Barr and a nine-man council, Pittsburgh is one of 129 municipalities in Allegheny County. It has a population of 604,332 (1960 census) and is the center of a 4-county metropolitan area with 2,368,100 residents.

Pittsburgh is one of the country's top headquarters cities. It ranks second only to New York City in the amount of capital invested by its home-based firms, and ranks third—behind New York and Chicago—in the number of headquarter operations, as compiled in Fortune Magazine's Top 500 listing.

Concentrated in its metropolitan area is one-fifth of the nation's steelmaking capacity, and western Pennsylvania coal mines produce 40,000,000 tons of bituminous coal annually. Although steel and coal works dominate the area, around 6,000 different products are made here and 260,000 workers split an annual pay-

roll of \$1.8 billion. And there are 9 nuclear facilities hereabouts.

Although thought of as an inland city, Pittsburgh exports nearly \$225,000,000 worth of goods annually, and its river ports handle 54,000,000 tons of freight annually; that's more than any other inland river area.

Retail sales total about \$3.8 billion a year; wholesale, about \$4.6 billion a year.

Pittsburgh is a vital transportation center. Besides its river traffic, it is served by 3 passenger rail carriers; 6 rail freight carriers; more than 350 common and contract motor carriers; 5 domestic air trunklines and 3 local service airlines.

Locally, the Port Authority of Allegheny County has welded some 30 independent bus lines and the Pittsburgh Railways Co. into an integrated transit system. A major plan for rapid and mass transit facilities is in preparation.

Pittsburgh is the home of the world's first full-scale nuclear power plant, the first industry-owned nuclear testing reactor; the first atomic engines were built here.

It's the home of the world's largest manufacturers of aluminum, steel rolls, rolling mill machinery, air brakes, plate and window glass, and safety equipment.

Here, too, are the largest American producers of bolts, nuts, and rivets; wrought iron pipe and bituminous coal.

There are around 125 industrial research and testing laboratories in the Pittsburgh area, along with facilities for basic and applied research in educational institutions.

Pittsburgh is a city of progress; this is where the guidebook on urban renewal was written in the 1940s. Pittsburgh's own war on poverty, through neighborhood programs carried out by ACTION-Housing, Inc., and others, predates the Great Society by several years.

More than \$3 billion has been spent on urban renewal here since 1947 with 35 major buildings going up, and at least 5 more are planned, including a 64-story U. S. Steel headquarters that will tower above the city's skyline. Since World War II, more than \$2.5 billion has gone into industrial expansion, and major smoke and flood control projects have cleared the skies and rivers. Still to come: a 50,000-seat major league sports stadium; a downtown home for the famous Pittsburgh Symphony Orchestra, and the Pennsylvania Railroad has unveiled plans for a 147-acre downtown development that will increase the Golden Triangle by over one-third.

Among its schools are the University of Pittsburgh, Duquesne University, Point Park College, Chatham College, Mt. Mercy College, and Robert Morris Junior College. Mellon Institute and Carnegie Institute of Technology have merged to form Carnegie-Mellon University.

Its Health Center in Oakland, where Dr. Jonas Salk perfected his polio vaccine, is one of the best in the nation. In all, there are 62 hospitals scattered throughout the metropolitan area.

In Oakland, too—the area is considered the City's cultural center—is WQED, one of the nation's pioneer educational television stations. It went on the air April 1, 1954, and is considered the country's first.

There are 18 Carnegie public libraries,

3 bookmobiles and dozens of community libraries. Theaters include the Civic Light Opera and 4 other summer showplaces, 3 community legitimate theaters and two commercial legitimate theaters. The Pittsburgh Symphony and the Pittsburgh Opera Company are widely known.

Points of interest include Buhl Planetarium, the Aviary with its rare birds, Phipps Conservatory, the Carnegie Museum and its Art Gallery, Highland Zoo, an aquarium, the Children's Zoo, the Underground Zoo, and the Allegheny Observatory for stargazers.

Notable buildings include the County Courthouse and Jail designed by H. H. Richardson, Mellon Institute; and the University of Pittsburgh's 42-story Cathedral of Learning, with its Gothic campus companions, the Stephen Foster Memorial and Heinz Chapel.

Historic sites include the reconstructions of the walls of Fort Pitt in the downtown area and the Blackhouse, which stood outside the fort's ramparts and which is the only building still standing from the early days.

In sports, Pittsburgh has the Pittsburgh Pirates (baseball) in the National League, the Steelers in the National Football League and the Penguins in the National Hockey League.

Additional information on Pittsburgh can be obtained from The Chamber of Commerce of Greater Pittsburgh, 411 Seventh Ave., Pittsburgh, Pa. 15222.

Portland, Oregon

The World Almanac is sponsored in the Portland area by the Oregon Journal, 1320 SW Broadway, Portland, Ore. 97201; telephone (503) 222-5511; founded April, 1902; circulation 141,242; publisher, Wm. W. Knight; editor, Arden X. Pangborn; executive news editor, Harry Leeding; editorial page editor, Donald J. Sterling, Jr.

Portland, Oregon's largest city, covers 80 sq. mi. at the junction of the Columbia and Willamette rivers in the northwest portion of the state. It was chartered in 1851 with a population of 821 and was named for Portland, Me., rather than for Boston, Mass., when two of its early citizens from those two New England cities flipped a penny to decide its name. Today's population is an estimated 385,500.

An important seaport, Portland grew as a commercial and industrial center of Oregon because of its strategic location, draining much of the Pacific Northwest's agricultural and forestry output down the Willamette and Columbia river valleys. Much of Oregon's produce in the mid-19th Century was shipped south by water from Portland to feed gold miners who rushed to California after 1849.

The Greater Portland Metropolitan area has an estimated 933,159 population.

Agricultural products and shipping were the city's original economic base, developing later to forest products processing and shipping. Today metal working, mostly aluminum, has become Portland area's biggest resource, plus some steel work, clothing, paper, electronics. It ranks first as manufacturer of huge, specialized equipment for the logging-lumbering industry. The city's economic base is varied and broad. It is the home of Georgia-Pacific Corporation (forest products, lumber, paper); Crown Zellerbach (forest products, paper); Tektronix and Electronics Specialty companies (sophisticated electronics testing equipment); Omak Industries (chain saws); Hyster Corporation (lifts, hoisting equipment, lumber handling devices); and White Stag, Jantzen and Pendleton (sports clothes).

Total retail sales for Greater Portland area (1967) were set at \$1,595,773,000 and for the state of Oregon at \$3,394,525,000.

Portland is served by 5 railroads, 10 airlines and two major bus lines. Since World War II it has become increasingly a warehousing center, and is served by many major truck lines.

Mild year-around weather makes Portland a pleasant living place, also makes it a rose-growing center and site of the annual June "Rose Festival," 50-yr.-old pageant parade, and rose show.

Among its famous buildings is the Pittock Mansion, elaborate turn-of-century home which has become a unit of the Portland Public Parks system.

Portland's zoo has gained fame in past years as "outstanding producer of baby elephants in the Western Hemisphere" with herd sire Thonglaw having produced six offspring. The city has an outstanding public parks system, headed by Washington Park which houses International Rose Test Garden and outdoor summer theater; and which is adjacent to the Portland Zoo and the Oregon Museum of Science and Industry; and by Hoyt Arboretum, largest forested area inside a U. S. city's limits.

Memorial Coliseum is the home of the Portland Buckaroos, of the Western Hockey League. The city floated a bond issue for purchase of Multnomah Stadium and has renamed it Portland Civic Stadium, home of the Portland Beavers in the Pacific Coast Baseball League.

In or on the fringes of the city are Portland State College, University of Portland, Lewis & Clark College, Reed College, Marylhurst College, Multnomah College, Cascade College, and Concordia College.

Specialized information may be obtained from the Portland Development Commission, City Hall, Portland, and the Portland Chamber of Commerce, 824 SW 5th Ave., Portland.

Regina, Canada

The World Almanac is sponsored in southern Saskatchewan by The Leader-Post, 1964 Park St., Regina, Sask.; telephone (306) 527-8511; founded 1885 by Nicholas Flood Davin; circulation, 64,911; president, Michael Sifton, Toronto; executive vice president, William Thomson; editor, Thomas Melville; managing editor, C. E. W. Bell; advertising manager, William Duffus; awards: MacLaren Trophy for editorial page excellence of reproduction; 4 awards by Canadian Circulation Managers' Assn., for newspaper sales promotion and carrier training; sponsors a variety of fund-raising campaigns for worthy causes.

Founded on the site of a pile of buffalo bones, Regina, Saskatchewan's capital, has overcome a lack of natural advantages to grow into a beautifully-treed urban community known as the Queen City of the Plains.

The community was founded in 1882 when the Canadian Government and Canadian Pacific Railway chose the site for the capital of the Northwest Territories. Indians had piled the bones of countless slaughtered buffalo on the banks of a creek in the vicinity. The settlement was called variously Pile O'Bones, Manybones, and Bone Creek. Later it became Wascana, a corruption of the Cree Indian word "oskana," meaning bones. The more dignified name of Regina was chosen by Princess Louise in honor of her mother, Queen Victoria. Incorporated as a city in 1903, Regina was named provincial capital two years later when Saskatchewan was formed.

Regina has survived cyclone, riot, drought and depression to become a prosperous city of some 140,000, riding a boom that has more than doubled the value of its taxable property—from \$75,000,000 to \$190,000,000—in the past 10 years. Regina is one of Western Canada's leading industrial centers. It is the service center for a prolific oil and grain producing area, and its industries include meat packing, steel, pipe, oil refining, paper box, paint manufacturing, cement and fertilizer, agricultural machinery and an industrial gas plant.

The rapid development of potash mining in the province has had a tremendous economic effect on Regina, where much of the activity is centered.

It was in Regina, in the depths of the depression in 1933, that the Co-operative

Commonwealth Federation (CCF) was founded. The CCF formed the Saskatchewan Provincial Government in 1944, first Socialist government in North America, which remained in power for 20 years.

The head office of the Saskatchewan Wheat Pool is located in the city. Founded in 1924 because of farmer resentment of the railway and elevator monopoly, it is world's largest primary grain-handling organization with over 100,000 members.

Regina's modern steel and concrete high-rise buildings contrast with the portable wooden buildings shipped here in 1882 to accommodate the new headquarters of the North West Mounted Police. The city remains Western headquarters of the NWMP's successors, the Royal Canadian Mounted Police, and the Mounties' museum and chapel are tourist musts.

The impressive Saskatchewan Legislative Building stands on the south bank of Wanasca Lake. The lake is the focal point of a 100-yr. project called Wanasca Centre. The plan, financed by the province, city and University of Saskatchewan, is a multimillion-dollar development of public buildings, parks and recreation areas on a 1,600-acre site in the heart of the city.

Points of interest in Regina include the Natural History Museum, the Norman MacKenzie Art Gallery, and the 13-story Saskatchewan Power Building, an award-winning \$10,000,000 S-shaped structure.

Educational institutions include the Regina Campus of the University of Saskatchewan.

In Regina are the Saskatchewan Roughriders, who in 1966 won their first Grey Cup as national professional football champions.

Richmond, Virginia

The World Almanac is sponsored in the Richmond area by the Richmond Times-Dispatch and The Richmond News Leader, 333 East Grace St., Richmond, Va. 23213; telephone (703) 649-6000; Times-Dispatch founded 1850 by James A. Cowardin; circulation 148,413 daily, 200,389 Sunday; News Leader founded 1896 by Joseph Bryan; circulation 123,636; publisher, D. Tennant Bryan; president, Alan S. Donahoe; managing editor, Times-Dispatch, John E. Leard; managing editor, News Leader, Charles H. Hamilton; sponsor Christmas Mother Fund, editorial campaigns for traffic injustice; major awards include Pulitzer Prize editorials.

Richmond, a blend of the old and the new South, is on the James River 65 miles inland from the Chesapeake Bay.

In 1607, Captains John Smith, Christopher Newport and party explored the James River to the falls and there put a cross; the first settlement was in 1609.

The name was suggested by William Byrd II, who had frequently visited the English borough of the same name during his stay in London. In 1737 Byrd founded and Major William Mayo laid out the town, to be called Richmond because "its situation was like that of Richmond-on-the-Thames in England."

Richmond was incorporated as a town in 1742 and was made the Virginia capital in 1780. It was incorporated as a city in 1842 and was Confederate capital (1861-65).

The 1968 city population is 216,500 with 526,200 in the Standard Metropolitan Statistical Area that includes the counties of

Henrico, Chesterfield and Hanover.

Richmond has survived a terrible flood in 1771, burning by Benedict Arnold in 1781, and the evacuation fire of 1865 when stores of cotton and tobacco were burned to prevent their use by Federal troops.

With corporate land area of 39.9 square miles, the city has under way a court action to annex 50 square miles and 75,000 residents of the County of Chesterfield.

Completely separate and independent from any county, the city operates with a nine-member council-city manager form of government. Financial bond rating services accord Richmond bonds the highest possible rating, AAA, and citizen activity has twice won the All-America City Award.

A headquarters city, Richmond serves as a distribution center with almost 50% of the total employment in white collar jobs. Manufacturing accounts for one-fourth of all employment.

The labor force expands at the rate of 6,000 workers per year. Special training is offered and productivity is 27% higher than the average of 72 major industrial areas.

Richmond is on the shortest and most economical highway route between New York and Florida. It is served by 3 interstate routes, 6 U. S. highway routes, 9 state highway routes, 4 railroads, 4 commercial airlines, two commuter airlines, 5 inter-city bus lines and 50 fixed route motor truck lines.

The modern deepwater terminal and navigable James River with 25-foot channel help make Richmond a trade center of the South Atlantic with 860 wholesale distributors and more than \$1.9 billion in annual sales. Nine institutions of higher learning offer education in the arts, business, science, medicine, law, humanities and theology.

"Tobacco Capital of the World," Richmond produces enough cigarettes each year to encircle the earth 200 times. The Richmond area has the largest nylon plant in the world and is a center for packaging with aluminum, cellophane and paper products. The city is one of the major financial centers in the United States.

The Richmond Braves play at Parker Field and represent Richmond in the (AAA) International League.

One of the nation's most interesting cities, Richmond has a bus tour sponsored by Richmond Jaycees that shows such points as St. John's Church, where Patrick Henry delivered his immortal "Give me liberty or give me death" speech; the Virginia Capitol designed by Thomas Jefferson, meeting place for the Virginia General Assembly, the oldest legislative body in the western hemisphere; Hollywood Cemetery with the graves of 18,000 Confederate soldiers, Confederate President Jefferson Davis, Gen. J. E. B. Stuart, and U. S. Presidents Tyler and Monroe.

The Lee House, Confederate Museum, John Marshall House, Valentine Museum, Poe Museum, Battle Abbey and Virginia Museum of Fine Arts are attractions.

Preserving the splendor of old Richmond is Monument Ave. with its monuments of Gen. J. E. B. Stuart, Gen. Robert E. Lee, Jefferson Davis, Gen. Thomas J. "Stonewall" Jackson and Commodore Matthew Fontaine Maury.

Richmond has under construction a \$23,000,000 coliseum-convention center seating 12,000, a new 17-story City Hall costing \$17,000,000, and a 13-mile system of new expressways costing \$95,000,000 to serve the heart of the city.

Additional information available from the Richmond Chamber of Commerce, 616 East Franklin St., Richmond, Va. 23219.

Rochester, New York

The World Almanac is sponsored in the Rochester area by the Democrat & Chronicle and the Times-Union, 55 Exchange St., Rochester, N. Y. 14614; telephones, Democrat & Chronicle (716) 232-5300; Times-Union (716) 232-7100; Democrat & Chronicle founded as Morning Advertiser 1833 by Sidney Smith, Times-Union founded as Advertiser 1826 by Henry C. Sleight; circulation Democrat & Chronicle 142,794 (morning), 218,586 (Sunday), Times-Union 143,855 (evening); publisher, Paul Miller, president, Gannett Co., Inc.; general manager, Allen H. Neuhauf; director of operations, Duane R. Jacobs; director of sales, Al F. Mahar; director of news, John Quinn; director of public service, Vince Spezzano; both papers shared in 1964 Pulitzer Prize awarded to Gannett Newspapers; public service projects include Lend-A-Hand Fund, Newspaper-In-The-Classroom, Harvest Queen.

Rochester, third largest city in New York State, is a world leader in the manufacture of precision goods and a major eastern U. S. cultural center. Located on Lake Ontario, it leads the world in the manufacture of photographic film and cameras, optical goods, dental equipment, and thermometers.

Settled in 1789 by Ebenezer Allen, who built a grist mill in a swamp on the Genesee River shore, it was established as a village in 1812, incorporated as Rochester in 1817, and became Rochester in 1822.

The Erie Canal boom in the 1820s established Rochester as a trade center. It became a city in 1834 and its many flour mills gained it the nickname "Flour City."

Rochester had 301,829 people in 1965, and an estimated 298,500 in 1967. Estimated metropolitan area population in 1968 was 832,200. It is governed by a city manager and a 9-member council.

Largest employers are Eastman Kodak Co. (46,000), Xerox (12,000), and Bausch & Lomb (5,300); all were founded in Rochester and have headquarters there.

Estimated retail sales for the metropolitan area in 1967 were \$1.309 billion.

Rochester is served by 5 railroads and 3 airlines. Rochester-Monroe County Airport serviced 1,188,460 passengers in 1967, and was over the million mark in passengers serviced for the first time in history. There were 26,573 scheduled flights by commercial airlines, an increase of 2320 over 1966. The Port of Rochester docked 73 cargo-bearing ships, loading and unloading 65,016 tons.

Among major development programs are Xerox Square, a \$20,000,000 downtown project dominated by a 30-story tower;

Genesee Crossroads Redevelopment project, a joint civic and business project expected to cost \$70,000,000; and a \$39,000,000 Civic Center and Plaza, a \$70,000,000 Clinton Square redevelopment project, to be dominated by a 26-story \$11,000,000 Lincoln-Rochester Bank and a 21-story Marine Midland bank-office building.

Rochester is now known as the "Flower City," because of its outstanding public and private floral and horticultural attractions. Its mid-May "Lilac Festival" is a major international attraction. The Monroe County Parks system includes 14 parks in and around the city, including Seneca Park Zoo and the lilac gardens at Highland Park. Community War Memorial auditorium is home of Rochester Americans of the American Hockey League. The International (baseball) League Red Wings play at Red Wing Stadium.

Eastman Theater is part of the home of the Eastman School of Music of the U. of Rochester and home auditorium of the Rochester Philharmonic, Eastman Philharmonia, and Eastman Wind Ensemble. Memorial Art Gallery has one of the country's largest gallery memberships. Other museums include Rochester Museum of Arts and Sciences; George Eastman House of Photography, and Ward's Natural Science Establishment. Colleges include University of Rochester, Rochester Institute of Technology, Roberts Wesleyan, Nazareth and St. John Fisher Colleges; State U. College at Brockport; Colgate Rochester Divinity School; Monroe Community College.

Information about Rochester is available from the Chamber of Commerce, 55 St. Paul St., Rochester, N. Y. 14604.

Sacramento, California

The World Almanac is sponsored in the Sacramento area by The Sacramento Bee, 21st & Q. Sacramento, Calif. 95816; telephone (916) 442-5011. The Bee was founded Feb. 3, 1857, and developed into the Capitol City's leading newspaper under the direction of its pioneer editor, James McClatchy, and, later under his son, C. K. McClatchy. They served the Pulitzer Prize-winning Bee for almost 80 years. Daily circulation is 175,000; Sunday circulation, 203,000. Eleanor McClatchy is president of McClatchy Newspapers, which include The Modesto Bee and The Fresno Bee.

Sacramento, capital of California, is located in the Sacramento Valley, 85 mi. northeast of San Francisco and 385 mi. north of Los Angeles. It is the 13th fastest growing metropolitan area in the U. S.

The City of Sacramento, has an estimated population of 275,000 and covers 93 sq. mi. It is the seat of Sacramento County, estimated population 630,000, area 997 sq. mi. Sacramento also is the heart of a 19-county market area which includes the Sacramento Valley and the surrounding mountain counties. Within this large area are over 50 cities and towns with populations of 1,000 or more. The area possesses much natural wealth: lumber, minerals, petroleum and water, and is blessed with a mild climate and fertile land. Retail sales for the 19-county market exceed \$2.077 billion annually.

Sacramento grew out of the founding by John Augustus Sutter of his famous fort near the confluence of the Sacramento and American Rivers in 1839. His adobe fort was civilization's lone outpost in the California interior. On Jan. 24, 1848, James Wilson Marshall discovered gold at Sutter's mill on the American River in Coloma, 35 mi. northeast of Sacramento.

In a short time Sacramento, gateway to the Mother Lode country, became the goal of a great migration. Approximately 100,000 gold seekers came to California by wagon-train and ship, most of them headed for Sacramento and Stockton.

Early Sacramento also saw the Pony Express and the Central Pacific Railroad which crossed the Sierra Nevada.

Leaves built during this early period helped development of one of the world's most productive agricultural areas. There now are more than 15,500 farms in the 19-county area, producing 2,000 different crops annually worth over \$462,000,000.

Water for irrigation and industry comes from the Sierra country where California's \$1.75 billion Feather River water project and system of dams assures a year-round water supply. The Oroville Dam is the key unit in the project.

There are 367 manufacturing plants in Sacramento. Included are such names as Campbell Soup, Procter and Gamble, Libby, McNeil and Libby, California Almond Growers Exchange, Aerojet-General and McDonnell Douglas Astronautics.

The state employs over 26,000 in the Sacramento area and McClellan Air Force Base has 20,000 civilian employees.

Transportation and distribution facilities are highlighted by the new \$55,000,000 Port of Sacramento which provides a deep water channel to the Pacific. Interstate and other major highways intersect within Sacramento city limits. Sacramento has a new, jet age Metropolitan Airport, a Municipal Airport and 14 smaller airfields. The city is served by the transcontinental lines of the Southern Pacific and Western Pacific railroads. It also has the freight facilities of the Central California Traction Co. and the Sacramento Northern.

Sacramento has a city manager form of government. The manager is selected by the City Council. The Councilmen are elected by the city at large for two-year terms.

Sacramento County has 12 general hospitals with a bed capacity of 1,907. There are two junior colleges, Sacramento State College and the University of Pacific's McGeorge Law School. Nearby at Davis is the University of California with an enrollment of nearly 10,000.

Twelve publicly-sponsored cultural organizations provide theatrical, ballet, symphony and art gallery programs. Recreational facilities include 95 public parks, a zoo, 74 playgrounds, 44 theaters, 6 18-hole and 6 9-hole public golf courses and 4 private golf clubs. Fishing, swimming, boating and camping facilities are found along the American and Sacramento Rivers. Nearby are the High Sierras with lake and stream fishing, hunting, boating and some of the nation's best skiing.

Historical points of interest include the State Capitol, John Sutter's Fort, Gov. Leland Stanford home, Pony Express Terminal, Crocker Art Gallery and the Governor's Mansion.

St. Louis, Missouri

The World Almanac is sponsored in the St. Louis area by the St. Louis Post-Dispatch, 1133 Franklin Ave., St. Louis, Mo. 63101; telephone (314) MA 1-1111; founded Dec. 12, 1878, by Joseph Pulitzer; circulation 387,180 daily, 610,016 Sunday; editor and publisher, Joseph Pulitzer, Jr.; managing editor, Arthur R. Bertelson; general manager, Charles J. Hentschell; business manager, Alex T. Primm; director of public affairs and promotion, Frank Leeming; major awards include 5 Pulitzer Prizes to newspaper, 9 to staff members; community projects include high school scholar-athlete program, straight A baseball tickets, science fair and Silver Skates.

St. Louis, Mo., "Gateway to the West," is crowned at its downtown riverfront by the 630-foot-high Gateway Arch, a stainless steel, catenary arch designed by Eero Saarinen. The nation's tallest monument, it stands in an 85-acre park that once was filled with riverfront warehouses. It commemorates Jefferson's Louisiana Purchase, the westward expansion of America and the role of St. Louis as the gateway city for vast numbers of settlers who left the Mississippi River there and headed west. The arch has capsule cars for rides to the top; the park and underground museum are not yet finished.

The Arch stands near the place chosen

by Pierre Laclède Liguette, French fur trader, in 1763 as an ideal spot for a camp and village. The landing he chose was about 14 miles down the Mississippi from the mouth of the Missouri river. In 1764 Laclède sent his lieutenant, Auguste Chouteau, back to establish the post. Laclède named it St. Louis after Louis XV. St. Louis was governed by a succession of Spanish viceroys until 1804 and later was selected as a settlement center by generations of Germans; it attained early distinction as an American melting pot.

In 1876 the proud city fathers declared St. Louis a "free" city and legally separated it from St. Louis County. At the

time that was thought to be an advance in municipal government, but the strictly set boundaries have become a straitjacket, the city has been boundary-bound to 65 square miles, locked in by the Mississippi on the east and unable to expand west.

The city proper has declined in population to an estimated 693,000, the county has grown to 942,000 in 95 municipalities, the metropolitan area to an estimated 2,395,000. Negroes make up a third of the population of the city proper.

St. Louis is experiencing a renaissance. The spectacular World's Fair of 1904 gave impetus to growth that filled the city's boundaries; there was a surge of pride when Lindbergh flew the Atlantic in the "Spirit of St. Louis" in 1927, but by 1950 it seemed that the city had become a dowager and had gone to sleep. The Post-Dispatch ran a series of articles pointing out what had happened under the title, "Progress or Decay? St. Louis Must Choose." Businessmen and city government got together to shake the city awake.

Today, near the soaring Arch, the new 50,000-seat, \$24,000,000 Busch Memorial Stadium provides a beautiful home for professional baseball, football and soccer; Mansion House Center, with apartment towers and business buildings, is a modern riverfront residence; new office buildings, motels and apartments stand where blight had spread. The Mississippi was spanned anew in 1967 by a \$30,000,000 bridge downtown to connect interstate highways and trafficways to be completed by 1970.

Major industrial and commercial projects under construction, awarded or planned totaled \$2.700 billion in 1967 for the metropolitan area. Still, while gleaming new buildings went up at some places, blight, decay and population loss attacked others. Although urban renewal has been extensive, vast areas remain to be rebuilt.

In the steamboat era, St. Louis grew into a city as a riverboat port. The Mississippi below St. Louis is the most heavily traveled river in the world and St. Louis remains the busiest port on the river except for the deep-water ports of New Orleans and Baton Rouge. St. Louis harbor cargo runs 9,500,000 tons a year.

St. Louis is second only to Detroit in automobile assembly. It is the home of the McDonnell Douglas Corp., aerospace manufacturers, who did pioneering work in space travel in making space capsules for the Mercury and Gemini projects. Lambert-St. Louis Field is served by 8 airlines with more than 400 jet flights to and from St. Louis each day. In 1967 more than 2,225,000 passengers arrived by

air and a slightly smaller number departed. St. Louis is served by 16 trunk line railroads and 5 switching roads and there were more than 1,000,000 revenue car switchings by the terminal railroad in 1967. St. Louis is recognized as the second largest trucking center in the nation. More than 200 common carriers provide service to the U. S. and Canada. The city is served by 16 bus lines.

"First in shoes and first in booze" was an old St. Louis slogan. It has the headquarters of the two largest shoe manufacturers, Interco, Inc., and Brown Shoe Co., the biggest brewery, Anheuser-Busch, and a large competitor, Falstaff Brewing Corp. Monsanto Co., among the largest American industrial corporations, has headquarters and plants in St. Louis. The food industry is represented by Ralston-Purina Co. and Pet, Inc. Peabody Coal Co. is a leader and Granite City Steel Co. is a major producer. Emerson Electric Co. represents the electrical field. Retail sales for the year ended Apr. 30, 1968, were estimated at \$3,976 billion.

St. Louis has wide manufacturing capabilities with firms operating in 431 of the standard industrial classifications. It is at the heart of the only such area in the country producing 6 basic metals: iron, lead, zinc, copper, magnesium and aluminum. It is the metropolitan area closest to the center of U. S. population.

The new downtown stadium and an excellent new planetarium in Forest Park have added to public attractions such as the Zoo, Missouri Botanical Gardens, City Art Museum and Symphony. The Spanish Pavilion from the New York World's Fair is being constructed downtown. Architectural attractions include the Eads Bridge, Old Courthouse and Old Cathedral on the riverfront, the Victorian Union Station, Old Post Office, Gen. Grant's cabin, Gen. Sherman's home and several restored historic houses. Professional sports teams are the 1967 World Champion St. Louis Cardinals of the National League, the Cardinals of the National Football League, Stars of the National Professional Soccer League, Blues of the National Hockey League.

Both Washington University and St. Louis University are engaged in building campaigns and a new campus of the University of Missouri has grown to more than 7,000 students in 5 years.

Specialized information may be obtained from the Chamber of Commerce of Metropolitan St. Louis, 224 North Broadway, or the Regional Industrial Development Corp., 7701 Forsyth Blvd.

St. Paul, Minnesota

The World Almanac is sponsored in the St. Paul area by the St. Paul Dispatch and Pioneer Press, 55 E. 4th St., St. Paul, Minn. 55101; telephone (612) 222-5011; Dispatch founded 1868, Pioneer Press founded as Minnesota Pioneer 1849 by James Goodhue; circulation, Pioneer Press 104,088 (morning), 220,896 (Sunday), Dispatch 130,535 (evening); Bernard H. Ridder, chairman of the board; Bernard H. Ridder, Jr., president and publisher; Fred S. Heaberlin, executive editor; William G. Sumner, editor.

St. Paul is the capital city of Minnesota. It has an estimated (1967) population of 317,287 and is the second largest city in Minnesota, exceeded only by Minneapolis. St. Paul and Minneapolis are Minnesota's Twin Cities. They and their suburbs form a metropolitan area of nearly 2,000,000 people.

St. Paul is located on hilly banks of the Mississippi River in eastern Minnesota. It is close to vacation areas of both Minnesota and Wisconsin and is noted as a manufacturing, transportation, retail and education center.

The site of the city was Sioux (Dakota) Indian country when Father Louis Hen-

nepin, Catholic missionary and explorer, visited it in 1680. Land near the confluence of the Minnesota and Mississippi Rivers, just southwest of the present city, was acquired for the U. S. in 1805. Fort Snelling was built there and after many years of service is now a Minnesota State Park. The old fort is being reconstructed.

St. Paul's first settler (1838) was a trader, Pierre Parrant, nicknamed "Pig's Eye." Parrant was one of the Fort Snelling squatters who in 1840 were removed from the military reservation and settled in what is now the heart of St. Paul. In 1841 Father Lucian Galtier, missionary at St. Peter's (Mendota) on the south side

of the river, built a chapel to serve the squatter community. He dedicated it to St. Paul and soon the settlement became known as St. Paul or St. Paul's rather than Pig's Eye. St. Paul was incorporated as a town in 1849 and as a city in 1854.

The first steamboat reached Fort Snelling in 1823 and St. Paul became the upstream terminus of regular shipping in 1847. The city remains a major river port, served by 7 barge lines. In 1967, receipts and shipments at the Port of St. Paul totaled 5,039,178 tons.

In the latter 1800s, St. Paul prospered as a rail and lumber center. It continues as the headquarters of the Great Northern Railway and the Northern Pacific Railway. The city is served by 62 railroads, including eight Class I lines.

More than 4,000,000 passengers were handled by 7 airlines at St. Paul-Minneapolis International Airport in 1967. There were 270,911 flight arrivals and departures. St. Paul Downtown Airport (Holman Field), which caters to business uses, saw 177,666 arrivals and departures. International Airport is home base for two major airlines, Northwest Orient and North Central.

There are three interstate bus lines and four transit lines operating in St. Paul, and the city forms the nation's third largest trucking center.

The Twin Cities area is now the fourth largest electronics center in the nation. St. Paul is fourth largest in publishing and printing, fifth in the production of cosmetics in the nation and the largest producer of refined petroleum products in the Midwest.

In 1888 St. Paul Union Stockyards were founded and now are second only to Omaha in the U. S., with a 1967 volume of 4,897,180 head of livestock.

Higher education facilities in St. Paul include the University of Minnesota Institute of Agriculture, Hamline University, Bethel College and Seminary, College of St. Thomas, College of St. Catherine, Concordia College, Macalester College, William Mitchell College of Law, Luther Theological Seminary, Northwestern Luther Theological Seminary, St. Paul Bible College, St. Paul Seminary and United Theological Seminary of the Twin Cities.

Attractions include the St. Paul Winter Carnival; the Minnesota State Fair, billed as the nation's largest; Como Park Zoo and Conservatory; the onyx statue of the Indian God of Peace by sculptor Carl Milles in the City Hall and Court House Building, the State Capitol, the St. Paul Arts and Science Center and the Minnesota Historical Society museums.

St. Paul is undergoing a vast downtown redevelopment program including a 12-block Capital Centre project that will feature year-round, temperature-controlled elevated sidewalks connecting new and existing buildings. About \$90,000,000 in urban renewal land clearance and redevelopment is now underway.

St. Paul in 1967 issued \$41,318,000 in non-residential and \$11,026,000 in residential building permits. Its retail sales totalled \$580,833,000.

The city has a commission-mayor form of government and also is the seat of Ramsey County government.

In suburban Bloomington are the American League Minnesota Twins baseball team, the National Football League's Minnesota Vikings, and the National Hockey League's Minnesota North Stars.

Specialized information is available from the Chamber of Commerce, Osborn Building, St. Paul, Minn. 55101.

St. Petersburg, Florida

The World Almanac is sponsored in the St. Petersburg area by The St. Petersburg Times and Evening Independent, 490 First Avenue South, St. Petersburg, Fla. 33731; telephone (813) 894-1111; The Times founded 1884, The Independent 1906; circulation Times, morning, 151,615 daily, 166,711 Sunday; Independent, evening, 25,163 daily; papers produced by The Times Publishing Co., Nelson Poynter, editor and president; Donald K. Baldwin, executive editor; John B. Lake, general manager; major awards include Pulitzer Gold Medal for public service, National Headliners Award, University of Missouri Award; sponsors Most Valuable Legislators awards for Florida legislature, science fair, spelling bee, boat show, Christmas parade.

The story of St. Petersburg begins with the Caloosa Indians who lived hundreds of years on the rich game in the forest and succulent fish from the waters of the Gulf of Mexico. These first Floridians greeted Hernando De Soto and Ponce De Leon when they sailed on their historic voyages early in the 16th century.

It was not until 1835 that Dr. Odet Philippe, former surgeon in the armies of Napoleon, sailed into Old Tampa Bay and became the first permanent white settler. Hardy pioneers followed to conquer a wilderness and create one of America's leading resort areas.

St. Petersburg covers 58 square miles on the southern tip of Pinellas county, a peninsula separating the Gulf of Mexico and Tampa Bay, half way up Florida's west coast. Incorporated in 1892, the city now has a population estimated at 216,000, while Pinellas County's population has grown to 452,000.

The American Medical Association Journal in 1885 described the St. Petersburg area as the world's healthiest place to live because of its climate. The delightful year-round climate, coupled with tropic beauty, soon established St. Petersburg as a tourist mecca.

The Evening Independent's offer of a free paper on days when the sun fails to

shine—paid off on an average of 4 times a year since 1910—helped establish St. Petersburg as the Sunshine City.

Today, nearly 2,300,000 visitors come to St. Petersburg and Pinellas County each year, spending \$600,000,000 to swim, fish, sail, ski and enjoy the attractions for which the area is famous.

St. Petersburg experienced rapid growth during the land boom of the 1920s when Gandy Bridge was built, linking peninsula Pinellas with the Florida mainland. Another expansion followed World War II, when thousands of servicemen who had trained in the area returned to make it their permanent home.

Space industry came to Pinellas County in the 1950s, bringing with it thousands of young engineers and technicians and their families. Honeywell, General Electric, Sperry Rand and Electronics Communications Inc. are among firms providing a stable, smokeless, industrial economy.

Effective buying income in the Pinellas metropolitan area in 1967 was estimated at \$1.1 billion, second only to Miami-Dade County in Florida. Retail sales were set at \$815,000,000, fourth highest in Florida.

Since 1950, bank deposits in Pinellas have risen from nearly \$150,000,000 to over \$810,000,000. Savings and loan deposits are up from \$50,000,000 to \$700,000,000.

More than 88,000 students attend school in the St. Petersburg metropolitan area, including St. Petersburg Junior College, Florida Presbyterian College, Bay Campus of the University of South Florida and Stetson University College of Law.

Among recent major city projects are the \$5,000,000 Bayfront Center auditorium and arena, \$1,000,000 art museum, \$1,000,000 library, \$5,000,000 Federal building, \$1,000,000 municipal marina and development of recreation facilities along the downtown waterfront.

St. Petersburg is operated under a council-manager form of government.

It is a city of more than 230 churches, third in the nation in per capita church attendance for major metropolitan areas.

During February and March, the St.

Louis Cardinals and New York Mets hold spring training at Al Lang Field, playing against other major league teams.

In the immediate area are greyhound racing, horse racing and jai alai, in addition to excellent golf, tennis, bowling, shuffleboard and water sports facilities.

St. Petersburg's downtown Albert Whitted Airport provides services for private planes, while commercial air transportation is available at nearby Tampa International Airport. The city also is served by Seaboard Coastline Railroad and Greyhound and Trailway Bus Lines.

Detailed information can be obtained from The St. Petersburg Times Public Service Department and the Greater St. Petersburg Chamber of Commerce.

Salt Lake City, Utah

The World Almanac is sponsored in the Salt Lake City area by the Salt Lake Tribune, 143 S. Main St., Salt Lake City, Utah 84110; telephone (801) 524-4545; founded Apr. 15, 1871; circulation 110,146 daily, 190,790 Sunday; publisher, John W. Gallivan; executive editor, Arthur C. Deck; editorial page editor, Theodore W. Long; major awards received included 1957 Pulitzer Prize; civic projects include statewide civic beautification awards, Sub for Santa program, Community Christmas Tree.

Salt Lake City, capital of Utah and largest city in the state, with an estimated 1968 population of 210,000, is best known for being headquarters of the Church of Jesus Christ of Latter-day Saints (Mormon). Founded July 24, 1847, by Brigham Young and a contingent of pioneers, the settlement first was known as Great Salt Lake City, a name which continued for many decades.

Nestled between the Wasatch and Oquirrh mountains, Salt Lake City was the parent colony of nearly all early Western communities. From it were sent emigrant parties to all parts of Utah and to areas that were to become Idaho, Nevada, Wyoming, Arizona, New Mexico, Colorado, California, Mexico and Canada. Because of its location the city became the crossroads of Western travel and today is the geographical center of the 11 Western states. It is the mining, smelting and refining center of the West, and is the only city of metropolitan proportions between Denver and the Pacific Coast.

Situated near the southeast shore of the Great Salt Lake at an elevation of 4,327.27 feet (measured at the Mormon Temple Block, natural center of the community), Salt Lake City's most famous landmarks are the LDS Temple and Tabernacle. Other well-known buildings and places of interest include Brigham Young's Lion House and Beehive House, the Eagle Gate, and Kennecott Copper Corp.'s Bingham

Mine—the world's first open pit copper mine and the world's largest man-made excavation—on the western outskirts.

Operating under a mayor-city commission form of government, Salt Lake City is completing a \$17,000,000, 14,000 seat civic auditorium complex (Salt Palace). Grand opening is scheduled for April, 1969.

Salt Lake City is served by 4 air lines (in July, 1968, it seemed certain at least two others would receive CAB certification), and two railroads. During 1967 853,368 passengers deplaned and 852,905 enplaned at the Salt Lake City's International Airport. The city is a hub of the central Transcontinental Highway System, and is served by all of the major Western truck lines, plus bus lines operating in all directions.

Home of the world-famed Mormon Tabernacle Choir, it also is headquarters for the National Woolgrowers Assn., site of the 1967 World Championship Judo matches and was U. S. representative in bidding for the 1972 Winter Olympics.

The University of Utah and Westminster College are in the city.

Major employers are Hill Air Force Base 30 miles to the north, local defense industries and Kennecott Copper Corp.

Additional information is available from the Salt Lake Chamber of Commerce, 146 S. Main St., or the Utah Travel Council, Council Hall, Capitol Hill, Salt Lake City, Utah.

San Antonio, Texas

The World Almanac is sponsored in the San Antonio area by San Antonio Express and San Antonio News, Ave. E at Third St., San Antonio, Texas 78205; telephone (512) CA 5-7411; morning Express founded Sept. 27, 1865, evening News founded Sept. 4, 1918; circulation Express 83,212, News 64,117, Sundays 119,721; publisher, Conway C. Craig; president, Houston H. Harte; executive editor, Charles O. Kilpatrick; the Express and News have won many journalistic awards, being consistent leader in South Texas in this respect.

San Antonio, one of the most historic and colorful of America's cities, stands at a meeting place of plains and hills in South Central Texas, within easy reach of the Gulf Coast and the Mexican border.

The city's best-known landmark is the Alamo, a symbol of man's fight for freedom since its stalwart defense against overwhelming odds in 1836. Today the old mission-fortress occupies a place of honor downtown in the modern city which has grown up around it, further symbolizing the easy blend of old and new which is part of the city's character.

The modern city lives with other signs

of its past, notably the Missions San Jose, Concepcion, Capistrano and Espada. San Jose, called "Queen of Missions," is a National Historic Site.

The city's past has left it a rich heritage of diverse cultural influences. Founded in 1718 and made capital of the province of Texas, it was under Spanish rule until 1821, when revolt raised the flag of Mexico. In 1836, with battles at the Alamo and elsewhere, the Republic of Texas came into being, governing until Texas joined the union in 1845.

San Antonio in 1968 celebrated its 250th anniversary with the holding of Hemis-

Fair, a world's fair which built a glamorous spectacle of entertainment and education on a practical base of urban renewal.

The fair's benefits are expected to be felt for years to come, in intangible ways as well as in the permanent structures on the downtown fair site, including the city-built \$14,000,000 convention center complex, and the 622-foot Tower of the Americas with its revolving restaurant.

Now in a new surge of growth, the city has expanded from population of 408,442 in 1950, to 587,718 in 1960, to present estimates of over three-quarters of a million. Population is 51.2% Anglo-American, 41.4% Latin American and 7.1% Negro.

San Antonio, which has council-manager government, covers an area of 182.73 square miles in Bexar County.

For the period of 1950-1966, San Antonio Chamber of Commerce estimates that Bexar County has grown 60.6% in population, 109.6% in effective buying income, and 113.2% in retail sales.

Long a commercial and financial center for a large ranching and farming region, San Antonio serves a 50-county retail trade area with 1966 population of 2,344,700, and retail sales of \$2,829,085,000.

San Antonio's role as a military center is of prime economic importance. It is home of Kelly Air Force Base; of Brooks AFB, headquarters of the Air Force Aerospace Medical Division; of Lackland AFB and Randolph AFB with their training

programs; and of historic Fort Sam Houston, headquarters of the Fourth Army and site of Brooke Army Medical Center.

In addition to economic influence of military and other governmental employment, San Antonio has other significant sources of income in trade and service industries, in tourism, and in area livestock production and truck crops. The city also has diverse manufacturing.

Of growing importance are the city's position as a medical center, based on military and civilian hospitals and the new University of Texas Medical School, and its science-related activities in which the Air Force's famed School of Aerospace Medicine, the fast-growing Southwest Research Institute and the biomedical Southwest Foundation for Research and Education are prominent.

Six scheduled airlines, 3 trunk railroads and many truck lines serve San Antonio.

San Antonio has 4 colleges and universities and two junior colleges, museums, a notable symphony orchestra, a fine expressway system, a reputation for cleanliness and well-lighted streets, and a calendar of cultural and other events in which the week-long gaiety of the spring Fiesta San Antonio is a highlight.

Detailed information may be obtained from San Antonio Chamber of Commerce, P.O. Box 1628, San Antonio, Texas 78206.

San Diego, California

The World Almanac is sponsored in the San Diego area by The San Diego Union and Evening Tribune, 940 Third Ave., San Diego, Calif. 92112; telephone (714) 234-7111; Union founded 1868, Evening Tribune or predecessors 1881; circulation morning Union 137,014, Sunday Union 244,518, Evening Tribune 121,177; publisher, James S. Copley; president & general manager, Alex De Bakcsy; vice president, E. Robert Anderson; Evening Tribune editor, Eugene F. Williams; Union day managing editor Edward Thomas, night managing editor Fred Kinne.

San Diego, which observes the 200th anniversary of its founding in 1969, is the name of both a city and a county which are great not only in terms of area, population, industry and agriculture, but in human advantages as well. Sharing these are an estimated 680,500 residents of San Diego proper; the overall county population exceeds 1,314,000. City and county are among the nation's fastest growing areas; there are manager-type governments for both.

San Diego is the southwesternmost city in the U. S. The Pacific forms its western boundary, Mexico its southern. It has been under 4 flags since its discovery by Cabrillo in 1542 and its founding by Junipero Serra, a Franciscan missionary, almost 200 years ago in 1769—Spanish, Mexican, Californian, and U. S. Within San Diego city, besides much oceanfront, are two famous bays, San Diego and Mission. Alive with sailing and other craft, the latter is home of Sea World, a marine entertainment park. San Diego Bay, one of the world's fine natural harbors, is home of great Navy shore and fleet establishments, which with shipbuilding and research help create in San Diego a "Maritime Pacific" complex.

A famous civic asset is Balboa Park and its great Zoo, with the world's largest wild animal exhibit. Close proximity to Mexico is another San Diego tourist feature. Tourism's growth has been spectacular, the city possessing more hotel accommodations than all of Hawaii, as well as fine restaurants. A complete convention center is part of a theater-government-visitor community concourse.

Sunny skies and beneficent tempera-

tures, winter and summer, have been factors in San Diego's growth, as have Colorado River water resources, recruitment of "name" employers and the air transportation boom. San Diego has a fine freeway network, a new airport terminal and splendid sports facilities, including the 50,000-seat San Diego Stadium, soon to be a big league baseball park.

San Diego is an aerospace center—home of the Atlas missile—a leader in electronics and is staking its claim as an oceanography center. Industry location is assisted by Economic Development Corp. of San Diego County, 530 B St., San Diego 92101.

San Diego has collections of Old Masters, a noted Shakespeare Festival, and is scheduled to erect a repertory theater directed by the noted Michael Langham. Campuses include California Western University, a unit of United States International University, University of California at San Diego, San Diego State College, and the University of San Diego.

The city is a center for sportfishing and, uniquely, whale-watching. In winter whales parade close to the coast en route to Mexico's "lying-in" lagoons. Horse racing, at nearby Del Mar and in Caliente in Mexico, is a tourist attraction.

San Diego ranks among the top 20 counties in the U. S. in agricultural production, with 685,000 of 2,700,000 county acres in cultivation. Tomatoes, oranges, avocados and eggs are important revenue sources. Neighboring Imperial County is the nation's wealthy winter "hothouse" for fresh fruits and vegetables.

Taxable retail sales in 1967 were \$1.740 billion in San Diego county.

San Francisco-Oakland, California

The World Almanac is sponsored in the San Francisco-Oakland area by the San Francisco Examiner, P. O. Box 3100, Rincon Annex, San Francisco, Calif. 94103; telephone (415) 781-2424; founded June 12, 1865, purchased in 1880 by Sen. George Hearst, who turned it over in 1887 to his son William Randolph Hearst; circulation Daily Examiner 213,649, Sunday Examiner & Chronicle 680,486; publisher, Charles Gould; editor, Edmund J. Dooley; executive editor, Thomas Eastham; managing editor, Rene Cazenave; advertising director, Bob Ward; major awards include Pulitzer Prize, Freedoms Foundation Award; sponsors Golden Gloves, Bridal Forum, Bay to Breakers Race, Hearst Regatta.

San Francisco, chief port and financial center of the Pacific Coast, is centrally located on the California shoreline at the entrance to one of the world's finest land-locked harbors. Famed for its hills, the city covers 44.6 sq. mi. on the northern tip of a peninsula.

San Francisco Bay was discovered in 1769 by a Spanish scouting expedition headed by Sgt. Jose Ortega, and the Presidio and Mission Dolores, both within present city limits, were founded in 1776 by Col. Juan Bautista de Anza. The pueblo of Yerba Buena was established on the site in 1834, and was renamed San Francisco on Jan. 3, 1847. Its population was 800. When gold was discovered at Sutter's Mill on the American River in 1848, the area grew rapidly. The spreading tent settlement was established as a county and incorporated as a city in April, 1850. Gold production declined after 1855, but the fine port made San Francisco the main Pacific Coast point of entry, and maritime trade helped the bay region prosper.

Estimated population of San Francisco on July 1, 1968, was 747,500. The city is second only to Manhattan Island in population density. Its combined county-city government gives legislative powers to an elected 11-member board of supervisors. Certain officials, including the mayor, are elected; others are appointed by the mayor and have permanent tenure.

The city and the surrounding counties of Alameda, Contra Costa, Marin and San Mateo comprise the San Francisco-Oakland Metropolitan Area. San Francisco is the financial center of the west, home of the Pacific Coast Stock Exchange, many banks and savings and loan associations.

The Port of San Francisco handled 4,890,246 tons of cargo in 1967. Leading exports were dried fruit and fruit in airtight containers, non-electric machinery and appliances, and rice. Chief imports were green coffee, telecommunications apparatus, and nonmilitary road vehicles. Passenger liners make more than 100 calls at San Francisco each year.

Retail and wholesale trade account for the greatest number of jobs in the metropolitan San Francisco area, 282,700, and services are second, 275,000. Manufacturing employs 196,600, about 30% of the 5-county total, with food and kindred products; printing, publishing and allied arts,

and fabricated metal products as the leading industries. More than 65 industrial parks lie within a 50-mile radius of downtown San Francisco. The city has 8,577 retail establishments which reported taxable sales of \$1.27 billion in 1967.

San Francisco International Airport is served by 19 trunk and regional airlines. In fiscal 1967, it processed 12,723,811 passengers, ranking fourth in the nation. A total of 481,168,609 lbs. of cargo, and 217,791,000 lbs. of mail were also moved.

Three major transcontinental railroads and one regional railroad link San Francisco to all sections of the nation, Canada and Mexico. The transcontinental routes are connected to the San Francisco waterfront by rail ferry service.

A \$1 billion Bay Area Rapid Transit System is under construction, scheduled for completion in 1969-70 to serve San Francisco and Alameda and Contra Costa counties. An office building boom has changed the city's skyline rapidly.

San Francisco is famous for its cable cars and Fisherman's Wharf, and for such varied structures as the Ferry Building, the new \$45,000,000 Federal Office Building, the historic Fairmont, Mark Hopkins, and Sheraton-Palace hotels; the California Palace of the Legion of Honor, the newly renovated Palace of Fine Arts, and Grace Cathedral. The Cow Palace, home of political conventions, sports and livestock exhibitions, lies just across the boundary line in San Mateo County. The San Francisco Zoo and 1,013-acre Golden Gate Park, containing California Academy of Sciences, De Young Museum, lakes, deer and buffalo, are attractions.

Candlestick Park is the home of the San Francisco Giants, National Baseball League; Kezar Stadium, that of the San Francisco 49ers, National Football League. Other professional teams include the San Francisco Warriors of the National Basketball Assn., and the Golden Gate Gales of the United Soccer Assn.

The University of California maintains its medical school and extension classes in San Francisco, which is also known for San Francisco State College, the U. of San Francisco, City College of San Francisco, and San Francisco College for Women.

Detailed information may be obtained from the Greater San Francisco Chamber of Commerce, 420 Montgomery St., San Francisco, Calif. 94104.

Oakland, California

The city of Oakland covers 53.4 sq. mi. of land and 25.7 of water on the east side of San Francisco Bay in California. Linked to San Francisco by the 8¼-mile Bay Bridge, it is the county seat of Alameda County. The area was first explored in 1772, and was settled in 1850 when it attracted the overflow from the Gold Rush. Oakland was incorporated as a town in 1852 and as a city in 1864. Fifteen years later, the first westbound transcontinental train brought commerce and steady growth. Population in July, 1968, was estimated at 386,000. The city has a council-manager government.

For the county, manufacturing with 85,000 workers and services with 73,100 workers are the major areas of employment. Other important job fields are retail trade, 62,600; wholesale trade 22,800; transportation, communications and utilities, 33,200; finance, insurance and real estate 16,700; and construction 23,200. Processed foods and fabricated metal products, including passenger cars and trucks, head the manufacturing output for Alameda County. The city's retail sales in 1967 were \$822,531,000, the county's, \$1,868,374,000.

Three transcontinental railroads serve metropolitan Oakland and 245,945 carloads

of freight were moved in 1967. The Port of Oakland handled 831 ocean-going vessels in 1967 and moved 3,070,007 tons of cargo. Metropolitan Oakland International Airport is served by 7 leading trunk and regional airlines and is headquarters for 3 chartered lines.

Oakland has an urban renewal program affecting 70 of 100 square blocks in the downtown area. Older neighborhoods are undergoing massive redevelopment. Oakland operates a Manpower Training Act job-training center.

Lake Merritt, a 160-acre body of salt water, provides a park-like setting in the heart of Oakland. The new \$8,000,000 Oakland Museum and fabled Jack London square are major tourist attractions. Some 16,000 acres of East Bay Regional Parks offer nearby camping and recreation.

San Jose, California

The World Almanac is sponsored in the San Jose area by the San Jose Mercury and News, 750 Ridder Park Dr., San Jose, Calif. 95131; telephone (408) 289-5000; Mercury (California's second oldest daily newspaper) founded June 20, 1851, by J. C. Emerson. A. Jones, Jr., J. F. Damon, News founded July 23, 1883, by Hugh A. DeLacy; circulation morning Mercury 130,491, evening News 77,068, Sunday Mercury-News 192,230; publisher, Joseph B. Ridder; general manager, Anton F. Peterson; executive editor, Kenneth S. Conn; advertising director, Louis E. Heindel; new facility won Factory magazine's "Plants of the Year" award in 1968; since 1946 newspapers have won 44 first and 21 second place awards in national and state competition; co-sponsor International Invitational Swimming & Diving Championships.

San Jose is located in the Santa Clara Valley region of northern California at the southern end of San Francisco Bay. A city of 204,196 according to the 1960 Census, it has an estimated population of 412,700 as of Apr. 1, 1968. San Jose is the central city of one of the nation's 10 fastest growing metropolitan areas and the county seat of Santa Clara County. The county and official metropolitan area are coextensive and have a population presently estimated at 1,008,000.

San Jose can aptly be called California's "first city," as it lays claim to the following: 1st civilian settlement (November, 1777); 1st State Capitol (December, 1849) and home of its first governor; site of the first public school in California (1795) and first state institution of higher learning (San Jose State College, 1857); home of the first radio broadcasting station in America (1909). San Jose is the urban center of one of the largest aerospace industrial/research complexes.

Agriculture, which until the late 40's was the main "industry" in the area,

Saskatoon, Canada

The World Almanac is sponsored in the northern Saskatchewan area by the Saskatoon Star-Phoenix, 204 Fifth Ave. North, Saskatoon, Sask., Canada; telephone (306) 652-9200; founded 1902; circulation daily 51,480; publisher, Michael C. Sifton; general manager, Norman G. Paterson; editor, M. D. Macdonald.

About 85 years ago, temperance colonists camped on a high bank of the South Saskatchewan River in the center of the Canadian prairies. Their camp has grown into a city of 35 square miles, 123,000 people and 1,800 businesses. Its name, Saskatoon, is a derivative of a Cree Indian label for a berry found there.

It is the second fastest-growing city in Canada and the second largest city in a province of 251,700 square miles. Wide streets, spacious residential areas and 1,300 acres of parks add to its esthetic quality. Its university is internationally known in agricultural science, and its university hospital is the home of some of the most advanced medical work.

Saskatoon stands over the world's richest and largest known body of potash. Six mines will, by 1970, tap that bed.

In the best hard spring wheat area in the world, Saskatoon provides grain storage capacity for 6,000,000 bushels. The livelihood of many of the 425,000 people

Knowland State Arboretum and Park is the home of the Oakland Zoo. The recently completed \$25,500,000 multi-purpose Oakland Coliseum has a maximum capacity of over 50,000. Professional teams include the Oakland Raiders, American Football League; Oakland Oaks, American Basketball Assn.; California Seals, National Hockey League; and Oakland Clippers, National Professional Soccer League.

The University of California's Berkeley campus is only minutes from Oakland, and the city houses Mills College for Women, College of Holy Names, Peralta Junior College, and the California College of Arts and Crafts.

Detailed information may be obtained from the Oakland Chamber of Commerce, 1320 Webster St., Oakland, Calif. 94612.

remains a factor in the local economy. Industrial growth since World War II has made the metropolitan area the state's 2nd county in value of manufactures, 3rd in number of manufacturing employees. It has a council-manager government.

San Jose is served by two major railroads, over 60 interstate truck lines, Greyhound passenger and parcel terminals, United Airlines, Air West and major intra-state airlines. Numerous daily helicopter flights connect to interstate and overseas flights. Several extensive urban renewal projects are transforming the face of the city's core into the cultural, commercial and educational center of the region.

The metropolitan area, home of San Jose State College, Stanford University and the University of Santa Clara, is one of the West's major seats of learning and research. An estimated 77,500 students will attend these and other local institutions during the fall (1968) term.

The nearby city of Santa Clara boasts the famous Santa Clara Swim Club.

in the 70,000-square-mile trading area is based on agriculture. The 1,200 retail stores, 240 wholesalers and 344 manufacturing plants report an annual volume of \$452,000,000.

Unlimited power and water come from the fourth largest dam in the world, 70 miles from the city. Within or adjacent to Saskatoon are the head office of Intercontinental Packers (a meat-processing company), two chemical plants, a cement plant, machine and clothing manufacturers and several iron foundries.

Saskatoon is served by two railroads and 3 airlines, is a truck traffic hub, with 7 major highway approaches.

It features a museum containing machinery used by man since his earliest days in the West, and is the jumping-off point for some of the finest fishing and hunting in North America.

Additional information may be obtained from the Board of Trade, Bessborough Hotel, Saskatoon, Sask.

Seattle, Washington

The World Almanac is sponsored in the Seattle area by the Seattle Times, Fairview Ave. N. & John St., Seattle, Wash. 98109; telephone (206) MA 2-0300; founded 1896 by Alden J. Blethen; circulation 251,617 daily, 310,040 Sunday; publisher, John A. Blethen; president, W. J. Pennington; general manager, Harry H. Cahill; sponsors 4-yr. scholarship annually to journalism student, two seasonal sports contests for boys, girls' track and field event.

Seattle, settled in 1851, derives its name from an Indian chief, Sealth, who befriended the early settlers. Seattle was incorporated in 1865. By 1884 the residents had built a rail connection with the outside. In 1889, downtown Seattle burned but was rebuilt better than before.

The Gold Rush to Alaska in 1897 and 1898 gave Seattle, as the closest major port to Alaska, an impetus it never lost. Besides being an outfitter for Alaska, Seattle developed trade with the Orient, thereby gaining its name of "The American Gateway to Alaska and the Orient." Seattle is closer to Japan than any other major American city.

The estimated population (Apr. 1, 1968) was 587,000. Seattle's metropolitan area had 1,200,000. The city has only 91.6 sq. mi., on an isthmus between Puget Sound and Lake Washington. Seattle is noted for its mild climate and spectacular views of water and mountains. The city has a nonpartisan, mayor-council government.

Seattle is the home of the giant Boeing Co., world's largest producer of commercial jet passenger planes; more than 50% of the world's commercial jets were made by Boeing. Boeing employs almost 100,000 persons in the Seattle area.

Seattle also is noted for shipbuilding and forest-products industries, as a retail-trade and regional office center, for insurance headquarters and for tourism.

The city is served by 4 intercontinental railroads and 12 scheduled air lines, three of which began service June, 1967. The airlines served more than 3,800,000 passengers last year through the Seattle-Tacoma Internat'l Airport and Boeing Field.

The Seattle-Tacoma Airport is operated by the Port of Seattle, a \$126,000,000 public agency, which also operates 9 miles of port facilities and serves more than 55 ocean and coastal lines.

Seattle-King County is in midst of a capital-improvements-priority program called Forward Thrust, which will attempt to budget some \$1 billion of spending for the next 15 to 20 years. In Feb., 1968, voters approved seven of 12 proposed bond issues for a total expenditure of \$321,900,000 for major capital improvements, in-

cluding a \$40,000,000 domed multipurpose stadium. Other projects which failed to pass will be resubmitted in 1969.

The city has a \$40,000,000, 74-acre legacy from the 1962 Century 21 World's Fair known as the Seattle Center. The Center features a 3,100-seat Opera House, a 5,200-seat Arena, an 800-seat Playhouse, two huge exhibit halls, an 18,000-seat Coliseum, the world-famous 605-foot Space Needle and the Pacific Science Center in the U. S. Science Pavilion for the fair.

The Seattle Center buildings are used by the noted Seattle Symphony Orchestra directed by Milton Katims; the Seattle Opera Association; the Seattle Repertory, a professional theater; the Totems hockey team, and the Seattle SuperSonics pro basketball team of the National Basketball Ass'n.

Seattle has the Woodland Park Zoo and University of Washington Arboretum, a botanical laboratory featuring a Japanese tea house. Seafair, a citywide annual festival, is held in Aug., climaxed by unlimited hydroplane racing before crowds estimated up to 250,000 on Lake Washington.

In other sports, Seattle in 1968 had the Pacific Coast League Angels, baseball, but will begin play in 1969 in the American League with a new expansion franchise, the Pilots; the Rangers, Continental Football League; SuperSonics, National Basketball Ass'n; and Totems, Western Hockey League.

There are two major universities, University of Washington and Seattle University; Seattle Pacific College, and a number of community colleges.

Cultural institutions include Seattle Art Museum, Frye Art Museum, Henry Art Gallery, Burke Memorial Museum, Museum of History and Industry and Pacific Science Center.

Metropolitan Seattle department store sales totaled \$314,929,000 for April, 1967 through March, 1968, on revised basis; \$271,140,000 for 1966.

For specialized information, contact the Seattle Chamber of Commerce, the Seattle Area Industrial Council, or the Seattle Visitors Bureau, all of 215 Columbia St., or the Central Assn. of Seattle, Joseph Vance Building, Third Ave. and Union St.

Syracuse, New York

The World Almanac is sponsored in the Syracuse area by the Herald-Journal, 220 Herald Pl., Syracuse, N. Y. 13202; telephone (315) HA 2-0211; founded Jan. 15, 1877, by Arthur Jenkins; circulation 134,879 daily, 258,532 Sunday Herald-American/Post-Standard; publisher, Stephen Rogers; editor, William D. Cotter; business manager, Clarence H. Rinne; sponsors college scholarship fund for police, sponsors teacher at Newspaper in Classroom course, awards medals to fire and police heroes.

Syracuse, 4th largest city in New York State, is at the virtual geographic center of the state. The East-West Governor Thomas E. Dewey Thruway (Interstate Route 90) has 5 interchanges in the Syracuse area. The North-South Interstate Route 81 crosses the Thruway at Syracuse.

With an area of 25.82 sq. mi., Syracuse had an estimated 1968 population of 213,500. The city is in the heart of a Standard Metropolitan Statistical Area composed of Onondaga County (in which the city is located), Oswego and Madison Counties. Population of the area in 1968 was estimated at 628,000.

Historically, Syracuse always has been

a "crossroads," even before it became a city. The Iroquois Trail passed through the area from east to west, with tributary trails north and south. With the advent of the white man the trails became rough roads used for travel to the opening West.

The area first was explored in 1615 by the French under Samuel de Champlain. In 1654, Father Simon Le Moine, a Jesuit missionary, visited the area. It was then that large quantities of salt were discovered in the water in the area. This salt was to play an important part in the early development of Syracuse, and even today Syracuse is known as "The Salt City."

The first white settler was Ephraim

Webster, who established a trading post in 1786. In 1825 the village was incorporated and in 1847 Syracuse annexed the village of Salina to the north and was chartered as a city.

Although the salt industry gave Syracuse its early impetus, the city's growth over the years is attributed to its strategic location. With the opening of the Erie Canal in 1825—it ran through the heart of the city—Syracuse became a key water link between Buffalo and New York City.

After the canal came the railroads which gave Syracuse added stature as a transportation hub. And today, the crisscrossing super-highways have enhanced Syracuse's position in the transportation and service industries.

Syracuse has a mayor/common council form of government.

Major products of some 500 manufacturing plants in the Syracuse area are soda ash and by-products, candles, air conditioning, china and pottery, electrical goods, agricultural implements, quality shoes, auto accessories, special steel and pharmaceuticals. Largest employers are General Electric, Carrier Corp., Crucible Steel Co. and Crouse-Hinds Co.

Retail sales for the city for 1967 were estimated at \$369,000,000 and for Onondaga County at \$732,000,000.

Syracuse is served by two railroads, some 140 truck lines and 3 airlines. The Barge Canal system provides commercial

and recreational water transportation.

City-operated Hancock Airport handled 1,138,826 passengers in 1967, the first time it had gone over the million mark. Air traffic has doubled since 1961.

Recent improvements include a massive highway interchange that carries Interstate Route 81 non-stop through the city. Underway is a multi-million-dollar downtown Clinton Square Redevelopment Program to include a newspaper plant, department store, bank and other facilities. In partial operation is a new \$45,000,000 project carrying water 30 miles from Lake Ontario to Syracuse and Onondaga County.

The Everson Museum of Art boasts a new museum building, designed by I. M. Pei. Other attractions include an authentic restoration of a 17th Century French fort, the Salt Museum, Onondaga Historical Assn., Canal Museum, Burnet Park Zoo and the State Fairgrounds.

Syracuse is the home of Syracuse University, Le Moyne College, Maria Regina College, and Onondaga Community College. Sports arenas include War Memorial, Archbold Stadium, and MacArthur Stadium, home of the Syracuse Chiefs of the International League (baseball).

Specialized information is available from the Greater Syracuse Chamber of Commerce, One Mony Plaza, and Metropolitan Development Assn., State Tower Bldg., both Syracuse, N.Y. 13202.

Tampa, Florida

The World Almanac is sponsored in the Tampa Bay area by The Tampa Tribune and The Tampa Times, 507 E. Kennedy Blvd., Tampa, Fla. 33601, telephone (813) 229-7777; Times founded in 1893 by S. A. Smith, Tribune in 1895 by W. F. Stovall; combined circulation 205,201; Alan S. Donnahoe, president; J. C. Council, chairman of editorial board; R. F. Pittman, Jr., business manager; major awards: National Sigma Delta Chi awards, Broun Award, Green Eyesshade Award; sponsors Florida State Science Fair, Book Fair, Times honor student scholarships, all-city (AAU) Basketball Tournament.

Industrial and commercial hub of Florida, Tampa is located on Tampa Bay about midway between the north edge of the Gulf of Mexico and the tip of the Florida peninsula.

Third most populous city in Florida, 316,673, Tampa is the principal marketing center of a population area estimated at 907,000.

Gasparilla, in early February, features the pirate invasion of the old port city. Jose Gaspar's buccaniers seize the streets in an atmosphere of carnival. The event is coordinated with the Florida State Fair and a series of other events designed for the entertainment of residents and tourists.

Ybor City, Tampa's quaint Latin Quarter, is a site of historical interest and the location of some of the nation's leading Spanish restaurants.

Tampa's history dates back to 1545 when a Spanish caravel, in the gold trade, was shipwrecked in the bay.

Survivors told of the broad bay and safe anchorage they had almost found before their ship was lost. In subsequent years there were a number of attempts made to establish a permanent settlement, but Spain's retreat from empire left the area open for Anglo-Saxon settlement. During the Seminole Wars, Fort Brooke was established as a garrison near the mouth of the Hillsborough River and became the seed from which modern Tampa grew.

In the Civil War period Tampa was an attractive port for blockade runners, and in the 1880s railroad baron Henry Plant began developing the area as a railroad port and tourist center. During the Spanish-American War Tampa was a major

port of embarkation for U. S. troops.

Continued growth of Tampa as a center of transportation and industry has made the community's economy contrast sharply with the tourist and retirement oriented economies of most other Florida metropolitan areas.

Tampa's port is currently undergoing a major redevelopment, with more than \$7,000,000 in public funds being used to create new port lands, and public and private investment of more than \$30,000,000 anticipated in the future for creation of terminals and waterfront industry.

As a port, Tampa is the largest between Norfolk and New Orleans, handling more than 25,000,000 tons of cargo annually. Principal export cargo is phosphate, used for fertilizer material and industrial purposes. Rich phosphate mines, located only 40 miles from the port, have made Tampa the world's leading producer of this commodity.

Tampa International Airport, serving more than 2,500,000 air travelers a year, is in the process of building a \$60,000,000 "terminal city" of unique and radical design. The airport is served by 9 major airlines, with domestic and foreign service.

One major urban renewal project, near downtown Tampa, is nearing completion, and two others are in progress.

Within the past 10 years the central business district of Tampa has been the scene of vast change as high-rise office buildings and new hotels have replaced obsolescent structures.

Downtown Tampa is immediately adjacent to the junction of Interstate-75 and Interstate-4. A crosstown expressway is

also projected on the fringe of the business district.

Tampa's mayor and seven-member city council are elected in a non-partisan campaign.

The University of South Florida, started less than 10 years ago, has more than 12,000 students. The University of Tampa, a private 4-year college, has an enrollment of more than 2,000 students.

A \$1,700,000 library has recently been completed in downtown Tampa and holds

300,000 volumes. Eight branches serve neighborhoods throughout the city.

Tampa serves as spring training camp for the Cincinnati Reds, and is home of the Tampa Tarpons baseball team. A new football stadium has recently been completed. Major professional and collegiate football games are scheduled here.

Information on the city may be obtained from the Greater Tampa Chamber of Commerce, 801 E. Kennedy Blvd., Tampa, Fla., 33601.

Toronto, Ontario

The World Almanac is sponsored in the Toronto area by the Toronto Telegram, 440 Front St. West, Toronto, Ont., Canada; telephone (416) 367-4500; founded 1876; circulation daily 227,700, Saturday 307,208; publisher, John W. Bassett; editor-in-chief, J. D. MacFarlane; executive editor, A. H. Agnew; managing editor, A. W. MacFarlane; major awards received include Sigma Delta Chi prize to staff member; sponsors Telegram-Maple Leaf Indoor Games, Telegram Trophy Race, Christmas Fairyland.

Metropolitan Toronto sprawls over 240 sq. mi. along the north shore of Lake Ontario. Although clusters of high-rise apartment buildings pierce the skyline, in the suburbs as well as the downtown core, Toronto is still known as a city of homes.

The city had its beginnings in 1793 when Gov. John Graves Simcoe established a frontier community known as the town of York. Forty-one years later, "muddy York" achieved the status of a city and was renamed Toronto, "a meeting place," as it was known to the Indians. At that time the city had a population of 9,000—today it has 2,200,000.

Its government is unique and the system has been studied by other cities around the world. The city proper, which includes the business and commercial hub, comes under the jurisdiction of Mayor William Dennison. Then, the city joins with five boroughs to form the Metropolitan Council, with William R. Allen as chairman.

Toronto's importance to the Canadian economy is underlined by the fact that one-third of the nation's economic activity gravitates within a 50-mile radius of the city. Toronto is unusual in that no one industry or service dominates its economic life, giving it great stability in times of slumps or labor stoppages in certain segments.

Some 70% of the country's automobile production comes from Oshawa and Oakville, cities about 20 miles east and west respectively from the heart of Toronto.

The city is the eastern terminus of the Interprovincial Pipe Line, which brings western Canadian crude oil to Toronto refineries. Trans-Canada Pipe Lines performs the same function with natural gas.

Hydro power is supplied from two coal-burning plants on the lakeshore, while a nuclear-powered station is being erected at Pickering, just east of the city.

Basically, Toronto is the financial capital of Canada. Three of the country's 5 major chartered banks have head offices here. The Toronto-Dominion has just opened a new 56-story building, tallest in Canada. In addition, the city is headquarters for many of the country's finance, trust and loan companies.

Sixty-five of the 140 life insurance companies doing business in Canada have Toronto head offices. Imperial Oil Ltd., a Standard of New Jersey subsidiary, has its head office on St. Clair Ave. The company holds almost a third of the country's refined products market.

Not only is Toronto the hub of the Canadian business scene, but a number of

Toronto-based companies are leaders on a world-wide basis. Massey-Ferguson, for instance, operates 30 plants in 9 countries and sells its diverse line of farm and industrial machinery in 161 countries. A leader in the business-forms industry, Moore Corp., has its head office on University Ave. although it does 85% of its business in the U. S. Brazilian Light & Power, with offices on King St., controls much of Brazil's hydro capacity.

The Toronto Stock Exchange ranks right behind the New York and American exchanges in number of transactions and value of trading. The TSE handles some 70% of the brokerage business in all of Canada.

In addition to its network of superhighways and expressways, Toronto is well served by 3 major railroads—the privately-owned Canadian Pacific, which itself is a world wide complex of hotels, real estate, shipping, mining enterprises; the Federal Government's Canadian National, and the Provincial Government's Ontario Northland.

Toronto International Airport serves some half dozen major airlines and handles 3,000,000 passengers annually. The Island airport, just across the bay from the foot of Bay St., handles private aircraft, and is one of the busiest.

In addition, numerous truck and bus lines radiate from the city.

Since completion of the St. Lawrence Seaway, Toronto has also become an international port with tonnage handled growing every year.

Toronto's downtown is scheduled for a large injection of new life. The Toronto-Dominion Center and the New City Hall are destined to be part of a huge redevelopment which will stretch right to the water's edge. The whole complex will eventually be connected by underground malls, shops and walkways.

Toronto participates actively in just about every major sport, including hockey, curling and football.

In the field of entertainment, both private and publicly-owned television networks are headquartered in Toronto. The legitimate theatre is served well by the O'Keefe Center, the Royal Alexander Theatre, and Massey Hall.

Every summer, The Canadian National Exhibition, the continent's biggest annual fair, draws some 3,000,000 visitors to Toronto.

Additional information may be obtained from the Board of Trade of Metropolitan Toronto, 11 Adelaide St. W., Toronto.

Vancouver, Canada

The World Almanac is sponsored in the Vancouver area by The Vancouver Sun, 2250 Granville Street, Vancouver, British Columbia, Canada; telephone (604) 732-2111; founded 1886; Canada's second largest daily newspaper; circulation 252,000; publisher, Stuart Keate; editorial director, Bruce Hutchison; managing editor, William T. Galt; sponsors world's largest free Salmon Derby; free Swim Classes (enrol. 10,000 annually); Christmas Fairyland, and many other community services.

Canada's third largest city, Vancouver lies in a setting of natural beauty, at the foot of soaring mountains, fringed by beaches and evergreen forests.

The Spaniards saw the site first, tucked between the fjord of Howe Sound and the Olympic Peninsula, "at the mouth of a copious river," said Don Jose Maria Narvaez, who mapped the area in 1791. But the following year Spain surrendered its claim to Britain, and Capt. George Vancouver, sailing HMS Discovery in quest of the Northwest Passage, took possession. The Hudson's Bay Co. established trading posts and a company of Royal Engineers arrived in 1859 to set up civic administration. The city was incorporated in Vancouver's name in April, 1886, and burned to the ground within two months. But its population of 2,000, enchanted with the site, rebuilt.

Vancouver today is a city of 44 sq. mi. with an estimated population of 450,000. Surrounding suburbs, climbing the North Shore mountains and reaching into the rich agricultural valley of the Fraser—that "copious river"—boost the Greater Vancouver population to some 930,000, almost half that of the province of British Columbia, of which Vancouver is the economic capital.

The fine natural harbor has 98 miles of waterfront stretching up Burrard Inlet, is the largest cargo port on the Pacific and Canada's second busiest. Tonnage in 1968 was estimated at 25,000,000. Preliminary work has begun on a joint federal-provincial venture to build a superport linking Vancouver harbor with a site at Roberts Bank, 20 miles south, at an initial investment of \$50,000,000. Major cargo is grain, lumber and forest products, coal, mineral ore, chemicals and manufactured goods. The port is Canada's gateway to the Orient and the major importer of goods for Western Canada.

While service industries predominate in its economy, Vancouver has major wood product plants, a diversified secondary industry, fisheries and a major tourist trade which in 1967 brought 3,500,000 visitors and \$165,000,000. Retail sales in 1968 were estimated at \$1.25 billion.

Vancouver is the terminus of two trans-

continental railways, is linked by a third major line to the U. S. Northwest, and headquarters of the provincially owned Pacific Great Eastern Railway. The freeway to the U. S. border 20 miles south at Blaine, Wash., runs due south to Los Angeles. Vancouver International airport handles 2,000,000 passengers a year and a new terminal was opened in fall, 1968.

Government and private ferry services link Vancouver with Seattle and Vancouver Island and cruise ships ply the northern coast to Alaska.

Vancouver's downtown core is currently undergoing a dramatic transformation with preliminary work under way on 3 major developments—the \$300,000,000 Project 200, the \$80,000,000 Pacific Centre, both shopping-office complexes, and a provincial government skyscraper which will house headquarters of the recently chartered Bank of British Columbia.

Center of education and the arts in B.C., Vancouver has two universities, the University of B.C. and Simon Fraser University, plus two two-year community colleges. Major arts center is the Queen Elizabeth Theatre complex and a new city museum and planetarium was opened in September, 1968. Year-round entertainment is provided by a symphony orchestra, opera company and professional theatre groups. There are 3 major summer features, the Sea Festival in July, the International Festival of the Arts in late July and August, and the Pacific National Exhibition in August.

Vancouver's natural beauty and temperate climate—a year-round mean of 50 degrees—encourage a strong accent on leisure and recreation, predominantly boating in summer and skiing in winter on mountains only minutes from downtown. A strong bid is being made for the 1976 Winter Olympics. There are 128 parks, the outstanding one being Stanley Park, 1,000 acres, much of it virgin forest, with a zoo and aquarium which features a performing killer whale.

Professional sports flourish year-round: football, soccer, baseball, horseracing, ice hockey (in the new Pacific Coliseum opened early in 1968 and expected to house a National Hockey League team by 1970)—there's even cricket, too.

Washington, D. C.

The World Almanac is sponsored in the Washington, D. C., area by the Washington Daily News, 1013 13th St. N.W., Washington, D. C. 20005; telephone (202) 347-7777; founded Nov. 8, 1921, by Scripps-Howard Newspapers; circulation 226,000; editor, Richard Hollander; business manager, Ray F. Mack; associate editor, Nicholas Blatchford; managing editor, David Stolberg; major awards received by the newspaper and staff members include two Pulitzer Prizes, two Ernie Pyle Awards, two Heywood Brown Awards.

Although Washington, D. C., is best known as the capital of the United States and as one of the leading tourist meccas of this country, it is also an important business and financial center in its own right.

Its standard metropolitan statistical area, which includes suburban Maryland and Virginia, is one of the fastest growing of the nation's 20 largest. Its population increased by 35.9% between 1950 and 1960, and by an estimated 30.9% between 1960 and 1967. The 1960 census gave the population at 2,064,090, and the Census Bureau estimated it at 2,615,000 in 1966. The Na-

tional Capital Regional Planning Council forecasts a population of 3,741,456 in 1980. Currently it is the 8th largest standard metropolitan statistical area in the U. S.

The Washington Metropolitan Transit Authority approved Mar. 1, 1968, a \$2.5 billion project to build a 97.2-mile urban rapid transit system for Washington and its suburbs over a 12-year period. The authority previously had been authorized by Congress and the District of Columbia to build 38.4 miles of subway and surface rail lines inside the city at a cost of \$188,000,000. The Federal share of the total cost was set at \$1.1 billion, with the re-

mainder to be provided by local jurisdiction, chiefly through bond issues, and from receipts of the system. Construction of the center-city tunnels was scheduled to start late in 1968, and it was hoped that trains on the first line would be running by 1972.

With millions of Americans converging on Washington annually, transportation to and from the city are of major importance. There are 3 airports—Washington National, Friendship, and Dulles In-

ternational. Highways radiate from the city in all directions. The 65-mile Capital Beltway rings the metropolis. There is frequent train and bus service at all hours of day and night.

Specialized information is available from the Metropolitan Washington Board of Trade, 1616 K St. N.W., Washington, D.C. 20006.

See also District of Columbia and other index listings under Washington, D. C.

Winnipeg, Canada

The World Almanac is sponsored in the Winnipeg area by the Winnipeg Free Press, 300 Carlton St., Winnipeg, Man., Canada; telephone (204) 943-9331; founded 1872; circulation daily 131,695; publisher and editor-in-chief, R. S. Malone; executive editor, Peter McIntock; managing editor, Albert Boothe; business manager, R. H. Shelford; the newspaper and its staff have received numerous awards for outstanding journalism.

Greater Winnipeg, Canada's fourth largest metropolitan area with an estimated population of 505,774, is located at the junction of the historic Red and Assiniboine Rivers near the geographical center of North America. The metropolitan area, covering 166.6 sq. mi., embraces 7 cities and 5 towns.

Winnipeg proper, heart of the metro area with an estimated population of 251,995, is the capital city of the Province of Manitoba. Winnipeg is named after Lake Winnipeg, 40 miles to the north, the 13th largest lake in the world. It is a Cree Indian name meaning muddy water.

The area attracted its first settlers, the Lord Selkirk colonists, in 1812. A fur-trading post, Winnipeg was incorporated as a city in 1812. It had a population of 1,869.

A metropolitan government was established in 1960 to look after inter-municipal services in the area. The metro government is responsible for public transportation including the major bridges and thoroughfares, the water supply, sewage collection and disposal, area planning and zoning, and the major parks.

Manufacturing is one of the important factors in the area's economy and the largest single source of employment and income. Greater Winnipeg is the 6th largest manufacturing employment area in Canada, with 37,000 persons earning \$150,000,000 and producing \$825,000,000 in manufactured goods a year. One of Canada's largest investment dealers has headquarters in Winnipeg, along with one of the largest insurance companies. The Canadian Wheat Board, charged with the responsibility of selling Canada's large wheat crop, also has headquarters in Winnipeg.

Construction of new buildings in the area totals about \$100,000,000 a year. An urban renewal scheme to redevelop the downtown area is under way.

Utility services, except natural gas for heating, are government or municipally owned. The Provincial Government owns the hydro and telephone systems in the area while the City of Winnipeg owns the hydro distribution system in the city proper.

Winnipeg is western headquarters of Canadian Pacific Railway and Canadian National Railways, Canada's two transcontinental rail systems, with connecting lines to the United States.

Winnipeg International Airport handles about 600,000 passengers and 25,000,000 pounds of freight and express annually. A modern \$12,000,000 terminal was opened in 1963 to service the 4 major airlines that have daily service to Canadian and U. S. points. In addition, 3 airlines use the airport for refueling and servicing planes on polar flights.

An amateur sports center, Winnipeg is the home of the Canadian national amateur hockey team. The 1967 Pan-American Games were held in Winnipeg, which will be host to 15 games of the 1970 World Amateur Hockey Championship. A professional team, the Winnipeg Blue Bombers, plays in the Canadian Football League.

Winnipeg's cultural life is highlighted by the Royal Winnipeg Ballet and the Winnipeg Symphony. A fine concert hall was opened in 1968 and a 6-story museum is being built.

Additional information is available from the Winnipeg Chamber of Commerce, 177 Lombard Avenue, Winnipeg, Man., Canada.

New York City Museums, Libraries, Centers of Interest

THE NEW YORK AQUARIUM, in Coney Island, exhibits marine life from all climes, with over 2,500 live specimens including whales, sharks, seals, sea lions, fish, penguins, etc.

THE NEW YORK BOTANICAL GARDENS, founded in 1891, occupies 230 acres of Bronx Park adjacent to Pelham Parkway. An 11-greenhouse Main Conservatory features seasonal shows and permanent exhibits of palms, jungle and desert plants, ferns and orchids.

THE FRICK COLLECTION, 1 E. 70th St., was founded by Henry Clay Frick (1849-1919). The principal part of the Collection consists of 14th-19th Century paintings as well as sculpture.

THE GALLERY OF MODERN ART including the Huntington Hartford Collection is at Columbus Circle. The building, designed by Edward Durrell Stone, was opened in 1964. It houses mainly 19th and 20th-Century representational art.

THE SOLOMON R. GUGGENHEIM MUSEUM, Fifth Ave. and 89th St.; permanent collection contains over 3,000 paintings, drawings, sculptures

and graphic works by 19th and 20th Century artists. The Museum's unique circular building was designed by Frank Lloyd Wright.

THE HAYDEN PLANETARIUM, facing 81st St., near Central Park W., presents dramatic reproductions of the night skies inside a large hemispheric dome with a Zeiss planetarium projector and other instruments; about 9,000 stars are shown. There are weather, time, space exhibits.

THE HISPANIC SOCIETY OF AMERICA is a free public museum and reference library devoted to the art and literature of Spain and Portugal. It occupies two buildings on Audubon Terrace, between 155th and 156th Sts., west of Broadway. Paintings run from primitive to modern.

THE JEWISH MUSEUM, Fifth Ave. at 92nd St., offers exhibitions of Jewish ceremonial objects, as well as contemporary art and architecture. The permanent collection of Judaica is considered the most comprehensive in the world. There are lectures, gallery talks and a gift shop.

THE METROPOLITAN MUSEUM OF ART, Fifth Ave. at 82nd St., was founded in 1870. With more than 365,000 works of art, the Museum's collection is the largest of its kind in the Western Hemisphere.

Great masters of all the ages of art are included in the collections: Egyptian, Greek and Roman, Ancient Near Eastern, Islamic, Far Eastern, Medieval, Arms and Armor, European, Pre-Columbian, American, Musical Instruments, Costume Institute and Junior Museum.

The Cloisters, in Manhattan's Fort Tyron Park, is a branch of the Metropolitan devoted to Medieval art and architecture in 5 cloisters and other early European structures.

THE MUSEUM OF THE AMERICAN INDIAN, Heye Foundation, Broadway at 155th St., maintains the world's largest collection of American Indian materials, extensive archeological and ethnological displays and pre-Columbian arts, as well as study and photographic facilities.

THE MUSEUM OF MODERN ART, 11 W. 53rd St., est. 1929, presents 20th Century painting, sculpture, drawings, prints, architectural and industrial design, photography and film.

The library contains about 25,000 vols. and a reference collection of more than 100,000 photographs. The Film Dept. has more than 12,000,000 ft. of film. Bookstore, restaurant and gift shop.

THE AMERICAN MUSEUM OF NATURAL HISTORY occupies a group of buildings at Central Park West between 77th and 81st Sts. Here are large exhibits of man and beast from the most primitive times to the present, with extensive reconstruction of fossilized remains, dioramas of men and animals in their natural settings, dinosaurs, birds, Indians, Eskimos and glass models of protozoa, rotifers and coelenterates.

Noteworthy are the collections of minerals and gems, fossil fishes and marine life.

THE MUSEUM OF THE CITY OF NEW YORK on Fifth Ave. at 104th St., illustrates the history and life of the city. Its collections include dioramas, paintings, prints, maps, photographs, portraits, miniatures, vehicles, ship models, costumes, silver, furniture, theatrical and musical memorabilia, rare books and manuscripts.

THE NEW-YORK HISTORICAL SOCIETY (founded 1804) is at 170 Central Park W. between 76th and 77th Sts. The society maintains a library, museum and gallery of art. The library contains 400,000 volumes and large collections of pamphlets, newspapers, prints, cartoons, broadsides, maps and mss. of American and New York history.

The Gallery of Art has more than 2,000 paintings, including American portraits and the original water color drawings made by John James Audubon for his *Birds of America*.

THE AMERICAN NUMISMATIC SOCIETY, founded 1858, maintains a museum of coins and other currency, ancient and modern medals and decorations at Broadway and 156th St.

THE PIERPONT MORGAN LIBRARY, 29 E. 36th St., is a research-library museum based on collections formed by J. Pierpont Morgan (1837-1913). Main collections comprise medieval and renaissance illuminated and textual mss., incunabula, letters and documents, autograph mss., bookbindings, master drawings and Rembrandt etchings.

THE NEW YORK PUBLIC LIBRARY: In Jan. 1968, its resources were placed at approximately 30,000,000 items of which 8,250,000 were books, 9,425,000 manuscripts, 6,800,000 pictures, 3,500,000 posters, photographs and broadsides, 6,000,000 pamphlets, scrapbooks and clippings. Of this total, 3,500,000 books and the pictures are in the collections of the Branch Libraries which are maintained by the City of New York and which operate 80 branch libraries in Manhattan, the Bronx, and Staten Island and 4 bookmobiles. The Research Libraries, based at Fifth Ave. and 42nd St., comprise one of the great research libraries in the world.

The Library & Museum of the Performing Arts at Lincoln Center has books, scores, recordings and exhibits of the performing arts.

SEAMEN'S CHURCH INSTITUTE, facing Manhattan's Battery Park, has dining room, cafeteria, collections of sailing ship models, ships' bells, marine paintings, tattoo designs, gym, sauna, showers, all open to public.

THE STATEN ISLAND INSTITUTE OF ARTS AND SCIENCES, founded 1881, has a museum of art, natural science, archeology, conservation and Indian life at 75 Stuyvesant Pl., St. George, S. I., and a library at 51 Stuyvesant Pl. It offers lectures, concerts and classes for children and adults.

WHITNEY MUSEUM OF AMERICAN ART, Madison Ave. at 75th St., holds exhibitions of group and individual artists, historical and contemporary. Its 1966 building was designed by Marcel Breuer.

Brooklyn Centers

BROOKLYN BOTANIC GARDEN, Eastern Parkway, Washington and Flatbush Aves., has 50 acres of gardens, including rose, herb, wild flower and Japanese, and a fragrance garden for the blind.

THE BROOKLYN MUSEUM, Eastern Parkway and Washington Ave., estab. 1897, has comprehensive exhibitions in all major fields of art. An Outdoor Sculpture Garden contains ornaments from razed N. Y. area buildings.

BROOKLYN ACADEMY OF MUSIC, 30 Lafayette Ave., is the Brooklyn Center for the Performing Arts. It presents concerts, operas, etc., and has a program of films, lectures and workshops.

THE BROOKLYN PUBLIC LIBRARY occupies the Ingersoll Building, Grand Army Plaza, and 53 branches. It operates two bookmobiles. The Ingersoll Building has administrative offices and 5 major-subject divisions, a Young Teens division, Children's Room, Browning Room, Student's Room and Micromaterials Room.

Churches

ARMENIAN CATHEDRAL (Armenian Church of America), 2nd Ave. and 35th St. Steel arches support a gilded, conic, Armenian-style dome.

JOHN ST. METHODIST CHURCH, 44 John St., erected 1841, on site of Wesley Church of 1768, "first Methodist preaching-house in America," houses oldest Methodist Society, formed 1766. Has noontime services for office workers.

PLYMOUTH CHURCH OF THE PILGRIMS (Congregational), Orange St., Brooklyn, is a Nat'l Historic Landmark, built 1847, present structure 1849. Has windows illustrating Puritan influence on America and pew where Lincoln sat to hear Henry Ward Beecher, the first minister. In 1890 Beecher raised funds at an auction here to purchase the freedom of a slave girl, Pinky.

RIVERSIDE CHURCH (Interdenominational—American Baptist and United Church of Christ), Riverside Drive and W. 122nd St. The chief donor was John D. Rockefeller, Jr. The tower, reminiscent of Chartres, is 100 ft. square, rises 392 ft.

CATHEDRAL OF ST. JOHN THE DIVINE on Morningside Heights, Amsterdam Ave. and W. 112th St. (Protestant Episcopal), was begun 1892 as a Romanesque building; the design was changed to Gothic. The church is 601 ft. long, 146 wide at nave and will be 330 ft. wide at transept. Two front towers will rise to over 250 ft.

ST. MARK'S-IN-THE-BOUWERIE (Protestant Episcopal), 2nd Ave. and E. 10th St., originally a chapel built on the farm of Director General Peter Stuyvesant in 1660, rebuilt in 1799. A statue of Stuyvesant in the churchyard was presented by Queen Wilhelmina of the Netherlands in 1915.

ST. PAUL'S CHAPEL OF TRINITY PARISH (Protestant Episcopal), Broadway and Vesey St., is the oldest colonial church edifice in New York. It was opened Oct. 30, 1766. Much of the interior decoration was by L'Enfant, who laid the plans for Washington, D. C. There is a unique collection of 14 Waterford Irish cut glass chandeliers.

ST. PATRICK'S CATHEDRAL (Roman Catholic) occupies a block facing Fifth Ave., between E. 50th and E. 51st Sts., opposite Rockefeller Center. It was begun in 1858 in granite and marble in a Gothic revival style designed by James Renwick. It was opened in part in 1877 and dedicated May 25, 1879. It has two spires, 330 ft. tall, and a 26-ft. rose window. St. Patrick's is the cathedral church of the Archdiocese of N. Y.

ST. PETER'S CHURCH (Roman Catholic), Barclay and Church Sts., has the form of a Greek temple with large porch, wide steps and granite pillars, erected 1835 to replace the original church of 1785 of the first Catholic parish of New York.

TEMPLE EMANU-EL, Fifth Ave. and 65th St., was erected 1929 by Congregation Emanu-El (Reform), which dates from 1845. It was built of limestone in early Romanesque style, its auditorium 77 ft. wide by 150 ft. long and 103 ft. high, the largest temple in the country. Noteworthy are the high arch at the entrance, the rose window and 3 bronze doors. Open to visitors 10 a.m.-5 p.m.

TRINITY CHURCH (Protestant Episcopal) faces Broadway at the head of Wall St. It was built 1841-46 of brown sandstone in perpendicular Gothic, designed by Richard Upjohn, is 78 ft. wide by 202 ft. long and has an octagonal brownstone spire 280 ft. high. The first church was opened in 1698. In the churchyard are buried Alexander Hamilton, Robert Fulton, Capt. James Lawrence and Revolutionary soldiers who died in British prisons.

Historic Sites

EDGAR ALLAN POE COTTAGE, Grand Concourse and Kingsbridge Road, Bronx, is a restored cottage, built 1812, in which Poe lived 1846-49, and in which his wife, Virginia Clem, died, 1847.

FEDERAL HALL NATIONAL MEMORIAL, Wall and Nassau Sts., is a Greek Revival structure of 1842, originally the Custom House, later the U. S. Sub-Treasury. On the site stood the Colonial City Hall and later Federal Hall, where the Stamp Act, Continental and U. S. Congresses met and George Washington took the oath of office as President.

FRANCES TAVERN, Broad and Pearl Sts., was erected 1719 as the DeLancey mansion, acquired 1762 by Samuel Fraunces and operated as the Queen's Head Tavern. The Long Room was the scene of Washington's farewell to his officers, Dec. 4, 1783. It was restored by the Sons of the Revolution in the State of New York and is their headquarters. It contains a Revolutionary War museum and art gallery, free to the public.

GOVERNORS ISLAND, in New York harbor south of the Battery, contains 173.35 acres. The picturesque old fort, Castle Williams, was built 1807-1811 by Col. Jonathan Williams, nephew of Benj. Franklin. It is 200 ft. in diameter, was used as a prison for Confederates during the Civil War. Fort Jay built 1794-1806, marks the site of Revolutionary fortifications.

For many years the headquarters of the First U. S. Army, Governors Island was turned over to the U. S. Coast Guard July 1, 1966. The island is now the Coast Guard's largest base.

GENERAL GRANT NATIONAL MEMORIAL (GRANT'S TOMB), Riverside Dr. and W. 122nd St., is a formal Roman-style mausoleum in which Gen. U. S. Grant, 18th President, and Mrs. Grant are buried. The tomb is 165 ft. tall.

THE ROGER MORRIS-JUMEL MANSION, W. 160th St. and Edgecombe Ave., is a 3-story colonial mansion with 4-pillared portico built in 1765 by Col. Roger Morris of the British Army. From Sept. 15-Oct. 19, 1776, it was the headquarters of Gen. George Washington.

In 1810 Stephen Jumel bought 63 acres of the property. In 1833, the widowed Mrs. Jumel married Aaron Burr. He lived there briefly.

WASHINGTON SQUARE, at the foot of Fifth Ave., is the best known landmark of Greenwich Village, distinguished for homes of artists, writers, and attractive small shops. Facing Fifth Ave. is the marble Washington Arch, designed by Stanford White to commemorate the centenary of the first inauguration and completed in 1895. At the east are buildings of New York University, which also owns many of the old redbrick houses of Federal design on the north side.

Important Buildings

THE CITY HALL, headquarters of the Mayor, the City Council and the Board of Estimate of the City of New York, is in City Hall Park (the original Common), bounded by Broadway, Park Row and Chambers St. Erected 1803-1812, it is an adaptation of French Renaissance with a clock cupola surmounted by a figure of Justice.

Other public buildings in the vicinity are Hall of Records, north of Chambers St., and Municipal Bldg., 40 stories arched over Chambers St. North of these bldgs. is Foley Square, the site of Collect Pond of colonial days. It is boxed by public buildings: United States Court House, built 1936, designed by Cass Gilbert, 32 stories; the hexagonal State Supreme Court Bldg.; the State Office Bldg.; the Health Dept. Bldg. and the new Federal Bldg., 46 stories. North on Centre St. are the Civil Court, Criminal Court and City Prison.

THE COLISEUM, facing Columbus Circle betw. W. 58th and W. 60th Sts., is New York's principal center for national and international exhibitions. Opened Apr. 28, 1956, it cost about \$35,000,000.

The Coliseum has over 9 acres of floor space. Its main halls can accommodate 8,000 people.

COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART, at Cooper Square, 7th St. and 4th Ave., was founded 1859 by Peter Cooper, ironmaster and public benefactor. Its college-level School of Engineering and Science and School of Art and Architecture are tuition-free to undergraduate students selected by competitive examination. Graduate courses in engineering are also tuition-free. Cooper Union is noted for the free Forum lectures and performances held from Oct. to Mar., on Mon., Wed. and Fri. evenings in the Great Hall where Abraham Lincoln made his famous Cooper Union address Feb. 27, 1860.

EMPIRE STATE BUILDING, Fifth Ave., between W. 33rd and 34th Sts., is the tallest building in the world, 1,472 ft. high including a 222-ft. television and FM radio transmitting tower. The building was completed May 1, 1931. More than 1,500,000 persons annually visit the 86th and 102nd floor Observatories. On a clear day viewers can see a distance of 80 mi.

LINCOLN CENTER FOR THE PERFORMING ARTS was opened Sept. 23, 1962, with a concert in Philharmonic Hall. The Center is located between W. 62nd and 65th Sts., Amsterdam and Columbus Aves. It is a private, nonprofit tax-exempt corporation of 7 constituent organizations. The New York State Theater, facing Philharmonic Hall, opened in 1964. The Vivian Beaumont Theater, for repertory, capacity 1,140, and the Library-Museum of the Performing Arts opened in 1965. The Metropolitan Opera House opened in 1966. The Julliard School of Music is to open in 1969.

MADISON SQUARE GARDEN CENTER, Pennsylvania Plaza (7th-8th Aves., 31st-33rd Sts.), opened in the 1967-68 season. The huge development, above the modernized underground Pennsylvania RR station, includes a 29-story office building and the Sports and Entertainment Center which has an arena seating over 20,000, the 5,000-seat Felt Forum, 48 bowling lanes, the Garden Hall of Fame, the National Art Museum of Sport, an Exposition Rotunda for trade and walk-around shows, and a 500-seat Cinema.

PAN AM BUILDING, north of Grand Central Terminal Bldg., is the world's largest commercial office building. It has 59 floors rising 808 ft., with a rooftop heliport, and was erected over the tracks of the Grand Central Station. It covers a ground area of 3½ acres; est. office population is 17,000.

ROCKEFELLER CENTER, the largest privately owned business and entertainment center in America was started Sept., 1931. Its area includes the three blocks from 48th to 51st Sts. between Fifth Ave. and the Ave. of the Americas, a large portion of the 51st-52nd St. block and two blockfronts on the west side of the Ave. of the Americas between 48th and 51st Sts. There are 18 buildings with two more under construction. It has 160,000 daily visitors; 48,500 work there.

The surface area of Rockefeller Center covers 17 acres, most of which are leased for a long period from Columbia University. Rockefeller Center pays Columbia an annual rental of \$3,800,000. The lease with options for renewal runs until 2069.

The part of Rockefeller Center comprising theaters and radio and television studios is often referred to as Radio City. Studios of the National Broadcasting Co. are located in the 70-story RCA building (850 ft. tall). There is an Observation Roof on the 70th floor.

RADIO CITY MUSIC HALL, Ave. of the Americas and W. 50th St., largest indoor theater in the world, seats 6,200 people. Its stage, 144 ft. wide by 67 ft. deep, has a proscenium arch 60 ft. high and 100 ft. wide. Has first-run films and stage spectacles featuring the Rockettes, Ballet Company, Symphony Orchestra and guest artists.

UNITED NATIONS HEADQUARTERS occupies 18 acres between 1st Ave. and E.D.R. (East River) Drive, E. 42nd and E. 48th Sts. Most unusual is the Secretariat Bldg., 550 ft. tall, 289 ft. long and only 72 ft. wide. The 2 sides have 5,400 windows; the end walls are of 2,000 tons of Vermont marble. General Assembly Bldg. has a hall 165 ft. long, 115 ft. wide. Conference Bldg. houses 3 Council chambers, etc. There are guided tours daily.

NEW YORK STOCK EXCHANGE, 20 Broad St., has visitors' gallery, films, guided tours, Monday through Friday, 10 a.m. to 3:30 p.m.

Washington, Capital of the United States

The Capitol

The Capitol (building) since 1961 has presented an entirely new East Central front, the central portion having been reconstructed and extended. It was moved forward 32½ ft. The former facade of Virginia sandstone was reproduced in Georgia marble, the original wall becoming an interior wall. The new section added 78 offices and other important facilities. The cost of the extension project was \$11,400,000; improved illumination and other work brought the total to \$24,000,000.

The Capitol stands 88 ft. above the level of the Potomac River and covers approximately 4 acres. Its length, from north to south, is 751 ft. 4 in.; its width, including approaches, is 350 ft., and its height above the base line on the east front to the top of the statue of Freedom is 287 ft., 5½ ins.

The original plan for the Capitol was drawn by Dr. William Thornton, of Tortola, West Indies, and accepted April 5, 1793. It had a central section, nearly square, a low dome and rectangular buildings north and south, 126 by 120 ft. The southeast cornerstone of the north section was laid by President Washington with Masonic ceremonies Sept. 18, 1793. Sandstone from Aquia Creek, Va., was used. The northern wing was completed first. The Congress occupied it in Nov. 1800. The Supreme Court met in Feb. 1801, and other local courts also used the Capitol. In charge of early construction were architects Stephen H. Hallet, Geo. Hadfield, and James Hoban who was architect of the White House. Benjamin H. Latrobe was architect of the South or House wing which was occupied in 1807, but not completed until 1811. All the interiors were burned by the British in 1814. Latrobe had charge of the rebuilding until 1818 when Charles Bulfinch became the Architect for 11 years or until 1829. Congress reoccupied the Capitol in 1819 and the central rotunda area was finished in 1829.

The present Senate and House wings were designed and constructed under the architect Thomas U. Walter in 1851-1863. The wing extensions are white marble from Lee, Mass., and the columns are from Maryland. Daniel Webster spoke at the laying of the cornerstone.

The Senate Chamber is 113 ft. 3 in. long and 80 ft. 3 in. wide. The Hall of Representatives (House) is 139 ft. long and 92 ft. wide.

The House moved in Dec. 16, 1857; the Senate Jan. 4, 1859. In 1860 the Supreme Court moved into the former Senate Chamber, and in 1864 the old Hall of the House was designated Statuary Hall. The Court moved into its own building in 1935.

The original dome of the Capitol, wood covered with copper, was replaced, 1856, by the present dome of cast iron, completed 1865. Its greatest exterior diameter is 135 ft. 5 in. The rotunda is 96 ft. diameter, height from floor to base of lantern, 180 ft. 3 in. The dome has 108 windows and there are 365 steps from the Architect's Office to the top of the dome. In the "eye" of the dome is a fresco by Constantino Brumidi, the "Apotheosis of Washington." Below the dome runs a 300-ft. frieze in fresco, portraying history from Columbus, 1492, to Kitty Hawk, 1903. Brumidi painted part of it by 1880. Costaggini added panels by 1888. Allyn Cox completed the frieze in 1953 and it was dedicated in 1954.

The Statue of Freedom on the dome, 19½ ft. tall, is of bronze and weighs 14,985 pounds. At its base are the words "E Pluribus Unum" (Out of Many One). It was modeled in plaster by Thomas Crawford in Rome and cast in bronze. It cost \$23,796 exclusive of erection.

Inaugurations of Presidents and Vice Presidents take place Jan. 20 following a national election. They are usually held on a platform erected over the great steps on the East front. The oath of office of the President is usually given by the Chief Justice of the United States.

PRAYER ROOM

A nondenominational room for meditation and prayer is located off the rotunda. Decorated in blue, it has a white oak altar with an open Bible, and candelabra, 10 seats and 2 kneeling benches. A stained-glass window depicts Washington at prayer, while panels show the obverse and reverse of the Great Seal. Also depicted are a candle and an open book, and a sentence from the 119th Psalm: "Thy word is a lamp unto my feet and a light unto my path." The 13 original states have stars; other states appear in a laurel border.

NATIONAL STATUARY HALL

Statuary Hall was created in 1864 to occupy

the former Hall of the House of Representatives. States were invited to contribute not more than two statues of distinguished persons judged worthy of national commemoration by the States. In 1933 the number of statues in Statuary Hall was limited to one statue from each state, others to be placed in other parts of the Capitol. To date 88 statues have been contributed by 48 states. A plaque in the floor marks the spot where John Quincy Adams was fatally stricken Feb. 21, 1848. The statues in Statuary Hall:

Alabama—Gen. Jos. Wheeler, USA, CSA.	Montana—Charles Marion Russell, artist.
Arkansas—Uriah M. Rose, jurist.	Nebraska—Wm. Jennings Bryan, statesman.
Arizona—John C. Greenway, U. S. A.	Nevada—Patrick A. McCarran, senator.
California—Junipero Serra, mission founder.	New Hampshire—Daniel Webster, statesman.
Colorado—Dr. Florence Rena Sabin, scientist.	New Jersey—Richard Stockton, statesman.
Connecticut—Roger Sherman, statesman.	New York—Robt. R. Livingston, statesman.
Delaware—Caesar Rodney, statesman.	North Carolina—Zebulon B. Vance, governor.
Florida—Dr. John Gorrie, inventor.	North Dakota—John Burke, U. S. Treasurer.
Georgia—Alex. H. Stephens, statesman.	Ohio—William Allen, senator, governor.
Idaho—Geo. L. Shoup, first governor.	Oklahoma—Sequoyia, Cherokee leader.
Illinois—Frances E. Willard, WCTU head.	Oregon—Rev. Jason Lee, pioneer.
Indiana—Lew Wallace, USA, author.	Pennsylvania—Robert Fulton, inventor.
Iowa—Saml. J. Kirkwood, governor.	Rhode Island—Roger Williams, founder.
Kansas—John J. Ingalls, senator.	South Carolina—John C. Calhoun, statesman.
Kentucky—Henry Clay, statesman.	South Dakota—Gen. W. H. Beadle, educator.
Louisiana—Huey P. Long, senator.	Tennessee—John Sevier, first governor.
Maine—Hannibal Hamlin, vice president.	Texas—Sam Houston, pioneer leader.
Maryland—Charles Carroll, signer, D. of I.	Utah—Brigham Young, Mormon leader.
Massachusetts—Samuel Adams, statesman.	Vermont—Ethan Allen, Revolutionary leader.
Michigan—Lewis Cass, statesman.	Virginia—Robt. E. Lee, USA, CSA.
Minnesota—Henry M. Rice, senator.	Washington—Dr. Marcus Whitman, pioneer.
Mississippi—Jefferson Davis, statesman.	West Virginia—Francis H. Pierpont, statesman.
Missouri—Thos. H. Benton, senator.	Wisconsin—Robt. M. LaFollette Jr., statesman.
	Wyoming—Esther Hobart Morris, suffragette.

Under the dome in the Great Rotunda are statues and busts of Washington, Lincoln, Jefferson, Hamilton, Jackson, Lafayette, Grant, Garfield and Baker.

Adjoining it, the South Small Rotunda has statues of George Clinton (N. Y.), Stephen P. Austin (Tex.) and John Peter Muhlenberg (Pa.). The corridor leading from Statuary Hall to the House has statues of Jonathan Trumbull (Conn.), Wm. King (Me.), Father Jacques Marquette (Wis.), Wade Hampton (S. C.), Will Rogers (Okla.), and Dr. John McLoughlin (Ore.). At the foot of the grand East and West stairways on the House side are a statue of Jefferson (by Hiram Powers) and the bronze bust of Beesheke, Chippewa chief.

In the foyer of the former Senate and Supreme Court Chamber are statues of John Stark (N. H.) and Nathanael Greene (R. I.). In the corridor leading to the Senate wing are statues of Dr. Ephraim McDowell, (Ky.) and Dr. Crawford W. Long (Ga.), first to use ether as anaesthetic; John Hanson (Md.), 9th president of the Continental Congress, and John M. Clayton (Del.), Secy. of State; Wm. E. Borah (Idaho), Edward D. White (La.) and Maria L. Sanford (Minn.). In the east corridor of the Senate wing is Benjamin Franklin by Hiram Powers. Other statues and busts in the Senate wing are of John Hancock, signer of the Declaration; Thos. Crawford, sculptor; Chas. Sumner, senator; Abraham Lincoln, Zachary Taylor, James Bryce and John Paul Jones with Kosciuszko, Pulaski and Garibaldi on the first floor, east side.

In the Hall of Columns on the first floor, House wing are statues of E. Kirby Smith (Fla.), Zachariah Chandler (Mich.), Jas. Harlan (Ia.), Francis P. Blair, Jr. (Mo.), Gen. Philip Kearny (N. J.), Gen. Jas. Shields (Ill.), John Winthrop (Mass.),

Oliver P. Morton (Ind.), J. Sterling Morton (Neb.), Rev. Thos. Starr King (Calif.), J. L. M. Curry (Ala.), J. P. Clarke (Ark.), Geo. W. Glick (Kan.), Jas. Z. George (Miss.), Chas. B. Aycock (N. C.), Jacob Collamer (Vt.), John E. Kenna (W. Va.), Joseph Ward (S. D.), and Eusebio F. Kino, S.J. (Ariz.). A statue of Dennis Chavez, U. S. Senator (New Mexico) was unveiled Mar. 31, 1966.

OFFICE BUILDINGS FOR MEMBERS

Members of Congress meet constituents and transact other business in five office buildings on Capitol Hill, two for the Senate and three for the House.

The original Senate building was completed in 1909, enlarged in 1933; the second Senate building was completed in 1958. Both are connected with the Capitol by subway.

The original House building (1908) was named for former Speaker Joseph G. Cannon (R.-Ill.), the second (1933) for former Speaker Nicholas Longworth (R.-Ohio), and the third (1964) for former Speaker Sam Rayburn (D.-Tex.). The Rayburn Building has underground transportation to the Capitol.

Also on Capitol Hill is the bell tower and statue memorial to Sen. Robert A. Taft of Ohio (1889-1953). It was erected by popular subscription and dedicated Apr. 14, 1959 by President Eisenhower.

HOURS FOR VISITING

The Capitol is normally open from 9 a.m. to 4:30 p.m. daily, but from Easter to Labor Day it stays open until 6 p.m. The Rotunda, Crypt and Statuary Hall sections remain open to the public until 10 p.m. The only exceptions are Christmas, New Year's Day and Thanksgiving Day. Should either the House or the Senate remain in session beyond closing time, the wing of the Capitol in use will stay open until the session closes.

Tours, through the Capitol, including the House and Senate Galleries, are conducted from 9 a.m. to 3:45 p.m. for a nominal charge. During the extended summer hours tours are accepted until 5:15 p.m.

It is not necessary to take a tour to see the Capitol. Visitors desiring to hear debate in either chamber for a longer period than the tour allows must obtain a visitor's card from their Senator or Representative.

The White House

The White House, the President's residence, stands in tree-shaded grounds (18 acres) on the south side of Pennsylvania Avenue, between the Treasury and the Executive Office Building. The main building, 170 by 85 ft., has 6 floors, with the East Terrace, 135 by 35 ft., leading to the East Wing, a 3-story building, 139 by 82 ft., used for offices and as an entrance for official functions. The West Terrace, 174 by 35 ft., contains offices and a swimming pool, and leads to the Executive Office, 3 stories high, 148 by 98 ft., erected in 1902 and enlarged several times since.

The White House was designed by James Hoban, an Irish-born architect, in a competition that paid \$500. The main facade resembles the Duke of Leinster's house in Dublin. He based it on plans for Georgian country houses popular in the 18th century. President Washington chose the site, which was included on the plan of the Federal City prepared by the French engineer, Major Pierre L'Enfant. The cornerstone was laid Oct. 13, 1792. President Washington never lived in the house. President John Adams entered in November, 1800, and Mrs. Adams hung her washing in uncompleted East Room.

The walls are of sandstone, quarried at Aquia Creek, Va. The exterior walls were painted during the course of construction, causing the building to be termed the "White House." For many years, however, it was generally referred to as the "President's House" or the "President's Palace." Thos. Jefferson developed the east and west terraces and built one-story offices, woodsheds and a wine cellar. On Aug. 24, 1814, during Madison's administration, the house was burned by the British. James Hoban completed rebuilding by Dec., 1817, and President Monroe moved in.

The south portico was added in 1824 and the north colonnade and porch in 1829 by Benjamin Latrobe, Surveyor of Public Buildings, based on sketches by Hoban, approved by Jefferson. In 1948 President Truman had a second-floor balcony built into the south portico. In 1948 he had Congress authorize complete rebuilding because the White House was unsafe. During its reconstruction he lived in Blair House, 1651 Pennsylvania Ave.

Reconstruction cost \$5,761,000. The interior was

completely removed, new underpinning 24 ft. deep was placed under the outside walls and a steel frame was built to support the interior. All original trim and metal work were preserved.

The Green Room, used for informal receptions, is in American Federal style, with green silk moire on the walls, a white marble fireplace and white enamel wainscoting and door trim. Over the fireplace hangs a portrait of Benjamin Franklin, painted in 1767. A pair of rare American settees and two armchairs are in front of the fireplace. There is also a sofa once owned by Daniel Webster.

The Blue Room, an oval drawing room, is the main reception room. The parquet floor is exposed; the walls are hung in white satin and blue taffeta. There are portraits of the first seven Presidents, and original chairs, a pier table, a French clock and candlesticks of gilt bronze, from James Monroe's 1817 furnishings.

The Red Room, used as a parlor, is furnished in the Empire period, hung in cerise silk with gold scroll borders. There are a Savonnerie carpet of the period, a marble-topped gueridon labeled by Charles Honore Lannuier, and a bronze inlaid used by Thomas Jefferson. There are portraits of Presidents Pierce, Van Buren, Truman, Theo. Roosevelt, Wilson and F. D. Roosevelt; also of Hamilton and John Marshall.

The State Dining Room has a large chief table and smaller tables capable of seating 140 at formal dinners. Centerpiece of the main table is a French bronze-doré plateau purchased by Monroe in 1817. China in use was ordered during the Lyndon B. Johnson Administration. Chairs are in Queen Anne style. The room is paneled in oak with Corinthian pilasters, painted white.

The Family Dining Room is used for breakfasts and luncheons. It has the Healy portrait of President Tyler. The President's Dining Room is on the second floor. It has scenic wallpaper and is furnished with American Federal furniture, an 18th Century chandelier and blue silk window hangings. There is a mahogany sideboard once owned by Daniel Webster.

The Diplomatic Reception Room, an oval room on the ground floor, is used as the entrance to the mansion at state functions. It has scenic wallpaper based on 1820 engravings and an Aubusson style rug with the seals of 50 states presented during the Eisenhower administration.

The Library, on the ground floor, has the painted decor of an early American room. On August, 1963, 2,780 titles were selected to be placed in the library. All but a few are by American authors. They were chosen by a committee headed by James T. Babb, librarian emeritus of Yale University.

The Lincoln Bedroom, which contains an ornately carved bed and furniture of his period, is at the east end of the second floor. It served as Lincoln's cabinet room and in it he signed the Emancipation Proclamation of Jan. 1, 1863. A portrait of Jackson, admired by Lincoln, hangs there today. Seven pieces of furniture have Lincoln associations. The bed was used in the State Bedroom during the Lincoln administration. In the room is a copy of the Gettysburg Address, written out by Lincoln and donated to the White House by the will of Oscar B. Cintas, one-time Cuban ambassador, who died in 1957.

The Treaty Room, one door removed from Lincoln's cabinet room was used by Andrew Johnson as his cabinet room, and so used until 1902, when it became a sitting room. Here in 1899 was signed the peace protocol treaty, a forerunner to the final treaty of peace with Spain. It is now a waiting or meeting room for the President and contains some of the original Victorian furniture. There are portraits of Presidents A. Johnson, Grant and Taylor and paintings of McKinley observing the signing of the treaty and of Lincoln and Grant in conference.

The Queen's Bedroom is assigned to distinguished women guests, and has sheltered five queens—Queen Mother Elizabeth, and Queen Elizabeth II of Britain, Wilhelmina and Juliana of the Netherlands, Queen Mother Frederika of Greece. The English overmantel mirror was presented by Princess Elizabeth in 1951.

The Yellow Oval Room, directly above the Blue Room, is used as a private sitting room by the President and Mrs. Johnson.

The Empire Guest Room has a "sleigh bed" probably owned by John Quincy Adams. Walls and upholstery are in red-and-white printed cotton showing scenes from the life of Franklin.

The President's Office in the West Wing, looks

out on the rose garden. Theodore Roosevelt built the West Wing in 1902. Previously the President's office had been on the second floor of the White House. The West Wing also contains the Conference Room and the Cabinet Room.

VISITING HOURS

The White House is open from 10 a.m. to 12 noon, Tuesday through Friday, except on holidays. Also Saturdays, 10 a.m. to 2 p.m. Apr. 1 through Labor Day, and 10 a.m. to noon Labor Day through Mar. 31. Only the public rooms in the basement and the first floor rooms, may be visited. No permit is required.

References: The White House: An Historic Guide, with forewords by Jacqueline Kennedy, Lady Bird Johnson and John Walker. The White House and its 34 Families by Amy Follette Jensen.

PRESIDENT'S GUEST HOUSE

Blair House, the President's Guest House, fronts on Pennsylvania Ave., nw of the White House grounds. It is supervised by the Dept. of State and is the official residence of heads of state who visit Washington. Built 1824, it was the home of Francis Preston Blair (1791-1876), political leader and Lincoln advisor. President Truman lived there 1948-1952 during rebuilding of the White House, and two Puerto Rican fanatics tried to shoot their way in Nov. 1, 1950, killing one guard and wounding two others.

Restoration and refurbishing began in 1963 and the house was reopened Jan. 14, 1964, on the occasion of the visit of President Antonio Segni of the Italian Republic. The Blair House Fine Arts Committee is continuing providing for the house.

Arlington National Cemetery

Arlington National Cemetery, on the former Custis-Lee estate in Virginia, is the site of the Tomb of the Unknown Soldier and the final resting place of John Fitzgerald Kennedy, President of the United States, who was buried there Nov. 25, 1963. A torch burns day and night over his grave. The remains of his brother Sen. Robert F. Kennedy (N. Y.) were interred on June 8, 1968 in an area adjacent. Many other famous Americans also are buried at Arlington, as well as American soldiers from every major war.

Arlington National Cemetery, administered by the Department of the Army, was established June 15, 1864, on land originally the estate of George Washington Parke Custis. The land was a part of the District of Columbia, 1791 until 1847, when Arlington County was returned to Virginia.

The Unknown Soldier of World War I was entombed on the East front of the Arlington Memorial Amphitheater, Nov. 11, 1921, in the presence of President Warren G. Harding. The tomb is inscribed: *Here rests in honored glory an American soldier known but to God.* The body had been chosen at Chalons-sur-Marne from unidentified dead in Europe. On Memorial Day, May 30, 1958, two unidentified servicemen, one of whom died in World War II and one in the Korean War, were placed in crypts beside the first, in ceremonies led by President Eisenhower and Vice President Nixon. The President placed the Medal of Honor on each of the two coffins.

As of Mar. 31, 1968, a total of 146,467 interments had been made in Arlington National Cemetery. Among the unknown dead are 2,111 who died on the battlefields of Virginia in the Civil War and 167 who lost their lives when the battleship Maine was blown up in Havana Harbor Feb. 15, 1898. The total of unknown dead interred in Arlington National Cemetery is 4,724.

Large memorial structures include the monument of the Unknown Dead of the Civil War, the Canadian Memorial, gift of Canada in honor of Americans who served with Canadian forces in World War I; a monument to the Confederate Dead, given by the United Daughters of the Confederacy, 1914; the Spanish-American War Memorial, a granite pillar surmounted by an eagle; the Coast Guard Memorial, and the USS Maine Memorial, with the mast of the Maine set in a granite base.

CUSTIS-LEE MANSION

On the hilltop stands Arlington House, the former home of Robert E. Lee, which was officially designated the Custis-Lee Mansion by an act of Congress in 1955. The house has a portico 60 ft. wide, with 8 Doric columns and faces the Potomac. With its two wings the house extends 140 ft. It was built by George Washington Parke Custis, grandson of Martha Washington and father of Mary Ann Randolph Custis, who married Lee in this house

in 1831. Here Lee wrote his resignation from the U. S. Army, Apr. 20, 1861. The house became a military hq. and was confiscated by the Government. The U. S. Supreme Court restored it to the legal heir, grandson of the builder, and he sold it to the Government in 1883 for \$150,000.

The mansion and grounds, administered by the National Park Service of the Dept. of the Interior, are reached by Arlington Memorial Bridge, a wide roadway over the Potomac.

Library of Congress

Established by and for Congress in 1800, the services of the Library of Congress have been extended over the years to other Government agencies and other libraries, to scholars, and to the general public, and it now serves as the national library. Two buildings, an ornate Italian Renaissance structure (1897) and a modern annex (1939), cover 6 acres of the 15½-acre Library site, contain 35 acres of floor space, and have 270 miles of book shelves. In October, 1965, Congress passed a law authorizing construction of a third Library building, the James Madison Memorial Building.

L. Quincy Mumford, the 11th Librarian of Congress, took office September 1, 1964.

The Library had over 3,000 volumes when it was destroyed in the burning of the Capitol, August 24-25, 1814. In January 1815, Congress bought Thomas Jefferson's library of some 6,000 volumes. In 1851 fire destroyed about half the collections. In 1866 the science library of the Smithsonian Institution was transferred to the Library, and in 1870 the Library became the repository for materials deposited for copyright.

Many treasures of the Library are usually on exhibit, including the Gutenberg Bible, the first and second drafts of the Gettysburg Address, and Jefferson's so-called "rough draft" of the Declaration of Independence.

Some important recent additions to the Library's collections are the libretto of Handel's Messiah; some 185,000 separate plates or sheets of Sanborn fire insurance maps to supplement Sanborn materials acquired earlier; also papers of J. Robert Oppenheimer, Alan T. Waterman, John Glenn, Shirley Jackson, Truman Capote, John Toland, and Representative Emanuel Celler; works of the 19th Century French lithographer Charlet; and several rare volumes with Jeffersonian associations. Placed on deposit were the autograph manuscripts of Stravinsky's Petrouchka and Prokofiev's Classical Symphony, and the papers of Edna St. Vincent Millay.

In addition to its own world-wide acquisitions programs, the Library acquires nearly 2,000,000 publications a year from 8 foreign countries for some 300 American libraries through U. S.-owned foreign currencies under Public Law 480 as amended. Under the Higher Education Act of 1965, the Library also launched the National Program for Acquisitions and Cataloging (NPAC) in 1966 to solve a national cataloging problem in research libraries by obtaining all foreign books of value to scholarship and cataloging them promptly for all libraries needing such catalog data.

By fiscal 1968, the Library was obtaining foreign cataloging information from 20 countries for use in publishing the Library's famous 3 x 5 printed catalog cards. As part of its automation program, the Library also is distributing machine-readable cataloging (MARC) on magnetic tapes to libraries subscribing to this service.

Tours in the Library of Congress begin at the office of the Captain of the Guard, Main Building, Monday through Friday.

Thomas Jefferson Memorial

The Thomas Jefferson Memorial stands on the south shore of the Tidal Basin in West Potomac park. It is a circular stone structure, with Vermont marble on the exterior and Georgia white marble inside and combines architectural elements of the dome of the Pantheon in Rome and the rotunda designed by Jefferson for the University of Virginia. The central circular chamber, 86.3 ft. in diameter, is dominated by a full-length figure of Thomas Jefferson 19 ft. tall, by the American sculptor Rudolph Evans. The architects were John Russell Pope and his associates Otto R. Eggers and Daniel P. Higgins. The Memorial was dedicated by President F. D. Roosevelt Apr. 13, 1943, the 200th anniversary of Jefferson's birth.

The exterior is surrounded by a peristyle of 26 Ionic columns, each 41 ft. tall, and 5 ft. 3 in. in diameter. Exterior of the dome is 95 ft. 8 in. from the floor. The interior columns are each 5 ft. in diameter and 39 ft. 2 in. tall. The Me-

morial stands on a circular stylobate of steps and terraces 183 ft. 10 in. in diameter.

On the pediment over the portico is a sculptured group by Adolph A. Weinman showing Jefferson standing before the committee appointed by the Continental Congress to draft the Declaration of Independence. On the interior walls are four panels with inscriptions from Jefferson's writings: (1) sentences from the Declaration; (2) the right of man to a free mind and liberty of religious opinion; (3) the duty of the state to bring bodily freedom and education to the common man; (4) the need of changes in laws and institutions to keep step with progress of the human mind and new circumstances. On the frieze of the main entablature are Jefferson's lines: "I have sworn upon the altar of God eternal hostility against every form of tyranny over the mind of man."

The Memorial is open daily from 8 a.m. to midnight, except Christmas Day.

John F. Kennedy Center

John F. Kennedy Center for the Performing Arts, under construction on an 18-acre site on the Potomac River, is the sole official memorial to Pres. Kennedy in the capital and is expected to open in 1970. Financed by both Government and private funds, the marble building designed by Edward Durell Stone will house a 2,200-seat opera hall, a 2,700-seat concert hall, a 1,100-seat theater, a 500-seat studio playhouse, and other facilities. The building will be 630 ft. long, 300 ft. wide, 100 ft. high.

Lincoln Memorial

The Lincoln Memorial in West Potomac Park, on the axis of the Capitol and the Washington Monument, consists of a large marble hall enclosing a heroic larger-than-life statue of Abraham Lincoln sitting as if in meditation on a large armchair. It was dedicated on Memorial Day, May 30, 1922. The Memorial was designed by Henry Bacon. The statue was made by Daniel Chester French. Murals and ornamentation on the bronze ceiling beams are by Jules Guerin.

The Memorial built on bedrock, is of white Colorado-Yule marble. It is 79 ft. 10 in. tall and is approached by a flight of steps 80 ft., 3 in. wide. The east and west walls are 155 ft., 6 in. long, and the north and south walls are 85 ft., 8 in. wide. The walls are enclosed by a continuous colonnade, 188 ft., 4 in. long and 118 ft., 6 in. wide. There are two Doric columns at the entrance and 36 others in the colonnade, each 44 ft. tall, 7 ft. 4 in. in diameter at the base, and the frieze above 36 columns bears the names of the 36 states existing at the time of Lincoln's death. On the attic parapet are recorded names of the 48 states existing in 1922.

Inside are three memorials to Lincoln. The seated figure of Lincoln is 19 ft. from head to foot and the classic armchair is 12½ ft. tall. Over the back of the chair a flag is draped in marble. The statue was fashioned out of 28 blocks of Georgia white marble.

On the north wall is inscribed the Second Inaugural Address. On the south wall is the Gettysburg Address.

Greek Ionic columns 50 ft. high and 5 ft. 6 in. in diameter at the base divide the interior of the Memorial into three chambers. The walls of the interior are Indiana limestone, and the ceiling, 60 feet above the floor, is designed with bronze girders ornamented with laurel and oak leaves. The panels between the girders are of Alabama marble saturated with melted beeswax to produce translucency. The interior floor and the wall base are of pink Tennessee marble. The central chamber, containing the statue, is 58 ft. wide and 74 ft. deep. The cost of the Memorial was \$2,957,000 and of the statue \$88,400.

The Memorial is open daily from 8 a.m. to midnight, except Christmas Day.

Mount Vernon

Mount Vernon on the south bank of the Potomac, 16 miles below Washington, D. C., is part of a large tract of land in Northern Virginia which was originally included in a royal grant made to Lord Culpepper, who in 1674 granted 5,000 acres to Nicholas Spencer and John Washington. The division between Spencer and Washington put John Washington's son Lawrence in possession of the Washington half in 1690. Later it became the property of Lawrence Washington's son Augustine, the father of George Washington.

The present house is an enlargement of one apparently built on the site of an earlier one by Augustine Washington, who lived there 1735-1738. His son Lawrence came there in 1743, when he re-

named the plantation Mount Vernon in honor of Admiral Vernon under whom he had served in the West Indies. Lawrence Washington died in 1752 and was succeeded as proprietor of Mount Vernon by his half-brother, George Washington.

To Mount Vernon in 1759 Washington brought his wife, Martha Dandridge Custis, having previously enlarged the house from 1½ to 2½ stories. Here he cultivated a farm and employed a shoemaker, a tailor, a dozen textile workers and other help. Just before the Revolution he planned additions, and when he was called away to war his kinsman Lund Washington supervised the work, which was completed after Washington returned in 1783. During the Revolution Washington visited Mount Vernon only twice, on the way to and from Yorktown in 1781. His wife often stayed with him at headquarters. He returned to the house on Christmas Eve, 1783. In 1789 he left to become President and lived in New York and Philadelphia, with brief visits to the plantation. He came back in 1797 and died in Mount Vernon Dec. 14, 1799. He was buried in the old family vault. He had made plans for a new burial vault and this was built in 1831. Both his remains and those of Martha, who died in 1802, were transferred there.

Mount Vernon was left to Washington's nephew, U. S. Supreme Court Justice Bushrod Washington, and by him to his nephew, John Augustine Washington, whose son, John A. Washington, Jr., was the last private owner. In 1853, when the place was run down, Miss Ann Pamela Cunningham of South Carolina organized the Mount Vernon Ladies' Assn., which bought the mansion and 200 acres, since extended to 487 acres. The Association reassembled original Washington furniture and repaired the buildings. It restored the kitchen garden, flower garden and experimental botanical garden, reconstructed the greenhouse and built a museum. Several trees planted by Washington still exist, and the boxwood dates from 1798.

The Association preserves house and tomb with the visitor's fee. The Regent of the Mount Vernon Ladies' Association is Mrs. Francis F. Beirne. About 30 states are represented by vice regents. The Resident Director is Chas. C. Wall; the assistant to the Director is Walter C. Densmore.

National Archives

The Declaration of Independence, the Constitution of the United States and the Bill of Rights are now enshrined in the National Archives Exhibition Hall. They are sealed in glass-and-bronze cases filled with inert helium gas. They can be lowered at a moment's notice into a large shock-proof and fireproof safe.

Readable facsimiles of the three documents are available in an inexpensive 16-page publication. Charters of Freedom, and other historical documents are also available. Certain records of research value are available on microfilm.

The National Archives and Records Service is a part of the General Services Administration. It consists of the Offices of the National Archives, Administration and Technical Services, Federal Records Centers, Records Management, the Federal Register, and Presidential Libraries. The last-mentioned Office administers the Franklin D. Roosevelt Library at Hyde Park, N. Y., the Harry S. Truman Library at Independence, Mo., the Dwight D. Eisenhower Library at Abilene, Kan., and the Herbert Hoover Library at West Branch, Iowa. The John Fitzgerald Kennedy Library in Boston, Mass., and the Lyndon Baines Johnson Library in Austin, Tex., also will be administered by the National Archives and Records Service when they have been completed.

The National Archives is headed by Dr. James B. Rhoads, Archivist of the United States.

National Gallery of Art

The National Gallery of Art, situated on the area bounded by Seventh Street, Constitution Avenue, Fourth Street, and Madison Drive on the Mall in Washington, D. C., was established by Joint Resolution of Congress Mar. 24, 1937 and opened Mar. 17, 1941. Attendance during fiscal 1967 was 1,577,108.

The building, costing about \$15,000,000, was erected with funds given by the late Andrew W. Mellon. It was completed under the direction of Paul Mellon, Donald D. Shepard, and David K. E. Bruce, trustees of the A. W. Mellon Educational and Charitable Trust. The architects were John Russell Pope and associates, Otto R. Eggers and Daniel Paul Higgins. The building is of rose-white Tennessee marble, 785 feet long.

The central architectural feature of the Gallery

is the rotunda, covered with a coffered dome supported by 24 columns of dark green marble. The diameter of the rotunda and the height of the dome from the marble floor both measure 100 feet. Flanking the rotunda on either side are two long galleries for larger pieces of sculpture. At the end of each of these galleries is a garden court, with a colonnade of 16 monoliths of Indiana limestone. In the center of each court has been installed a 17th Century fountain from the park of Versailles. Across from the Gallery on Constitution Ave. is the Andrew W. Mellon Memorial Fountain, designed by Eggers and Higgins, dedicated 1952.

In addition to providing the building, Andrew Mellon also gave his collection, consisting of 126 paintings and 26 pieces of sculpture, the latter largely from the Dreyfus Collection. The paintings cover the various European schools from the 13th Century to the 19th, and include such masterpieces as Raphael's *Alba Madonna*, the *Niccolini-Copper Madonna*, and St. George and the Dragon; Van Eyck's *Annunciation*, Botticelli's *Adoration of the Magi*; nine Rembrandts, and three Vermeers. Twenty-one paintings came from the Hermitage in Leningrad. Also in this collection are the Vaughan Washington, by Gilbert Stuart, and the Washington Family, by Edward Savage.

The Samuel H. Kress Collection of paintings in the National Gallery at its opening in 1941 included Giorgione's *Adoration of the Shepherds*, Raphael's portrait of *Bindo Altoviti*, *Madonna by Giotto*, and 9 paintings by Giovanni Bellini. Later additions include the great tondo of the *Adoration of the Magi* by Fra Angelico and Fra Filippo Lippi, the *Lacoon* and the early Christ Cleansing the Temple by El Greco, and fine examples by Giorgione, Titian, Grünewald, Dürer, Memling, Bosch, Pieter Bruegel the Elder, Juan de Plandel, Francois Clouet, Poussin, Watteau, Chardin, Boucher, Fragonard, David and Ingres. Also included are a number of masterpieces of sculpture, especially of the Italian and French schools.

The Jos. E. Widener Collection of over 100 paintings includes 14 Rembrandts, 8 Van Dycks, 2 Vermeers and examples of Italian masters; also Renaissance and French sculpture and examples of the decorative arts.

The Chester Dale Collection includes masterpieces by El Greco, Zurbarán, Boucher, Manet, Cezanne, Renoir, Monet, Modigliani, Pissarro, Degas, van Gogh, Gauguin, Toulouse-Lautrec, Matisse, Picasso, Braque, and a group of American paintings, sculpture, prints and drawings.

Many other masterpieces have been donated by foundations and individuals, and the names of Booth, Bliss, Carstairs, Frelinghuysen, Havemeyer, Hutton, Lewisohn, Timken, Whitney and Garbisch are prominent in the lists. Lessing J. Rosenwald has given over 20,000 prints and drawings.

Acquisition announcements for recent times by all museums were overshadowed by the disclosure on Feb. 20, 1967 of the purchase of America's first painting by Leonardo da Vinci. No other generally acknowledged painting by Leonardo is known to exist outside Europe. The famous picture of the Florentine woman Ginevra de'Benici was purchased from the ruling house of Liechtenstein by the National Gallery for an undisclosed sum that is believed to be the highest in the history of art. (Reportedly over \$5,000,000.) After being reframed, the two-sided wooden panel painting was placed on view Mar. 17.

The Index of American Design, at the National Gallery of Art, is a collection of about 17,500 water color renderings and photographs of American crafts and folk arts. The Library has about 36,000 books and pamphlets.

The Gallery's Extension Service lends slide lectures, exhibits and other materials without charge to schools and groups throughout the nation.

Open every day except Christmas and New Years. Hours 10 a.m. to 5 p.m. weekdays, 2 p.m. to 10 p.m. Sundays. Summer hours: April 1 through Labor Day, 10 a.m. to 9 p.m. weekdays, 12 noon to 10 p.m. Sundays.

National Geographic Society

The National Geographic Society, founded in 1888 "for the increase and diffusion of geographic knowledge," is the world's largest nonprofit scientific and educational institution. The Society produces the illustrated monthly *National Geographic*, books, maps, globes, atlases, other educational materials, and television programs. Its worldwide activities are supported by the dues of more than 6,100,000 members.

The Society's new 10-story headquarters building in Washington, D. C., dedicated by President Johnson in 1964, has attracted more than 2,000,000

visitors. Explorers Hall offers exhibits, artifacts, and mementoes depicting the research and exploration activities of the Society around the world.

In 1967, construction was started on the Society's new Membership Center Building on a 100-acre tract near Gaithersburg, Md. The five-story building, expected to be occupied in late 1968, will accommodate 1,100 employees charged with handling membership files, correspondence, changes of address, receipt of dues, and other clerical operations. Each floor will be more than 7 times the size of an average city lot.

Executive officers are: Melville Bell Grosvenor, editor-in-chief and chairman of the Board of Trustees; Thomas W. McKnew, advisory chairman of the Board; Melvin M. Payne, president of the Society; Hilleary F. Hoskinson, treasurer; Frederick G. Vosburgh, vice president and editor; Leonard Carmichael, vice president for research and exploration; Robert E. Doyle, vice president and secretary; Thomas M. Beers, vice president and associate secretary; Gilbert M. Grosvenor, vice president and associate editor.

The Pentagon

The Pentagon is the world's largest office building. It is situated on the Virginia side of the Potomac River, and covers 34 acres, including a 5-acre center court. It houses personnel of the Dept. of Defense, which includes the Depts. of the Army, Navy and Air Force. The Secretary of Defense, the Secretaries of the three departments and the military Chiefs of Staff have offices here. The building does not accommodate all the personnel of the Dept. of Defense.

The Pentagon was completed Jan. 15, 1943, at a cost of about \$83,000,000. It covers 34 acres and has 204 acres of lawns and terraces. It is 5 stories high and consists of 5 rings of buildings connected by 10 corridors, with a 5-acre pentagonal court in the center. Each of the outermost sides of the building is 921 ft. long and the perimeter is seven-eighths of a mile. Total length of corridors is 17½ miles. There is a mezzanine below the first floor and a partial basement below that.

Population is 27,000, 60% civilians. Parking space, 67 acres, can hold 10,000 cars.

Many facilities for daily use, such as bank, drug store, medical and dental clinics, ticket agency, are located in the Pentagon. It has a switchboard console with approx. 175,000 calls a day over 30,000 phones. It has 4,200 clocks, 685 water fountains, 1,900 toilets and 280 rest rooms and 672 hose cabinets for fire protection.

Some of the workers eat 2 or 3 meals in the building. A staff of over 600 prepares and serves meals from 3 kitchens to 2 dining rooms, 6 cafeterias, 9 beverage bars and an outside snack bar. During an average day Pentagon personnel consume about 30,000 cups of coffee, 2,255 quarts of milk and milk products and 5,000 soft drinks.

Smithsonian Institution

Smithsonian Institution is one of the world's great historical, scientific and cultural establishments. It comprises numerous facilities, mostly in the metropolitan Washington area. It was founded by an Act of Congress in 1846, pursuant to a bequest of James Smithsonian, a British scholar-scientist, to the United States to found at Washington "an establishment for the increase and diffusion of knowledge among men." The Smithsonian, ever since its founding, has been a center for basic scientific research; it is also the largest museum-gallery complex in the world. More than 18,000,000 persons visited its halls in fiscal 1967. S. Dillon Ripley became the 8th secretary of the Smithsonian Feb. 1, 1964.

The Museum of History and Technology. On Jan. 22, 1964, President Lyndon B. Johnson dedicated this museum. More than 5,000,000 visitors stream into the museum annually to enjoy the permanent, special and visiting exhibits illustrating the cultural and technological development of the United States. The museum consists of 3 floors of exhibitions, and convenient food facilities for its visitors in the basement. In the rotunda the visitor will find the original Star-Spangled Banner. The Growth of the United States exhibit portrays American civilization from its inception to modern times and includes such items as an early 18th-Century printing press used by Benjamin Franklin, a portion of a 17th-Century house from Ipswich, Mass., Eli Whitney's model of the cotton gin, the locomotive John Bull, a uniform worn by Gen. George Washington and the writing desk on which Thomas Jefferson drafted the Declaration of Independence. Large exhibits in-

clude Petroleum Hall, the history of transportation, machine and hand tools, American political and military history, numismatics, philately, ceramics and glass, heavy machinery, timekeeping, physical and medical sciences, graphic arts and electricity.

The Museum of Natural History abounds in the fields of natural history—zoology, botany, geology, paleontology and anthropology. The Hall of Asia, Africa and the Pacific contains exhibits illustrating aspects of the life and cultures of Southeastern Asia, India, Australia, New Zealand, the Pacific Islands and Africa. Exhibits include fossil plants and invertebrate animals, fishes, amphibians, dinosaurs, primitive reptiles, mammals in North America. Here also are animals collected by Theodore Roosevelt on his 1910 African safari, the Hall of Birds, the Fenykovi Elephant and the Hall of Gems and Minerals, including the 44½ carat blue Hope diamond.

The National Collection of Fine Arts, in its first permanent home in 122 years, opened its doors in 1968 in the renovated Old Patent Office Building, noted for its classical Greek architecture. In addition to its Two-Century Survey of American Art, there are special and loan exhibits of American sculpture and painting. The museum also sends the work of American artists abroad and exhibits the art of other countries.

The National Portrait Gallery, a new museum, traces America's history through the portraits of its people, in paintings, sculpture and photographs.

The Renwick Gallery, in process of restoration to be completed by early 1969, will house American arts, crafts and design.

The Joseph H. Hirshhorn Museum and Sculpture Garden, still in the planning stage, will house works in the Hirshhorn collections donated to the Smithsonian in 1966.

The National Zoological Park is noted for its outstanding collection of small mammals and for its pigmy hippopotamuses, which are on the endangered list. It also has the only white tiger in the Western hemisphere, and the only Komodo dragon, the largest species of lizard.

The Astrophysical Observatory in Cambridge, Mass., performs research in 9 principal areas: radio astronomy; gamma-ray astronomy; meteorites and cosmic dust; theoretical astrophysics; optical observatory and observation; flight experiments; planetary and lunar science; meteors and comets; historical astronomy.

The Smithsonian Institution Press publishes books and scholarly papers in natural science, anthropology, history, astrophysics, geology, art.

The Freer Gallery of Art, the gift of Detroit industrialist Charles Lang Freer, is an outstanding center for research in the art of the Far and Near East. Major new accessions are added annually. The gallery also houses the Whistler Peacock Room and his etchings and paintings.

The Science Information Exchange was established to aid in closing the information gap between the time when a research project is started and when its results are published in scientific journals. Information on the scientist, his organization, and the subject on which he is working can be rapidly retrieved from the Exchange's computer system.

The Smithsonian Institution Traveling Exhibition Service (SITES) aids museums, libraries, universities, and other educational institutions in the development of their exhibition programs. In 1967, 108 exhibitions were sponsored.

The National Air and Space Museum. Pending new construction, the Arts and Industries building and the temporary Air and Space building house the historic Wright Brothers' airplanes, Charles A. Lindbergh's "Spirit of St. Louis," space satellites and missiles.

Cooper-Hewitt Museum of Design, in New York City, was formerly the Cooper Union Museum for the Arts of Decoration. It officially became a component of the Smithsonian on July 1, 1968.

Washington National Monument

The Washington National Monument is a tapering shaft or obelisk of white marble, 555 feet, 5½ inches in height and 55 feet, 1½ inches square at the base. Eight small windows, two on each side, are located at the 500 foot level, where Washington points of interest are indicated.

The erection of the monument by the Washington National Monument society with funds obtained by popular subscription was authorized by Congress in 1848. The cornerstone was laid July 4

of the same year. Work progressed slowly until 1854 when \$300,000 had been subscribed and 156 feet of the shaft erected. In that year the enterprise became controversial and contributions ceased. Work was resumed in 1880 at Government expense by the Corps of Engineers.

The capstone weighs 3,300 lbs. and was placed Dec. 6, 1884. The monument was dedicated Feb. 21, 1885, and opened Oct. 9, 1888. It weighs 81,120 tons. It is dressed with white Maryland marble in 2-ft. courses. The first 150 ft. are backed by rubble masonry. From that point to 452 ft. Maine granite was used as backing, and above 452 ft. marble was used. The face of the monument is marble, the first 5 courses from Sheffield, Mass., the rest from Maryland. Set into the interior wall are 190 memorial stones from states, foreign countries and organizations. An iron stairway has 50 landings and 898 steps. A modern elevator takes sightseers to the 500-foot level in one minute, compared with 12 "precarious minutes" in 1888.

The Monument is open 8 a.m. to 11 p.m. from March 20 to Labor Day, and 9 a.m. to 5 p.m. the rest of the year. It is closed Christmas Day.

Famous Churches

The National Shrine of the Immaculate Conception, at Fourth St. and Michigan Ave., NE, Washington, D. C., is the largest Catholic Church in the United States and the 7th largest in the world. Built by all the Bishops and Catholics of the U. S., it honors the Blessed Virgin Mary as Patroness of the United States. The Shrine is impressive not only in size but also in beauty, its blue and gold dome and soaring bell-tower having become Washington landmarks. Open daily from 7 a.m. to 8 p.m., Sunday masses, 7, 8, 9, 10, 11 a.m. and noon, 1:15 and 4:30 p.m. Free guided tours are on the half-hour 9 a.m. to 5 p.m., daily—Sunday tours 2 p.m. to 4 p.m. Carillon concerts Sat. and Sun. 3:30 p.m. (except May through Aug. at 6:30 p.m.). Organ recitals every Sun. at 7:30 p.m. (May through Aug.).

Washington National Cathedral, Massachusetts and Wisconsin Aves., NW, is atop Mt. St. Alban, the highest point in Washington, D. C. It is the seat of the Presiding Bishop of the Episcopal Church and of the Bishop of Washington. Started in 1907, it is only three-quarters complete, and when finished in 1985 is expected to be the 6th largest church in the world. Notables buried in the Cathedral include Woodrow Wilson, Adm. George Dewey, Cordell Hull and Frank B. Kellogg. The Cathedral is considered one of the finest examples of Gothic architecture in the country. On its 57 acres are the Bishop's Garden and Herb Cottage and five educational institutions.

Several Protestant churches commemorate the association of Presidents with their congregations. St. John's Episcopal Church, across Lafayette Sq. from the White House, designed by Benj. Latrobe in 1815, was regularly attended by Madison and F. D. Roosevelt and at times by other Presidents. New York Ave. Presbyterian Church, 1313 New York Ave., NW, preserves the pew in which Lincoln sat, also an original manuscript of the first draft of his first proposal to abolish slavery. Church rebuilt on same site in 1950-51.

President Eisenhower became a member of the National Presbyterian Church Feb. 1, 1953. The Church buildings were located then at Connecticut Ave. at N St., NW. The cornerstone for the new National Presbyterian Church and Center was laid by former President Eisenhower on his 77th birthday, Oct. 14, 1967. The main Chapel will be known as "The Chapel of the Presidents" in tribute to Dwight D. Eisenhower. The Chapel will contain the pew occupied by Pres. and Mrs. Eisenhower, and 15 or 16 other pews occupied by, or assigned to, former Presidents. It is under construction on a 12½-acre tract at Nebraska Ave. and Van Ness St., NW, and will incorporate all of the historical elements from the preceding buildings. This church was founded on two historic congregations, the First Presbyterian Church, which originated in a carpenter shop on the White House grounds in 1795, and the Church of the Covenant, formed in 1883. The old President's pew, brought from the First Church, was occupied by Presidents Jackson, Polk, Pierce, Buchanan, and Cleveland. Other pews were used by Presidents Grant and Benjamin Harrison.

The Islamic Center, 2551 Massachusetts Ave., NW. A magnificent monument of Islamic culture and outstanding landmark for visitors, a Mosque for worship, and an Institute for higher study of Islamic culture.

Notable Tall Buildings in United States Cities

Height from sidewalk to roof, including penthouse and tower if enclosed as integral part of structure; actual number of stories beginning at street level. Asterisks (*) denote buildings still under construction Jan., 1969.

City	Height Stories Ft. No.	City	Height Stories Ft. No.
NEW YORK CITY, MANHATTAN		ALBANY, N. Y. cont.	
Empire State, 34th St., 5th Ave....	1,250 102	*Agency (four bldgs.), So. Mall....	310 23
TV tower, 222 ft., makes total....	1,472	Home Savings Bank.....	250 21
Chrysler, Lexington Ave. & 42d St.	1,046 77	AKRON, OHIO	
60 Wall Tower, 70 Pine St.....	950 67	First Nat'l Tower Bldg.....	330 28
Bank of Manhattan, 40 Wall St....	900 71	*Cascade, 10 W. Bowersy.....	316 24
RCA, Rockefeller Center.....	850 70	ATLANTA, GA.	
Chase Manhattan Bldg.....	813 60	First Natl. Bank, 2 Peachtree St....	589 48
Pan Am Bldg., 200 Park Ave.....	808 59	Equitable Bldg., 100 Peachtree St..	453 34
Woolworth, 233 Broadway.....	792 60	Natl. Bank of Ga., 34 Peachtree....	439 32
*U.S. Steel, 165 Broadway.....	743 54	Trust Co. of Ga., 36 Edgewood....	377 28
City Bk. Farmers Trust, 20 Ex. Pl.	741 57	Peachtree Ctr. Bldg., 230 Peachtree	374 31
*One Astor Plaza.....	730 54	Life of Ga. Bldg., 600 W. Peachtree	371 29
Marine Midland Bldg., 140 Bway...	724 52	*225 Peachtree Bldg., 225 Peachtree	332 27
Union Carbide Bldg., 270 Park Ave.	707 52	Atlanta Gas Towers, 235 Peachtree	331 27
General Motors Bldg.....	705 50	Regency-Hyatt House Polaris....	330 23
Metropolitan Life, 1 Madison Ave...	700 50	Ga. Power Co., 270 Peachtree....	318 22
500 Fifth Avenue.....	697 60	*100 Colony Square, 1173 P'tree...	316 25
Chem. Bank N. Y. Trust Bldg.....	687 60	Merchandise Mart, 240 Peachtree...	300 22
Chanin, Lexington Ave. and 42d St.	680 58	Fulton Natl. Bank, 55 Marietta St.	295 22
Lincoln, 60 E. 42d Street.....	673 53	Grady Hospital, 80 Butler St....	277 22
*Gulf & Western Bldg.,		Peachtree Towers Apt.....	270 24
15 Columbus Circle.....	679 44	C & S Bank North, 17 North Ave...	266 20
American Tobacco, 245 Park Ave...	656 47	Southern Bell Telephone, 51 Ivy...	256 17
Irving Trust, 1 Wall Street.....	654 40	Lenox Towers East.....	251 17
345 Park Ave.....	634 44	Lenox Towers West.....	251 17
Home Insurance Co. Bldg.....	630 44	Rhodes Haverly Bldg.....	250 22
Waldorf-Astoria, 301 Park Ave....	625 47	AUSTIN, TEXAS	
10 East 40th Street.....	620 48	State Capitol.....	311
General Electric, Lexington Ave...	616 50	Univ. of Texas Admin. Bldg.....	302 29
New York Life, 51 Madison Ave....	615 40	Westgate Bldg.....	261 24
Pennegy Bldg., 1301 6th Ave.....	609 46	BALTIMORE, MD.	
U. S. Court House, 505 Pearl St...	590 37	Maryland Natl. Bank Bldg.....	495 33
Federal Bldg., Foley Square.....	587 41	No. 2 Charles Center.....	383 39
Time & Life, 1271 Ave. of the Am...	587 47	Blaustein Bldg.....	355 29
Municipal, Park Row & Centre St...	580 34	Hearn Tower.....	330 16
Westvaco Bldg., 299 Park ave....	574 42	222 St. Paul.....	328 39
Socony Mobil Bldg., 42d St.....	572 45	Emerson Tower.....	306 15
Sperry Rand Bldg., 1290 Ave. of Am.	570 40	First Natl. Bank.....	305 21
N. Y. General, 230 Park Ave.....	565 35	Federal Bldg., 31 Hopkins Plaza...	293 17
30 Broad Street.....	562 48	Lord Baltimore Hotel.....	289 19
Sherry-Neth'land, 5th Ave., 59th St.	560 40	Baltimore Gas and Electric Co....	289 21
Continental Can, 633 Third Ave...	557 39	Consolidated Gas Bldg.....	280 21
Sperry & Hutchinson,		Mercy Hospital.....	277 20
330 Madison Ave.....	555 39	1 Charles Center.....	270 23
Interchem Bldg., 1133 Ave. of		Commercial Credit Bldg.....	259 20
the Am.....	552 45	BATON ROUGE, LA.	
United Nations, 405 E. 42 St....	550 39	State Capitol.....	460 34
Burroughs Bldg., 605 3rd Ave....	550 44	La. Natl. Bank Bldg.....	277 21
Bankers Trust, 33 E. 48 St....	547 41	BIRMINGHAM, ALA.	
Transportation Bldg., 225 Bway...	546 45	Comer Bldg.....	325 27
Equitable Life, 1285 Ave. of the Am.	540 42	Thomas Jefferson Hotel.....	287 21
Ritz Tower, Park Ave. & 57th St...	540 41	Bank for Savings & Trust.....	264 19
Bankers Trust, 6 Wall Street.....	540 39	First Natl. Bank Bldg.....	256 21
Equitable, 120 Broadway.....	538 42	BOSTON, MASS.	
1700 Broadway.....	533 41	Prudential Tower.....	750 52
Downtown Athl. Club, 19 West St.	530 45	New England Merch. Bank Bldg...	500 40
Nelson Towers, 7th Ave. & 34th St.	525 45	U. S. Custom House.....	496 32
Hotel Pierre, Fifth Ave. & 61st St...	525 38	John Hancock Bldg.....	495 26
House of Seagram, 375 Park Ave...	525 34	State St. Bank Bldg.....	477 34
Du Mont Bldg., 515 Madison Ave...	520 42	State Office Bldg.....	350 22
26 Broadway.....	520 31	Federal Bldg. & Post Office.....	345 22
Newsweek Bldg., 444 Madison Ave.	518 43	Suffolk County Courthouse.....	330 19
Sterling Drug Bldg., 90 Park Ave...	515 41	Sheraton-Boston Hotel.....	310 29
First Nat'l City Bank.....	515 41	State Service Center.....	300 23
Bank of New York, 48 Wall Street...	513 32	United Shoe Mach. Bldg.....	298 24
Navarre, 512 Seventh Avenue.....	513 43	New England Tel. & Tel.....	298 20
Williamsburgh Savings Bank, Bklyn.	512 42	Travelers Insurance Bldg.....	253 16
ITT-American, 437 Madison Ave...	512 40	BUFFALO, N. Y.	
International, Rockefeller Center...	512 44	City Hall.....	378 32
1407 Broadway Realty Corp.....	512 44	Rand Bldg., not incl. 40-ft beacon...	351 29
22 East 40th Street.....	503 43	Liberty Bank.....	345 23
60 Broad St.....	503 39	Erle County Savings Bank.....	340 26
Americana Hotel.....	501 51	Manuf. & Traders Trust Co.....	315 21
N. Y. Telephone, 140 West St....	498 33	Electric Bldg.....	283 18
80 Pine Street.....	497 40	10 Lafayette Square.....	263 23
A. B. C. Bldg.....	496 41	N. Y. Telephone Bldg.....	258 16
Chemical Bank, 20 Pine St.....	494 38	Marine Trust.....	250 16
Fuller Bldg., 45 E. 57th St.....	492 40	Statler Hilton.....	250 18
C. B. S. Bldg., 51 W. 52d St.....	491 38	CHARLOTTE, N. C.	
Gen. Dynamics, 9 Rockefeller Plaza	490 36	*So. Tyrone St.....	420 32
N. Y. Hilton, Rockefeller Ctr.....	487 46	N. C. Natl. Bank Bldg.....	289 18
Tishman Bldg., 666 Fifth Avenue...	483 40	Baugh Bldg.....	260 20
2nd Ave. & 57th St.....	482 47	Wachovia Bank Bldg.....	250 17
Morgan Guarantee, 15 Broad St...	480 40	CHICAGO, ILL.	
Con. Edison, 14th St. & Irving Pl...	474 34	John Hancock Center.....	1,107 100
U. S. Plywood Bldg., 777 Third Ave...	472 38	First Natl. Bank.....	850 60
New Yorker Hotel.....	470 42	Civic Center (City Hall).....	662 31
Hampshire House, Central Park So.	470 40	Lake Point Towers.....	645 70
McGraw-Hill, 333 West 42nd St...	464 33	Board of Trade, incl. 81 ft. statue...	605 44
Essex House, Central Park South...	460 44	Prudential Bldg., 130 E. Randolph...	601 41
Barbizon-Plaza Hotel, Centr. Pk. So.	454 40	Antenna tower, 311 ft., makes total	912
Lefcourt Bldg.....	454 40	1000 Lake Shore Plaza Apts.....	590 55
111 West 40th Street.....	451 34	Marina City Apts., 2 buildings...	588 61
Metropolitan Life, 25 E. 24th St...	451 31		
ALBANY, N. Y.			
*Office Tower, So. Mall.....	589 44		
University Towers.....	480 40		
State Office Building.....	388 34		

	Hgt.	Ft.	Stories		Hgt.	Ft.	Stories
Pittsfield, 55 E. Washington St....	557	38		Farmers Union Bldg.....	263	12	
Kemper Insurance Bldg.....	555	45		Federal Office Bldg.....	261	18	
Field Bldg., 135 S. LaSalle St.....	535	42		Mountain States Tele. & Tele.....	250	17	
One LaSalle Street.....	530	49		State Capitol Bldg.....	250	4	
Pure Oil, 35 E. Wacker Drive.....	523	40		DES MOINES, IOWA			
United Ins. Bldg., 1 E. Wacker Dr.....	522	41		Equitable Bldg.....	318	19	
Lincoln Tower, 75 E. Wacker Dr.....	519	42		State Capitol.....	275	4	
Carbide & Carbon, 230 N. Mich.....	503	37		DETROIT, MICH.			
LaSalle-Wacker, 221 N. LaSalle St.....	491	41		Penobscot, 637 Griswold.....	557	47	
Amer. Nat'l Bank, 33 N. LaSalle St.....	479	40		Guardian, 500 Griswold.....	482	40	
Bankers, 105 W. Adams St.....	476	41		Book Tower, 1227 Wash. Blvd.....	472	35	
Brunswick Bldg.....	475	37		Cadillac Tower, 51 Cadillac Sq.....	437	40	
Continental Companies.....	475	32		David Stott, 1150 Griswold.....	436	38	
American Furniture Mart.....	474	24		Mich. Cons. Gas Co. Bldg.....	430	32	
Sheraton Hotel, 505 N. Mich. Ave.....	471	42		Fisher, W. Grand Blvd. & 2d St.....	420	28	
Palmolive, 919 N. Mich. Ave.....	468	37		Detroit Bank & Trust Co. Bldg.....	370	28	
188 Randolph Tower.....	465	45		David Broderick Tower.....	358	34	
Tribune Tower, 435 N. Mich. Ave.....	462	36		Buhl, 535 Griswold.....	350	26	
Equitable Life, 401 N. Michigan.....	457	35		Michigan Bell Telephone.....	340	19	
Roanoke, 11 S. LaSalle St.....	452	37		1st Federal Savings & Loan Assn.....	338	23	
Willoughby Tower, 8 S. Mich. Ave.....	438	38		Pontchartrain Motor Hotel.....	336	23	
1300 Lake Shore Apts.....	404	40		1300 Lafayette East.....	325	30	
777 N. Michigan Apts.....	400	30		National Bank.....	319	25	
Illinois Bell Telephone Bldg.....	400	21		Sheraton Cadillac Hotel.....	310	28	
Chicago Temple not incl. cross.....	398	32		The Jeffersonian.....	305	29	
Wrigley, 400 N. Mich. Ave.....	398	32		FORT WAYNE, IND.			
Federal Bldgs., D'born & Jackson Sts.....	396	30		Lincoln Natl. Bank Bldg.....	312	23	
333 N. Michigan Ave.....	394	34		Ft. Wayne Natl. Bank.....	280	26	
Executive House, 71 E. Wacker Dr.....	385	40		FORT WORTH, TEXAS			
Outer Drive East.....	378	40		Continental Natl. Bank Bldg.....	380	30	
Allerton Hotel, 701 N. Mich. Ave.....	360	24		Continental Life Ins. Bldg.....	282	23	
The Brittany, 150 N. Wacker.....	350	37		First Natl. Bank.....	272	22	
1550 Lake Shore Dr. Apts.....	350	34		W. T. Waggoner Bldg.....	270	22	
Drake Towers, 179 E. Lake Shore Dr.....	347	32		Service Life Center.....	270	19	
Builders, 228 N. LaSalle St.....	342	32		Federal Center.....	250	13	
CINCINNATI, OHIO				HARRISBURG, PA.			
Carew Tower.....	574	48		State Capitol.....	272	6	
Central Trust Tower.....	495	34		Hotel Harrisburger.....	257	19	
*Cincinnati Center, 5th & Walnut.....	430	32		HARTFORD, CONN.			
Kroger Bldg.....	345	25		Travelers Ins. Co. Bldg.....	527	34	
Terrace Hilton Hotel.....	273	19		Hartford Bldg.....	400	22	
Cincinnati Gas & Electric Co.....	268	18		Hartford Natl. Bank & Trust.....	360	26	
Provident Tower.....	267	20		*Bushnell Plaza.....	263	27	
City Hall clock tower.....	250	.....		Conn. Bank & Trust Co. Bldg.....	257	20	
CLEVELAND, OHIO				St. Joseph's Cathedral.....	250	.....	
Terminal Tower.....	708	52		HONOLULU, HAWAII			
Federal Bldg.....	419	32		*Ala Moana Hotel.....	390	38	
Erieview Plaza Tower.....	418	40		1350 Ala Moana.....	309	33	
Ohio-Bell Telephone.....	360	22		Ala Moana Bldg.....	300	23	
CEI Bldg.....	300	22		Financial Plaza of the Pacific.....	269	21	
Union Commerce Bldg.....	289	21		Ilkai Apartments.....	260	26	
Standard Bldg.....	282	21		First Natl. Bank Bldg.....	254	19	
B. F. Keith Bldg.....	267	21		Foster Tower.....	250	25	
Cleveland State Univ.....	265	21		HOUSTON, TEXAS			
NBC Bldg., 815 Superior Ave.....	265	21		One Shell Plaza.....	700	50	
Winton Place.....	264	30		Humble Oil Bldg.....	606	44	
COLUMBUS, OHIO				Tenn. Bldg.....	497	33	
Lincoln-Le Veque Tower.....	555	47		Guif Bldg.....	428	37	
Columbus Center.....	323	25		First City Natl. Bank.....	410	32	
State Office Bldg.....	317	14		Nells Eperson Bldg.....	409	31	
Columbus-Sheraton Motor Hotel.....	275	22		Houston Lighting & Power.....	410	27	
88 E. Broad St.....	253	20		Houston Natural Gas Bldg.....	386	28	
CORPUS CHRISTI, TEX.				Bank of the Southwest.....	369	24	
Wilson Tower.....	273	20		Sheraton-Lincoln Hotel.....	352	28	
600 Broadway.....	251	22		American General Life.....	337	25	
DALLAS, TEXAS				Shell Bldg.....	325	22	
First National Bank.....	614	51		Capitol Natl. Bank.....	320	21	
Republic Bank Tower.....	594	53		500 Jefferson Bldg.....	316	21	
Southland Life Tower.....	550	42		Sterling Bldg.....	312	22	
One Main Place.....	457	33		Southwest Tower.....	310	20	
Republic Bank Bldg., not incl. 150-ft. ornamental tower.....	452	36		Melrose Bldg.....	308	21	
Ing-Tempeco-Vought Tower.....	434	31		Chamber of Commerce Bldg.....	306	22	
Mercantile Natl. Bank Bldg., not incl. 115-ft weather beacon.....	430	31		South Coast Life Bldg.....	302	22	
Mobil Bldg.....	430	31		Prudential Bldg.....	300	21	
Fidelity Union Tower.....	400	33		INDIANAPOLIS, IND.			
Fairmont Hotel.....	395	24		*Indiana Natl. Bank Tower.....	504	37	
*Court House & Fed. Office Bldg.....	362	16		City-County Bldg.....	377	26	
Mercantile Dallas Bldg.....	360	22		Indiana Bell Telephone.....	320	20	
Sheraton Hotel.....	352	28		JWR Center, Crown Tower Apts. 2 buildings.....	294	30	
Adolphus Tower.....	327	27		JACKSON, MISS.			
Bell Telephone Bldg.....	326	23		First Natl. Bank Bldg.....	259	14	
Davis Bldg.....	323	21		Deposit Guaranty Bank Bldg.....	254	18	
Tower Petroleum Bldg.....	315	23		Standard Life Bldg.....	250	22	
Adolphus Hotel.....	312	25		JACKSONVILLE, FLA.			
Baptist Annuity Center.....	303	17 1/2		Gulf Life Ins. Co. Bldg.....	430	27	
Life Bldg.....	302	22		Prudential Ins. Co. of Amer.....	295	32	
Santa Fe Bldg. (1st unit).....	300	20		Universal Marlon Bldg.....	268	21	
DAYTON, OHIO				Independent Life & Accident Ins.....	258	18	
Hulman Bldg.....	276	23		JERSEY CITY, N. J.			
*Grant-Deneau Bldg.....	265	22		Medical Center, Tuberculosis.....	320	24	
Knott Bldg.....	261	21		Medical Center, 4 other bldgs.....	294	22	
DENVER, COLO.				KANSAS CITY, MO.			
Brooks Towers, 1020 15th St.....	420	42		Kansas City Light and Power Bldg.....	503	36	
Security Life Bldg.....	384	30		Federal Office Bldg.....	434	33	
First National Bank.....	365	28		City Hall.....	417	30	
Western Fed. Savings Bldg.....	354	24		Commerce Tower.....	402	32	
Tower Merchandise Mart.....	330	20		Telephone Bldg.....	382	28	
Hilton Hotel.....	299	21		Continental Bldg.....	365	30	
Denver U.S. Natl. Bldg.....	293	25		A. T. & T. Long Line Bldg.....	331	20	
Denver Club Bldg.....	277	23					
Brown Palace Hotel, West.....	269	22					

	Hgt.Ft.	Stories		Hgt.Ft.	Stories
Bryant Bldg.	319	26	Woodmen Tower.	453	30
Federal Reserve Bldg.	311	21	Masonic Manor.	320	22
LOS ANGELES, CALIF.					
Crocker-Citizens Plaza.	602	43	PHILADELPHIA, PA.		
Union Bank Square.	516	41	City Hall Tower.	548	9
City Hall.	454	28	Incl. 35-ft. statue of Wm. Penn. . .	491	39
Occidental Life Bldg.	452	32	*5 Penn Center.	488	36
*Equitable Life.	430	32	Philadelphia National Bank.	473	25
*1900 Ave. of Stars.	398	27	Girard Trust, Broad & Chestnut. . .	450	30
1 Wilshire Bldg.	395	28	Industrial Valley Bank Bldg.	431	32
Calif. Fed. Savings & Loan Bldg. . .	363	23	Lewis Tower, 15th & Locust.	400	33
*Bunker Hill Towers.	349	32	Fidelity-Philadelphia Trust.	377	30
City Natl. Bank Bldg.	344	32	Penn Mutual Life.	375	20
Luxury Towers.	316	27	The Drake, 15th & Spruce.	365	30
Getty Realty Bldg.	312	22	Medical Tower, 255 So. 17th.	364	33
Water & Power Bldg.	310	20	State Bldg., 1400 Spring Garden. . .	351	18
Los Angeles Fed. Savings Bldg.	306	22	Hopkinson House.	350	35
Barrington Plaza Bldg.	300	25	1 East Penn Square.	349	24
Travelers Insurance.	294	22	Packard, 15th & Chestnut.	340	25
Grad Towers.	290	23	Inquirer Building.	340	18
Crown Towers.	278	22	Land Title, Broad & Chestnut. . .	331	22
1901 Ave. of the Stars.	272	19	Edison, 9th & Sansom.	325	23
Wilshire Flower Bldg.	269	21	Penn Towers.	320	31
Spring Street Realty Bldg.	267	19	Architects, 17th & Sansom.	316	24
Lee Towers Bldg.	261	21	Sheraton Hotel.	315	22
U. S. Post Office & Court House. . .	257	18	Rittenhouse Towers.	312	28
Tishman 615 Bldg.	250	22	1500 Walnut Street.	310	23
Wilshire-Armore Bldg.	250	23	Society Hill Towers.	308	32
Wilshire-Cornstock Bldg.	250	20	1616 Walnut Street.	303	25
LOUISVILLE, KY.			Chateau Crillon, 19th & Locust. . .	303	27
Eighthundred Apt. Bldg.	290	29	Dorchester Apts.	300	32
Commonwealth Bldg.	255	21	PHOENIX, ARIZ.		
Heyburn Bldg.	250	17	First Federal Savings Bldg.	341	27
MEMPHIS, TENN.			Mayer Central Plaza.	315	25
100 N. Main Bldg.	430	38	Regency Apts.	297	21
Sterick Bldg.	365	31	Rosenzweig Center No. 2.	280	22
First Natl. Bank Bldg.	318	25	Rosenzweig Center No. 1.	271	25
Lowenstein's Dept. Store.	296	25	PITTSBURGH, PA.		
Clark Towers.	273	24	*U.S. Steel Bldg.	841	64
Columbian Mutual Life Tower.	265	22	Gulf, 7th Ave. and Grant St.	582	44
Exchange Bldg.	264	22	University of Pittsburgh.	535	42
MIAMI, FLA.			525 Wm. Penn Place (U. S. Steel). . .	520	41
Ponce Products.	350	30	Grant, Grant St. at 3d Ave.	485	40
Dade County Court House.	325	27	Koppers, 7th Ave. and Grant.	475	34
Du Pont Bldg.	285	16	Alcoa Bldg., 425 Sixth Ave.	410	30
Brickell Town House.	258	21	First National Bank, 511 Wood St. . .	387	26
Freedom Tower Bldg.	256	17	Oliver, 535 Smithfield St.	347	25
Fed. Office Bldg.	256	18	Gateway Bldg No. 3.	344	24
MILWAUKEE, WIS.			Federal Bldg., 1000 Liberty Ave. . .	340	23
City Hall.	350	9	Bell Telephone, 416 7th Ave.	339	21
Wisconsin Telephone Co.	313	19	Hilton Hotel, 1000 Liberty Ave. . .	333	22
Marine Plaza Bldg.	288	22	Frick, 437 Grant St.	330	20
Marshall & Hsley Bank.	277	21	Rockwell-Standard Bldg.	322	24
Juneau Village Apts.	266	23	Washington Plaza Apts., 1420		
Schroeder Hotel.	265	24	Centre Ave.	300	23
Clark Bldg.	252	20	Commonwealth, 316 Fourth Ave. . .	300	24
Wisconsin Gas Co.	250	20	RICHMOND, VA.		
Wisconsin Tower.	250	21	Central National Bank Bldg.	282	24
Pfister Hotel.	250	21	First National Bank Bldg.	262	19
MINNEAPOLIS, MINN.			Fidelity Bankers Life.	261	23
Foshay Tower, not including 163-ft.			ROCHESTER, N. Y.		
antenna tower.	447	32	Xerox Tower.	443	30
First Natl. Bank Bldg.	366	28	Eastman Kodak Bldg.	360	19
Municipal Building.	355	14	Lincoln Rochester Trust Bldg.	261	17
North Western Bell Telephone.	350	26	Times Square Bldg.	256	10
Rand Tower.	311	26	Midtown Office & Hotel Bldg.	251	18
Midwest Federal Savings & Loan. . .	276	20	ST. LOUIS, MO.		
River Towers Apts.	260	27	Gateway Arch.	630	34
NASHVILLE, TENN.			Lelade Gas Bldg., 8th & Olive. . .	400	34
*Natl. Life & Acc. Ins. Co.	452	31	S. W. Bell Tele. Bldg.	398	31
Nashville Life & Casualty Tower. . .	409	30	Civil Courts.	387	13
Third Natl. Bank Bldg.	292	20	Queeny Tower.	321	19
NEWARK, N. J.			Park Plaza Hotel.	310	30
National Newark & Essex Bank.	465	36	Riverfront Inn, 3rd St.	301	30
Raymond-Commerce.	448	36	Mansion House.	285	28
Prudential Corporate Bldg.	369	27	Continental Bldg.	277	23
American Insurance Company.	326	21	Railroad Exchange Bldg.	277	24
Prudential Insurance Company.	301	21	Pierre Laclede Plaza Bldg.	276	23
N. J. Bell Telephone Co.	275	21	Ben Franklin Motor Hotel.	270	25
Mutual Benefit Life Ins. Co.	271	18	Park Tower Apts.	264	24
NEW HAVEN, CONN.			Missouri Pacific Bldg.	264	23
Knights of Columbus Hqs.	320	24	Gateway Towers, 1 Mem. Drive. . .	261	20
Harkness Memorial Quadrangle.	257	13	Executive Office Bldg.	250	20
Kline Biology Tower.	250	13	Colony Motor Hotel.	250	19
NEW ORLEANS, LA.			Gateway Hotel.	250	21
Plaza Tower.	516	45	Southwestern Bell Telephone		
Int'l Trade Mart Bldg.	407	33	Microwave Bldg.	250	16
225 Baronne St.	402	28	ST. PAUL, MINN.		
Hibernia Bank Bldg.	355	23	First Natl. Bank Bldg., not incl.		
American Bank Bldg.	330	23	100-ft. sign.	402	32
Charity Hospital of Louisiana.	279	19	Osborn Bldg.	368	20
OAKLAND, CALIF.			Northwestern Bell Telephone Bldg. . .	340	15
Kaiser Bldg.	390	28	St. Paul Cathedral.	307	12
City Hall.	319	15	U. S. Post Office Bldg.	274	24
Tribune Tower.	305	21	St. Paul Hilton Hotel.	273	24
First Western Bank Bldg.	297	18	City Hall & Court House.	261	18
Telephone Bldg.	289	15	Montgomery Ward & Co. Bldg. . .	257	9
565 Bellevue Apts.	270	25	SALT LAKE CITY, UTAH		
St. Paul Towers.	267	22	City & County Bldg.	290	20
OKLAHOMA CITY, OKLA.			State Capitol.	285	24
First National Bank.	447	33	Univ. Club Bldg.	277	24
Liberty National Bank.	440	33	Kennecott Bldg.	267	18
Oklahoma Continental Apts.	288	25	Walker Bank Bldg.	262	18
United Founders Life Bldg.	264	20			

SAN ANTONIO, TEXAS			Hgt. Ft. Stories			Hgt. Ft. Stories		
Tower of the Americas.....			622			Federal Office Bldg.....		
Tower Life.....			550	30		Bank of Calif.....		
Nix Professional Bldg.....			375	23		100 McAllister Bldg.....		
Nat'l. Bank of Commerce.....			310	23		111 Sutter Bldg.....		
Alamo National Bldg.....			288	23		Mark Hopkins Hotel.....		
Milam Bldg.....			280	20		Mills Tower.....		
Southwestern Bell Telephone Co. Bldg.....			260	16		City Hall.....		
						1200 California Apts.....		
SAN DIEGO, CALIF.						SEATTLE, WASH.		
So. Calif. First Nat'l. Bank Bldg...			388	25		*Seattle-1st Nat'l. Bank Bldg.....		
U.S. Nat'l. Bank Bldg.....			340	25		Space Needle.....		
*Union Bank.....			320	22		L. C. Smith Bldg.....		
*Westgate Plaza Hotel.....			317	20		*Washington Plaza Hotel.....		
Electric Bldg.....			293	21		*Federal Office Bldg.....		
Electronics Capital Bldg.....			281	23		IBM Bldg.....		
Home Tower.....			278	18		Northern Life Tower.....		
SAN FRANCISCO, CALIF.						Norton Bldg.....		
Bank of America.....			778	52		Washington Bldg.....		
Wells Fargo Bldg.....			561	43		United Exchange Bldg.....		
*Embarcadero Center #1.....			569	45				
Crocker, Market & Post.....			529	38		SYRACUSE, N. Y.		
*Pacific Gas & Electric.....			470	32		State Tower.....		
Hartford Bldg.....			465	33		Mony Office Bldg.....		
Mutual Benefit Life.....			438	32				
Russ Bldg.....			435	31		TOLEDO, OHIO		
Telephone Bldg.....			435	30		*Owens-Corning Fiberglas Tower..		
Alcoa Bldg.....			398	27		Owens Illinois Bldg.....		
Shell Bldg.....			386	29		Toledo Trust Bldg.....		
First Savings.....			359	26				
Equitable Life Bldg.....			355	25		TULSA, OKLA.		
Fox Plaza.....			354	29		4th Nat'l. Bank of Tulsa.....		
International Bldg.....			350	26		National Bank of Tulsa.....		
450 Sutter Street.....			343	26		Univ. Club Towers.....		
Cathedral Apartments.....			340	21		Pittwater.....		
Royal Towers.....			330	24		Liberty Towers.....		
Fairmont Hotel.....			330	30		Skelly Bldg.....		
Bechtel Bldg.....			327	23		First Nat'l. Bank.....		
Standard Oil Bldg.....			327	22				
Crown Zellerbach Bldg.....			320	20		WILMINGTON, DEL.		
555 Market St.....			317	22		Hercules Tower.....		
Sir Francis Drake Hotel.....			315	22		American Life Ins. Co. Bldg.....		
Eichler Summit.....			314	29		Farmers Bank Bldg.....		
						WINSTON-SALEM, N. C.		
						Wachovia Bldg.....		
						Reynolds Bldg.....		

TALL BUILDINGS IN SMALLER UNITED STATES CITIES

Figures denote number of stories. Height in feet is in parentheses. Cape Kennedy, Fla., Vehicle Assembly Bldg., 40 (552); Allentown, Pa., Penna. Power & Light Bldg., 23 (322); Greenville, S. C., Daniel Bldg., 22 (305); Lansing, Mich., Michigan Nat'l Tower, 25 (300, not including antenna tower); Las Vegas, Nev., Mint Hotel, 26 (288); Lincoln, Neb., State Capitol (432 incl. 32-ft. bronze statue); Portland, Ore., Georgia-Pacific Bldg., 29 (355); Providence, R. I., Industrial Trust Co. Bldg., 26 (420); Shreveport, La., Beck Bldg., 20 (266); Tampa, Fla., Exchange Nat'l Bldg., 22 (280); Waco, Tex., Amicable Life Bldg., 21 (282, incl. observation tower).

Tallest Television Towers

Station	Location	Ht. Ft.	Station	Location	Ht. Ft.
KTLN-TV.....	Fargo, N. D.....	2063	KVII-TV.....	Amarillo, Tex.....	1922
KATV.....	Little Rock, Ark.....	2000	KTUL-TV.....	Tulsa, Okla.....	1909
WEAU-TV.....	Eau Claire, Wisc.....	2000	Self-Supporting		
KTIV-TV.....	Sioux City, Iowa.....	2000	WITI-TV.....	Milwaukee, Wisc.....	1079
KVTN-TV.....	Sioux City, Iowa.....	2000	WNAC-TV.....	Boston, Mass.....	1069
KCRG-TV.....	Cedar Rapids, Iowa.....	2000	KJRI-TV.....	Atlanta, Ga.....	1049
WLBT-TV.....	Jackson, Miss.....	1998	KCMO-TV.....	Kansas City, Mo.....	1042
KNOE-TV.....	Monroe, La.....	1986	WKRC-TV.....	Cincinnati, Ohio.....	971
KELO-TV.....	Sioux Falls, S. D.....	1984	WCPO-TV.....	Cincinnati, Ohio.....	909
KSOU-TV.....	Sioux Falls, S. D.....	1984			

Few Know Why Famous Mason-Dixon Line Was Drawn

The Mason-Dixon Line, drawn over 200 years ago, is probably America's most famous boundary—yet few know why it was established.

In popular belief, the boundary separated Confederate States from the Union during the Civil War. It remains the symbolic division between South and North.

The line was drawn earlier, however, to end a bitter colonial land dispute, the National Geographic Society says. Completed in 1767, the line extends from east to west between Pennsylvania and Maryland, with a shorter branch reaching southward then east between Maryland and Delaware. All three states were on the Union side.

The English surveyor-astronomers Charles Mason and Jeremiah Dixon wound up four years of arduous work in the summer and fall of 1767. Working westward through wilderness, they reached the "top of the Great dividing Ridge of the Alleghany Mountains" in July.

The Englishmen and their assistants and guides, all fearful of Shawnee and Delaware Indians, reached the so-called War Path on Oct. 9. The Indians with them refused to go any farther. Thus a point 230 miles 18 chains and 21 links from the beginning of the line formed its western terminus.

The boundary controversy flared in the mid-1600s when the Dutch Government and the Calverts of Maryland both claimed the big fertile peninsula between the Delaware and Chesapeake Bays.

After the Dutch were pushed out of the region.

William Penn inherited the dispute. The bickering, kindled by conflicting interpretations of the Penn and Calvert charters, continued for generations.

At last the case came before England's Court of Chancery. A compromise decision gave Maryland the bulk of the peninsula. Pennsylvania retained the northeast portion that later attained independence as Delaware State.

The American disputants signed the agreement in 1760, and work was begun by local surveyors. They made so little progress that Mason and Dixon were invited to the Colonies to "mark, run out, settle, fix, and determine" the line. Mason, 35, was assistant astronomer at England's Greenwich Observatory. He recently had been abroad with Dixon, 30, a quiet-mannered Quaker, to observe a transit of Venus.

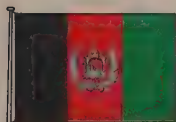
Mason and Dixon arrived in Philadelphia in 1763. They set to work checking and correcting the peninsula lines, then took the westward trail with a large party of assistants, axmen and guides.

Handsome boundary stones, inscribed with the arms of Penn and Calvert on opposite sides, were set at five-mile intervals. Simpler intermediary stones bore the letters P and M.

The 4-year project cost \$75,000. When Mason and Dixon sailed back to England, they left behind them the largest engineering-surveying achievement of 18th-century America. The job they did in trackless wilderness with crude instruments was astonishingly accurate. Modern surveyors have found a difference in latitude of only 2.3 seconds (232 feet) from the Mason-Dixon figure.

WORLD FLAGS & MAPS

See Final Flag Page for Newest Nations



AFGHANISTAN



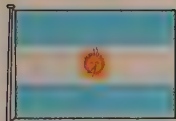
ALBANIA



ALGERIA



ANDORRA



ARGENTINA



AUSTRALIA



AUSTRIA



BARBADOS



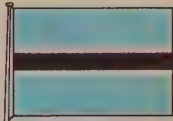
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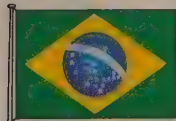
BHUTAN



BOLIVIA



BOTSWANA



BRAZIL



BULGARIA



BURMA



BURUNDI



CAMBODIA



CAMEROON



CANADA



CENTRAL AFRICAN REP.



CEYLON



CHAD



CHILE



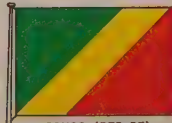
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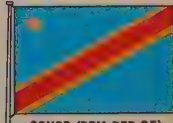
CHINA (MAINLAND)



COLOMBIA



CONGO (REP. OF)



CONGO (DEM. REP. OF)



COSTA RICA



CUBA



CYPRUS



CZECHOSLOVAKIA



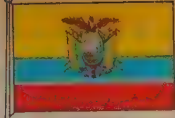
DAHOMY



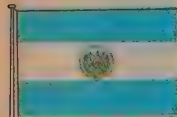
DENMARK



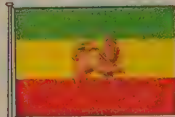
DOMINICAN REP.



ECUADOR



EL SALVADOR



ETHIOPIA



FINLAND



FRANCE



GABON



GAMBIA



WEST GERMANY



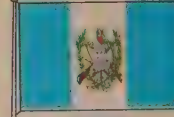
EAST GERMANY



GHANA



GREECE



GUATEMALA



GUINEA



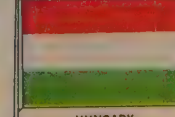
GUYANA



HAITI



HONDURAS



HUNGARY



ICELAND



INDIA



INDONESIA



IRAN



IRAQ



IRELAND



ISRAEL



ITALY



IVORY COAST



JAMAICA



JAPAN



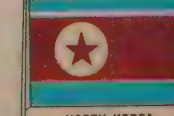
JORDAN



KENYA



SOUTH KOREA



NORTH KOREA



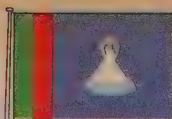
KUWAIT



LAOS



LEBANON



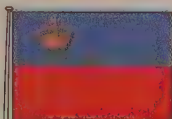
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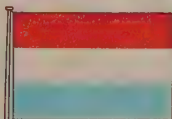
LIBERIA



LIBYA



LIECHTENSTEIN



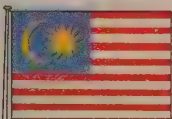
LUXEMBOURG



MALAGASY REP.



MALAWI



MALAYSIA



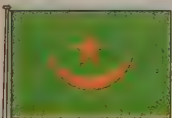
MALDIVE ISLANDS



MALI



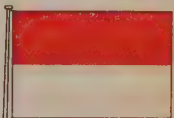
MALTA



MAURITANIA



MEXICO



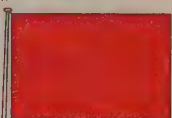
MONACO



MONGOLIA



MOROCCO



MUSCAT & OMAN



NEPAL



NETHERLANDS



NEW ZEALAND



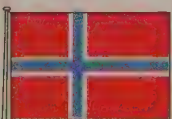
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NIGER



NIGERIA



NORWAY



PAKISTAN



PANAMA



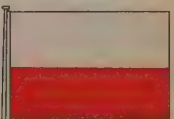
PARAGUAY



PERU



PHILIPPINES



POLAND



PORTUGAL



ROMANIA



RWANDA



SAN MARINO



SAUDI ARABIA



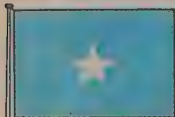
SENEGAL



SIERRA LEONE



SINGAPORE



SOMALI REP.



SOUTH AFRICA



SPAIN



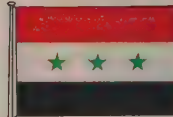
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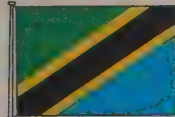
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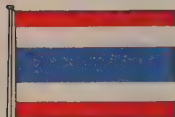
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SYRIA



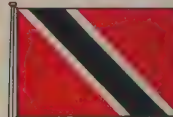
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THAILAND



TOGO



TRINIDAD & TOBAGO



TUNISIA



TURKEY



UGANDA



U.S.S.R.



UNITED ARAB REP.



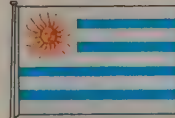
UNITED KINGDOM



UNITED STATES



UPPER VOLTA



URUGUAY



VATICAN CITY



VENEZUELA



SOUTH VIETNAM



NORTH VIETNAM



WESTERN SAMOA



YEMEN



YUGOSLAVIA



ZAMBIA

FLAGS OF NEWEST NATIONS



SOUTHERN YEMEN



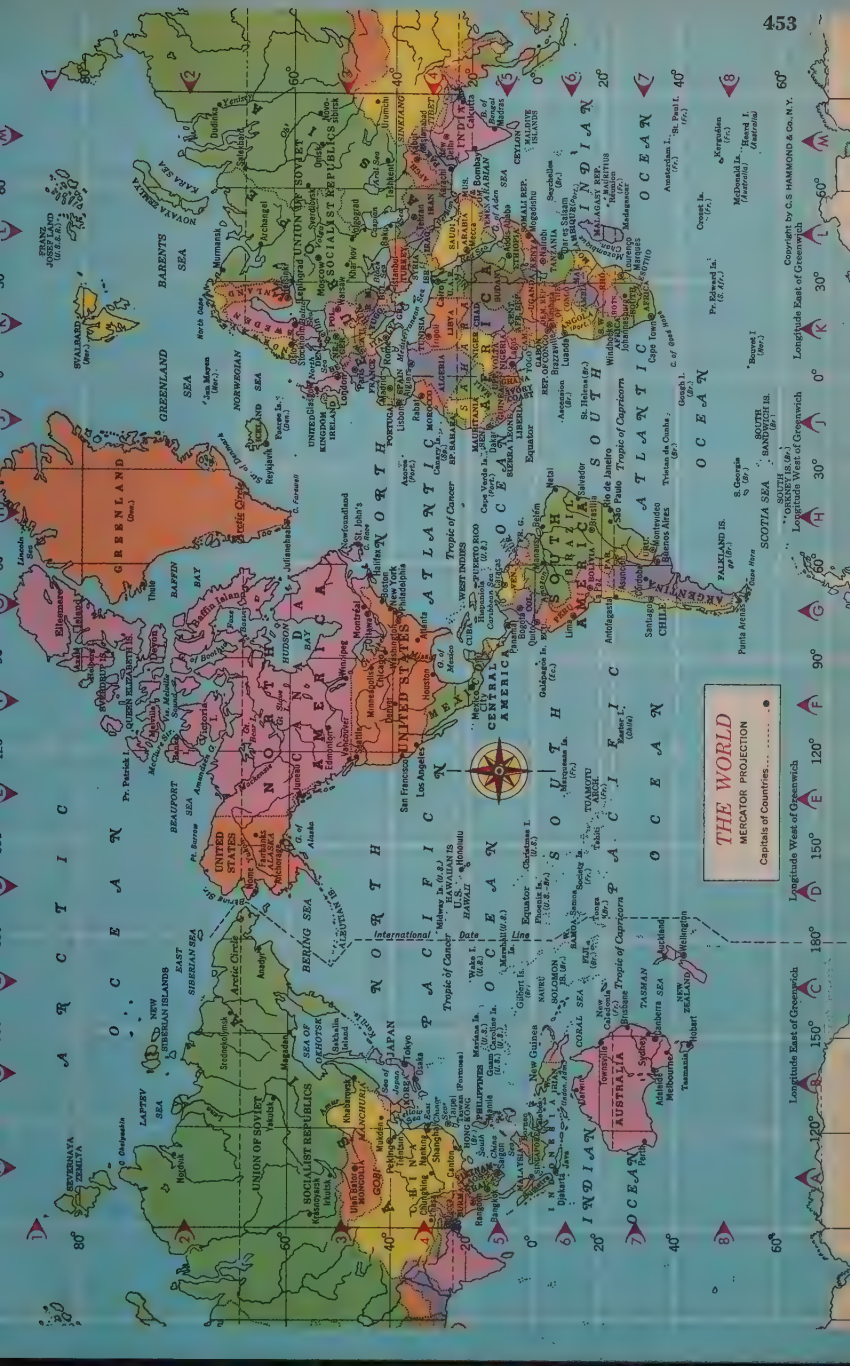
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NORTH AMERICA

LAMBERT AZIMUTHAL EQUAL-AREA PROJECTION

SCALE OF MILES

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SCALE OF KILOMETRES

0 200 400 600 800 1000

Capitals of Countries

International Boundaries

Canals

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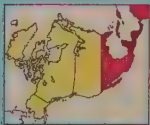


UNITED STATES

KILOMETRIC MEASUREMENT
SCALE OF KILOMETRES
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SCALE OF MILES
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Capitals of Countries
State Capitals
International Boundaries
State Boundaries
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MIDDLE AMERICA

BONNE PROJECTION
Copyright by C. S. HAMMOND & Co., N. Y.

SCALE OF MILES
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SCALE OF KILOMETRES
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Capitals of Countries —●—
International Boundaries ———









SOUTHERN ASIA

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SCALE OF MILES

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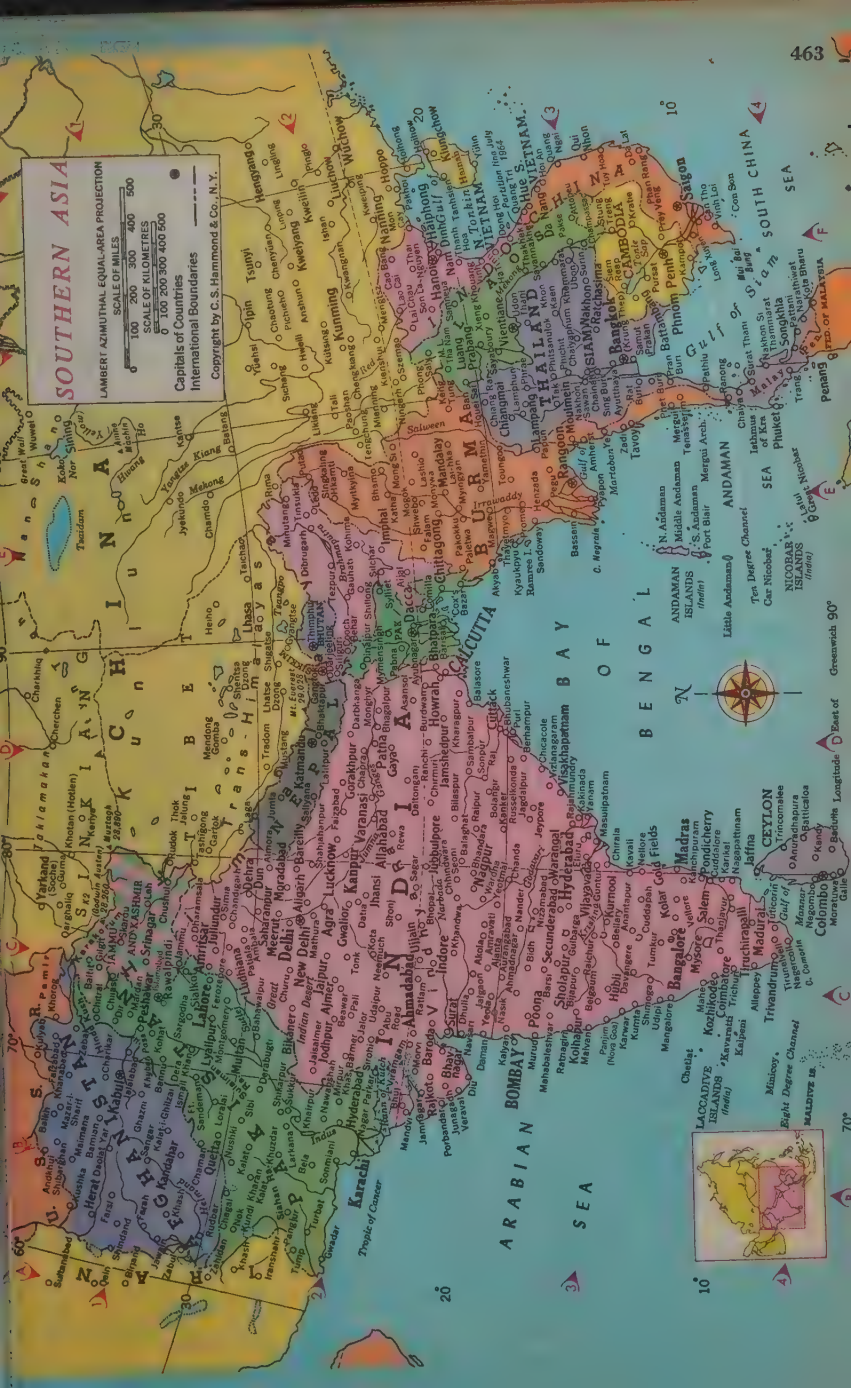
SCALE OF KILOMETRES

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Capitals of Countries

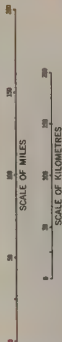
International Boundaries

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AND NEIGHBORING COUNTRIES

MODIFIED POLYCONIC PROJECTION



Capitals of Countries
International Boundaries
Canals
Falls and Rapids
Railroads
Major Roads
Road Numbers
Major Airports

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**U.S.
SEVENTH
FLEET**

PARACET.

ISLANDS

16





CHINA

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SEA
VIETNAM



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ASSOCIATIONS AND SOCIETIES, U. S.

Source: World Almanac Questionnaire
Arranged according to key words in titles. Figures indicate membership.

—A—

Aaron Burr Association (1946), N. Inca Rd., Linden, Va. 22642; 100; Sec. Gen., Col. Henry d'Arcy.

Accountants, American Institute of Certified Public (1887), 666 Fifth Ave., New York, N. Y. 10019; 63,766; Exec. Dir., John L. Carey.

Accountants, National Assn. of (1919), 505 Park Ave., New York, N. Y. 10022; 62,484; Exec. Dir., Rawn Brinkley.

Accountants, Natl. Society of Public (1945), 1717 Pennsylvania Ave., N.W., Washington, D. C. 20006; 12,000; Exec. Dir., Stanley H. Stearns.

Acoustical Society of America (1929), 335 E. 45 St., New York, N. Y. 10017; 4,200; Sec., Wallace Waterfall.

Actors Equity Assn. (1913), 165 W. 46 St., New York, N. Y. 10036; 15,000; Pres., Frederick O'Neal.

Actors' Fund of America (1882), 1619 Broadway, New York, N. Y. 10019; 2,967; Sec., Warren P. Munsell.

Actuaries, Society of (1949), 208 S. La Salle St., Chicago, Ill. 60604; 3,193; Pres., Morton D. Miller.

Adirondack Mountain Club (1923), Gabriels, N. Y. 12939; 3,805; Sec., F. F. Loops.

Administrative Management Society (1919), Maryland Rd., Willow Grove, Pa. 19090; 15,000; Exec. Dir., Robert C. Walter.

Adult Education Assn. of the U. S. A. (1951), 1225 19th St., N.W., Wash., D. C. 20036; 4,200; Exec. Dir., Dr. Eugene I. Johnson.

Advancement of Management, Soc. for (1912), 1472 Broadway, New York, N. Y. 10036; 16,000; Sec., William Mumpower.

Adventurers Club of N. Y. (1912), 54 West 40th St., New York, N. Y. 10018; 270; Pres., Herman W. Kitchen.

Advertisers, Assn. of National (1910), 155 East 44th St., New York, N. Y. 10017; 525 companies; Pres., Peter W. Allport.

Advertising Agencies, American Assn. of (1917), 200 Park Ave., New York, N. Y. 10017; 355 agencies; Pres., John Crichton.

Advertising Club of New York (1906), 23 Park Ave., New York, N. Y. 10016; 2,100; Sec., Arthur V. Schmitt.

Advertising Federation, American (1905), 655 Madison Ave., N. Y., N. Y. 10021; 40,000; Pres., Howard H. Bell.

Aeronaautical Historical Assn., Connecticut (1959), Box 44, Hebron, Conn. 06248; 400; Pres., Harvey H. Lippincott.

Aeronautic Assn., Natl. (1905), 806 15th St., N.W., Washington, D. C. 20005; 7,000; Pres. James F. Nields.

Aeronautics and Astronautics, American Inst. of (1963), 1290 Ave. of the Americans, New York, N. Y. 10019; 33,000; Sec., James J. Harford.

Aerospace Industries Assn. of America (1919), 1725 DeSales St., N.W., Washington, D. C. 20036; 88; Sec., Samuel L. Wright.

Aerospace Medical Association (1929), Washington National Airport, Washington, D. C. 20001; 4,920; Sec., Merrill H. Goodwin.

Agricultural Economics Assn., American (1967), Warren Hall, Cornell Univ., Ithaca, N. Y. 14850; 4,200; Sec., C. D. Kearn.

Agricultural Engineers, American Society of (1907), P. O. Box 229, 420 Main St., St. Joseph, Mich. 49085; 6,209; Exec. Sec., J. L. Butt.

Agricultural History Society (1919), Exec. Sec., Wayne D. Rasmussen, c/o Economic Research Services, U. S. Dept. of Agriculture, Washington, D. C. 20250.

Agromony, American Soc. of (1907), 677 So. Segoe Rd., Madison, Wis. 53711; 6,509; Sec., Dr. Mathias Stelly.

Ahepa, Order of (1922), 1422 K St., N.W., Washington, D. C. 20005; 26,500; Exec. Sec., George J. Leber.

Air Force Aid Society (1942), Washington, D. C. 20033; 22,000; Sec., Carl H. McClure III.

Air Force Association (1946), 1756 Pennsylvania Ave., N.W., Washington, D. C. 20006; 92,000; Sec., Glenn D. Mishler.

Air Force Sergeants Association (1961), 1501 Pennsylvania Ave., S.E., Washington D. C. 20003; 18,000; Exec. Dir., Joseph F. Brosnan.

Air Line Pilots Assn. (1931), 55th St., & Cicero Ave., Chicago, Ill. 60638; 31,000; Pres., Charles H. Ruby.

Air Pollution Control Assn. (1907), 4400 Fifth Ave., Pittsburgh, Pa. 15213; 4,700; Sec., Arnold Arch.

Air Transport Assn. of America (1936), 1000 Connecticut Ave., N.W., Washington, D. C. 20036; 36 airlines; Sec., Frederick Davis.

Aircraft Owners and Pilots Assn. (1939), 4650 East-West Highway, Bethesda, Md. 20014; 150,000; Pres., J. B. Hartranft, Jr.

Alcoholic Anonymous (1935), 305 E. 45th St., New York, N. Y. 10017; 400,000; address communications to secretary.

Alcohol Problems, American Council on (successor to National Temperance League) (1895), 119 Constitution Ave. N. E., Washington, D. C. 20002; Exec. Dir., Rev. Billy E. McCormack.

Allergy, American Academy of (1943), 756 N. Milwaukee St., Milwaukee, Wis. 53202; 1,803; Exec. Sec., James O. Kelley.

Allied Youth (1931), Rosslyn Building, 1901 Ft. Myer Drive, Arlington, Va. 22209; 15,000; Deputy Dir., Rubye Kelley.

Alpine Club, American (1902), 113 East 90th St., New York, N. Y. 10028; 800; Sec., J. P. McCarthy.

Altrusa International (1917), 332 So. Michigan Ave., Chicago, Ill. 60604; 18,850; Dir. Pub., Lucille Hecht.

Aluminum Assn. (1933), 420 Lexington Ave., New York, N. Y. 10017; 74 companies; Exec. Sec., Richard A. Lillquist.

Alumni Council, American (1913), 1707 N St., N.W., Washington, D. C. 20036; 1,450; Sec., George Cooke, Jr.

American Citizens of German Descent, Federation of (1946), 59-17 Palmetto St., Ridgewood, N. Y. 11227; 2,300; Sec., Edmund Eckhardt.

American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) (Dec. 5, 1955, by merging American Federation of Labor, estab. 1881 and Congress of Industrial Organizations, estab. 1935), 815-16th St., N.W., Washington D. C. 20006; 14,300,000; Pres., George Meany; Sec. Treas., William F. Schnitzler.

American Field Service (1914), 313 E. 43rd St., New York, N. Y. 10017; Pres., Arthur Howe, Jr.

American Latvian Association (1951), Suite 913 Shoreham Bldg., 806 15th St. N.W., Washington, D. C. 20005; 10,000; Sec. Gen., Bruno Albats.

American Legion, The (Mar. 15, 1919), 700 No. Pennsylvania St., Indianapolis, Ind. 46204; 2,381,339; Natl. Comdr., William E. Galbraith; Natl. Adj., William F. Hauck.

American Legion Auxiliary (Nov. 10, 1919), 777 No. Meridian St., Indianapolis, Ind. 46204; 910,204; Natl. Sec., Miss Doris Anderson.

American Medical Association (1847), 535 North Dearborn, Chicago, Ill. 60610; 215,807; Exec. V.P., Dr. F. J. L. Blasingame.

American-Scandinavian Foundation (1910), 127 East 83rd St., New York, N. Y. 10021; 5,400; Pres., Corning P. Strong.

American Society for Prevention of Cruelty to Animals (1866), 441 East 92nd St., New York, N. Y. 10028; Sec., John W. Ream.

American Swedish Historical Foundation (1926), 1900 Pattison Ave., Philadelphia, Pa. 19145; 1,200; Pres., Dr. Walter G. Nord.

American Training Corps (1961), 107-12 Jamaica Ave., Richmond Hill, N. Y. 11418; 600; Commandant, P. E. Kendall.

American Veterans of World War II and Korea (AMVETS) (1944), 1710 Rhode Island Ave., N.W., Washington, D. C. 20036; 200,000; Natl. Exec. Dir., Ralph E. Hall.

AMVETS Natl. Auxiliary (1946), 3607 Maple Grove Dr., Grove City, Ohio 43123; 15,000; Sec., Kathleen Hengely.

Amputation Foundation, National (1919), 12-45 150th St., Whitestone, L. I. N. Y. 11357; 2,500; Sec., Sol Kaminsky.

Antarctic Association, American (1944) 6323 Wisconsin Rd., N.W., Washington, D. C. 20016; Pres., Capt. Finn Ronne.

ANUSRE (Ret.), American (1902), 3700 Mass. Ave., N.W., Washington, D. C. 20016; 5,200; Pres., Dr. Irving Rouse.

Antiquarian Society, American (1812), 185 Salisbury St., Worcester, Mass. 01609; 225; Dir., M. A. McCollison.

Antique Automobile Club of America (1935), West Derry Rd., Hershey, Pa. 17033; 20,578; Pres., John Lambert, Jr.

Appalachian Mountain Club (1876), 5 Joy St., Boston, Mass. 02108; 12,000; Exec. Dir., C. Francis Belcher.

Appraisers, American Soc. of (1955), 1101 17th St., N.W., Washington, D. C. 20036; 2,910; Exec. Dir., Richard Eppstein.

Arbitration Association, American (1926), 140 W. 51st St., New York, N. Y. 10020; Sec., Edwin W. Dippold.

Archaeological Institute of America (1879), 100 Washington Square East, New York, N. Y. 10003; 5,500; Sec., Claireve Grandjean.

Architects, American Institute of (1857), 1735 New York Ave., N.W., Washington, D. C. 20007; 22,200; Exec. Dir., William H. Scheick.

Architects, New York Society of (1911), 101 Park Ave., New York, N. Y.; 650; Pres., Fred L. Liebmann.

Archivists, Society of American (1936). Wayne State Univ., Detroit, Mich. 48202; 2,100; Sec., Dr. Philip P. Mason.

Armed Forces Communications and Electronics Association (1946). 1725 Eye Street N.W., Washington, D. C. 20006; 13,000; Gen. Mgr., Col. W. J. Baird, USA, Ret.

Army and Navy Union of USA (1886). 1391 Main St., Lakemore, Ohio 44250; 50,000; Natl. Adjt., Joseph P. Burger.

Art Society of N. Y., Municipal (1898). 41 E. 65th St., New York, N. Y. 10021; 1,300; Exec. Sec., Frederick Williams.

Art Students League of N. Y. (1875). 215 West 57th St., New York, N. Y. 10019; 4,500; Pres., Walker G. Everett.

Artists of America, Allied (1914). 1093 Fifth Ave., New York, N. Y. 10028; 349; Sec., Frank Liljeberg.

Artists, American Federation of (1909). 41 E. 65th St., New York, N. Y. 10021; 3,500; Sec., Hudson Walker.

Arts and Letters, American Academy of (1904). 633 West 155th St., New York, N. Y. 10032; 48; Sec., John Hersey.

Arts and Letters, National Institute of (1898 as Amer. Social Science Assn.). 633 West 155th St., New York, N. Y. 10032; 244; Sec., William Maxwell.

Arts and Sciences, American Academy of (1780). 280 Newton St., Brookline, Mass. 02138; 2,000; Pres., Talcott Parsons.

Arts, Associated Councils of the (1965). 1564 Broadway, N. Y., N. Y. 10036; 550; Exec. Dir., Ralph Burgard.

Arts Federation of New York, Fine (1895). 115 E. 40th St., N. Y., N. Y. 10016; 6,434; Pres., William Ballard.

Assistance League, National (1935). 5538 Fernwood Ave., Hollywood, Calif. 90028; 10,000; Pres., Mrs. Burton Collins.

Associated Press, The (1848). 50 Rockefeller Plaza, New York, N. Y. 10020; Sec., Harry T. Montgomery.

Astronautical Society, American (1952). 1629 K St., N.W., Washington, D. C. 20006; 1,700; Sec., Mrs. Sandra Steinberg.

Astronomical Society, American (1899). Univ. of Illinois Observatory, Urbana, Ill. 61801; 2,300; Sec., G. C. McVittie.

Athens, American Assn. for the Advancement of (1925). P. O. Box 2832, San Diego, Calif. 92112; 75; Pres., James Johnson.

Athletes of America, Intercollegiate Assn. of Amateur (1876). Hotel Manhattan, 8th Ave. at 44th St., New York, N. Y. 10036; 77 colleges; Sec., Asa S. Bushnell.

Athletic Associations, Natl. Federation of State High School (May 14, 1920). 7 So. Dearborn St., Chicago, Ill. 60603; 50 State Assns.; Sec., Clifford B. Fagan.

Athletic Conference, Eastern College (1938). Hotel Manhattan, 8th Ave. at 44th St., New York, N. Y. 10036; 161 colleges; Sec., Asa S. Bushnell.

Athletic Union of the U. S., Amateur (1888). 231 West 58th St., New York, N. Y. 10019; Pres., David A. Marlin.

Attorneys General, National Assn. of (1907). 1313 East 60th St., Chicago, Ill. 60637; 54; Pres., Frank Kelley.

Audit Bureau of Circulations (1914). 123 N. Wacker Dr., Chicago, Ill. 60606; 4,100; Pres., Alan Wolcott.

Audubon Society, National (1905). 1130 Fifth Ave., New York, N. Y. 10028; 65,069; Exec. V. P., Charles H. Callison.

Authors and Composers, American Guild of (1931). 50 W. 57th St., New York, N. Y. 10019; 2,089; Exec. Dir., Miriam Stern.

Authors League of America (1912). 234 W. 44th St., N. Y., N. Y. 10033; 4,700; Exec. Sec., Mills Ten Eyck, Jr.

Automobile Association, American (1902). 1712 G St., N.W., Washington, D. C. 20006; 10,900,000; Pres., George M. Fraumenheim.

Automobile Club, National (1924). 65 Battery St., San Francisco, Calif. 94111; 355,000; Sec., Bert Stewart.

Automobile Dealers Assn., National (1917). 2000 K St., N.W., Washington, D. C. 20006; 22,000; Sec., Archie Pozzi, Jr.

Automobile Manufacturers Association (1913). 320 New Center Bldg., Detroit, Mich. 48202; 11 companies; Pres., Thomas Mann.

Automobile Touring Alliance, American (1932). 220 So. Broad St., Philadelphia, Pa. 19102; 560,000; Sec., William Berry.

Automotive Engineers, Society of (1905). 2 Pennsylvania Plaza, New York, N. Y. 10001; 26,544; Sec., Joseph Gilbert.

Automotive Old Timers (1939). P. O. Box 62, Warrenton, Va. 22186; 2,350; Sec., Miss Dorothy Ross.

Aztec Club of 1847 (1847). 5225 Westpath Way, Washington, D. C. 20036; 134; Sec., J. Conway Hunt.

—B—

Babysitter Registries, National Association of (1957). 2145 West Wilshire Dr., Phoenix, Ariz. 85009; 20-26 registries; Sec., Virginia Pearson.

Ball Players of America, Assn. of Professional (Oct. 9, 1924). 650 So. Spring St., Room 1026, Los Angeles, Calif. 90014; Sec., Charles Stevens.

Bankers Association, American (1875). 90 Park Ave., New York, N. Y. 10016; 18,365 banks incl. branches; Exec. Mgr., Charles E. Walker.

Bankers Assn., Independent (1930). 1168 S. Main St., Sauk Centre, Minn. 56378; 6,543 banks; Exec. Dir., Howard F. Bell.

Bar Association, American (1878). 1155 East 60th St., Chicago, Ill. 60637; 129,000; Sec., William Reese Smith, Jr.

Bar Assn., Federal (1920). 1815 H Street, N.W., Washington, D. C. 20006; 13,200; Exec. Sec., Miss Betty Baker.

Barber Shop Quartet Singing in America, Society for the Preservation and Encouragement of (1938). 6315 Third Ave., Kenosha, Wis. 53141; 31,000; Exec. Dir., Barrie Best.

Barbers and Beauticians of Amer., Associated Master (1924). 219 Greenwich Rd., P. O. Box 17782, Charlotte, N. C. 28211; 12,000; Pres., Paul B. Sparaco.

Baseball Congress, National (1931). Box 1420 Wichita, Kan. 67201; 4,000 teams; Sec., Larry Davis.

Baseball Leagues, Natl. Assn. of Professional (1901). 720 E. Broad St., Columbus, Ohio 43215; 21 leagues; Pres., Phillip Piton.

Battleship Assn., American (1964). P. O. Box 11247, San Diego, Calif. 92111; 2,500; Sec., Margaret Graham.

Belgian American Educational Foundation (1920). 420 Lexington Ave., New York, N. Y. 10017; Sec., Miss Margaret Fennessy.

Better Business Bureau, Assn. of (1921). 405 Lexington Ave., New York, N. Y. 10017; 135 bureaus; Pres., Victor H. Nyborg.

Bible Society, American (1816). 1865 Broadway, N. Y., N. Y. 10023; 977,185; Gen. Sec., Rev. Robert T. Taylor.

Biblical Literature, Society of (1880). Vanderbilt Divinity School, Nashville, Tenn. 37203; 2,488 Exec. Sec., Robert Funk.

Bibliographical Society of America (1904). P. O. Box 397, Grand Central Sta., New York, N. Y. 10017; 1,484; Sec., Dr. James Heslin.

Bicycle Institute of America (1919). 122 East 42nd St., New York, N. Y. 10017; 250 companies; Exec. Sec., John Auerbach.

Bicycle League of America, Amateur (1920). 4233 205th St., Bayside, L. I., N. Y. 11361; 5,000; Sec., Frank Small.

Big Brothers of America (1947). 341 Suburban Station Bldg., Philadelphia, Pa. 19103; 128 chapters; Sec., Margaret M. Hanley.

Bill of Rights Day Assn., American (1941). 39 Highlawn Ave., Brooklyn, N. Y. 11223; 1,000; Natl. Dir., Vincent Rossini.

Billiard Congress of America (1948). 20 No. Wacker Dr., Chicago, Ill. 60606; 300; Sec., Don L. Neer.

Biological Chemists, American Society of (1906). 9650 Rockville Pike, Bethesda, Md. 20014; 2,500; Exec. Officer, R. A. Harte.

Blind, American Foundation for the (1921). 15 W. 16th St., New York, N. Y. 10011; Exec. Dir., M. Robert Barnett.

Blind, N. Y. Assn. for the (1905). 111 East 59th St., New York, N. Y. 10022; Sec., John L. McCormick.

Blinded Veterans Association (1945). 2430 Pennsylvania Ave., N.W., Washington, D. C. 20037; 1,200; Admin. Dir., Jack H. Street.

Blindness, Natl. Society for the Prevention of (1908). 79 Madison Ave., N. Y., N. Y. 10016; 131,576; Sec., Charles C. MacLean, Jr.

Blindness, Research to Prevent (1960). 598 Madison Ave., N. Y., N. Y. 10022; Exec. Dir., David F. Weeks.

Blizzard Men and Ladies of 1888 (Mar. 12, 1929). 6384 Fitchett St., Forest Hills, L. I., N. Y. 11374; 200; Sec., Fred Schneider.

Blood Banks, American Assn. of (1947). 30 North Michigan Ave., Chicago, Ill. 60602; 4,200; Sec., Wm. G. Battalle, M.D.

B'nai B'rith (Oct. 13, 1843). 1640 Rhode Island Ave., N.W., Washington, D. C. 20036; 500,000; Exec. V. P., Rabbi Jay Kaufman. Component units include: B'nai B'rith Hillel Foundations (1925).

Natl. Dir. Rabbi Benjamin M. Kahn; B'nai B'rith Youth Organization (1924). Natl. Dir., Dr. Max F. Baer. Other units: B'nai B'rith Women, Anti-Defamation League of B'nai B'rith, and B'nai B'rith Vocational Service.

Board of Trade of the City of Chicago (1848). 141 West Jackson Blvd., Chicago, Ill. 60604; 1,402; Sec., Warren W. Lebeck.

Board of Trade, New York (1873). 642 Fifth Ave., New York, N. Y. 10019; 1,400; Exec. V. P., Neil H. Anderson.

Boating Law Administrators, Natl. Assn. of State (1962), State Office Bldg., Annapolis, Md. 21404; 100; Pres., William Matthews, Jr.

Book Manufacturers' Institute (1933), 161 E. 42nd St., N. Y., N. Y. 10017; 122 companies; Exec. Dir., Robert M. Peck.

Booksellers Association, American (1900), 175 Fifth Ave., New York, N. Y. 10010; 2,700; Exec. Dir., Joseph A. Duffy.

Botanical Society of America (1906), Dept. of Botany, Indiana Univ., Bloomington, Ind. 47401; 3,200; Sec., Richard C. Starr.

Bowling Congress, American (Sept. 9, 1895), 1572 E. Capitol Dr., Milwaukee, Wis. 53211; 4,500,000; Exec. Sec., Frank K. Baker.

Bowling Congress, Woman's International (1916), 1225 Dublin Rd., Columbus, O. 43212; 2,896,693; Pres., Alberta E. Crowe.

Bowls Assn., American Lawn (1915), 10337 Cheryl Dr., Sun City, Ariz. 85351; 10,500; Sec., John W. Delist.

Boy Scouts of America, National Council (Feb. 8, 1910), New Brunswick, N. J. 08903; 6,058,508; Chief Scout Exec., Alden G. Barber.

Boy Scouts of America, Greater N. Y. Councils (1922), 25 W. 43rd St., N. Y., N. Y. 10036; 87,160 boys, 30,000 adults, Scout Exec., Dan O. Henry.

Boys' Brigades of America, United (Nov. 4, 1893), 512 Overbrook Rd., Baltimore, Md. 21212; Maj. Gen., Walter A. Koerber.

Boys' Clubs of America (1906), 771 First Ave., New York, N. Y. 10017; 1,000,000; Sec., Grant B. Simmons.

Brewers Assn., U. S. (1862), 535 Fifth Ave., New York, N. Y. 10017; Pres., Henry B. King.

Brith Abraham (1887), 37 East 7th St., New York, N. Y. 10003; 10,000; Sec., Louis Clark.

Brith Sholom (1905), 121 S. Broad St., Philadelphia, Pa. 19107; 20,000; Exec. Dir., Albert Liss.

Broadcasters, Natl. Assn. of (1922), 1812 K St., N.W., Washington, D. C. 20006; 4,128; Sec., Everett E. Revercomb.

Burroughs Bibliophiles (1960), 454 Elaine Dr., Pittsburgh, Pa. 15236; 825; Pres., Clarence B. Hyde.

Business Clubs, Natl. Assn. of American (1922), P.O. Box 5127, High Point, N. C. 27622; 4,500; Sec., H. C. Pearson.

Business Education Association, National (1892), 1201 16th St., N.W., Washington, D. C. 20036; 13,920; Exec. Dir., Hollis Guy.

Business Law Association, American (1923), Dept. of Business Law., Bowling Green State Univ., Bowling Green, Ohio 43402; 450; Pres., Mr. Russell Decker.

Business Press Editors, American Society of 1012 14th St., N.W., Washington, D. C. 20005; 300; Exec. V. P., Calvin K. Snyder.

Business Communication Association, American (1935), 317b David Kinley Hall, Urbana, Ill. 61801; 1,000; Exec. Dir., Francis W. Weeks.

Button Society of America, Natl. (1938); 353 Stockton St., Hightstown, N. J. 08520; 2,342; Pres. Mrs. Edith A. Rodway.

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Camp Fire Girls (1910), 65 Worth St., New York, N. Y. 10013; 580,351; Pres., Mrs. Alan P. Bedford.

Camping Assn. American (1910), Bradford Woods, Martinsville, Ind., 46151; 7,200; Exec. Dir., Ernest F. Schmidt.

Cancer Society, American (1913), 219 E. 42nd St., New York, N. Y. 10017; 182; Sec., Joseph S. Silber.

Canners Assn., National (1907), 1133 20th St., N.W., Washington, D. C. 20036; 560; Exec. V. P., Milan D. Smith.

Capital Punishment, American League to Abolish (1927), 14 Irving St., Brookline, Mass. 02147; 2,000; Exec. Dir., Mrs. Herbert B. Ehrmann.

Captive European Nations, Assembly of (1954), 29 West 57th St., New York, N. Y. 10019; Sec., Felix Gadowski.

CARE (Cooperative For American Relief Everywhere) (1945), 660 First Ave., New York, N. Y. 10016; Exec. Dir., Frank L. Goffo.

Carl Schurz Assn., Natl. (1930), 339 Walnut St., Philadelphia, Pa.; 3,916; Exec. Dir., Alice H. Finckh.

Cartoonists Society, Natl. (1946), 130 W. 44th St., New York, N. Y. 10018; 450; Pres., Jerry Robinson.

Catholic Assn. for International Peace (1927), 1312 Massachusetts Ave., N.W., Washington, D. C. 20005; Pres., Dr. William V. O'Brien.

Catholic Charities, Natl. Conference of (1910), 1346 Connecticut Ave., N.W., Washington, D. C. 20036; 6,000; Sec. Very Rev. Msgr. Lawrence J. Corcoran.

Catholic Church Extension Society (1905), 1307 S. Wabash Ave., Chicago, Ill. 60605; Gen. Sec., Rev. Joseph A. Cusack.

Catholic Civics Clubs of America (1940), Commission on American Citizenship, Catholic Univ. of America, Washington, D. C. 20017; 200,000; Exec. Head, W. Wingate Snell.

Catholic Daughters of America (1903), 10 West 71st St., New York, N. Y. 10023; 205,000; Supr. Sec., Mrs. Manilla J. Caprine.

Catholic Hospital Assn. (1915), 1438 So. Grand Blvd., St. Louis, Mo. 63104; 899 hospitals; Exec. Dir., Rev. Thomas Casey, S.J.

Catholic Office for Motion Pictures, Natl. (1934), 453 Madison Ave., N. Y., N. Y. 10022; Exec. Sec., Rev. Patrick J. Sullivan.

Catholic Press Assn. (1911), 432 Park Ave., So., New York, N. Y. 10016; 520; Exec. Sec., James A. Doyle.

Catholic Rural Life Conference, National (1923), 3801 Grand Ave., Des Moines, Iowa 50312; 4,000; Sec., Rev. John George Weber.

Catholic War Veterans of U. S. A. (1935), 2 Massachusetts Ave., N.W., Washington, D. C. 20001; 50,000; Natl. Comm., Martin G. Riley.

Catholic Welfare Conference, National (1919), 1312 Massachusetts Ave., N.W., Wash., D. C. 20005.

Ceramic Society, American (1899), 4055 No. High St., Columbus, O. 43214; 7,210; Gen. Sec., Frank R. Koenig.

Cerebral Palsy Association, United (1949), 66 East 34th St., New York, N. Y.; Pres., Palmer Turnheim.

Chamber of Commerce of the U. S. (1912), 1615 H St., N.W., Washington, D. C. 20006; Exec. V. P., Arch N. Booth.

Charge Account Bankers Assn. (1952), 375 Jackson Ave., St. Louis, Mo. 63130; 126; Sec., Arthur H. Hert.

Charities Aid Assn., State (May 11, 1872), 105 East 22d St., New York, N. Y. 10010; 250; Exec. Dir., Gordon E. Brown.

Chartered Life Underwriters, American Society of (1946), 270 Bryn Mawr Ave., Bryn Mawr, Pa. 19010; 14,000; Exec. V. P., Paul S. Mills.

Chautauqua Institution (1876), Chautauqua N. Y. 14722; 598; Pres., Curtis W. Haug.

Chemical Engineers, American Inst. of (1908), 345 East 47th St., New York, N. Y. 10017; 33,973; Sec., F. J. van Antwerpen.

Chemical Society, American (1876), 1155 16th St., N.W., Washington, D. C. 20036; 109,700; Exec. Sec., Dr. B. R. Stanerson.

Chemists, Amer. Inst. of (1923), 60 East 42d St., New York, N. Y. 10017; 3,500; Sec. John Kotrady.

Chicago Crime Commission (1919), 79 W. Monroe St., Chicago, Ill. 60603; 235; Admin. Asst., Nat Cosnow.

Chief Warrant and Warrant Officers Assn., USCG (1929), P. O. Box 574, Benjamin Franklin Sta., Washington, D. C. 20044; 2,300; Pres., John A. Kelley.

Child Study Assn. of America (1888), 9 East 89th St., New York, N. Y. 10028; 3,500; Pres., Mrs. Herbert W. Haldenstein.

Child Welfare League of America (1920), 44 East 23rd St., New York, N. Y. 10010; 369 member agencies; Exec. Dir., Joseph H. Reid.

Children of the American Revolution, Natl. Society (1895), 1776 D St., N.W., Washington, D. C. 20006; 17,000; Exec. Sec., Mrs. David D. Porter.

Children's Aid Society (1853), 105 East 22nd St., New York, N. Y. 10010; Pres., John S. Griswold.

Children's Book Council (1945), 175 Fifth Ave., New York, N. Y. 10010; 82; Sec., John Donovan.

Chinese Women's Association (1932), 5432 152nd St., Flushing, N. Y. 11355; 358; Sec., Katharine E. Lee.

Chiropractic Association, American (1937), 2200 Grand Ave., Des Moines, Ia. 50306; 7,300; Pres., Dr. S. C. Birdsey.

Chiropractors Association, International (1926), 741 Brady St., Davenport, Iowa 52808; 4,500; Pres., Dr. L. W. Rutherford.

Choral Conductors Guild (1952), P.O. Box 714, Mt. Vernon, N. Y. 10551; 2,800; Pres., Roy Anderson.

Cincinnati, Society of the (1783), 2118 Massachusetts Ave., N.W., Washington, D. C. 20008; 2,440; Sec. Gen., Irving C. Hanners.

Circus Fans Assn. of America (1926), P.O. Box 605 Aurora, Ill. 60507; 1,700; Sec., Herman J. Linden.

Circus Saints & Sinners Club of Amer., Dexter Fellows Tent of the (1935), 441 Lexington Ave., New York, N. Y. 10017; 900; Exec. Sec., Herbert Walmsley.

Cities, Natl. League of (1924), City Bldg., 1612 K St., N.W., Rm. 600, Washington, D. C. 20006; 14,400; municipalities; Exec. Dir., Patrick Healy.

City Club of N. Y. (1892), 6 West 48th St., New York, N. Y. 10036; 500; Pres. Stanley Turkel.

City Managers' Association, International (1914), 1313 East 60th St., Chicago, Ill. 60637; 4,128; Exec. Dir., Orin F. Nolting.

Civil Engineers, American Society of (1852), 345 East 47th St., New York, N. Y. 10017; 60,421; Exec. Sec., William H. Wisely.

Civil Liberties Union, Amer. (1920), 156 Fifth Ave., New York, N. Y. 10010; 110,000; Exec. Dir., John de J. Pemberton.

Civil Service League, Natl. (1881), 1346 Connecticut Ave., N. W., Washington, D. C. 20036; 2,000;

Pres., Mortimer M. Caplin.

Civil War Round Table of N. Y. (1950), 289 New Hyde Park Rd., Garden City, N. Y. 11530. 450; Sec., Arnold Gates.

Civitan International (April 15, 1920), 115 North 21st St., Birmingham, Ala. 35203; 45,000; Exec. Sec., Rudolph T. Hubbard.

Clay Products Institute, Structural (1934), 1750 Old Meadow Rd., McLean, Va., 22101; 78 companies; Sec. Charles N. Farley.

Clinical Pathologists, American Society of, (1922), 445 N. Lake Shore Dr., Chicago, Ill. 60611; 5,500; Sec., William D. Dolan, M.D.

Coal Association, National (1917), Coal Bldg., 1130 17th St., N. W., Washington, D. C. 20036; 250; Pres., Stephen F. Dunn.

Coast Guard League (1944), U. S. Coast Guard, Washington, D. C. 20226; 3,500; Exec. Dir., Commander A. J. Caliendo.

Cocoa Exchange, New York (1925), 92 Beaver St., New York, N. Y. 10005; 183; Pres., Julian Hemphill.

Coffee and Sugar Exchange, New York, (1882), 79 Pine St., New York, N. Y. 10005; 337; Exec. Dir., E. B. Dexter.

Collectors' Association, American (1939), 5011 Ewing Ave. South Minneapolis, Minn. 55410; 2,600; Exec. V. P., John W. Johnson.

College Entrance Examination Board (1900), 475 Riverside Dr., New York, N. Y. 10027; 782 colleges and universities, 237 secondary schools; Sec., Miss Anne Speirs.

College Physical Education Assn. for Men, National (1897), 203 Cooke Hall, Univ. of Minnesota, Minneapolis, Minn. 55455; 1,150; Sec., C. E. Mueller.

College Placement Council (1956), 35 E. Elizabeth Ave., Bethlehem, Pa. 18018; 8 regional assns.; Exec. Dir., Robert F. Herrick.

College Public Relations Assn. Amer. (1917), 1785 Massachusetts Ave., N.W., Washington, D. C. 20036; 1,130 colleges and universities; Exec. V. P., John W. Leslie.

College of Medical Technologists (1942), 406 West Andrews Ave., Wildwood, N. J. 600; Sec., Clinton J. Newman.

College of Physicians, American (1915), 4200 Pine St., Philadelphia, Pa. 19104; 13,429; Exec. Dir., Edward C. Rosenow, Jr., M.D.

College of Surgeons, American, (1913), 55 E. Erie St., Chicago, Ill. 60611; 29,000 in 88 countries; Sec., Dr. Samuel P. Harbison.

College of Surgeons, International, (1935), 1516 N. Lake Shore Dr., Chicago, Ill. 60610; 12,000; Sec., Dr. Aldo Parentela.

Colleges, Assn. of American (1915), 1818 R St., N.W., Washington, D. C. 20009; 892 institutions; Chairman, Calvert M. Ellis.

Collegiate Athletic Assn., National (1906), 1221 Baltimore, Kansas City, Mo. 64105; 694; Pres., Marcus L. Plant.

Collegiate Schools of Business, American Assn. of (1916), 101 N. Skinner Blvd., St. Louis, Mo. 631; 127 schools; Exec. Sec., Dir., Cyril C. Ling.

Colonial Dames of America (1890), 421 East 61 St., New York, N. Y. 10021; 2,000; Exec. Sec., Mrs. C. R. Botsford.

Colonial Dames XVII Century, National Society, (1915), 2009 N St., Washington, D. C. 20036; 5,619; Sec., Mrs. Richard O'Bannon.

Colonial Wars, Society of (1892), 342 Madison Ave., N. Y., N. Y. 10017; 4,165; Gov. Gen., Nathaniel C. Hale.

Columbia University Club (1901), 4 West 43rd St., New York, N. Y. 10036; 1,380; Pres., Herbert G. MacIntosh.

Commerce and Industry Association of New York (1897), 99 Church St., N. Y., N. Y. 10007; 3,500; Sec., Arnold Witte.

Commercial Law League of America (1895), 222 West Adams St., Chicago, Ill. 60606; 4,700; Sec., Leo E. Smith.

Commercial Travelers of America, Order of United (Jan. 16, 1888), 632 No. Park St., Columbus, Ohio 43215; 247,000; Sup. Sec., L. B. Hart.

Community Councils of the City of N. Y. (1917), 201 West 80th St., New York, N. Y. 10024; 68,000; Sec., Edward T. Russell.

Community Service Society of N. Y. (1939 by merger of Assn. for Improving Condition of the Poor, 1843, and Charity Organization Soc. of N. Y., 1882), 105 22d St., New York, N. Y. 10010; 186; Pres., Clifton W. Phelen.

Companions of the Forest of America (June 1, 1885), 250 West 57th St., New York, N. Y. 10019; 250,000; Sec., Mrs. Alma Claire Clark.

Compensation Insurance Rating Board, New York (1914), 200 East 42nd St., New York, N. Y. 10017; 181; Gen. Mgr., Henry W. Menzel.

Composers, Authors, and Publishers, American Society of (ASCAP) (1914), 575 Madison Ave., N. Y., N. Y. 10022; 11,100; Dir. Pub. Rel., Richard P. Froelich.

Computing Machinery, Assn. for (1947), 211 East 43rd St., New York, N. Y. 10017; 23,000; Exec. Sec., Mrs. Irene Hollister.

Concrete Institute, American (1904), 22400 W. 7 Mile Rd., Detroit, Mich. 48219; 14,000; Sec., William A. Maples.

Congress of Racial Equality (1941), 200 West 135th St., New York, N. Y. 10030; 3,000; Natl. Dir., Roy Innis.

Consulting Chemists and Chemical Engineers, Association of (1928), 50 E. 41st St., New York, N. Y. 10017; 110; Exec. Sec., Mrs. Agnes Peterson.

Consulting Engineers, American Institute of (1910), 335 East 47th St., New York, N. Y. 10017; 407; Sec., T. T. McCroskey.

Consulting Management Engineers, Assn. of (1929), 347 Madison Ave., New York, N. Y. 10017; 45 firms; Exec. Dir., Philip W. Shay.

Consumer Credit Assn., International (1912), 375 Jackson Ave., St. Louis, Mo. 63130; 58,500; Sec., Arthur H. Hert.

Contract Bridge League, Amer. (1927), 125 Greenwich Ave., Greenwich, Conn. 06830; 180,000; Exec. Sec., Easley Blackwood.

Cooperative College Projects, Council on (1956), Kentucky State College, Frankfort, Ky.; Pres., Dr. C. M. Hill.

Cooperative League of the U. S. A. (1916), 59 East Van Buren St., Chicago, Ill. 60605; Pres., Stanley Dreyer.

Cornell Club of N. Y. (1889), 155 East 50th St., New York, N. Y. 10022; 2,000; Pres., Joseph D. Tooker, Jr.

Correctional Association, American (1870), Woodridge Sta., P.O. Box 10176, Washington, D.C. 20018; 8,600; Gen. Sec., Dr. E. Preston Sharp.

Correctional Assn. of New York (1844), 135 East 15th St., New York, N. Y. 10003; 500; Gen. Sec., Donald H. Goff.

Cosmopolitan International (1919), P. O. Box 12186, Ft. Worth, Tex. 76116; 4,202; Exec. Sec., Paul Bryant.

Cotton Council of America, Natl. (Nov. 22, 1938), 1818 North Parkway, Memphis, Tenn. 38112; Exec. V. P., Wm. Rhes Blake.

Cotton Exchange, New York, (1870), 37 Wall St., New York, N. Y. 10005; 355; Sec., J. William Donaghy.

Counter Intelligence Corps Association, National, (1948), P. O. Box 762, Baltimore, Md. 21203; 8,000; Sec., Richard L. Goodbar.

Country Music Assn. (1958), 700 16th Ave. South, Nashville, Tenn. 37203; 2,000; Pres., Hubert Long.

Credit Management, National Assn. of (1896), 44 East 23rd St., New York, N. Y. 10010; 35,865; Exec. V. P., Robert L. Roper.

Crime and Delinquency, Natl. Council on (1907), 44 East 23rd St., New York, N. Y. 10010; 60,000; Dir., Milton G. Rector.

Criminology, American Assn. of (1953), Box 3014, Univ. Station, Eugene Ore. 97403; 2,500; Sec., W. A. Forester.

Crippled Children and Adults, Natl. Soc. for (1921), 2023 West Ogden Ave., Chicago, Ill. 60612; Exec. Dir., Sumner Whittier.

Crop Science Soc. of America (1954), 677 S. Segoe Rd., Madison, Wis. 53711; 2,576; Exec. Sec., Matthias Stelly.

Cryptogram Assn., American (1929), 405 William St., S.W., Decatur, Ala. 35601; 500; Treas., Frederic Flindt.

CUNA International (1934), 1617 Sherman Ave., Box 431, Madison, Wis. 53701; 52,147 credit unions; Pres., A. B. Glen.

Customs Brokers & Forwarders Assn. of America, National (1897), 26 Beaver St., N. Y., N. Y. 10004; 525; Exec. Sec., John F. Budd.

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Dairy Council, Natl. (1915), 111 No. Canal St., Chicago, Ill. 60606; 3,000; Pres., Ralph Charbeneau.

Dairy and Food Industries Supply Assn. (1912), 1145 19th St., N.W., Washington, D. C. 20036; 425 companies; Exec. V. P., Joseph S. Cunningham.

Dairy Science Assn., Amer. (1906), 903 Fairview Ave., Urbana, Ill. 61801; 2,400; Exec. Sec., Claude Cruse.

Dairymen's League Cooperative Assn. (1907), 100 Park Ave., New York, N. Y. 10017; 13,000; Pres., Lester W. Martin.

Dartmouth College Club (1925), 109 East 42nd St., N. Y., N. Y. 10017; 800; Sec., C. J. Schaefer.

Daughters of the American Revolution, Natl. Society (1890), 1776 D St., N.W., Washington, D. C. 20006; 186,926; Sec., Mrs. George J. Walz.

Daughters of the Cincinnati (1894), Sec., Mrs. Bronson Trevor, 122 E. 58th St., N. Y., N. Y. 369.

Daughters of the Confederacy, United (1894), 328 North Blvd., Richmond, Va. 23220; 35,000; Exec. Sec., Mrs. Kermitt F. Crippen.

Daughters of 1812, U. S. Natl. Society (Jan. 8, 1892), 1461 Rhode Island Ave., N.W., Washington, D. C. 20005; 3,700; Pres., Mrs. Cecil T. Hays.

Daughters of Isabella, (1897), 375 Whitney Ave., New Haven, Conn. 06511; 118,000; Supreme Sec., Miss Mary A. Barron.

Daughters of the Revolution, Natl. Society (1891), 132 Nassau St., New York, N. Y. 10038; 760; Pres., Mrs. Henry J. Castles.

Deaf, Alexander Graham Bell Assn. for the (1890), 1537 35th St., N.W., Washington, D. C. 20007; 7,000; Exec. Dir., George W. Fellendorf.

Deaf, Conference of Executives of American Schools for the (1868), 5115 MacArthur Blvd., Washington, D. C. 20016; 250; Pres., E. W. Tillinghast.

Deaf, National Assn. of the (1880), 2025 Eye St. N.W., Suite 311, Washington, D. C. 20006; 25,000; Exec. Sec., Frederick C. Schreiber.

Defenders of Bataan and Corregidor, American (1945), 5002 Columbia Pike, Arlington, Va. 22204; 2,700; Sec., J. Walter Foy.

Delta Kappa Gamma Society (1929), P. O. Box 1589, 416 West 12th St., Austin, Tex. 78767; 100,000; Exec. Sec., Miss Catherine Rathman.

DeMolay, Order of (Mar. 18, 1919), 201 East Armour Blvd., Kansas City, Mo. 64111; 163,800; Exec. Dir., Richard E. Harkins.

Dental Association, American, (1859), 211 E. Chicago Ave., Chicago, Ill. 60611; 110,000; Sec., Dr. Harold Hillenbrand.

Descendants of the Colonial Clergy, Society of the (1933), 44 Day St. South, West Granby, Conn. 06090; 554; Gov. Gen., Harold E. Mayo.

Descendants of the Signers of the Declaration of Independence (1907), 1300 Locust St., Philadelphia, Pa. 19107; 515; Pres., R. Adm. Schuyler N. Pyne.

Desert Protective Council (1954), Box 33, Banning, Calif. 92220; 560; Exec. Dir., Robert G. Bear.

Dialect Society, American (1889), Box 95, Prince Station, N. Y. N. Y. 10012; 525; Sec., Sumner Ives.

Dietetic Assn., American (1917), 620 No. Michigan Ave., Chicago, Ill. 60611; 20,000; Exec. Dir., Ruth M. Yakel.

Directors Guild of America (1936), 7950 Sunset Blvd., Los Angeles, Calif. 90046; 3,448; Exec. Sec., Joseph Youngman.

Disabled American Veterans (1921), 3725 Alexandria Pike, Cold Spring, Ky. 245,000; Natl. Adj. Denvel D. Adams.

Disaster Mobilization, Natl. Inst. for (1942), P. O. Drawer U, Lake Charles, La. 70601; 475; Exec. Dir., S. A. Anthony, Jr.

Divorce Reform, United States (1961), P. O. Box 243, Kenwood, Calif. 95452; 6,000; Exec. Dir., George Partis.

Drum Corps Publicists Assn. (1963), 34 Metropolitan Oval, Bronx, N. Y. 10462; 2,050; Pres., Harvey N. Berlish.

Ducks Unlimited (1937), 30 Rockefeller Plaza, New York, N. Y. 10020; 35,000; Sec., Henry E. Coe, III.

Duodecimal Society of America (1944), 20 Carlton Pl., Staten Island, N. Y. 10304; 155; Sec., Tom Linton.

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Eagles, Fraternal Order of (1898), 2401 W. Wisconsin Ave., Milwaukee, Wis. 53233; 850,000; Gr. Sec., Robert H. Maxson.

Eastern Star, Order of the, General Grand Chapter (1876), 1618 New Hampshire Ave., N.W., Washington, D. C. 20009; 3,000,000; Grand Sec., Mrs. Mamie Lander.

Econometric Society (1930), Box 1264 Yale Station, New Haven, Conn. 06520; 2,500; Pres., Frank Hahn.

Economic Assn., American (1885), Northwestern Univ., 629 Noyes St., Evanston, Ill. 60201; 16,675; Sec., Dr. Harold F. Williamson.

Economic Development, Committee for (1942), 711 Fifth Ave., New York, N. Y. 10022; 200 trustees; Sec., S. Charles Bleich.

Edison Electric Institute (1933), 750 Third Ave., New York, N. Y. 10017; Sec., John Thornborrow.

Editors, Internatl. Council of Industrial (1941), 2108 Braewick Circle, Akron, Ohio 44313; 3,000; Exec. Sec., Mrs. Geraldine Keating.

Education, American Council on (1918), 1785 Massachusetts Ave., N.W., Washington, D. C. 20036; Pres., Logan Wilson.

Education, Council for Basic (1956), 725 15th St., N.W., Washington, D. C. 20005; 3,200; Exec. Dir., Mortimer Smith.

Education Assn. of the U. S., Natl. (1857), 1201 16th St., N.W., Washington, D. C. 20036; 1,081,660; Exec. Sec., Sam M. Lambert.

Education, Society for the Advancement of (1939), 1860 Broadway, New York, N. Y. 10023; 905; Sec., Dr. William W. Brickman.

Education, Natl. Society for the Study of (1901), 5835 Kimbark Ave., Chicago, Ill. 60637; 5,500; Sec., Herman G. Richney.

Education of Young Children, Natl. Assn. for the (1931), 1629 21st St., N.W., Washington, D. C. 20009; 13,000; Pres., Evelyn Omwake.

Education Society, Comparative, (1957), College of Education, Univ. of Illinois, Urbana, Ill. 61801; 1,026; Sec. Dr. B. A. Yates.

Educational Broadcasters, Natl. Assn. of (1925), 1346 Connecticut Ave., N.W., Washington, D. C. 20036; 3,500; Sec., James A. Fellows.

Educational Publishing Institute, American (1942), 432 Park Ave., New York, N. Y. 10016;

110; Exec. Dir., Dr. Austin McCaffrey.

Educational Theatre Association, American, (1936), 726 Jackson Pl., N.W., Washington, D. C. 20566; 6,600; Sec. Dr. H. Beresford Managh.

Educational Research Assn., American (1915), 1126 16th St., N.W., Washington, D. C. 20036; 7,494; Exec. Officer, Richard A. Dersheimer.

80th Division Veterans Association (1919), 1085 Hillview Ave., Latrobe, Pa. 15650; 2,000; Sec., Robert E. Cook.

82nd Division Association, (1918), 28 East 39th St., New York, N. Y. 10016; 800; Sec., Ira L. Greenhut.

87th Infantry Division Assn. (1945), 52 Broadway, New York, N. Y. 10004; 900; Sec., Isidore Beerman.

Electric Railroaders Assn. (1934), 145 Greenwich St., New York, N. Y. 10006; 3,139; Sec., Herman Rink.

Electrical and Electronics Engineers, Inst. of (1884), 345 East 47th St., New York, N. Y. 10017; 160,000; Gen. Mgr., Donald G. Fink.

Electrical Manufacturers Assn., Natl. (1926), 155 East 44th St., New York, N. Y. 10017; 450 companies; Man. Dir., Joseph F. Miller.

Electrochemical Society (1902), 30 East 42nd St., New York, N. Y. 10017; 4,100; Exec. Sec., Ernest G. Enck.

Electronics Industries Assn., (1924), 2001 Eye St., N.W., Washington, D. C. 20006; 300 corporations; Sec., James D. Secret.

Electroplating Society, American (1909), 56 Melmore Gardens, E. Orange, N. J. 07117; 8,400; Sec., Rodney Leeds.

Elks, Benevolent and Protective Order of (Feb. 16, 1868), 2750 Lake View Ave., Chicago, Ill. 60614; 1,417,435; Gr. Ruler, Robert E. Boney.

Elks, Grand Temple Daughters of the Improved, Benevolent, Protective Order of (1902), 1023 Maltby Ave., Norfolk, Va. 23504; 50,000; Gr. Ruler, Mrs. Nettie Smith.

Elks, Improved, Benevolent, Protective Order of (1898), 1522 N. 16th St., Philadelphia, Pa. 19121; 450,000; Gr. Ruler, Hobson E. Reynolds.

Embroidery, Supreme Order of the U. S. A. (1926), 109 Henry St., Manchester, Conn. 06040; 35,000; Pres., Mrs. George Graziadio.

Emerson Society, The (1955), P. O. Box 1080, Hartford, Conn. 06101; 425; Chmn., Dr. K. W. Cameron.

Engine and Boat Manufacturers, Natl. Assn. of (1904), 420 Lexington Ave., New York, N. Y. 10017; 425; Sec., Peter M. Willson.

Engineering Education, Amer. Society for (1893), 2100 Pennsylvania Ave., N.W., Washington, D. C. 20037; 12,000; Exec. Sec., W. Leighton Collins.

Engineering, National Academy of (1964), 2101 Constitution Ave., N.W., Washington, D. C. 20418; 237; Exec. Sec., Harold Work.

Engineering Society, German (1958), 735 Geary St., San Francisco, Calif. 94109; 50,000; Pres., Dr. W. J. Sivel.

Engineering Trustees, United (1904), 345 East 47th St., New York, N. Y. 10017; Sec., John A. Zecca.

Engineers, Amer. Assn. of (1914), 8 So. Michigan Ave., Chicago, Ill. 60603; 4,300; Sec., M. E. McIver.

Engineers Joint Council (1945), 345 East 47th St., New York, N. Y. 10017; 40 societies; Sec., Carl Frey.

Engineers, Natl. Soc. of Professional (1934), 2029 K St., N.W., Washington, D. C. 20006; 66,000; Exec. Dir., Paul H. Robbins.

Engineers, Western Society of (1869), 314 S. Federal St., Chicago, Ill. 60604; 2,000; Sec., F. R. Bruce.

English Association, College (1939), California State College, Fullerton, Calif. 92631; 3,000; Exec. Dr., Donald Sears.

English-Speaking Union of the U. S. (1920), 16 East 69th St., New York, N. Y. 10021; 36,000; Sec., William G. Gridley.

Epilepsy Foundation of American (Jan. 1968, merger of Epilepsy Foundation and Epilepsy Assn. of America), 1419 H St., N.W., Washington, D. C. 20005; Sec., Mrs. Edward McSweeney.

Esperanto Assn., of No. Amer. (1905), 1837 N.E. 49th Ave., Portland, Ore. 97213; 621; Gen. Sec., George Alan Connor.

Esperanto Assn., Internatl. Catholic (1910), 38 Marcy Place, Bronx, N. Y. 10452; 1,600; U. S. Rep., Mrs. Berthold Schmidt.

Esperanto League for No. America (1952), Calvin St., R.F.D. #1, Meadville, Pa. 16335; 500; Sec., Conrad Fisher.

Esperanto Society, American Catholic (1967), 38 Marcy Pl., Bronx, N. Y. 10452; 105; Sec., Mrs. Berthold Schmidt.

Eugenics Society, American (1926), 245 Park Ave., New York, N. Y. 10017; 375; Sec., Frederick Osborn.

Evangelicals, Natl. Assn. of (1942), Main St. at Gunderson Dr., Wheaton, Ill. 60187; 2,500,000; Sec., Dr. Cordas C. Burnett.

Evangelism Crusades, International (1959), 7970

Woodman Ave., Van Nuys, Calif. 91402; 5,079; Sec., Rev. Bernice Stranges.
Exchange Club, National (Mar. 27, 1911), 3050 Central Ave., Toledo, Ohio 43606; 45,000; Exec. Sec., Lee Wells.

Eye-Bank Assn. of America (1961), 3195 Maplewood Ave., Winston-Salem, N. C. 27103; 54 eye banks; Pres., Dr. Morris Kaplan.

Eye-Bank for Sight Restoration, (1944) 210 E. 64th St., New York, N. Y. 10021; Exec. Dir., Mrs. Cornelius P. Rhoads.

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Faculty Representatives, Intercollegiate Conference of, (1895), 605 N. Michigan Ave., Chicago, Ill. 60611; 10 Univ.; Chairman, Frank J. Remington.

Fairs & Expositions, International Assn. (1920), 777 Arbor Rd., Winston-Salem, N. C. 27106; 541; Sec., Frank H. Kingman.

Family Protection League of USA, Inc., (1932), Box 221, Huntington Pk., Calif.; 400; Pres., Ted Bridgewater.

Family Service Assn. of America (1911), 44 East 23rd St., New York, N. Y. 10010; 337 agencies; Gen. Dir., Clark W. Blackburn.

Farm Bureau Federation, Amer., (1919), 1000 Merchandise Mart, Chicago, Ill. 60654; 1,753,532 families; Pres., Charles B. Shuman.

Farmer Cooperatives, Natl. Council of (1929), 1200 17th St., N.W., Washington, D. C. 20036; Exec. V. P., Kenneth D. Naden.

Farmers' Educational and Co-Operative Union of America (National Farmers Union) (1902), 1575 Sherman St., Denver, Colo. 80201; 250,000 farm families; Pres., Tony T. Dechant.

Federal Employees, Natl. Federation of (1917), 1737 H St., N.W., Washington, D. C. 20006; 101,000; Sec., Miss Florence I. Broadwell.

Feline Society, American (1938), 41 Union Square West, New York, N. Y. 10003; Sec., Mrs. Helen Alexander.

Fellowship of Reconciliation (1915), Box 271, Nyack, N. Y. 10960; 15,300; Chmn., Robert W. Moon.

Fencers League of America, Amateur (1891), 33 62nd St., West New York, N. J. 07093; 4,000; Corr. Sec., Mrs. W. J. Latzko.

Financial Analysts Federation (1947), 477 Madison Ave., New York, N. Y. 10022; 12,000; Exec. Sec., George M. Hansen.

Financial Executives Institute (1931), 50 West 44th St., New York, N. Y. 10036; 6,600; Man. Dir., Paul Haase.

Fire Chiefs, International Assn. of (1873), 232 Madison Ave., New York, N. Y. 10016; 6,622; Gen. Mgr., Donald M. O'Brien.

Fire Fighters, International Assn. of (1918), 905 16th St., N.W., Washington, D. C. 20006; 130,000; Sec., Albert E. Albertoni.

Fire Marshals Assn. of No. America (1906), 60 Batterymarch St., Boston, Mass. 02110; 600; Sec., Robert W. Grant.

Fire Protection Assn., Natl. (1896), 60 Batterymarch St., Boston, Mass. 02110; 22,000; Pres., Elmer F. Rice.

Fire Protection Engineers, Society of (1950), 60 Batterymarch St., Boston, Mass. 02110; 1,408; Sec., Richard E. Stevens.

First Cavalry Division Assn. (1944), P. O. Box 11201, Albuquerque, N. M. 87112; 9,470; Sec., Col. Alfred E. Stevens, USA (Ret.).

First Division, Society of the (1919), 5 Montgomery Ave., Philadelphia, Pa. 19118; 19,000; Exec. Sec., Arthur L. Chai.

Fisheries Society, American (1870), 1040 Washington Bldg., 14th & New York Ave., N.W., Washington, D. C. 20005; 5,000; Sec., Dr. Robert F. Hutton.

Fishing Institute, Sport (1949), 719 13th St., N.W., Washington, D. C. 20005; 300; Exec. Sec., Philip A. Douglas.

Flag Day Assn., American (1888), P. O. Box 1121, Denver, Colo. 80201; Natl. Sec., Verne Bentley.

Flag Foundation, U. S., (1942), 115 East 86th St., New York, N. Y. 10028; Pres., Lawrence P. Tower.

Fleet Reserve Assn. (1924), 1303 New Hampshire Ave., N.W., Washington, D. C. 20036; 68,000; Sec., Robert W. Nolan.

Florists, Society of America (1884), Sheraton-Park Hotel, Washington, D. C. 20009; 5,000; Exec. Dir., John R. Walker.

Folklore Society, American (1888), Box 5, Bennett Hall, Univ. of Pa., Philadelphia, Pa. 19104; 1,800; Sec.-Treas., Dr. Kenneth Goldstein.

Footwear Manufacturers Assn., Natl. (1905), 342 Madison Ave., N. Y., N. Y. 10017; 500 firms; Sec., Harold R. Gblin.

Foreign Policy Assn. (1918), 345 E. 46th St., New York, N. Y. 10017; Pres., Samuel P. Hayes.

Foreign Press Assn. (1918), 340 East 46th St., New York, N. Y. 10017; 400; Sec. Gen., George Venizalos.

Foreign Trade Council, Natl. (1914), 10 Rocke-

efeller Plaza, New York, N. Y. 10020; 600 companies; Sec., Helene Bienzie.

Forensic League, Natl. (1925), Ripon College, Ripon, Wis. 54971; 270,000; Sec., Bruno E. Jacob.

Forest Products Assn., Natl. (1902), 1619 Massachusetts Ave., N.W., Washington, D. C. 20036; 17 regional assns.; Sec., Ralph H. Gloss.

Forest Products Industries, American (1941), 1835 K St., N.W., Washington, D. C. 20006; 500; Man. Dir., Charles A. Gillett.

Forest Products Research Society (1947), 2801 Marshall Ct., Madison, Wis. 53705; 4,200; Exec. Sec., Kenneth E. Huddleston.

Foresters, Society of American (1900), Suite 300, 1010 16th St., N.W., Washington, D. C. 20036; 16,000; Sec., Hardin R. Glascock.

Forestry Assn., American (1875), 919 17th St., N.W., Washington, D. C. 20006; 57,000; Pres., William E. Towell.

Forty and Eight, The (1920), 777 No. Meridian St., Indianapolis, Ind. 46204; 73,000; Sec., Joel A. Bunch.

Founders and Patriots of America, Order of the (1896), Federal Hall Memorial, 15 Pine St., N. Y., N. Y. 10005; 955; Gov. Gen., Grahame Smallwood, Jr.

Foundrymen's Society, American (1896), Golf & Wolf Roads, Des Plaines, Ill. 60016; 14,000; Exec. V. P., Ashley B. Sinnott.

4-H Clubs (betw. 1901-05), Federal Extension Service, U. S. Dept. of Agric., Washington, D. C. 20250; 3,000,000; Dir., Dr. E. Dean Vaughan. (Pledge of the Clubs: I pledge—My Head to clear thinking, My Heart to great loyalty, My Hands to larger service, My Health to better living, For my club, my community and my country.)

Free Sons of Israel (1849), 257 West 93rd St., New York, N. Y. 10025; 9,500; Grand Secy., Herman S. Kaplan.

Free Trade Unions, International Confederation of (1949), International headquarters: 37-41 rue Montagne aux Herbes Potagères, Brussels 1, Belgium. Regional office for U. S. and Canada: 20 West 40th St., New York, N. Y. 10018; 60,000,000; Gen. Sec., Bruno Storti.

French Institute (1911), 22 East 60th St., New York, N. Y. 10022; 4,563; Pres., Robert G. Goelet.

French Legion of Honor, American Society of the (1922), 22 East 60th St., New York, N. Y. 10022; Sec., Mrs. Sylviane Glad.

Friendly Sons of St. Patrick, Society of the (1784), 80 Wall St., N. Y., N. Y. 10005; 1,400; Corres. Sec., Philip J. Curry.

Friends Service Committee, American (1917), 160 No. 15th St., Philadelphia, Pa. 19102; Exec. Sec., Stephen G. Cary.

Future Farmers of America (1928), c/o U. S. Office of Education, Dept. of Health, Ed. & Welfare, Washington, D. C. 20202; 438,429; Exec. Sec., William Paul Gray.

Future Homemakers of America (1945), c/o U. S. Office of Education, Washington, D. C. 20202; 602,000; Natl. Adviser, Mildred Reel.

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Game Fish Assn., International (1939), 2190 S.E. 17th St., Ft. Lauderdale, Fla. 33316; 800 clubs; Pres., William K. Carpenter.

Garden Club of America (1913), 598 Madison Ave., New York, N. Y. 10022; 12,500; Sec., Mrs. Frederick N. Blodgett.

Garden Clubs of America, Men's (1932), P. O. Box 160, Johnston, Iowa 50131; 10,000; Exec. Sec., Guy D. Clanchester.

Garden Clubs, Natl. Council of State (1929), 4401 Magnolia Ave., St. Louis, Mo. 63110; 400,000; Exec. Sec., Mrs. Earl H. Hath.

Gas Appliance Manufacturers Assn. (1935), 60 East 42nd St., New York, N. Y. 10017; 670 companies; Man. Dir., Harold Massey.

Gas Assn., American (1918), 605 Third Ave., New York, N. Y. 10016; 5,500; Sec. Vaughn O'Brien. Gen. Sec., Biographical Society, N. Y. (Feb. 27, 1869), 122 East 58th St., New York, N. Y. 10022; 730; Exec. Sec., Marie F. Berry.

General Contractors of America, Associated (1921), 1957 E St., N.W., Washington, D. C. 20006; 8,458; Pres., Fred W. Mast.

General Practice, American Academy (1947), Volker Blvd. at Brookside, Kansas City, Mo. 64112; 30,670; Exec. Dir., Mac F. Cahal, J.D.

Genetic Assn., American (1903), 1507 M St., N.W., Washington, D. C. 20005; 1,447; Sec., Robert C. Carter.

Geographers, Assn. of American (1904), 1146 16th St., N.W., Washington, D. C. 20036; 5,250; Pres., Clyde F. Kohn.

Geographic Education, Natl. Council for (1914), Room 1532, 111 West Washington St., Chicago, Ill. 60602; 6,900; Exec. Sec., Dr. Elizabeth Eilsen.

Geographic Society, National (1888), 17th & M Sts., N.W., Washington, D. C. 20036; 6,100,000; Pres., Melville B. Grosvenor; Sec., Robert E. Doyle.

Geographical Society, American (1852), Broadway at 156th St., New York, N. Y. 10032; 3,250;

Pres., Dr. Serge A. Korff.

Geological Institute, American (1948), 1444 N St., N.W., Washington, D. C. 20005; 32,000; Exec. Dir., Dr. Linn Hoover.

Geological Society of America (1888), Box 1719, Colorado Bldg., Boulder, Colo. 80302; 7,621; Sec., Raymond C. Becker.

Geophysical Union, American (1919), 2100 Pennsylvania Ave., N.W., Washington, D. C. 20037; 9,000; Exec. Dir., Waldo B. Smith.

Geriatrics Society, American (1942), 10 Columbus Circle, New York, N. Y. 10019; 8,500; Exec. Dir., Edward Henderson, M.D.

Gideons International (July 1, 1899), 2900 Lebanon Rd., Nashville, Tenn. 37214; 25,000; Pres., Clarence H. Gilkey, Jr.

Gifted Children, American Assn. for (1946), 15 Gramercy Park, New York, N. Y. 10003; 100; Sec., Pauline Williamson.

Gifted Children, Natl. Assn. for (1954), 8080 Springfield Dr., Cincinnati, Ohio 45236; 3,000; Exec. Dir., Ann R. Isaacs.

Girl Scouts of the U. S. A. (Mar. 12, 1912), 830 Third Ave., New York, N. Y. 10022; 3,652,000; Pres., Mrs. Holton R. Price, Jr.

Girls Clubs of America (1945), 133 East 62nd St., New York, N. Y. 10021; 100,000; Pres., Mrs. J. Robert Eubanks.

Gladiolus Council, North American (1943), 30 Highland, Peru, Ind. 46970; 2,000; Sec., Bob Dorsam.

Gold Star Mothers, American (1928), 2128 Leroy Pl., N.W., Washington, D. C. 20008; 17,000; Sec., Mrs. Elva P. Newman.

Golf Association, U. S. (Dec. 22, 1894), 40 East 38th St., New York, N. Y. 10016; 3,654 clubs; Exec. Dir., Joseph C. Dey, Jr.

Good Templars, Internatl. Organization of (1851), 2815 W. 71st St., Minneapolis, Minn. 55423; 300,000 world wide; Pres., Mrs. Carl A. Crusell.

Governmental Research Assn. (1914), 4 Washington Sq. No., New York, N. Y. 10003; 450; Sec., Troy R. Westmeyer.

Grandmother Clubs of America, Natl. Federation of (1938), 203 No. Wabash Ave., Chicago, Ill. 60601; 20,000; Pres., Hallie Bridges.

Grand Street Boy's Association (1920), 131-135 West 56th St., N. Y., N. Y. 10019; 5,500; Pres., Louis Tauscher.

Grange, The National (1867), 1616 H St., N.W., Washington, D. C. 20006; 800,000; Natl. Master, Herschel D. Newsom.

Graphic Artists, Society of American (1916), 1083 Fifth Ave., New York, N. Y. 10028; 250; Pres., David Shapiro.

Green Mountain Club (1910), 45 Park St., Rutland, Vt. 05701; 1,500; Corr. Sec., H. Minerva Hinchey.

Grocery Manufacturers of America (1908), 205 East 42nd St., New York, N. Y. 10017; 300 companies; Pres., George W. Koch.

Group Health Assn. of America (1959), 1321 14th St., N.W., Washington, D. C. 20005; 5,000,000; Sec., Jerry Voorhis.

Gyro International (1912), 1096 Mentor Ave., P. O. Box 489, Painesville, Ohio 44077; 5,500; Sec., C. W. St. Clair.

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Hadassah (Women's Zionist Organization of America) (1912), 65 East 52nd St., New York, N. Y. 10022; 318,000; Exec. Dir., Hannah L. Goldberg.

Handicapped, Federation of the (1935), 211 West 14th St., New York, N. Y. 10011; 1,000; Exec. Dir., Milton Cohen.

Harvard Club of N. Y. City (Nov. 3, 1865), 27 West 4th St., New York, N. Y. 10036; 7,591; Sec., Peter S. Heller.

Hay Fever Prevention Society (1935), 2300 Sedgwick, Rosewell Gardens, Bronx, N. Y. 10468; 450; Exec. Dir., Louis V. Fucci.

Hay Fever Relief Assn., Natl. (1923), 401 Broadway, New York, N. Y. 10013; 1,000; Sec., Sarah Masor.

Health Council, Natl. (1921), 1740 Broadway, New York, N. Y. 10019; Exec. Dir., Peter G. Meek.

Health Foundations, United (1961), 820 Second Ave., New York, N. Y. 10017; 125; Exec. Sec., Bertram Loeb.

Health Insurance Assn. of America (1956), 1701 K St., N.W., Washington, D. C. 20006; 324 insurance companies; Gen. Mgr., Leslie P. Henry.

Health Insurance Institute (1956), 277 Park Ave., New York, N. Y. 10017; 300 insurance companies; Sec., R. Wilfred Kelsey.

Health, Physical Education & Recreation, American Assn. for (1885), 1201 16th St., N.W., Washington, D. C. 20036; 50,000; Exec. Sec., Carl Troester, Jr.

Hearing and Speech Agencies, Natl. Assn. of, (formerly American Hearing Society) (1919), 819 18th Street, N.W., Washington, D. C. 20006; 12,000; Pres., Edward Dexter.

Heart Association, American (1924), 44 E. 23rd St., New York, N. Y. 10010; 70,000; Pres., Dr.

Walter B. Frommeyer, Jr.

Heating, Refrigerating and Air Conditioning Engineers, Amer. Soc. of (1894), 345 East 47th St., New York, N. Y. 10017; 21,000; Sec., Andrew T. Boggs III.

Helicopter Society, Amer. (1943), 141 East 44th St., New York, N. Y. 10017; 4,600; Exec. Sec., H. M. Lounsbury.

Hias Service, United (1884), 200 Park Ave. South, N. Y., N. Y. 10003; 40,000; Exec. Dir., Gaynor I. Jacobson.

Hibernians in America and Ladies Auxiliary, Ancient Order of (1836), 248 East 31st St., Brooklyn, N. Y. 11228; 194,000; Natl. Sec., John F. Goeghan.

Historians, Organization of American (1907), (Formerly the Mississippi Valley Historical Association, name changed April, 1965), Univ. of Utah, Salt Lake City, Utah 84112; 9,200; Sec., W. D. Aeschbacher.

Historians, Society of American (1939), Fayerweather Hall, Columbia Univ., New York, N. Y. 10027; 400; Sec., Dr. Eric F. Goldman.

Historic Preservation, National Trust for in the United States (1949), 748, Jackson Place N.W., Washington, D. C. 20006; 14,686; Pres., James Bible.

Historical Assn., American (1884), 400 A St., S.E., Washington, D. C. 20003; 16,500; Exec. Sec., Paul L. Ward.

Historical Assn. of N. Y. State (1899), Fenimore House, Cooperstown, N. Y. 13326; 2,500; Exec. Dir., Dr. Louis C. Jones.

Historical Society, East Tennessee (1925), Lawson McGhee Library, 217 Market St., Knoxville, Tenn. 37902; 800; Sec., Pollyanna Creekmore.

Historical Society, Illinois State (1899), Old State Capitol, Springfield, Ill. 62706; 4,036; Exec. Dir., William K. Alderfer.

Historical Society of Iowa, State (1857), Centennial Bldg., Iowa City, Ia. 52240; 10,500; Supt., Wm. J. Petersen.

Historical Society of Missouri, State (1898), Univ. Library Bldg., Hitt & Lowry Sts., Columbia, Mo. 65201; 15,472; Sec., Dr. Richard S. Brownlee.

Historical Society, New York (1804), 170 Central Park West, N. Y., N. Y. 10024; 1,500; Dir., James J. Heslin.

Historical Society, Ohio, (1885), State Museum, Columbus, O. 43210; 4,800; Dir., Daniel R. Porter.

Historical Society, Okla. (1893), Historical Bldg., Lincoln Blvd. at NE 19th St., Okla. City, Okla. 73105; 2,700; Adm. Sec., Elmer L. Fraker.

Historical Society of Pennsylvania (1824), 1300 Locust St., Philadelphia, Pa.; 2,400; Dir., Nicholas B. Wainwright.

Historical Society, Presbyterian (1852), 425 Lombard St., Philadelphia, Pa. 19147; 1,100; Sec., William B. Miller.

Holland Society of N. Y. (1885), 122 East 58th St., New York, N. Y. 10022; 1,002; Pres., Walter E. Hopper Jr.

Home Economics Assn., American (1909), 1600 20th St., N.W., Washington, D.C. 20009; 56,000; Pres., Louise Gauthier.

Homography, American Institute of, (1884), 2726 Quebec St., N.W., Washington, D.C. 20008; 115; Sec., William A. Weaver, M.D.

Hoo Hoo, Intl. (1892), 161 W. Wisconsin Ave., Milwaukee, Wis. 53203; 8,500; Exec. Sec., B. F. Springer.

Horatio Alger Society (1961), 1325 Burlington Rd., Mendota, Ill. 61342; 135; Pres., Carl T. Hartmann.

Horse Show Assn., Natl. (1883), Empire Hotel—Suite 101, Broadway & 63rd St., N.Y., N.Y. 10023; Exec. Sec., Dr. Henry A. Chase.

Hottelers Assn. of America, Natl. (1914), 341 Polk St., Gary, Ind. 46402; 4,400; Sec., Robert G. Pence.

Horticultural Society, American (1922), 2401 Calvert St., N.W., Washington, D. C. 20008; 4,500; Exec. Dir., Mrs. Glenn Eastburn.

Horticultural Society of New York (1902), 160 Central Pk. So., New York, N.Y. 10019; 4,200; Exec. Sec., Alexander W. Allport.

Hospital Fund of N. Y., United hospitals, 3 East 54th St., New York, N. Y. 10022; 78 (1879); Sec., Fredrick E. Donaldson.

Hotel & Public Relations Directors, American Soc. for (1965), 840 N. Lake Shore Dr., Chicago, Ill., 60611; 600; Sec., Barbara Carner.

Hotel & Motel Assn., American (1910), 221 West 57th St., New York, N. Y. 10019; 6,500; Exec. V. P., Lawson A. Odde.

Hudson Valley Art Assn. (1928), 243 So. Broadway, Hastings-on-Hudson, N. Y. 10706; 250; Pres., Mrs. Georgie R. Barton.

Humane Assn., American (1877) P.O. Box 1266, Denver, Colo. 80201; Sec., Rutherford T. Phillips.

Humane Society of the U.S. (1954), 1145 19th St., N.W., Washington, D. C. 20036; 60,000; Pres., Mel L. Morse.

Humanics Foundation, American (1948), 912 Baltimore Ave., Kansas City, Missouri 64105; 1,000;

Pres., Dwight J. Thomson.

Humanist Association, American (1943), 125 El Camino del Mar, San Francisco, Calif. 94121; 6,000; Pres., Robert W. McCoy.

Hundred Year Assn. of New York (1927), 99 Church St., New York, N. Y. 10007; 350; Sec., Ralph C. Gross.

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Iceland Veterans (1947), 2101 Walnut St., Philadelphia, Pa. 19103; 1,470; Dir., Dave Zinkoff. Identification. International Assn. for (1915), P. O. Box 139, Utica, New York 13503; 1,650; Pres., Albert W. Somerford.

Illuminating Engineering Society (1906), 345 East 47th St., New York, N. Y. 10017; 11,000; Man. Dir., Paul C. Ringgold.

Illustrators, Society of (1901), 128 E. 63rd St., New York, N.Y. 10021; 550; Mgr. Dir., Ernest Button.

Immigration and Nationality Lawyers, Assn. of (1946), 50 Court St., Brooklyn, N. Y. 11201; 450 Pres., Elmer Fried.

Imperial Order of the Dragon (1900, in Temple of Agric., Peking, China; commemorating China Relief Expedition), P. O. Box 1707, San Francisco Calif. 94101; Sec., Enoch Jones, Sr.

Indian Rights Assn. (1882), 1505 Race St., Philadelphia, Pa. 19102; 1,200; Gen. Sec., Armin L. Saeger, Jr.

Indoor Sports' Club (1930), 3445 Trumbull St., San Diego, Calif. 92106; 3,000; Exec. Sec., Mrs. Dorothy J. Mason.

Industrial Advertisers, Assn. of (1922), 41 East 42nd St., N. Y., N. Y. 10017; 4,500; Man. Dir., Robert T. Grifflins.

Industrial Conference Board, Natl. (1916), 845 Third Ave., New York, N. Y. 10022; 4,265; Sec., Herbert S. Briggs.

Industrial Democracy, League for (1905), 112 East 19th St., New York, N. Y. 10003; 2,000; Exec. Sec., Tom Kahn. Students for Democratic Society (student dept. of the League), Pres., Paul Potter.

Industrial Designers Society of America (Jan. 1965), 60 W. 55th St., N. Y., N. Y. 10019; 588; Exec. Sec., Mrs. Hannah R. Larisch.

Industrial Diamond Assn. of America (1946), 2017 Walnut St., Philadelphia, Pa. 19103; 120; Donald A. Trescott.

Industrial Editors, American Assn. of (1938), 802 Kenmore Ave., Buffalo, N. Y. 14216; 1,200; Exec. Sec., Donald W. Boyd, Jr.

Industrial Editors, International Council of (1941), 2108 Braewick Circle, Akron, Ohio 44313; 3,500; Pres. Fredric J. Felson.

Industrial Engineers, American Institute of (1948), 345 East 47th St., New York, N. Y. 10017; 19,000; Sec., J. F. Jericho.

Industrial Hygiene Foundation of America (1935), Mellon Institute, 4400 Fifth Ave., Pittsburgh, Pa. 15213; 400; Man. Dir., Dr. R. T. P. de Treville.

Industrial Management Society (1934), 330 South Wells, Chicago, Ill. 60606; 1,000; Exec. Mgr., Robert J. Mayer.

Instrument Society of America (1945), 530 William Penn Pl., Pittsburgh, Pa. 15219; 18,000; Pres., Dr. T. J. Williams.

Insurance Society of N. Y. (1901), 150 Williams St., New York, N. Y. 10038; 1,300; Sec., Donald Rindell.

Insured Savings Associations, Natl. League of (1943), 1200 17th St., N.W., Suite 700, Washington, D. C. 20036; 370 associations; Man. Dir., Kenneth G. Heisler.

Intercollegiate (Big Ten) Conference (1895), Suite 1600, Sheraton-Chicago Hotel, Chicago, Ill. 60611; Commissioner, William R. Reed.

Intercollegiate Lacrosse Assn., U. S. (1883), 276 Recreation Bldg., Penn State Univ., Univ. Park, Pa. 16802; 76 colleges; Sec., Glenn N. Thiel.

Interraternity Conference, National (1909), 271 Madison Ave., New York, N. Y. 10016; 2,250,000; Admin. Sec., Paul K. Addams.

International Law, American Society of (1906), 2223 Massachusetts Ave., N.W., Washington, D. C. 20008; 4,000; Pres., Oscar Schachter.

Investment Bankers Assn. of America (1912), 425 13th St., N.W., Washington, D. C.; 670 organizations; Sec., John A. Falrey.

Investment Clubs, Natl. Assn. of (1951), 1300 Washington Blvd. Building, Detroit, Mich., 48226; 160,082; Chairman, Thomas E. O'Hara.

Investment Company Institute (1940), 61 Broadway, New York, N. Y. 10006; 300 Mutual Fund Groups; Exec. V. P., Bruce B. Robe.

Iron Founders Society, Gray and Ductile, (1928), 930 National City-E 6th Bldg., Cleveland, Ohio 44114; 260 companies; Exec. V. P., Donald H. Workman.

Iron and Steel Engineers, Assn. of (1907), 1010 Empire Bldg., Pittsburgh, Pa. 15322; 11,002; Man. Dir., T. J. Egan.

Iron and Steel Institute, American (1908), 150

East 42nd St., New York, N. Y. 10017; 2,833; Pres., John P. Roche.

Italian Historical Society of America (1949), 111 Columbia Heights, Brooklyn, N. Y. 11201; 973; Dir., John N. La Corte.

Italy-America Chamber of Commerce, (1887), 350 Fifth Ave., N. Y., N. Y. 10001; 550; Exec. Sec., Arthur De Santis.

Izaak Walton League of America (1922), 1326 Waukegan Rd., Glenview, Ill. 60025; 54,000; Exec. Dir., William A. Alaski.

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Jamestown Society (1936), 4313 N. Ashlawn Dr., Richmond, Va.; 1,400; Sec., Mrs. James R. Lindsay.

Japanese States (1920), P. O. Box 7, Tulsa, Okla. 74102; 275,000; Exec. V. P., C. Robert Cronk.

Jewish Agricultural Society (1900), 388 Park Ave. So., New York, N. Y. 10016; Sec., Rachel Silberstein.

Jewish Braille Institute (1931), 48 East 74th St., New York, N. Y. 10021; 14,000; Exec. Dir., Dr. Jacob Freid.

Jewish Committee, American (1906), 165 East 56th St., New York, N. Y. 10021; 30,000; Pres., Morris B. Abram.

Jewish Congress, Amer. (1918), 15 East 84th St., New York, N. Y. 10028; 50,000; Exec. Dir., Will Maslow.

Jewish Federations and Welfare Funds, Council of (1932), 315 Park Ave. South, N. Y., N. Y. 10010; 222 agencies; Pres., Louis J. Fox.

Jewish Historical Society, Amer. (1892), 2 Thornton Rd., Waltham, Mass. 02154; 3,100; Dir., Bernard W. V.

Jewish Labor Committee (1935), 25 East 78th St., New York, N. Y. 10021; 500,000; Natl. Dir., Emanuel Muravchik.

Jewish Philanthropies of N. Y., Federation of (1917), 130 East 59th St., New York, N. Y. 11358; 120,000; Publicity Dir., Robert I. Smith.

Jewish Publication Society of America (1888), 222 No. 15th St., Philadelphia, Pa. 19102; 13,850; Exec. Dir., Lesser Zussman.

Jewish Teachers Assn. (1928), 1182 Broadway, New York, N. Y. 10001; 26,000; Sec., Israel Rosenblum.

Jewish War Veterans of the U. S. A. (1896), 1712 New Hampshire Ave., N.W., Washington, D. C. 20009; Natl. Exec. Dir., Monroe R. Sheinberg.

Jewish Welfare Board, National (1917), 15 East 26th St., New York, N. Y. 10010; 447 community centers; Exec. V. P., Sanford Solender.

Jewish Women, National Council of (1893), 1 West 47th St., New York, N. Y. 10024; 100,000; Exec. Dir., Hannah Stein.

Jockey Club (1894), 300 Park Ave., New York, N. Y. 10022; 72; Exec. Sec., John P. Kennedy.

John Birch Society, The (1958), 395 Concord Ave., Belmont, Mass. 02178; between 60,000 and 100,000; Pres., Robert Welch.

Judaism, American Council for (1943), 201 East 57th St., New York, N. Y. 10022; 20,000; Exec. Dir., Jerome Frankle.

Judicature Society, American (1913), 1155 East 60th St., Chicago, Ill. 60637; 34,000; Pres., Herbert Brownell.

Junior Achievement (1919), 51 West 51st St., New York, N. Y. 10019; 140,000 teenagers, 21,364 adults; P. R. Dir., James F. Barrett.

Junior Colleges, American Assn. of (1920), 1315 16th St., N.W., Washington, D. C. 20036; 759 institutions; Exec. Dir., Edmund J. Gleazer, Jr.

Junior League of the City of N. Y. (1902), 130 East 80th St., New York, N. Y. 10021; 1,900; Exec. Sec., Mrs. Henry Blodget.

Junior Leagues of America, Assn. of the (1921), Waldorf-Astoria Hotel, 301 Park Ave., New York, N. Y. 10022; 98,000; Exec. Dir., Lucile G. Mason.

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Kennel Club, American (1884), 51 Madison Ave., New York, N. Y. 10010; 369 Clubs; Sec., Roy H. Carlsberg.

Key Club International (1925), Kiwanis International Bldg., 101 E. Erie St., Chicago, Ill. 60611; 87,000; Dir., Robert F. Lucas.

Kindergarten Assn., National (1909), 8 West 40th St., New York, N. Y. 10018; Exec. Dir., Mrs. Creighton Peet.

Kiwanis International (1915), 101 East Erie St., Chicago, Ill. 60611; 275,000; Sec., R. P. Merridew.

Circle K International (1947), 732 colleges; Dir., Donald R. Teasley.

Knights of Columbus (Mar. 29, 1882; merged with Supreme Council Catholic Benevolent Legion, Jan. 1, 1968), 71 Meadow St., New Haven, Conn. 06507; 1,200,000; Sec., Virgil C. Dechant.

Knights of Pythias (1864), 1212 Dodds Ave., Chattanooga, Tenn. 37404; 190,000; Pres., Joseph B. Hacker.

Knights Templar of the U.S.A., Grand Encampment of (1816), 14 East Jackson Blvd., Suite 1733,

Chicago, Ill. 60604; 387,500; Grand Recorder, Paul C. Rodenhauer.

Kosciusko Foundation (1925), 15 East 65th St., New York, N. Y. 10021; 2,100; Pres., Stephen Mizwa.

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Lambs, The (1874), 130 West 44th St., New York, N. Y. 10036; 1,200; Pres., Harry Hershfield. Landscape Architects, American Society of (1898), 2013 Eye St., N. W., Washington, D. C. 20006; 3,200; Pres., Theodore Osmondson.

Language Teachers Associations, Natl. Federation of Modern, (1916), 760 Elm Spring Rd., Pittsburgh, Pa. 15243; Sec., J. Alan Pfeffer.

Latin, Assn. for Promotion of Study of (1929), P. O. Box 501, Elizabeth, N. J. 07207; 16,400; Sec., Dr. Albert E. Warsley.

Law Institute, American, (1923), 101 N. 33rd St., Philadelphia, Pa. 19104; 1,500; Sec., Paul A. Wolkin.

Law Libraries, American Assn. of (1906), 53 W. Jackson Blvd., Chicago, Ill. 60604; 1,350; Pres., William D. Murphy.

Learned Societies, American Council of (1919), 345 East 46th St., New York, N. Y. 10017; 33 societies; Pres., Frederick Burkhardt.

Legal Aid and Defender Assn., National (1911), 1155 East 60th St., Chicago, Ill. 60637; 1,700; Exec. Dir., Junius L. Allison.

Legal Aid Society (1876), 1155 East 60th St., Chicago, Ill. 60637.

Legal Secretaries, Natl. Assn. of (1950), 29 S. LaSalle St., Chicago, Ill. 60603; 14,000; Pres., Mrs. Haru K. Hains.

Legion of Soldier's Friends (1966), P. O. Box 4506, Washington, D. C. 20017; 11,014; Pres., John L. Gamble.

Legion of Valor of the U. S. A. (1890), 621 S. Taylor St., Arlington, Va. 22204; 1,200; Sec., Col. Robert M. Gaynor.

Leprosy, Leonard Wood Memorial for the Eradication of (American Leprosy Foundation) (1928), 79 Madison Ave., New York, N. Y. 10016; Sec., Robert W. Watt.

Leprosy Missions, American (1906), 297 Park Ave. So., New York, N. Y. 10010; 48,228; Pres., Oliver W. Hasselblad, M.D.

Letter Carriers, National Association of (1889), 100 Indiana Ave., N.W., Washington, D. C. 20001; 210,000; Sec., J. S. Lewis.

Leukemia Society (1949), 211 E. 43 St., N. Y., N. Y. 10017; Pres., John J. Kenny, M.D.

Librarians, American Assn. of Medical Record (1928), 211 East Chicago Ave., Chicago, Ill. 60611; 7,000; Exec. Dir., Mrs. Mary Waterstraat.

Libraries Association, Special (1909), 235 Park Ave. South, New York, N. Y. 10003; 7,000; Exec. Dir., George Ginader.

Library Association, American (Oct. 6, 1876), 50 East Huron St., Chicago, Ill. 60611; 38,000; Exec. Dir., David H. Clift.

Library Assn., Home and School (1938), 144 No. Limestone St., Lexington, Ky. 40507; Exec. Sec., Paul J. Hines.

Library Assn., Medical (1898), 919 No. Michigan Ave., Chicago, Ill. 60611; 728 institutions; Exec. Sec., Mrs. Helen Brown Schmidt.

Life Convention, American (1906), 211 East Chicago Ave., Chicago, Ill. 60611; 342 insurance companies; Sec., Ida Weber.

Life Insurance Assn. of America (1906), 277 Park Ave., New York, N. Y. 10017; 118 insurance companies; Sec., James Andrews, Jr.

Life Insurance, Institute of (1939), 277 Park Ave., New York, N. Y. 10017; Pres., B. T. Newton, Jr.

Life Underwriters Assn. of the City of N. Y. (1886), 500 Fifth Ave., N. Y., N. Y. 10036; 3,000; Man. Dir., Joseph M. Fenton, Jr.

Life Underwriters, National Assn. of (1890), 1922 F St., N.W., Washington, D. C. 20006; 105,000; Pres., Francis G. Bray.

Lions International (Intl. Assn. of Lions Clubs) (1917), 209 No. Michigan Ave., Chicago, Ill. 60601; 851,988; Sec., John Vogt.

Log Rolling Assn., International (1926), 5855 N. Sheridan Rd., Apt. 5-J, Chicago, Ill. 60626; 65; Exec. Sec., George Mathison.

Long Island Assn. of Commerce and Industry (1926), 131 Jericho Turnpike, Jericho, L. I., N. Y. 11753; 1,000 firms; Sec., J. F. Dutra.

Lubrication Engineers, American Society of (1944), 838 Busse Highway, F. Ridge, Ill. 60068; 3,200; Exec. Sec., Donald E. Sandberg.

Lumbermen's Assn., Middle Atlantic (1892), 7 E. Lancaster Ave., Ardmore, Pa. 19003; 350; Exec. V. P., Robert A. Jones.

Lutheran Education Assn. (1942), 7400 Augusta St., River Forest, Ill. 60305; 2,944; Sec., Lyle Saeger.

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Magazine Photographers, American Soc. of (1944), 60 E. 42nd St., New York, N. Y. 10017; 700; Exec. Dir., Miss Regina Benedict.

Magazine Writers, Society of (1948), c/o Overseas Press Club, 54 West 40th St., New York, N. Y. 10018; 230; Pres., William Surface.

Martians Guild of America (1944), 37 5th Ave., Bay Shore, L. I., N. Y. 11001; Sec., Georgia Kondos.

Mammalogists, American Society of (1919), Department of Zoology, Oklahoma State Univ., Stillwater, Okla. 74074; 3,000; Sec., Bryan P. Glass.

Management, American Institute of (1948), 125 East 38th St., New York, N. Y. 10016; 10,000; Sec., Edward L. Dobson.

Management Assn., National (1925), 333 West 1st St., Dayton, O. 45402; 88,000; Exec. V. P., Marion N. Kershner.

Manufacturers' Agents National Assn. (1947), 626 N. Garfield Ave., Alhambra, Calif. 91802; 2,800; Exec. Sec., A. X. Schilling.

Manufacturers, Natl. Assn. of (1895), 277 Park Ave., New York, N. Y. 10017; 14,000; Sec., John McGraw.

Manufacturing Chemists Assn. (1872), 1825 Connecticut Ave., N.W., Washington, D. C. 20009; 199 corporations; Sec.-Treas., James R. Carnes.

Manuscript Society (1948), Morris Library, Southern Illinois University, Carbondale, Ill. 62901; 1,021; Exec. Sec., Kenneth W. Duckett.

Marathon Swimming Federation, World Professional (1963), 10102 Forge Dr., Silver Spring, Md. 20901; 220; Sec., Joe Grossman.

Marine Corps League (1923), 939 N. Kenmore St., Arlington, Va. 22201; 12,000; Natl. Comm., Claude H. Downing.

Marine Society of the City of N. Y. (1770), 80 Broad St., New York, N. Y. 10004; 325; Sec., Capt. Aime J. Gerber.

Marine Technology Society (1963), 1030 15th St., N.W., Washington, D. C. 20005; 4,000; Sec., RADM. M. L. Simons, U.S. Ret.

Maritime Assn. of the Port of N. Y. (Feb. 5, 1873), 80 Broad St., New York, N. Y. 10004; 1,500; Gen. Mgr., William F. Giesen.

Maritime History, Society for (1966), Box 3014, University Station, Eugene, Ore. 97403; Pres., John D. Allan.

Marketing Assn., American (1915), 230 North Michigan Ave., Chicago, Ill. 60601; 14,429; Exec. Dir., Earl G. Johnson.

Masonic Service Assn. of the U. S. (1919), 700 10th St., N.W., Washington, D. C. 20001; 43 Lodges; Exec. Sec., Conrad Hahn.

Masons, Ancient Accepted Scottish Rite, Northern Masonic Jurisdiction, Supreme Council 33° (Aug. 5, 1813), 1117 Statler Bldg., Boston, Mass. 02116; 506,635; Grand Sec. Gen., Laurence E. Eaton.

Masons, Ancient and Accepted Scottish Rite, Southern Jurisdiction, Supreme Council (1801), 1733 16th St., N.W., Washington, D. C. 20009; 540,000; Sovereign Grand Commander, Luther A. Smith, 32°.

Masons of the State of N. Y., Grand Lodge of Free & Accepted (Sept. 5, 1781), 71 West 23rd St., New York, N. Y. 10010; 262,000; Sec., Wendell K. Walker.

Masons, Royal Arch, General Grand Chapter (1797) 1084 New Circle Rd., N.E., Lexington, Ky. 40505; 563,775; Gen. Gr. Sec., Charles K. A. McGaughey.

Mathematical Assn. of America (1915), State Univ. at Buffalo, Buffalo, N. Y. 14214; 18,000; Exec. Dir., Prof. Harry M. Gelman.

Mathematical Society, American (1888), 321 S. Main St., P. O. Box 6248, Providence, R. I. 02904; 13,000; Sec., Everett Pitcher.

Mathematical Statistics, Institute of (1935), Dept. of Statistics, Michigan State Univ., East Lansing, Mich. 48823; 2,730; Sec., Leo Katz.

Mayflower Descendants, Gen. Soc. of (1897), P. O. Box 297, Plymouth, Mass. 02360; 13,256; Sec. Gen., Mrs. Robert M. Sherman.

Mayors, U. S. Conference of (1933), 1707 H St., N.W., Washington, D. C. 20006; Exec. Dir., John J. Gunther.

Mechanical Engineers, American Society of (1880), 345 East 47th St., New York, N. Y. 10017; 54,183; Sec., O. B. Schuchman.

Mediaeval Academy of America (1925), 1430 Massachusetts Ave., Cambridge, Mass. 02136; 2,500; Sec., Van Courtlandt Elliott.

Medical Association, National (1895), 520 W. St., N.W., Washington, D. C. 20001; 5,500; Admin. Sec., Samuel C. Smith.

Medical Colleges, Assn. of American (1876), 2530 Ridge Ave., Evanston, Ill. 60201; 3,754; Sec., Dr. Robert B. Howard.

Medical Technologists, American (1939), 710 Higgins Rd., Park Ridge, Ill. 60068; 10,239; Exec. Sec., Chester B. Dziekonski.

Medical Vocubulary, Natl. Assn. on Standard (1958), 934 Monroe St., Charlestown, Ind. 47111; 4,200; Chairman, Dr. J. E. Schmidt.

Medical Women's Association, American (1915), 1740 Broadway, N. Y., N. Y. 10019; 5,000; Exec. Dir., Mrs. G. F. Conroy.

Medicine, New York Academy of (1847), 2 E. 103

- St., New York, N. Y. 10029; 2,500; Dir., James E. McCormack, M.D.
- Mensa (1945), 50 East 42nd St., N. Y., N. Y. 10017; 12,000; Chairman, Herbert Ahrend.
- Mental Health, Natl. Assn. for (1950), 10 Columbus Circle, N. Y., N. Y. 10019; 939 chapters; Pres., Earl Warren, Jr.
- Merchant Marine Library Assn., American (1921), 45 Broadway, New York, N. Y. 10006; 3,079; Exec. Sec., William P. Bollman.
- Metal Finishers, National Association of (1955), 248 Lorraine Ave., Upper Montclair, N. J. 07043; 700 companies; Sec., P. Peter Kovatis.
- Metals. American Society for (1913) Metals Park, O. 44073; 39,025; Man. Sec., Dr. Thomas E. Leontis.
- Meteorological Society, American (1919), 45 Beacon St., Boston, Mass. 02108; 8,500; Sec., Kenneth C. Spengler.
- Microbiology, American Society for (1899), 115 Huron View Blvd., Ann Arbor, Mich. 48103; 12,000; Exec. Sec., R. W. Sarber.
- Military Chaplains Assn. of the U. S. A. (1925), 1710 16th St., N.W., Washington, D. C. 20009; 2,900; Exec. Dir., Dr. Karl B. Justus.
- Military Engineers, Society of American (1920), Fleming Building, 800 17th St., N.W., Washington, D. C. 20006; 27,000; Sec., Brig. Gen. William C. Hall.
- Military Order of the Carabao (Nov., 1900, in Manila, P. I.), 1632 K St., N.W., Washington, D. C. 20006; 1,300; Sec., Capt. William J. G. Davis, AUS.
- Military Order of the Loyal Legion of the U. S. (1865), 1805 Pine St., Philadelphia, Pa. 19103; 2,000; Sec., H. Durston Saylor II.
- Military Order of the Purple Heart (Aug. 7, 1922, by Gen. George Washington; reactivated Feb. 22, 1932, by President Herbert Hoover and Chief of Staff Douglas MacArthur), P. O. Box 5727, Daytona Beach, Fla. 32020; 15,200; Exec. Sec., Victor F. Kubly.
- Military Order of the World Wars (1919), 910 17th St., N.W., Washington, D. C. 20006; 11,300; W. K. Schwerdtfeger, USN (ret.).
- Military Surgeons of the U. S. Assn. of (1891), 1500 Massachusetts Ave., N.W., Washington, D. C. 20005; 5,563; Exec. Dir., Brig.-Gen. Frank E. Wilson.
- Mining, Metallurgical and Petroleum Engineers, American Institute of (1871), 345 East 47th St., New York, N. Y. 10017; 44,166; Sec. Gen., R. William Taylor.
- Mining and Metallurgical Society of America (1908), 11 Broadway, New York, N. Y. 10004; 420; Sec., Lendall P. Warner.
- Ministerial Assn., American (1929), P. O. Box 1252, York, Pa. 17405; 5,308; Sec., Dr. Wilbur Lyons.
- Minute Men of America (April 6, 1917), 834 Riverside Dr., Stuart, Fla. 33494; Dir. Gen., Francis A. Adams.
- Missouri Valley Conference (1907), President Hotel, Kansas City, Mo. 64105; 9 member schools; Exec. Sec., Norwall Neve.
- Modern Language Assn. of America (1883), 62 Fifth Ave., N. Y., N. Y. 10011; 26,000; Exec. Sec., Prof. John H. Fisher.
- Moose, Loyal Order of (1888), Mooseheart, Ill. 60539; 1,078,521; Dir. Gen., Paul P. Schmitz.
- Mothers Committee, American (1935), Waldorf-Astoria, 301 Park Ave., New York, N. Y. 10022; 3,000; Pres., Mrs. Dorothy Lewis.
- Motion Picture Arts and Sciences, Academy of (May 4, 1927), 9038 Melrose Ave., Los Angeles, Calif. 90069; 3,200; Exec. Dir., Mrs. Margaret Herrick.
- Motion Picture Assn. of America (1922), 522 Fifth Ave., New York, N. Y. 10036; Sec., Sidney Schreiber.
- Motion Picture and Television Engineers, Society of (1916), 9 East 41st St., New York, N. Y. 10017; 7,000; Exec., G. Carleton Hunt.
- Motion Pictures, Natl. Board of Review of (1909), 31 Union Square, New York, N. Y. 10003; 225; Exec. Dir., Henry Hart.
- Motor Bus Owners, Natl. Assn. of (1926) 839 17th St., N.W., Washington, D. C. 20006; 391; Sec., Stanley Hamilton.
- Motor Vehicle Administrators, American Assn. of (1933), 1155 15th St., N.W., Washington, D. C. 20005; 125; Exec. Dir., Louis P. Spitz.
- Motorcycle Assn., American (1927), P. O. Box 231, Worthington, Ohio 43085; 100,000; Exec. Dir., Wm. T. Berry, Jr.
- Multiple Sclerosis Society, National (1946), 257 Park Ave. South, New York, N. Y. 10010; 140,000; Pres., Nathan Mobley.
- Municipal Finance Officers Assn. of the U. S. and Canada (1906), 1313 East 60th St., Chicago, Ill. 60637; 4,242; Exec. Dir., Joseph F. Clark.
- Municipal League, National (1894), 47 East 68th St., New York, N. Y. 10021; 6,300; Exec. Dir., Alfred Willoughby.
- Mural Painters, Natl. Society of (1895), 41 E. 65th St., N. Y., N. Y. 10021; 150; Pres., Helen Treadwell.
- Muscular Dystrophy Associations of America, (1950), 1790 Broadway, New York, N. Y. 10019; 15,000; Pres., Paul Cohen.
- Museums, American Assn. of (1906), 2306 Massachusetts Ave., N.W., Washington, D. C. 20008; 954 museums; Pres., Charles Parkhurst.
- Music Center, American (1940), 2109 Broadway, N. Y., N. Y. 10023; 800; Pres., Hugo Weisgall.
- Music Conference, American (1947), 332 S. Michigan Ave., Chicago, Ill. 60604; Exec. V. P., James L. Bixby.
- Music Clubs, Natl. Federation of (1898), Suite 1215, 600 So. Michigan Ave., Chicago, Ill. 60605; 600,000; Admin. Dir., Miss Lois Winterberg.
- Music Council, National (1940), 2109 Broadway, New York, N. Y. 10023; Exec. Sec., James Browning.
- Music Educators National Conference (1907), 1201 16th St., N.W., Washington, D. C. 20036; 54,000; Exec. Sec., Miss Vanett Lawler.
- Music Players, Amateur Chamber (1947), 15 W. 67th St., N. Y., N. Y. 10023; 5,000; Sec., Helen Rice.
- Music Publishers, National Assn. (1917), 460 Park Ave., New York, N. Y. 10022; 62; Exec. Dir., Leonard Gelst.
- Music Teachers Natl. Assn. (1876), 2209 Carew Tower, Cincinnati, Ohio 45202; 12,000; Exec. Sec., G. William Fahrner, Jr.
- Musicians, American Fed. of (1896), 641 Lexington Ave., N. Y., N. Y. 10022; 285,000; Sec., Stanley Ballard.
- Mutual Savings Banks, National Assn. of (1920), 200 Park Ave., New York, N. Y. 10017; 503 banks; Exec. V. P., Grover W. Ensley.

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- Name Society, American (1951), State University College, Potsdam, N. Y. 13676; 950; Pres., E. C. Ehrensperger.
- National Assn. for the Advancement of Colored People (NAACP) (Feb. 12, 1909), 1790 Broadway, New York, N. Y. 10019; 450,000; Exec. Dir., Roy Wilkins.
- National Conference of Christians and Jews (1928), 43 West 57th St., New York, N. Y. 10019; 250,000; Sec., Oscar M. Lagrus.
- Nationalities Service, American Council for (1958), 20 West 40th St., New York, N. Y. 10018; Exec. Dir., Read Lewis.
- Nature Conservancy (1952), 1522 K St., N.W., Washington, D. C. 20005; 15,000; Sec., Elting Arnold.
- Naval Architects and Marine Engineers, Society of (1893), 74 Trinity Pl., New York, N. Y. 10006; 8,700; Sec., Capt. M. H. Gluntz, USN, Ret.
- Navy Cadets of America Junior (1958), P. O. Box 725, Groton, Conn. 06340; 2,500; Nat. Comm., Capt. John McCaffery.
- Naval Engineers, American Soc. of (1888), Suite 507, 1012 14th St., N.W., Washington, D. C. 20005; 3,687; Sec., Capt. J. E. Hamilton, USN, Ret.
- Naval Inst., U. S. (1873), U. S. Naval Academy, Annapolis, Md. 21402; 57,424; Sec., Cmdr. R. T. E. Bowler, Jr.
- Navy Reserve Assn. (1954), 1913 Eye St., N.W., Washington, D. C. 20006; 8,400; Exec. Dir., Radm. John S. Lewis, USN, Ret.
- Navigation Institute of (1945), Rm. 700, 711 14th St., N.W., Washington, D. C. 20005; 2,250; Exec. Sec., Capt. Ross E. Freeman, USN, Ret.
- Navy Club of the U. S. A. (1940), 320 Riverside Blvd., Loves Park, Ill. 61111; 2,000; Sec., LeRoy H. Hahn.
- Navy Club of the U. S. A. Auxiliary, Natl., Commandant, Mrs. Stanley Pazera, 2508 Drexel Ave., Fort Wayne, Ind. 46806.
- Navy League of the U. S. (1902), 818-18th St. N.W., Washington, D. C. 20006; 41,000; Exec. Sec., Evelyn M. Collins.
- Navy Mother's Clubs of America (1930), P. O. Drawer B, Fremont, Neb. 68025; 25,000; Sec., Mrs. Leona Jacobs.
- Near East College Association (1926), 548 Fifth Ave., New York, N. Y. 10036; 8 colleges; Sec., William H. Fox.
- Needlework Guild of America (1885), 124 So. 12th St., Philadelphia, Pa. 19107; 6,399; Exec. Dir., Mildred N. Michener.
- Negro Life and History, Assn. for the Study of (1915), 1538 Ninth St., N.W., Washington, D. C. 20001; 25,000; Sec., Charles H. Thomas.
- New England Historic Genealogical Society (Mar. 18, 1845), 101 Newbury St., Boston, Mass. 02116; 3,400; Dir., Edgar P. Dean.
- New England Women, National Society of (1895), Box 114, Rogers Lake, Old Lyme, Conn. 06371; 2,530; Sec., Lillian P. DuCharme.
- New York Chamber of Commerce (1768), 65 Liberty St., New York, N. Y. 10005; 1,520; Sec., John T. Gwynne.

New York Clearing House (1853), 100 Broad St., N. Y., N. Y. 10004; Sec., John F. Lee.
New York-New Jersey Trail Conference (1920), P. O. Box 2250; New York, N. Y. 10001; 15,000; Sec., Mrs. Mary Coen.

Newspaper Editors, American Society of (1922), 750 Third Ave., New York, N. Y. 10017; 700; Exec. Sec., Gene Giancarlo.

Newspaper Enterprise Association (1902), Editorial; 7 E. 43rd St., N.Y.C. 10017; Business and Production; 1200 W. 3rd St., Cleveland, O. 44113; Services over 800 newspapers; Pres. and Ed., Boyd Lewis; V. F. and Gen. Mgr., Meade Monroe.

Newspaper Guild, American, AFL-CIO (1933), 1126 16th St., N.W., Washington, D. C. 20036; 32,500; in U. S. & Canada; Exec. V. P., William J. Farson.

Newspaper Promotion Assn., International (1930), 750 Third Ave., New York, N. Y. 10017; 900; Sec., Gerald J. Rock.

Newspaper Promotion Assn., National (1938), 75 Fountain St., Providence, R. I.; 769; Sec., Clifford A. Shaw.

Newspaper Publishers Assn., American (1887), 750 Third Ave., New York, N. Y. 10017; 1,018 dailies; Gen. Mgr., Stanford Smith.

Newspaper Reporters Assn. of NYC (1948), Hotel New Yorker, 34th and 8th Ave., N. Y., N. Y. 10001; 800; Pres., Gus Engelman.

Newspaper Women's Club of N. Y. (1924), 54 West 40th St., New York, N. Y. 10018; 200; Pres., Aileen Snoddy.

Ninety-Fifth Infantry Division Assn. (1950), P. O. Box 1274; Chicago, Ill. 60690; 2,500; Sec., Theodore S. Nelson.

Ninety-Nines (1929), P. O. Box 59964, Will Rogers World Airport, Oklahoma City, Okla. 73159; 3,300; Sec., Mrs. Cornelius Hagan.

Ninety-ninth Infantry Division Association (1948), 926 Clark Lane, Des Plaines, Ill. 60016; 650; Pres., Frank Gran.

Ninety-Sixth Infantry Division Association (1958), 929 S. Myrtle, Kankakee, Ill. 60901; 7,250; Sec., Richard Klassen.

Non-Commissioned Officers Assn. of U. S. A. (1960), 802 Brooklyn, San Antonio, Tex. 78206; 30,000; Sec., Peter F. Blinn.

Norway, Sons of (1895), 1455 West Lake St., Minneapolis, Minn. 55408; 45,000; Gen. Mgr., Magne Smedvig.

Notaries, American Society of (1965), 1629 K St., N.W., Washington, D. C. 20006; 845; Chmn., Arthur C. Barton, Jr.

Nuclear Society, American (1954), 244 East Ogden Ave., Hindale, Ill. 60521; 8,000; Exec. Sec., Octave J. Du Temple.

Numismatic Assn., American (1891), 818 N. Cascade St., Colorado Springs, Colo. 80901; 27,000; Exec. Dir., Edward Rochette.

Numismatic Society, American (1858), Broadway at 155th St., New York, N. Y. 10032; 1,626; Sec., George C. Mills.

Nurse Education and Service, Natl. Assn. for Practical (1941), 535 Fifth Ave., N. Y., N. Y. 10017; 30,000; Pres., Rose G. Martin, R.N.

Nurses' Assn., American (1896), 10 Columbus Circle, New York, N. Y. 10018; 212,000; Exec. Dir., Mrs. Judith G. Whitaker.

Nurses, Assn. of Operating Room (1949), 575 Madison Ave., N. Y., N. Y. 10022; 9,000; Pres., Audrey N. Bell, R.N.

Nurses, Natl. Fed. of Licensed Practical (1949), 250 West 57th St., New York, N. Y. 10019; 30,000; Exec. Dir., Etta B. Schmidt.

Nursing, Natl. League for (1952), 10 Columbus Circle, New York, N. Y. 10019; 25,000; Sec., Inez Haynes.

Nut Growers Assn., Northern (1910), 4518 Holston Hills Rd., Knoxville, Tenn. 37914; 1,059; Sec., Spencer Chase.

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Occupational Therapy Assn., American (1917), 251 Park Ave. South, N. Y., N. Y. 10010; 10,000; Exec. Dir., Mrs. Harriet Tichel.

Odd Fellows, Ind. Order of (1819), 16 W. Chase St., Baltimore, Md. 21201; 1,250,000; Gr. Sec., A. Ford Winters.

Old Guard of City of New York (1826), 307 W. 91st St., New York, N. Y. 10024; 63; Pres., LTC. Matthew G. Cusack.

Olympic Committee, U. S. (1921), 57 Park Ave., N. Y., N. Y. 10016; 219 organizations; Exec. Dir., Arthur G. Lentz.

Optical Society of America (1916), 2100 Pennsylvania Ave. N.W., Washington, D. C. 20037; 5,404; Sec., Dr. Mary E. Warga.

Optimist International (1919), 4494 Lindell Blvd., St. Louis, Mo. 63108; 100,000; Exec. Sec., Hugh H. Cranford.

Optometric Assn., American (1898), 7000 Chipewa St., St. Louis, Mo. 63119; 14,600; Adm. Dir., J. Harold Bailey.

Oral Surgery, American Society of (1918), 211 E. Chicago Ave., Chicago, Ill. 60611; 1,745; Exec. Sec., Bernard J. Segen, D.D.S.

Order of Doves of the U. S. A. Benevolent, Patriotic (1921), Omaha, Neb.; 17,650; Supreme Sec., Ellen Erickson.

Ordinance Assn., American (1919), 618 Transportation Bldg., Washington, D. C. 20006; 46,000; Sec., Maj. Gen. W. K. Ghormley, Ret.

Organ, American Academy of (1949), P. O. Box 714 Mt. Vernon, N. Y. 10551; 1,826; Sec., Roy Anderson.

Organists, American Guild of (1896), 830 Fifth Ave., New York, N. Y. 10020; 17,500; Exec. Dir., James S. Bryan.

Organization of American States (1890), Pan American Union, 17th & Constitution Ave., N.W., Washington, D. C. 20006; Sec. Gen., Galo Plaza Lasso.

Oriental Research, Amer. Schools of (1900), 126 Inman St., Cambridge, Mass. 02139; 2,000; Dr. G. Ernest Wright.

Oriental Society, American (1842), 329 Sterling Memorial Library, New Haven, Conn. 06520; 1,669; Sec., Ferris J. Stephens.

ORT Federation, American (Organization for Rehabilitation through Training) (1922), 222 Park Ave. South, New York, N. Y. 10003; 80,000; Sec., Charles K. Radwin.

Osteopathic Association, American, (1897), 212 E. Ohio St., Chicago, Ill. 60611; 10,053; Sec., True B. Everleth.

Overseas Press Club of America (1939), 54 West 40th St., New York, N. Y. 10018; 3,400; Pres., Hal Lehrman.

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Paleontological Research Institution (1932), 109 Dearnborn Pl., Ithaca, N. Y. 14850; 300; Dir., Kenneth Caster.

Pan American Society of the U. S., (1912), Suite 362, 630 Fifth Ave., New York, N. Y. 10020; 1,000; Sec., Harold E. Montamat.

Panhellenic Conference, National (1902), 4261 Palm Lane, Bay Point, Miami, Fla. 33137; 1,350,000; Chmn., Mrs. George K. Roller.

Paper Institute, American (1964), 260 Madison Ave., New York, N. Y. 10016; Pres., Edwin A. Locke, Jr.

Paper Stationery & Tablet Manufacturers Assn. (1934), 444 Madison Ave., New York, N. Y. 10022; 40 companies; Exec. Sec., Frank Cowan, Jr.

Parasitologists, American Society of (1924), Dept. of Microbiology, U. of Texas Southwestern Medical School, Dallas, Tex. 75235; 1,500; Sec., Dr. Donald V. Moore.

Parents and Teachers, Natl. Congress of (Feb. 17, 1997), 700 N. Rush St., Chicago, Ill. 60611; 11,029,396; Sec., Mrs. William C. Baingard.

Parking Assn., Natl. (1951), 1101 17th St., N.W., Washington, D. C. 20036; 1,200; Pres., John Lyon.

Parkinson's Disease Foundation (1957), Wm. Black Medical Research Center, 640 W. 168th St., N. Y., N. Y. 10032; Pres., H. Huston Merritt, M.D.

Parks Association, National (1919), 1901 18th St., N.W., Washington, D. C. 20009; 38,200; Pres., Anthony W. Smith.

Pennsylvania Society (1899), Suite 594, Waldorf-Astoria Hotel, 301 Park Ave., New York, N. Y. 10022; 300; Exec. Sec., William P. Doyle.

P.E.O. Sisterhood (Jan. 21, 1859), 3700 Grand Ave., Des Moines, Ia. 50312; 162,000; Exec. Sec., Miss Margaret L. Mohler.

Poetry Day Committee, National (1949), 1110 North Venetian Dr., Miami Beach, Fla. 33139; 5,000; Natl. Dir., Frances C. Handler.

Personnel and Guidance Assn., American (1952), 1607 New Hampshire Ave., N.W., Washington, D. C. 20009; 28,000; Sec., Dr. Willis E. Dugan.

Petroleum Geologists, American Society of (1917), 1444 So. Boulder, Tulsa, Okla. 74101; 15,088; Pres., J. Ben Carsey.

Petroleum Institute, American (1919), 1271 Ave. of the Americas, New York, N. Y. 10020; 7,800; Sec., Willard M. Wilson.

Pharmaceutical Assn., American (1852), 2215 Constitution Ave., N.W., Washington, D. C. 20037; 48,000; Exec. Dir., Dr. William S. Apple.

Pharmaceutical Manufacturers Assn. (1958), 1155 15th St., N.W., Washington, D. C. 20005; 136 companies; Pres., C. Joseph Stetler.

Philatelic Americans Society of (1894), Box 266, Cincinnati, O. 45201; 5,923; Exec. Sec., Stewart T. Bailey.

Philatelic Society, American (Sept. 14, 1886), P. O. Box 800, State College, Pa. 16801; 18,500; Exec. Sec., Col. James T. DeVoss.

Philharmonic-Symphony Society of New York (1928 by merger of Philharmonic Soc. of N. Y., estab. 1842, and Symphony Soc. of N. Y., estab. 1877), Philharmonic Hall, Lincoln Center, New York, N. Y. 10023; Man. Dir., Carlos Moseley.

Phological Assn., American (1869), Herbert H. Lehman College, 224 Shuster Hall, Bronx, N. Y. 10468; 2,200; Sec., Wm. W. Minton.

Philological Association of the Pacific Coast, (1899), Dept. of For. Lgs., San Fernando Valley State College, Northridge, Calif. 91324; 1,057; Sec., R. S. Meyerstein.

Philosophical Assn., American (1900), Philosophy Dept., Ohio State Univ., 216 North Oval Dr., Columbus, O. 43210; 2,800; Sec., Robert G. Turnbull.

Philosophical Society, American (1743), 104 So. 5th St., Philadelphia, Pa. 19106; 491; Exec. Officer, Dr. George W. Corner.

Photographers of America, Professional (1880), 1090 Executive Way, Oak Leaf Commons, Des Plaines, Ill. 60018; 11,500; Exec. V. P., Frederick Quellmalz.

Photographic Society of America (1935), 2005 Walnut St., Philadelphia, Pa. 19103; 10,800; Exec. Sec., Frederic B. Shaw.

Physical Therapy Association, American (1921), 1740 Broadway, N. Y., N. Y. 10019; 12,186; Exec. Dir., Lucy Blair.

Physica, American Institute of (1931), 335 East 45th St., New York, N. Y. 10017; 42,000; Sec., Wallace Waterfall.

Physiological Society, American, (1887), 9650 Rockville Pike, Bethesda, Md. 20014; 3,067; Exec. Sec., Ray G. Daggs.

Pilgrim Society (1820), Pilgrim Hall, 219 Court St., Plymouth, Mass. 02360; 550; Sec., John J. Magee.

Pilgrims of the United States (1903), 74 Trinity Pl., New York, N. Y. 10006; 1,000; Sec., Walter S. Marvin.

Pilot Club International, (Oct. 18, 1921), Pilot P. O. Box 4844, Macon, Ga. 31208; 14,000; Exec. Dir., Miss Wilda Richardson.

Planned Parenthood Federation of America (1921 as Amer. Birth Control League; 1939, Birth Control Fed. of Amer.; renamed 1942), 515 Madison Ave., New York, N. Y. 10022; Chmn., George Lindsay.

Plastics Engineers, Society of (1942), 65 Prospect St., Stamford, Conn. 06902; 14,200; Exec. Sec., Colin C. Campbell.

Plastics Industry, Society of (1937), 250 Park Ave., New York, N. Y. 10017; 1,425 companies; Dir., Public Relations, Langdon P. Williams.

Plattsburg, Society of, (1935), c/o James N. MacLean, Exec. Dir., 14 Farmstead Lane, Brookville, Long Island, N. Y. 11545.

Podiatry Association, American, (1912), 3301 16th St., N.W., Washington, D. C. 20010; 5,000; Exec. Dir., S. P. Nyman, D.S.C.

Poetry Day Committee, Natl., (1965), 1110 N. Venetian Dr., Miami Beach, Fla. 33139; 5,000; Natl. Dir., Frances C. Handler.

Poetry Society, Florida State (1965), 1110 N. Venetian Dr., Miami Beach, Fla. 33139; 3,000; Sec.-Treas., Frances C. Handler.

Poetry Society of America, (1910), 142 E. 35th St., N. Y., N. Y. 10016; 750; Sec., Charles A. Wagner.

Poets, Academy of American (1934), 1078 Madison Ave., N. Y., N. Y. 10028; 1,000; Pres., Mrs. Hugh Bullock.

Polar Society, American (1934), 98-20 62nd Dr., Apt. 7H, Rego Park, N. Y. 11374; 2,057; Sec., August Howard.

Police, International Assn. of Chiefs of (1893), 1319 18th St., N.W., Washington, D. C. 20036; 7,000; Exec. Dir., Quinn Tamm.

Police Officers Association of America, National, (1955), 1890 South Tamiami Trail, Venice, Fla. 33595; 17,000; Exec. Dir., Frank J. Schirmer.

Polish Arm. Veterans Assn. of America (1921), 17 Irving Pl., New York, N. Y. 10003; 12,000; Adj. Gen., Zdzislaw A. Konikowski.

Political Science, Academy of (1880), Columbia Univ., 413 Fayerweather Hall, New York, N. Y. 10027; 10,000; Sec., Philip E. Mosely.

Political Science Assn., American (1903), 1527 New Hampshire Ave., N.W., Washington, D. C. 20036; 15,000; Pres., Dr. Merle Fainsod.

Political and Social Science, American Academy of (Dec. 14, 1889), 3937 Chestnut St., Philadelphia, Pa. 19104; 24,000; Pres., Dr. James C. Charlesworth.

Polo Association, U. S. (1890), Exec. Plaza, Suite 706, 1301 W. 22nd St., Oak Brook, Ill. 60521; 90 clubs; Sec., Ruth Fursley.

Population Assn. of America (1932), Box 14182, Benjamin Franklin St., Washington, D. C. 20044; 1,500; Sec.-Treas., Dr. Anders S. Lunde.

Portuguese Continental Union of the U. S. A. (1925), 889 Boylston St., Boston, Mass. 02115; 9,411; Sup. Sec., Anibal S. Branco.

Postal Clerks, United Federation of (1906), 817 14th St., N.W., Washington, D. C.; 155,000; Sec., Owen H. Schoon.

Postmasters of the U. S., National League of, (1904), 927 Munsey Bldg., Washington, D. C. 20004; 19,500; Pres., Henry H. Womack.

Poultry Science Assn. (1908), Dept. of Poultry Science, Texas A & M College, College Station,

Tex. 77843; 1,650; Sec.-Treas., Prof. C. B. Ryan.

Power Boat Assn., American (1903), The Whittier, 415 Burns Dr., Detroit, Mich. 48214; 6,164; Exec. Sec., Harry Smith, Jr.

Power Conference, American (1938), Illinois Inst. of Technology, 10 W. 32nd St., Chicago, Ill. 60616; Dir., R. A. Budenholzer.

Power Engineers, National Assn. of (1882), Suite 1411, 176 W. Adams St., Chicago, Ill. 60603; 12,500; Pres., Edward J. Schuetz.

Power Squadron, U. S. (1914), 96 West St., Englewood, N. J. 07631; 70,000; Chief Cmdr., Emery E. Ellis.

Press Photographers Assn., N. Y. (1915), 54 W. 40th St., N. Y., N. Y. 10018; 274; Sec., Jack Balletti.

Press and Radio Club (1948), P. O. Box 7023, Montgomery, Ala. 36107; 669; Exec. Sec., Charlie Casamus.

Press Women, National Fed. of (1934), 206 Ellis St., Kewaunee, Wis. 54216; 2,278; Pres., Ulrich Troubetzkoy.

Princeton Club of N. Y. (1899), 15 West 43rd St., New York, N. Y. 10036; 5,350; Sec., R. Leigh Duemler.

Produce Exchange, New York, (1862), 2 Broadway, New York, N. Y. 10004; 327; Man. Dir., C. R. Berg.

Production and Inventory Control Society, American (1957), Suite 504, Wergate Bldg., 2600 Virginia Ave., N.W., Washington, D. C. 20037; 7,000; Exec. Sec., Robert D. Taplett.

Propeller Club of the U. S. (Nov. 9, 1927), 17 Battery Pl., New York, N. Y. 10004; 12,500; Pres., Floyd H. Blaske.

Psychiatric Association, American, (1844), 1700 18th St., N.W., Washington, D. C. 20009; 16,000; Pres., Lawrence C. Kolb, M.D.

Psychological Assn., American, (1892), 1200 17th St., N.W., Washington, D. C. 20036; 27,250; Exec. Officer, Arthur H. Brayfield.

Psychological Assn. for Psychoanalysis, Natl. (1948), 29 E. 10th St., New York, N. Y. 10003; 120; Sec., Anne Wexler.

Psychological Minorities, Sec. for the Aid of (1961), 310 Lexington Ave., New York, N. Y. 10016; 25; Pres., Mrs. Marie Dedouch.

Psychotherapy Assn., American Group (1942), 1790 Broadway, Rm. 702, N. Y., N. Y. 10019; 1,984; Admin. Sec., Mrs. Marilyn Schiff.

Public Education Assn. (1895), 20 West 40th St., New York, N. Y. 10018; 2,000; Sec., Clarence H. Tompkins.

Public Health Assn., American (1872), 1740 Broadway, N. Y., N. Y. 10019; 19,800; Exec. Dir., Dr. Berwyn F. Mattison.

Public Relations Society of America (1947), 845 Third Ave., New York, N. Y. 10022; 6,000; Pres., Eward Haar.

Public Welfare Assn., American (1930), 1313 E. 60th St., Chicago, Ill. 60637; 1,667 agencies and 8,019 indiv.; Dir., Guy R. Justis.

Pulp and Paper Industry, Technical Assn. of the (1915), 360 Lexington Ave., New York, N. Y. 10017; 12,975; Exec. Sec., Philip E. Nethercut.

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Racing Assn., Thoroughbred (1942), 220 East 42nd St., New York, N. Y. 10017.

Racing Commissioners, National Assn. of State (1934), P. O. Box 4216, Lexington, Ky. 40504; 175; Sec., Mrs. A. E. Smith.

Radiological Society of North America, (1915), 713 E. Genesee St., Syracuse, New York 13210; 4,720; Sec., Maurice D. Frazer, M.D.

Radio Liberty Committee (1951), 30 East 42nd St., New York, N. Y. 10017; Pres., Howland H. Sargeant.

Radio Relay League, American (1914), 225 Main St., Newington, Conn. 06111; 100,000; Sec. John Huntoon.

Radio and Television Society, International, (1939), 420 Lexington Ave., N. Y., N. Y. 10017; 1,350; Exec. Dir., Lawrence W. Bruff.

Radio Union, International Amateur (1925), 225 Main St., Newington, Conn. 06111; 77; Sec., John Huntoon.

Railroads, Assn. of American (1934), Transportation Bldg., 815 17th St., N.W., Washington, D. C. 20006; Sec.-Treas., R. E. Keefe.

Railway Engineering Assn., American (July 14, 1899), 59 E. Van Buren St., Chicago, Ill. 60605; 3,500; Sec., E. W. Hodgkins.

Rainbow Division Veterans, National Assn. (1919), P. O. Box 342, Roanoke, Va. 24003; 5,535; Sec., R. Allen Gibbons.

Real Estate Boards, Natl. Assn. of (1908), 155 E. Superior St., Chicago, Ill. 60611; 85,000; Exec. V. P., Eugene P. Conser.

Real Estate Investment Funds, Natl. Assn. of (1960), P. O. Drawer 1227, Darien, Conn. 06820; 104; Exec. Dir., Robert M. Burr.

Record Industry Assn. of America (1952), 1 East

57th St., New York, N. Y. 10022; 43 firms; Exec. Sec., Henry Brief.

Protection and Park Assn., Natl. (1906), 1700

Pennsylvania Ave., N.W., Washington, D. C. 20006;

14,000; Sec., Dr. Sal J. Prezioso.

Red Cross, American National (May 21, 1881),

17th & D Sts., N.W., Washington, D. C. 20006;

30,463,700; Pres., James F. Collins.

Red Men, Improved Order of, Greater Council of

U. S. (1847), 1525 West Ave., Waco, Tex. 76703;

77,790; Sec., Carl R. Lemke.

Regional Plan Assn. (1922), 230 West 41st St.,

New York, N. Y. 10036; 1,250; Pres., C. McKim

Norton.

Rehabilitation Assn., Natl. (1925), 1522 K St.,

N.W., Washington, D. C. 20005; 28,000; Exec. Dir.,

E. B. Whitten.

Religion, American Academy of (1909), Wilson

Coll., Chambersburg, Pa. 17201; 2,509; Sec., Dr.

Milo Milanovich.

Renaissance Society of America (1954), 1161 Am-

sterdam Ave., New York, N. Y. 10027; 3,200; Exec.

Dir., William Nelson.

Reserve Officers Assn. of the U. S. (1922), 1

Constitution Ave., N.E., Washington, D. C. 20002;

56,000; Exec. Dir., Col. John T. Carlton, USAF.

Resources Council of America, National (1947),

Office of the Secretary, 708 Wire Bldg., Washing-

ton, D. C. 20005; 30 societies; Sec., Daniel A. Poole.

Restaurant Assn., Natl. (1919), 1530 Lake Shore

Dr., Chicago, Ill. 60610; 13,000; Sec., Donald

Grant.

Retail Druggists, National Assn. of (1898), 1 East

Wacker Dr., Chicago, Ill. 60601; 36,000; Exec. Sec.,

Willard R. Simmons.

Retail Grocers, National Association of (1893),

360 North Michigan Ave., Chicago, Ill. 60601;

44,000; Exec. Dir., Frank D. Register.

Retail Merchants Assn., National (1911), 100

West 31st St., New York, N. Y. 10001; 14,000 retail

stores; Exec. V. P., James J. Bliss.

Retarded Children, Natl. Assn. for, (1950), 420

Lexington Ave., N. Y., N. Y. 10017; 122,000; Pres.,

Mrs. Philip Elkin.

Retired Officers Assn., (1929), 1625 Eye St., N.W.,

Washington, D. C. 20006; 94,000; Sec., RADM.

Howard L. Collins.

Retired Persons, American Assn. of (1958), The

Andrus Bldg., 215 Long Beach Blvd., Long Beach,

Calif. 90802; 1,250,000; Pres., George W. Schlud-

berg.

Retired Teachers Assn., Natl. (1947), Andrus

Bldg., 215 Long Beach Blvd., Long Beach, Calif.

90802; 215,000; Pres., Cecelia O'Neill.

Retreads (1947), 40-07 154th St., Flushing, N. Y.

11354; 1,200; Natl. Adj., Elmer H. Braun.

Revolvers Assn., U. S. (1900), 59 Alvin St.,

Springfield, Mass. 01104; 1,500; Exec. Sec., Stanley

A. Sprague.

Rhodes Scholars, Assn. of American (1907), 1100

Phila. Natl. Bank Bldg., Philadelphia, Pa. 19107;

1,500; Sec., Jack B. Justice.

Rifle Assn. of America, Natl. (1871), 1600

Rhode Island Ave., N.W., Washington, D. C. 20036.

Road Builders Assn., American (1902), 525

School St., S.W., Washington, D. C. 20024; 5,400;

Pres., Robert S. Holmes.

Rodeo Cowboys Assn. (1936), 2929 W. 19th Ave.,

Denver, Colo. 80204; 11,000; Sec., Gene Pruett.

Roller Skating Rink Operators Assn. of Amer-

ica (1937), 20600 Woodward, Detroit, Mich. 48203;

600 rinks; Sec., Charles E. Cahill.

Rose Society, American (1898), 4048 Roselea Pl.,

Columbus, O. 43214; 17,500; Exec. Sec., O. Keister

Evans, Jr.

Rosicrucian Fraternity (1614 in Germany, 1859

in U. S.), Beverly Hall, Quakertown, Pa. 18951;

Pres., Emerson M. Clymer.

Rosicrucian Order, AMORC (1915), Rosicru-

cian Park, San Jose, Calif. 95114; 120,000; Sec.,

A. C. Piepenbrink.

Rosicrucians, Society of (1909), 321 West 101st

St., New York, N. Y. 10025; Pres., Mrs. G. E. S.

DeWitow.

Rotary International (1905), 1600 Ridge Ave.,

Evanston, Ill. 60201; 631,633; Gen. Sec., G. R.

Means.

Round Table International (1922), 279 Bayview

Ave., San Jose, Calif. 95127; 1,000; Exec. Dir.,

Eugene A. Silva.

Rowing Assn., Intercollegiate (1895), Hotel Man-

hattan, 8th Ave. at 44th St., New York, N. Y.

10036; Sec., Asa S. Bushnell.

Royal Arcanum, Supreme Council of the (June

23, 1877), 61 Batterymarch St., Boston, Mass.

02110; 34,036; Supr. Regent, J. Paul Masse.

Rubber Manufacturers Assn., (1915), 444 Madison

Ave., New York, N. Y. 10022; 172 firms; Sec.,

Charles C. Miller.

Ruritan National (1928), Box 487, Dublin, Va.

24084; 32,210; Exec. Sec., Russell Burgess.

Russian Orthodox Clubs, Federated (1927), 84

East Market St., Wilkes Barre, Pa. 18701; 4,887;

Sec., Helen R. Russin.

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Safety Council, National (Oct. 13, 1913), 425
No. Michigan Ave., Chicago, Ill. 60611; 10,000 com-
panies, organizations and individuals; Sec. H. W.
Champlin.

Safety Engineers, American Society of (1911),
850 Busse Highway, Park Ridge, Ill. 60068; 9,000;

Sec., A. C. Blackman.

St. Andrew's Society of the State of N. Y.

(1756), 281 Park Ave., South, New York, N. Y.

10010; 1,137; Rec. Sec., Walter P. Marshall.

St. David's Society of the State of N. Y. (1835),

71 West 23rd St., New York, N. Y. 10010; 275; Sec.,

W. C. W. James.

St. George's Society of N. Y. (1770), 15 East

26th St., New York, N. Y. 10010; 900; Exec. Sec.,

H. J. Mitchell.

St. Paul, National Guilds of (1937), 601 Hill N'

Dale, Lexington, Ky. 40503; 12,960; Dir., Rt. Rev.

Msgr. Leonard B. Nienaber.

Sales Executives Club of N. Y. (1932), Hotel

Roosevelt, Madison Ave. at 45th St., New York

N. Y. 10017; 3,500; Sec., Harry R. White.

Save-the-Redwoods League (1918), 114 Sansome

St., San Francisco, Calif. 94104; 40,000; Sec.,

Newton B. Drury.

Savings and Loan League, U. S. (1892), 221

No. LaSalle St., Chicago, Ill. 60601; 9,558; Exec.

V. P., Norman Strunk.

School Administrators, American Assn. of (1865),

1201 16th St., N.W., Washington, D. C. 20036;

17,000; Exec. Sec., Dr. Forrest E. Conner.

School Boards Assn., Natl. (1940), 1233 Central

St., Evanston, Ill. 60201; 85,000; Sec., Kenneth

E. Buhrmaster.

School, College and University Staffing, Assn.

for (1934), Box G, Hershey, Pa. 17033; Sec., Dr.

Aubrey L. Berry.

School Garden Assn. of New York (1908), 70

Mulberry St., New York, N. Y. 10013; 8,000; Sec.,

Antoinette E. Fusco.

School Principals, Natl. Assn. of Secondary

(1916), 1201 16th St., N.W., Washington, D. C.

20036; 35,292; Exec. Sec., Ellsworth Tompkins.

Schools and Colleges, American Council on

(1927), P. O. Box 1252, York, Pa. 17405; 93

schools; Sec., Dr. Wilbur Lyons.

Schools & Colleges Association, American (1910),

Suite 2007, One Rockefeller Plaza, New York, N. Y.

10020; Pres., Kenneth Beebe.

Schools of Music, Natl. Assn. of (1924), 1424

16th St., N. W., Washington, D. C. 20036; 320

schools; Exec. Sec., Dr. David A. Ledet.

Science, American Assn. for the Advancement

of (1848), 1515 Massachusetts Ave., N.W., Wash-

ington, D. C. 20005; 125,000; Exec. Off., Dael

Waffie.

Science Clubs of America (1941), 1719 N St.,

N.W., Washington, D. C. 20038; 28,000 groups;

Exec. Sec., Lloyd Ulmer.

Science Service (1941), 1719 N. St., N.W.,

Washington, D. C. 20036; 25,000 in affiliated groups;

Dir., E. G. Sherburne.

Science Teachers Assn., Natl. (1944), 1201 16th

St., N. W., Washington, D. C. 20036; 22,000; Exec.

Sec., Robert H. Carleton.

Science Writers, Natl. Assn. of (1934), 75 Bay-

view Ave., Port Washington, N. Y. 11050; 830; Sec.,

Mrs. Howard W. Blakeslee.

Sciences, Maryland Academy of, (1797), 7 West

Mulberry St., Baltimore, Md. 21201; 1,800; Dir.,

Nigel O'C. Wolff.

Sciences, National Academy of—National Re-

search Council (1863), 2101 Constitution Ave.,

N.W., Washington, D. C. 20418; 745; Pres., Dr.

Frederick Seitz.

Sciences, New York Academy of (1817), 2 East

63rd St., New York, N. Y. 10021; 24,417; Exec. Dir.,

Edwin S. Schanze.

Scientific Apparatus Makers Association (1918),

1140 Connecticut Ave., N.W., Washington, D. C.

20036; 230 companies; Pres., Herbert J. Mossien.

Scottish Clans, Order of, Royal Clan (Nov. 30,

1878), 38 Chauncey St., Boston, Mass. 02111;

12,840; Royal Sec., William Slater.

Sculpture Society, Natl. (1893), 250 E. 51st St.,

New York, N. Y. 10022; 350; Pres., Frank Eliscu.

Seamen's Service, United (1942), 17 Battery

Place, N. Y., N. Y. 10004; Exec. Dir., Edward J.

Sette.

Secretaries Assn., National (1942), 1103 Grand

Ave., Suite 410, Kansas City, Mo. 64118; 26,000;

Exec. Sec., Mrs. Lillian C. Martino.

Security Industrial Assn., National (Sept., 1944),

1030 15th St., N.W., Washington, D. C. 20005; 410

corporations; Pres., V. Adm. Joseph M. Lyle.

Seeing Eye, The (Jan. 29, 1929), Morristown,

N. J. 07960; 18,000; Exec. V. P., George Wernitz, Jr.

Sertoma International (1912), 3200 Broadway,

Kansas City, Mo. 64111; 24,500; Man. Dir., George

B. Williams.

Settlements and Neighborhood Centers, Natl.

- Federation of, (1911),** 232 Madison Ave., N. Y., N. Y. 10016; 411 agencies; Exec. Sec., Frederick B. Taylor.
- 77th Division Assn. (1921),** 28 East 39th St., New York, N. Y. 10016; 25,000; Sec., Charles Rist.
- Sheriffs Assn., Natl. (1940),** Suite 209, 1250 Connecticut Ave., N.W., Washington, D. C. 20036; 23,500; Exec. Dir., Ferris E. Lucas.
- Shipbuilders Council of America (1921),** 1730 K St., N.W., Washington, D. C. 20006; 40; Sec., E. P. Ruddy.
- Shoe Retailers Assn., Natl. (1912),** 200 Madison Ave., New York, N. Y. 10016; 3,000 store units; Exec. V. P., Edward J. McDonald.
- Showmen Assn., National (1938),** 123 West 56th St., New York, N. Y. 10019; 600; Exec. Sec., Ethel Weinberg.
- Showmen's League of America (1913);** 300 West Randolph St., Chicago, Ill. 60606; 1,500; Sec., Henry N. Shelby.
- Shrine, Imperial Council of the A. A. Order of Nobles of the Mystic (1876),** 323 No. Michigan Ave., Chicago, Ill. 60601.
- Sierra Club (1892),** 1050 Mills Tower, 220 Bush St., San Francisco, Calif. 94104; 62,000; Sec., George Marshall.
- Silurians, Society of the (1924),** 405 Lexington Ave., New York, N. Y. 10017; 700; Exec. Sec., Charles Speaks.
- Simpler Spelling Assn. (1876),** Lake Placid Club, N. Y. 12946; 100; Sec., Godfrey Dewey.
- Skate-Sailing Assn. of America (1922),** 548 Herrick Dr., Dover, N. J. 07801; 100; Sec., Basil Kamener.
- Skeet Shooting Assn., National (1946),** 212 Linwood Bldg., 2608 Inwood Rd., Dallas, Texas 75235; 15,325; Pres., Edward Docherty.
- Ski Assn., United States, (1904),** The Broadmoor Hotel, Colorado Springs, Colo. 80906; 100,243; Exec. Sec., Gloria C. Chadwick.
- Small Business Assn. (1937),** 1225 19th St., N.W., Washington, D. C. 20036; 30,000; Pres., Carl A. Beck.
- Scouting Society of America (1912)** P.O. Box 66071, Los Angeles, Calif. 90066; Exec. Dir., Lloyd M.licher.
- Social Health Assn., American (1914),** 1740 Broadway, New York, N. Y. 10019; 1,700; Sec., Joyce Yerwood.
- Social Science Research Council (1923),** 230 Park Ave., New York, N. Y. 10017; 30; Vice Pres., Paul Webbnk.
- Social Sciences, Natl. Institute of (1865),** P. O. Box 251, Lenox Hill Station, N. Y., N. Y. 10021; 650; Sec., Mary C. Flynn.
- Social Welfare, Internatl. Council on (1928),** 345 E. 46th St., New York, N. Y. 10017; Exec. Dir., Kate Katzki.
- Social Welfare, Natl. Conference on (1874),** 22 West Gay St., Columbus, Ohio 43215; 8,500; Exec. Sec., Joe R. Hoffer.
- Social Work Education, Council on (1952),** 345 East 46th St., New York, N. Y. 10017; 4,300; Exec. Dir., Harry N. Sachs.
- Social Workers, National Assn. of (1955),** 2 Park Ave., New York, N. Y. 10016; 50,000; Exec. Dir., Joseph P. Anderson.
- Sociological Assn., American (1905),** 1001 Connecticut Ave., N.W., Washington, D. C. 20036; 12,300; Pres., Philip M. Hauser.
- Softball Assn., Amateur (1934),** 1351 Skirvin Tower, Oklahoma City, Okla. 73102; 6,500,000; Exec. Sec., D. E. Porter.
- Soft Drink Assn., National (1919),** 1123 16th St., N.W., Washington, D. C. 20036; 2,400; Exec. V. P., Thomas F. Baker.
- Soil Conservation Soc. of America (1946),** 7515 N.E. Ankeny Rd., Ankeny, Iowa 50021; 12,056; Exec. Sec., H. Wayne Pritchard.
- Soil Science Soc. of America (1936),** 677 S. Segre Rd., Madison, Wis. 53711; 3,581; Exec. Sec., Mathias Stelly.
- S. Journers, National (1919),** 711 14th St., N.W., Washington, D. C. 20005; 11,000; Sec., CWO Melvin W. Byers.
- Soldier, Sailors and Airmen's Club (1919),** 283 Lexington Ave., N. Y., N. Y. 10016; Sec., Mrs. DeSales Harrison Jr.
- Sons of the American Legion (1932),** The American Legion, P. O. Box 1055, Indianapolis, Ind. 46206; 20,000; Coordinator, C. L. Johnson.
- Sons of the American Revolution, National Society (Apr. 30, 1889),** 2412 Massachusetts Ave., N.W., Washington, D. C. 20008; 19,986; Exec. Sec., Warren S. Woodward.
- Sons of Poland, Assn. of the (1903),** 665 Newark Ave., Jersey City, N. J. 07306; 16,000; Sec., Alexander S. Suddink.
- Sons of the Revolution in the State of N. Y. (1876),** Fraunces Tavern, 54 Pearl St., New York, N. Y. 10004; 1,500; Pres., George E. Doty.
- Sons of Sherman's March to the Sea (1966),** 1725 Farmer Ave., Tempe, Arizona 85281; 30; Natl. Dir., Stan Schlrmacher.
- Sons of Union Veterans of the Civil War (1881),** P. O. Box 24, Federal Bldg., Gettysburg, Pa. 17326; 3,300; Sec., Chester S. Shriver.
- Soroptimist Federation of the Americas (1921),** 1616 Walnut St., Philadelphia, Pa. 19036; 26,000; Pres., Ethel F. Lord.
- Southern Christian Leadership Conference (1957),** Atlanta, Ga. 30304; 300 affiliate organizations; Pres., Rev. Ralph D. Abernathy.
- Southern Regional Council (1944),** 5 Forsyth St., N.W., Atlanta, Ga. 30303; 100; Exec. Dir., Paul Anthony.
- Southern Society, N. Y. (1886),** Plaza Hotel, Fifth Ave. at 59th St., New York, N. Y. 10019; 900; Exec. Sec., Harvey L. Clinkscales.
- Spanish War Veterans, United (1898),** 810 Vermont Ave., Washington, D. C. 20013; 3,541; Adj. Gen., James H. McElroy.
- Speech Assn. of America (1914),** Statler Hilton Hotel, New York, N. Y. 10001; 7,000; Exec. Sec., William Work.
- Speech and Hearing Assn., American (1925),** 9030 Old Georgetown Rd., Washington, D. C. 20014; 13,000; Exec. Sec., Kenneth O. Johnson.
- Sneleological Society, Natl. (1941),** 2318 No. Kenmore St., Arlington, Va. 22201; 3,500; Pres., John A. Stellmack.
- Sports Fans of America, Professional (1962),** 22880 Chardon Rd., Cleveland, Ohio 44117; 84; Sec., E. Allan Anderson.
- Stamp Dealers' Association, American (1914),** 116 Nassau St., New York, N. Y. 10038; 1,100; Pres., Phillip Robbins.
- Standards Institute, U. S. of America (1918),** 10 East 40th St., New York, N. Y. 10016; Sec., Donald L. Peyton.
- State & Local History, American Assn. of (1940),** 132 9th Ave., No., Nashville, Tenn. 37203; 3,208; Dir., William T. Alderson Jr.
- State Budget Officers, Natl. Assn. of (1944),** c/o Council of State Governments, 1313 East 60th St., Chicago, Ill. 60637; Sec., George A. Bell.
- State Cmmunities Aid Assn. (1872),** 105 E. 22nd St., New York, N. Y. 10010; 255; Exec. Dir., Gordon E. Brown.
- State Governments, Council of (1933),** 1313 East 60th St., Chicago, Ill. 60637; Exec. Dir., Brevard Criffield.
- State Parks, Natl. Conference on (1921),** 1709 Pennsylvania Ave., N.W., Washington, D. C. 20005; 500; Exec. Sec., Ben H. Thompson.
- State Universities and Land-Grant Colleges, National Assn. of (1887),** 1785 Massachusetts Ave., N.W., Washington, D. C. 20036; 99 institutions; Exec. Sec., Russell I. Thackrey.
- Statistical Assn., American (1839),** 810 18th St., N.W., Washington, D. C. 20006; 10,000; Exec. Dir., John W. Lehman.
- Steamship Historical Society of America (1935),** 4 Broad St., Staten Island, N. Y. 10304; 1,269; Sec., Mrs. Alice S. Wilson.
- Steel Construction, American Institute of (1921),** 101 Park Ave., New York, N. Y. 10017; 300; Sec., M. Harvey Smedley.
- Steel Founders Society of America (1902),** 21010 Center Ridge Road, Rocky River, Ohio 44116; 127 foundries; Sec., T. E. Barlow.
- Steeplechase and Hunt Assn., Natl. (1895),** Box 308, Elmont, N. Y. 11003; 101; Exec. Sec., John E. Cooper.
- Sterilization, Association for Voluntary (1937),** 14 W. 40th St., N. Y., N. Y. 10018; Pres., H. W. Stinson, M.D.
- Steuben Society of America (1919),** 369 Lexington Ave., New York, N. Y. 10017; Exec. Sec., Edward J. Sussman.
- Stock Exchange, American (1849),** 86 Trinity Pl., New York, N. Y. 10006.
- Stock Exchange, Midwest (1882),** 120 So. LaSalle St., Chicago, Ill. 60603; 423; Sec., John G. Weithers.
- Stock Exchange, N. Y. (May 17, 1792),** 11 Wall St., New York, N. Y. 10005; 1,366; Sec., John J. Murnahy.
- Stock Exchange, Pacific Coast (Jan. 2, 1957** by amalgamation of San Francisco Stock Exch., estab. 1882 and Los Angeles Stock Exch., estab. 1899), 301 Pine St., San Francisco 4, Calif.
- Stock Exchange, Philadelphia-Baltimore-Washington (1790),** 17th St. and Stock Exchange Pl., Philadelphia, Pa. 19103; 216; Sec., Charles L. Wilson.
- Student Assn., U. S. National (1947),** 2115 S St., N.W., Washington, D. C. 20008; 340 schools; Pres., Edward A. Schwartz.
- Student Councils, National Assn. of (1931),** 1201 16th St., N.W., Washington, D. C. 20036; 9,800 high schools; Sec., Dr. Ellsworth Tompkins.
- Sugar Brokers Assn., National (1903),** 79 Wall St., Room 205, N. Y., N. Y. 10005; 340; Exec. Sec., Mrs. Josephine R. Koop.
- Sunbathing Assn., American (1936),** 6 East Main St., Mays Landing, N. J. 08330; 15,000; Exec. Dir.,

Rose Holroyd.

Sunday League (1932), 279 Highland Ave., Newark, N. J. 07104; 25,000; Gen. Sec., R. S. Womer.

Sunday School Union, American (1817), 1816 Chestnut St., Philadelphia, Pa. 19103; 1,586 Sunday Schools; Dir. Pub. Rel., Paul E. Almuquist.

Surveying and Mapping, American Congress on (1941), 430 Woodward Bldg., 733 15th St., N.W., Washington, D. C. 20005; 6,000; Exec. Sec., Walter S. Dix.

Symphony Orchestra League, American (1942), P. O. Box 66, Vienna, Va. 22180; 2,105; Exec. V. P., Helen M. Thompson.

Systems & Procedures Assn. (1947), 24587 Bagley Rd., Cleveland, Ohio 44138; 7,500; Exec. Dir., Richard L. Irwin.

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Table Tennis Assn., United States (1933), Box 8587, Kensington Sta., Detroit, Mich. 48224; 10,000; Pres., Graham B. Steenhoven.

Tax Accountants, Natl. Assn. of Enrolled Federal (1960), 162 N. Clinton St., Chicago, Ill. 60606; Exec. Sec., Seymour Rish.

Tax Administrators, Natl. Assn. of (1937), 1313 East 60th St., Chicago, Ill. 60637; Exec. Dir., Charles F. Conlon.

Tax Assn., National (1907), 100 East Broad St., Columbus, Ohio 43215; 2,000; Exec. Dir., Stanley J. Bowers.

Tax Inst. of America (1932), 457 Nassau St., Princeton, N. J. 08540; 1,000; Sec., Mabel Walker.

Tea Assn. of the U. S. A. (1899), 10 E. 56th St., N. Y., N. Y. 10022; 115; Sec., Teresa K. Kulka.

Teachers Agencies, Natl. Assn. of (1915), 64 E. Jackson Blvd., Rm. 400, Chicago, Ill. 60604; 53 agencies; Sec., Charles A. Lutton.

Teachers, American Federation of (1916), 1012 14th St., N.W., Washington, D. C. 20005; 150,000; Sec., Robert G. Porter.

Teachers of English, Natl. Council of (1911), 508 So. 6th St., Champagne, Ill. 61820; 131,602; Exec. Sec., Robert F. Hogan.

Teachers of French, Amer. Assn. of (1927), Eastern Michigan Univ., Ypsilanti, Mich. 48197; 11,000; Sec. J. Henry Owens.

Teachers of Spanish and Portuguese, Assn. of (1917), Wichita State Univ., Wichita, Kansas 67208; 13,000; Sec., Eugene Savaiano.

Technical Writers and Publishers, Society of (1958), 1013 Vermont Ave., N.W., Suite 421, Washington, D. C. 20005; 4,000; Pres., Joseph Godfrey.

Television Arts and Sciences, National Academy of (1957), 54 West 40th St., New York, N. Y. 10018; and 7188 Sunset Blvd., Hollywood, Calif. 90046; 6,000; Exec. Sec., Peter Cott.

Telluride Assn. (1911), 217 West Ave., Ithaca, N. Y. 14850; 89; Exec. Sec., Beatrice MacLeod.

Tennis Assn., U. S. Lawn (May 21, 1881), 51 E. 42nd St., New York, N. Y. 10017; 2,500 clubs; Exec. Sec., Robert S. Platt.

Testing and Materials, American Society for (1898), 1916 Race St., Philadelphia, Pa. 19103; 15,500; Exec. Sec., T. A. Marshall, Jr.

Textile Association, Northern (1854), 211 Congress St., Boston, Mass. 02110; 300; Sec., Daniel D. Gordon.

Textile Manufacturers Institute, American (1949), 1501 Johnston Bldg., Charlotte, N. C. 28202; Sec., F. S. Love.

Theatre and Academy, American National (1935), 245 West 52nd St., New York, N. Y. 10019; 3,500; Pres., Walter Abel.

Theodore Roosevelt Assn. (1920), 28 East 20th St., New York, N. Y. 10003; Pres., Elisha Dyer.

Theological Library Assn., Amer. (1947), Fisher Library-Asbury Theological Seminary, Wilmore, Ky. 40390; Exec. Sec., Susan A. Schultz.

Theological Schools, Amer. Assn. of (1918), 534 Third National Bldg., Dayton, Ohio 45402; 156 schools; Exec. Dir., Jesse H. Ziegler.

Theosophical Society in America (1886), 1926 North Main St., Wheaton, Ill. 60187; 4,000; Natl. Sec., Mrs. Ann Wylie.

37th Division Veterans Assn. (1920), 21 W. Broad St., Columbus, Ohio 43215; 5,000; Exec. Sec., Jack C. Wander.

Thoreau Society (1941), State Univ. College, Geneseo, N. Y. 14454; 900; Sec., Walter Harding.

Thoroughbred Racing Assn. (1942), 220 E. 42nd St., New York, N. Y. 10017; 54 race tracks; Exec. V. Pres., Wathen Knebelkamp.

Toastmasters International (1932), 2200 North Grand Ave., Santa Ana, Calif. 92711; 73,600; Mgr. of World Hdqts., Robert T. Engle.

Tool and Manufacturing Engineers, American Sec. of. (1932), 20501 Ford Rd., Dearborn, Michigan 48128; 40,031; Pres., Robert M. Johnson.

Topical Assn., American (1949), 3306 North 50th St., Milwaukee, Wis. 53216; 8,000; Exec. Sec., Jerome Husak.

Torch Clubs, International Assn. of (1924), 508 Dougherty Hall, Univ. of Tenn., Knoxville, Tenn. 37916; 6,000; Sec., Robert H. Nagel.

Toy Manufacturers of the U. S. A. (1916), 200 Fifth Ave., New York, N. Y. 10010; 320 firms; Pres., William R. McLain.

Trade Relations Council (1885), 1001 Connecticut Ave., N.W., Washington, D. C. 20036; 100; Sec., J. Joseph Whelan.

Traffic and Transportation, American Society of (1946), 22 West Madison St., Chicago, Ill. 60602; 2,100; Pres., Dr. L. L. Waters.

Traffic Engineers, Institute of (1930), 2029 K St., N.W., Washington, D. C. 20006; 3,500; Pres., David M. Baldwin.

Training Corps, American (1961), 107-12 Jamaica Ave., Richmond Hill, N. Y. 11418; 600; Comdt., Capt. Paul E. Kendall.

Training & Development, American Society of (1943), P. O. Box 5307, 313 Price Pl., Madison, Wis. 53706; 8,000; Exec. Dir., Gordon M. Bliss.

Transit Assn., Amer. (1882), 815 Connecticut Ave., N.W., Washington, D. C. 20006; 422; Gen. Sec., Robert Sloan.

Transportation Assn. of America, (1935), 1101 17th St., N.W., Washington, D. C. 20036; 1,600; Sec., Robert E. Redding.

Trapshooting Assn. of America, Amateur (1924), P. O. Box 246, 601 W. National Rd., Vandalia, Ohio 45377; 50,000; Sec., Clayton Bond.

Travel Agents, American Society of (1931), 360 Lexington Ave., New York, N. Y. 10017; 7,887; Pres., Gordon R. Girvan.

Travel Organizations, Natl. Assn. of (1941), 1100 Connecticut Ave., N.W., Washington, D. C. 20036; 800 firms; Exec. Dir., James C. Gross.

Travelers Aid Assn. of America (1917), 44 East 23rd St., New York, N. Y. 10010; 87 societies; Gen. Dir., Paul W. Guyler.

Travelers Aid Society of N. Y. (1905), 204 East 39th St., New York, N. Y. 10016; 4,583; Sec., Mrs. A. Perry Osborn.

Travelers International (1943), P. O. Box 2, Delanson, N. Y. 12053; 10,688; Pres., Roy A. Carson.

Trial Lawyers, American College of, (1950), 10889 Wilshire Blvd., Los Angeles, Calif. 90024; 1,803; Pres., Joseph A. Ball.

Trotting Assn., U. S. (1939), 750 Michigan Ave., Columbus, Ohio 43215; 26,774; Pub. Rel. Dir., Larry Evans.

Trucking Assns., American (1933), 1616 P St., N.W., Washington, D. C. 20005; 50 state associations; Pres., J. David Brothers.

True Sisters, United Order of (April 21, 1846), 150 West 85th St., New York, N. Y. 10024; 13,500; Natl. Sec., Rosalie Donahue.

Tuberculosis and Respiratory Disease Assn., Natl. (1904), 1740 Broadway, N. Y., N. Y. 10019; Man. Dir., Dr. James E. Perkins.

Turf and Field Club (1895), 300 Park Ave., New York, N. Y. 10022; 600; Sec., Miss W. Helen Eden.

Turners, American (1848), 1550 Clinton Ave., No. Rochester, N. Y. 14621; 17,927; Sec., Dr. E. A. Eklund.

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Unbiased Women, League of (1956), Box 1043, Nevada City, Calif. 95959; 4,893; Pres., Lizzie Glotzmier.

Unidentified Flying Objects, Natl. Investigations Comm. (1967), 7970 Woodman Ave.; Van Nuys, Calif. 91402; 701; Pres., Dr. Frank E. Stranges.

United Nations Association of the U. S. A., (1923 as League of Nations Assn.; renamed 1945), 345 East 46th St., New York, N. Y. 10017; 62,000; Sec., Miss Anna Lord Strauss.

United Press International (1907, formerly United Press Assns.; renamed 1958 after merger with International News Service), 220 East 42d St., New York, N. Y. 10017.

United Service Organizations (Feb. 4, 1941), 237 East 42nd St., New York, N. Y. 10022; Sec., Mrs. Frances T. Christy.

United States Army, Assn. of the (1892), 1529 18th St., N.W., Washington, D. C. 20036; 105,000; Sec., Col. Arthur Symons, USAR (Ret.).

Universities, Assn. of American (1900), 1785 Massachusetts Ave., N.W., Washington, D. C. 20036; 44 universities; Exec. Sec., Charles P. McCurdy, Jr.

University Club (1865), 1 West 54th St., New York, N. Y. 10019; 4,281; Sec., A. Fairfield Dana.

University Professors, American Assn. of (1915), 1785 Massachusetts Ave., N.W., Washington, D. C. 20036; 92,000; Gen. Sec., Dr. Bertram H. Davis.

University Women, American Assn. of (1882), 2401 Virginia Ave., N.W., Washington, D. C. 20037; 177,000; Pres., Dr. Anne G. Pannell.

Urban League, National (1910), 55 East 52nd St., New York, N. Y. 10022; Exec. Dir., Whitney M. Young, Jr.

Urological Association, American (1902), 1120 N. Charles St., Baltimore, Md. 21201; 2,230; Exec. Dir., Dr. Wyland F. Leadbetter.

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Vegetable Growers Assn. of America, (1903). Suite 226, Transportation Bldg., 815 17th St., N.W., Washington, D. C. 20006; 841; Sec., A. E. Mercker.

Veteran Corps of Artillery, S.N.Y., Constituting the Military Sec. of the War of 1812 (1790), 7th Regiment Armory, 643 Park Ave., N. Y., N. Y. 10021; 180; Adj., Capt. George Brower.

Veteran Motor Car Club of America (1938), 15 Newton St., Brookline, Mass. 02146; 3,500; Sec., J. Byron Hull.

Veterans Committee, American (1943), 1830 Jefferson Pl., N.W., Washington, D. C. 20036; 25,000; Exec. Dir., June A. Wilenz.

Veterans of Foreign Wars of the U. S. (1899), V.F.W. Bldg., Broadway at 34th St., Kansas City Mo. 64111; 1,800,000; Adjt. Gen., Julian Dickinson.

Ladies Auxiliary to the VFW, (1914), 406 W. 34th St., Kansas City, Mo. 64111; 400,000; Sec., Mrs. Hazel Miller.

Veterans of World War I of the U. S. A. (1949), 40 G St., N.E., Washington, D. C. 20002; 228,551; Natl. Adjt., W. Ed. Hudson.

Veterinary Medical Assn., American (1863), 600 So. Michigan Ave., Chicago, Ill. 60605; 19,000; Exec. Sec., M. R. Clarkson.

Victorian Society in America (1966), 44 West 9th St., Rm. 20, New York, N. Y. 10011; 612; Sec., Margot Gayle.

Village Neighborhood Committee (1959), 44 W. 9th St., Rm. 20, New York, N. Y. 10011; 60; Chmn., Margot Gayle.

Vocational Assn., American (1921), 1025 15th St., N.W., Washington, D. C. 20005; 50,000; Exec. Dir., Lowell A. Burkett.

Volleyball Assn., U. S. (1923), 224 East 47th St., New York, N. Y. 10017; 500; Sec. W. H. Peck.

Volunteer Civic Association (1963), P. O. Box 323, Babelay Rd., Knoxville, Tenn. 37014; 300; Exec. Dir., V. Campbell Smith.

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Walther League (1893), 875 No. Dearborn St., Chicago, Ill. 60610; 100,000; Exec. Sec., Dean C. Kell.

War Dads Auxiliary, American (1945), 304 Scarritt Arcade Bldg., Kansas City, Mo. 64106; 2,345; Pres., Mrs. Franklin Wirges.

War Mothers, American (1917), 2615 Woodley Pl. N.W., Washington, D. C. 20008; 15,650; Pres., Mrs. Ethel Beck.

War of 1812, General Society of the (Sept. 14, 1814), 3311 Columbia Pike, Lancaster, Pa. 17603; 1,104; Sec., Gen. John Ward Willson Loose.

Watch and Clock Collectors, Natl. Assn. of (1943), P. O. Box 33, Columbia, Pa. 17512; 10,500; Man. Dir., Earl T. Strickler.

Water Pollution Control Federation (1928), 3900 Wisconsin Ave., N.W., Washington, D. C. 20016; 15,000; Exec. Sec., Dr. Ralph E. Fuhrman.

Water Works Assn., Amer. (1881), 2 Park Ave., New York, N. Y. 10016; 20,000; Exec. Sec., Eric F. Johnson.

Welding Society, American (1919), 345 East 47th St., New York, N. Y. 10017; 20,000; Exec. Dir., Fred L. Plummer.

Wesleyan Service Guild (1940), 475 Riverside Dr., Rm. 1414; New York, N. Y. 10027; 126,000; Exec. Dir., Lillian A. Johnson.

Western Forestry and Conservation Assn. (1909), 1326 American Bank Bldg., Portland, Ore. 97205; 600; Pres., Arthur M. Roberts.

Wilderness Society (1935), 729 15th St., N.W., Washington, D. C. 20005; 40,000; Exec. Dir., Stewart M. Brandenburg.

Wildlife, Defenders of (1925), 731 Dupont Circle Bldg., 1346 Connecticut Ave., N.W., Washington, D. C. 20038; 15,000; Exec. Sec., Mary H. Harris.

Wildlife Federation, Natl. (1836), 1412 16th St., N.W., Washington, D. C. 20036; 2,500,000; Exec. Dir., Thomas L. Kimball.

Wildlife Management Institute (1946), 709 Wire Bldg., Washington, D. C. 20005; 900; Pres., Ira N. Gabrielson.

Williams Club (1913), 24-26 East 39th St., New York, N. Y. 10018; 1,500; Sec., Frederick B. Paton.

Woman Geographers, Society of (1925), 1619 New Hampshire Ave., N.W., Washington, D. C. 20009; 425; Exec. Sec., Mrs. Benita S. Harris.

Woman's Christian Temperance Union, National (Nov. 18, 1874), 170 Chicago Ave., Evanston, Ill. 60201; 250,000; Pres., Mrs. Fred J. Tooez.

Woman's National Farm and Garden Assn. (1914), 230 Park Ave., New York, N. Y. 10017; 9,000; Pres., Mrs. Nelson B. Sackett.

Woman's Press Club of N. Y. City (1889), Hotel Statler Hilton, 7th Ave., at 33rd St., New York,

N. Y. 10001; 325; Pres., Miss Jessie B. Chamberlin.

Women Artists, National Assn. of (1899), 156 Fifth Ave., New York, N. Y. 10010; 700; Exec. Sec., Beverly Boxer.

Women Engineers, Society of (1952), 345 E. 47th St., New York, N. Y. 10017; 1,000; Pres., Mrs. Alice M. Martin.

Women Voters of the U. S., League of (1920), 1200 17th St., N.W., Washington, D. C. 20036; 150,000; Exec. Sec., Miss Dixie Drake.

Women World War Veterans (1930), 237 Madison Ave., Rm. 204, New York, N. Y. 10016; 200,000; Sec., Ruth Manning.

Women's Army Corps Veterans Assn. (1946), 1080-83 N. Fairroads Ave., Sunnyvale, Calif. 94086; 2,000; Sec., Evelyn Siems.

Women's City Club of N. Y. (1915), 6 West 48th St., New York, N. Y. 10036; 1,103; Exec. Sec., Mrs. Edward Weinberger.

Women's Clubs, General Federation of (1890), 1734 N. St., N.W., Washington, D. C. 20036; 11,000,000; Exec. Sec., Miss Ruth O'Brien.

Women's Clubs, Natl. Federation of Business and Professional (1919), 2012 Massachusetts Ave., N.W., Washington, D. C. 20036; 180,000; Exec. Dir., Miss E. C. Hermans.

Women's Educational and Industrial Union (1877), 264 Boylston St., Boston, Mass. 02116; 2,519; Exec. Dir., Mrs. Ruth L. Bean.

Women's International League for Peace and Freedom (1915), U. S. Section—2006 Walnut St., Philadelphia, Pa. 19103; 10,000; Exec. Dir., Mrs. M. Hanson.

Women's National Republican Club (1921), 3 West 51st St., New York, N. Y. 10019; 3,000; Pres., Mrs. John Wheelchel Finger.

Women's Overseas Service League (1921), 2026 Eye St., N.W., Washington, D. C. 20006; 1,846; Sec., Mrs. Harry L. Perry.

Woodmen of America, Modern (1883), 1701 1st Ave., Rock Island, Ill. 61201; 420,000; Sec. Alfred S. Edler.

Woodmen of the World (1890), 1450 Speer Blvd., Denver, Colo. 80204; 36,209; Sec.-Treas., E. N. Olson.

Wool Growers Assn., National (1885), 600 Crandall Bldg., Salt Lake City, Utah 84101; 12,000; Exec. Sec., Edwin E. Marsh.

Wool Manufacturers, National Assn. of (1864), 1200 17th St., N.W., Washington, D. C. 20036; 150 companies; Sec., Gordon Graham.

Workmen's Circle (1900), 175 East Broadway, New York, N. Y. 10002; 60,000; Exec. Sec., Benjamin A. Gohiner.

World Health, American Association For (1953), 777 United Nations Plaza, New York, N. Y. 10017; 93 organizations; Exec. V. Pres., Philip E. Neibach.

Writers Assn. of America, Outdoor (1928), 205 Outdoors Bldg., Columbia, Mo. 65201; 1,400; Exec. Dir., Don G. Cullimore.

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Yale Club of N. Y. City (1897), 60 Vanderbilt Ave., New York, N. Y. 10017; 6,330; Pres., Edgar M. Church, Jr.

Yeomen F. National (1926), 924 Stokes Ave., Collingswood, N. J. 08108; 1,287; Pres., Marguerite Geiger.

YMHA's and Jewish Community Centers, World Federation of (1946), 15 East 26th St., New York, N. Y. 10010; Adm. Sec., Louis Kraft.

YM-YWHA's of Greater New York, Associated (1957), 33 West 60th St., New York, N. Y. 10023; 52,000; Exec. V. P., Irving Brodsky.

Young Men's Christian Assns., Natl. Council of (1844 in London, 1851 in U.S.A.), 291 Broadway, New York, N. Y. 10007; 5,200,000; Gen. Sec., James F. Bunting.

Young Republican National Federation (1935), 1625 Eye St., N.W., Washington, 417, D. C. 20006; Exec. Dir., Ted Cormany.

Young Women's Christian Assn. of the U.S.A. (1855 in England; 1858 in U.S.A.), 600 Lexington Ave., New York, N. Y. 10022; 2,200,000 in the U.S.A.; Gen. Sec., Miss Edith M. Lerrigo.

Youth Hostels, Amer. (1934), 20 West 17th St., N. Y., N. Y. 10011; 35,000; Sec., Edmund J. Nagle.

Zionist Organization of America (1897), 145 East 32nd St., New York, N. Y. 10016; 100,000; Natl. Sec., Leon Ilutovich.

Zonta International (Nov. 8, 1919), 59 E. Van Buren St., Chicago, Ill. 60605; 20,000; Exec. Dir., Mrs. Eugene H. Flyer.

Zoological Society, N. Y. (1895), 630 Fifth Ave., New York, N. Y. 10020; 6,700; Pres., Dr. Fairfield Osborn.

Zoologists, American Society of (1913), Department of Zoology, Michigan State Univ., East Lansing, Mich. 48823; 4,500; Sec., John R. Shaver.

From the Prime Minister of Canada:

The World Almanac has been in publication for just a year less than Canada has been a nation. In 1868 it was a slim volume indeed, but the facts and figures of the 20th Century have built it into a robust tool of reference.

For Canadians, the 1969 edition of the World Almanac will be particularly significant. A special section on Canada has been added, and the city section now includes material from 9 major Canadian cities.

In thus serving as a Canadian as well as an American reference work, the World Almanac takes on a truly North American character and is another reflection of the intimate relationship which exists between our two countries.

We welcome the 1969 edition of the World Almanac to the Canadian scene.

Pierre Elliott Trudeau
Prime Minister of Canada

Canada—A Nation Come of Age

See Index for Calgary, Edmonton, Montreal, Ottawa, Regina, Saskatoon, Toronto, Vancouver, Winnipeg.

Capital: Ottawa. Area: 3,851,899 sq. mi. Population (Govt. est. July 19, 1968): 20,789,390. Monetary unit: Dollar (1.0781 per U. S. \$1).

Canada stood, at the threshold of 1969, as one of the world's leading industrial and political states. Its people felt a new pride and purpose as the country's social and cultural achievements began to catch up with its potential and its promise.

At the beginning of this century, the famed Canadian Prime Minister, Sir Wilfrid Laurier, proclaimed that "the 20th Century belongs to Canada." He was undoubtedly thinking that while Canada had been forged into a nation by the 1867 act of Confederation which united 4 of the British colonies of North America, the land was still sparsely settled and only modestly productive. The neighboring United States had survived a great Civil War and had emerged stronger than ever, pushing its borders to the Pacific Coast. Canada at the beginning of the 20th Century also had become a continental state extending from Atlantic to Pacific; now the challenge was to fill in the immense emptiness of its heartland.

World War I, while it began an industrial expansion which goes on to this day, drained off much of the best young blood of the nation; its young men either did not come back at all from the battlefields of Europe, or came back tired and shell-shocked, in no condition mentally or physically to conquer new frontiers. The brief prosperity of the 1920s faded quickly in the dust bowls of the '30s, a decade which virtually depopulated much of the prairie provinces and which was followed by an even greater World War.

But the second war let loose new creative energies at home; returning soldiers vowed that the Canada they had fought for would this time be rebuilt, that time would not again drag endlessly on with little achievement or accomplishment.

World War II had fired the furnaces of Canadian industry, had seen a million men and women take up arms in the nation's defense, and had shown Canadians that their country was no insignificant British colony lost in the mainstream of North American development.

A vast natural resources boom echoed through the empty forests and mountain ranges in the 1950s. On the Pacific Coast, a great chain of rivers and lakes was reversed to flow backwards through the mountains and so power electric generators for the vast aluminum smelters of Kitimat. Oil wells sprouted like some new crop on the prairies; in Alberta oil gushed and gurgled out of wheat fields and poured so much wealth into the province's treasury that it became one of the few (if not only) debt-free governments in North America, and which to this day doesn't have a sales tax.

Canada shared with the U. S. the construction of the St. Lawrence Seaway and after years of stops and starts finally completed the 4,860-mile Trans-Canada Highway, longest in the world.

Immense iron ore developments in Labrador paved the way for the harnessing of Churchill Falls, a mighty cataract whose energy will soon help light the electric bulbs of New York City. Uranium deposits which rank among the world's largest were developed in Ontario. More secondary

industry was added to the picture in the 1960s so that the Canadian living standard today rivals that of Sweden and the U. S. and in some respects, exceeds all the rest of the world.

Population, through natural growth and encouragement of immigration, passed the 20,000,000 mark for Canada's 1967 Centennial and stood, according to official government estimate, at 20,789,390 on July 19, 1968, the day the Bureau of Statistics unveiled in Ottawa a "pop clock"—an electric clock ticking off the population changes minute by minute.

The 1967 Centennial was immensely successful, featuring such special events as Expo '67 in Montreal, and the results left it clear to Canadians that their nation had come of age.

Canadians recognized that, while the country faced many problems, not the least of them a resolution of its political and economic ties with the U. S., their land was nevertheless favored by history and geography as perhaps no other country on earth.

CANADA: THE OUTLINES. Second largest nation in the world, Canada extends north from the U. S.-Canadian boundary to the North Pole. It includes all the islands of the Arctic from near Greenland to near the Alaska border. Its seacoast, one of the longest in the world, comprises 17,860 mi. of mainland and 41,810 mi. of islands. The 3,986-mi. border between Canada and the U. S. has been unfortified for more than a century. Canada's southernmost point, Point Pelee in Lake Erie, is further south than is the California-Oregon border.

Canada's continental climate, while generally temperate, includes extremely cold winter weather through the prairie provinces and much of Ontario and Quebec. British Columbia and the Atlantic provinces, where the weather is moderated by the oceans, are milder.

Beginning on the West Coast, the Pacific region is a mountainous area which includes the Rockies. The prairie region extends from there to the Great Lakes. Ontario and Quebec are areas of forest and farmland, while the Atlantic coast region has gently rolling valleys and hills. A great sweep of the nation, stretching through northern Quebec and Ontario and glancing off Lake Superior to run out across the plains and into the northern territories, is known as the Canadian Shield, where past ice ages scraped most soil and vegetation off the land.

This is the world's oldest surface rock, and it is among these outcroppings that most Canadian mining discoveries have been made, including gold, uranium, lead, silver, zinc and iron ore.

A NATION'S STORY. French explorer Jacques Cartier is generally regarded as the founder of Canada, although his 1534 voyage up the St. Lawrence followed by 37 years the 1497 sighting of Newfoundland by Italian navigator John Cabot, sailing for the English king. Even further back, as increasing evidence being unearthed today shows, the Vikings sailing from Scandinavia or the northern islands had reached Newfoundland and Canada's Atlantic Coast.

The French pioneered Canadian settlement, with the result that today about one-third of the nation remains of French descent. Quebec was

For Population and Area of Canada by Provinces see index.

settled in 1608, Montreal in 1642 and New France became a colony in 1663.

Britain and France clashed over the Canadian colony as a result of European rivalries and British expansion from the original American colonies. Britain obtained Acadia (later Nova Scotia) in 1713 and the Acadian expulsion followed in 1755.

Britain obtained control of the rest of New France in 1763 by the settlement of the Seven Years' War in Europe, the North American phase of which saw French and Indian tribes (except some Iroquois) fighting the British and American colonists.

However, by terms of the peace the French were guaranteed their language, religion and civil rights. This is regarded as one of the main reasons why French Canadian settlers did not join American colonists farther to the south in the War of Independence in 1776.

Following the American War of Independence, many settlers loyal to Britain moved north to the Canadian territories; the chief influx became known as United Empire Loyalists.

Years of relative peace, highlighted by trans-continental exploration, followed. Alexander MacKenzie scrawled on a rock washed by the Pacific "From Canada, by land, 1793." An elected legislative assembly was permitted in 1791. The peace, however, was interrupted by the War of 1812. The war ended in stalemate, but not before heavy battles had been fought in Upper Canada—the last military action ever to occur on Canadian soil.

Political agitation for more democratic government culminated in ill-fated rebellions led by William Lyon Mackenzie in Upper Canada (Ontario) and Louis Joseph Papineau (Lower Canada) in 1837. It was not until complete democratic freedom was won in 1867 with the passage by the British Parliament of the British North America Act, that a start was made in uniting the various British colonies into a self-governing Canadian Confederation.

Since then, Canada has remained a self-governing nation in what was the British Empire and is now the Commonwealth.

CANADA: ITS HOW AND WHY: Essentially, the Queen reigns but does not rule over her Canadian domain. The Queen's representative in Canada and Head of State is the Governor-General, chosen by the Federal Cabinet.

Under Canada's parliamentary system, modeled on the British system, the party securing the largest number of seats in elections to fill the House of Commons forms the government. The party leader, who becomes Prime Minister, chooses his Cabinet from members of the House of Commons (and sometimes from the Senate, to which the Prime Minister holds exclusive rights to make appointments).

The system ensures that at no time will the Cabinet be of a different party than that which controls Parliament. No regular date is set for elections, as the government can call an election any time it chooses. Normally, however, elections are held every 4 years, or more often when no party has a clear majority in the House.

Because Canada is technically a monarchy, and yet also a North American democracy in which the trappings of monarchy are seldom seen, the country has been referred to as a "crowned republic."

Sentiment toward the ideas of a republic have

been growing in Canada and arise partly from the split between English-speaking and French-speaking Canadians. As might be expected, more French-speaking Canadians appear inclined toward the idea of making Canada a republic than do English-speaking Canadians. The proposal has been advanced that Canada could abolish its monarchical constitution and yet retain its parliamentary forms. Under such a scheme, the Governor General might remain Head of State.

Public opinion polls have shown in past years that as much as one-third of the electorate favored Canada joining the U. S. This element has declined sharply in recent years, however.

Under the British North America Act, which created the Canadian Confederation and remains as the country's constitution, certain rights were given over to the provincial governments with all remaining jurisdictions going to the Federal authorities.

The Federal Government is responsible for all matters of national concern, including defense and foreign affairs, banking and the money system, criminal law, transportation, and trade and commerce. Provinces are responsible for civil rights, education, direct taxation, hospitals, welfare and municipal institutions. Education is compulsory to age 16.

Government conferences have been held on proposals to effect constitutional change and it is expected that the British North America Act will ultimately be replaced or substantially modified by a Canadian-written constitution.

The Federal Government proposed that a "Charter of Human Rights" be written into the BNA Act as a constitutional guarantee of certain individual freedoms which now are protected only by common law and could be suppressed by legislation. Not all provinces were agreeable to this, however, and as civil rights are a provincial responsibility, little change could be effected under the present Act.

The greatest political problem facing Canada is the future role of French-speaking Quebec in Confederation. Beginning in the late 1950s, a "quiet revolution" transformed Quebec from a classical, semi-industrial society to a modern, progressive province in which the French majority has been securing greater control over the economy and tax structure. While most Quebec leaders based their appeal on remaining within Confederation, extremists such as former Quebec cabinet minister Rene Levesque demand complete independence. Levesque led a group of separatists to form a party dedicated to the secession of Quebec from Canada under some type of economic "common market."

The search for harmony between French and English-speaking Canadians was not limited to Quebec, however. French-speaking Canadians insisted on educational rights wherever in Canada they were in sufficient numbers to warrant such facilities. They also insisted on the right to deal with the Federal Government in their own language. All political parties have endorsed these proposals and a government royal commission on bilingualism and biculturalism has recommended further recognition of French culture across Canada. Canada is officially bilingual.

From 1962 to 1968, Canada had a series of minority federal governments as neither the Conservatives, led until 1968 by former Prime Minister John Diefenbaker, nor the Liberals, were

Canadian Winners Of The Victoria Cross

The Victoria Cross is Britain's highest military honor. It has been accorded to 94 Canadians since its inception in 1856. The cross was originally cast from metal of a Russian cannon captured during the Crimean War. Canadian winners in World War II:

Name	Unit	Theater of War & Date
Sgt. Mjr. J. R. Osborn	Winnipeg Grenadiers	Hong Kong, Dec. 19, 1941
Lt. Col. C. C. Merritt	S. Sask. Regiment	Dieppe, Aug. 19, 1942
Capt. J. W. Foote	Royal Hamilton Light Infantry	Dieppe, Aug. 19, 1942
Capt. F. T. Peters	Royal Navy	Oran, North Africa, Nov. 8, 1942
Capt. Paul Triquet	Royal 22nd Regiment	Casa Berardi, Dec. 14, 1943
Maj. C. F. Hoey	Lincolnshire Regiment	Burma, Feb. 16, 1944
Maj. John K. Mahoney	Westminster Regiment	Melita River, May 26, 1944
P. O. A. C. Mynarski	RCAP	Camria, France, June 12, 1944
Flt. Lieut. D. E. Hornell	RAF	"Northern waters" June 25, 1944
Sqd. Ldr. Ian Bazalgette	RAF	Trossy St. Maximin, Aug. 4, 1944
Maj. D. V. Currie	RAF	Normandy, Aug. 20, 1944
Pvt. E. A. Smith	South Alberta Regiment	Savio River, Italy, Oct. 22, 1944
Sgt. Aubrey Cosens	Seaforth Highlanders	Holland, Feb. 26, 1945
Maj. F. A. Tilston	Queen's Own Rifles	Hochwald Forest, March 1, 1945
Cpl. F. G. Topham	Essex Scottish	Germany, March 4, 1945
Lt. R. H. Gray	1st Canadian Parachute Battalion	Pacific, Aug. 9, 1945
	Royal Canadian Navy	

able to gain a majority. The Liberals replaced the Conservatives in 1963 with Lester B. Pearson as Prime Minister.

Majority government returned in 1968 with the election of a Liberal government under Prime Minister Pierre Elliott Trudeau, 48-year-old "new look" politician.

Trudeau, whose personality captivated much of the nation, is of French-Canadian stock but is fluently bilingual and opposes any special status for his native Quebec Province.

The Undeclared Border. The biggest fact in Canadian life is the U. S. The two countries are each other's best trading partners. With closely related historic and racial backgrounds, they are also probably the world's closest allies.

However, many Canadians have become increasingly uneasy over the control by U. S. industry of large segments of the Canadian economy. This ranges from a bare majority in some fields up to nearly 100% in such important fields as auto manufacturing and the oil industry. Canadian governments have rejected policies which would discriminate against U. S. investment in Canada, recognizing the contribution such investment makes toward the nation's high living standards. But Canadians may well be encouraged to invest more themselves in their own industries to ensure that economic partnership does not turn into political partnership.

Tourists do not require visas or passports to visit back and forth between the two countries. U. S. immigration laws have been tightened in recent years, however, which is expected to reduce the number of Canadians emigrating to the U. S. There is now considerable movement the other way.

Canada and the World. Canadian foreign policy appears aimed primarily at supporting the Western alliance between Britain and the U. S., while developing increasing contacts with Communist countries. Substantial trade, especially in the sale of Canadian grain, is carried on with Communist China and the Soviet Union. There is also a steady trade with Cuba.

Canada was one of the original signatories to the UN and NATO but she has resisted invitations to join the Organization of American States. Foreign affairs are carried on by the Department of External Affairs, which in 1968 began a study of Canada's future role in NATO and of whether the country should recognize Communist China.

Canada also participates in NORAD (North American Air Defense agreement) in which the U. S. and Canada maintain joint air defenses involving the U. S. Air Force and the air branch of the Canadian Armed Services.

Defense is directed by the Department of National Defense, which in 1964 united the separate army, navy and air force into the Canadian Armed Forces. Army ranks were adopted for both naval and air branches. Combined strength in mid-1968 was about 110,000.

A MIXED ECONOMY. The Canadian economy features a blend of private ownership, public co-operatives, and government ownership. Electric utilities are owned by both provinces and municipalities in many areas, as are some telephone com-

panies. In Saskatchewan, automobile insurance is government-operated.

Air Canada, which operates throughout North America and in Europe, is government-owned while the competing Canadian Pacific Airlines, operating chiefly in the Pacific and Latin America, are privately-owned. The Canadian National Railway System is government-owned and the Canadian Pacific Railway Co. is privately owned.

In broadcasting, the chief radio-TV network, Canadian Broadcasting Corp., is government-owned. But many private stations carry its broadcasts, while an independent network, Canadian Television Network, also links other privately-owned stations.

SOCIAL WELFARE. There is a complex apparatus of social welfare in Canada. Most provinces and municipalities provide for welfare, or assistance payments for unemployed and others without income, including mothers' allowances. A program of contributory unemployment insurance provides benefits for most workers who become jobless. Allowances are paid to blind and disabled persons and workmen injured by accident receive compensation.

Two universal programs are the federally-sponsored Family Allowances, and Old Age Security. Under the former, monthly allowances of from \$6 to \$10 per month are paid to mothers for each child. Under the latter, minimum old age pensions of up to \$105 per month are paid to persons over 66; this will be lowered to 65 in 1970.

A contributory pension program, the Canada Pension Plan, was established in 1966, with workers paying in 2% of their earnings between \$600 and \$5000. Pensions are paid at age 65.

Two Canadian provinces, with others expected to join later, inaugurated universal medical insurance programs July 1, 1968. Government-sponsored hospital insurance programs have operated throughout Canada for many years.

AN ETHNIC DIVERSITY. Canadian citizenship policies have never been aimed at producing a "melting pot" or assimilating all immigrants. Rather, individual national ethnic groups are encouraged to maintain their identity while giving loyalty to an over-all Canadian unity.

There are about 80,000 persons of Negro descent, most of whom originated either in the U. S. or the West Indies or are descendants of immigrants from those areas. There are no immigration quotas, but prospective immigrants must meet educational and job standards to enter the country.

Canada has some 225,000 native Indians and some 13,000 Eskimos. The Eskimos, inhabiting the Arctic or sub-Arctic, seldom come in contact with large Canadian communities. Most Indians live on reserves where their lands are held in trust. However, the Federal Government has been charged with being sharply neglectful of the conditions and opportunities affecting these peoples and it is certain that increased efforts will be made to win for them a better role in Canadian life.

Canadian health standards are extremely high and public service and facilities are among the most advanced in the world. Air and water pollution is a growing problem, however.

Canadian Population By Origin

1961 Census

Country of Birth

Canada	15,393,984	84.4%	Scotland	244,052	1.3%
England	638,855	3.5%	Germany	189,131	1.0%
United States	283,908	1.8%	USSR	186,653	1.0%
Italy	258,908	1.4%	Other	1,043,593	5.9%

By Ethnic Origin

British Isles	7,996,669	Italian	450,351	Native Indian, Eskimo	220,121
French	5,540,346	Netherlands	429,679	Jewish	173,344
German	1,049,337	Scandinavian	386,534	Hungarian	126,200
Ukrainian	473,337	Polish	323,517	Russian	119,534

Canadian Cities With Metropolitan Populations Over 100,000

Source: 1966 Census. *Metropolitan Census Area

	Population Metropolitan Area*	City		Population Metropolitan Area*	City
1 Montreal	2,436,817	1,222,255	12 Halifax	198,193	86,792
2 Toronto	2,158,496	664,584	13 Kitchener	192,275	93,255
3 Vancouver	892,286	410,375	14 Victoria	173,455	57,453
4 Winnipeg	508,759	257,005	15 Regina	131,127	131,127
5 Ottawa	494,535	290,741	16 Sudbury	117,075	84,888
6 Hamilton	449,116	298,121	17 Saskatoon	115,892	115,892
7 Quebec	413,397	166,984	18 St. Catharines	109,418	97,101
8 Edmonton	401,299	376,925	19 Saint John	101,192	51,567
9 Calgary	330,575	330,575	20 St. John's	101,161	79,884
10 Windsor	211,697	192,544	21 Oshawa	100,255	78,082
11 London	207,396	194,416			

The Government of Canada

Canada is a federal state and a constitutional monarchy whose Head of State is Queen Elizabeth, proclaimed Queen of Canada in 1952 as well as of the United Kingdom and her other realms. The Queen is represented in Canada, a self-governing member of the Commonwealth of Nations, by a resident Governor-General appointed by Her Majesty on the advice of the Canadian federal cabinet. The cabinet is drawn from members of the party holding the largest number of seats in the Canadian House of Commons and the Senate. The cabinet, together with the Governor-General, comprises the executive branch of the government with a Prime Minister as head of the government. Ottawa is the federal capital.

Head of State

Queen Elizabeth—Succeeded to throne 1952.

Governor-General—Rt. Hon. Roland Michener, appointed 1967.

The Cabinet

Sworn in July 6, 1968:

Prime Minister—Pierre Elliott Trudeau.
Government leader in the Senate—Sen. Paul Martin.

Minister of Transport, Acting Prime Minister—Paul Hellyer.

Secretary of State for External Affairs—Mitchell Sharp.

President of the Privy Council—Donald Macdonald.

Solicitor-General—George McIlraith.

Minister of Public Works—Arthur Laing.

Minister of Manpower and Immigration—Allan MacEachen.

President of the Treasury Board—Charles Drury.

Minister of Finance and Receiver-General—Edgar J. Benson.

Minister of National Defense—Leo Cadieux.

Minister of Industry, Trade and Commerce—Jean-Luc Pepin.

Minister of Forestry and Rural Development—Jean Marchand.

Minister of Energy, Mines and Resources—J. J. Greene.

Minister of National Revenue—Jean-Pierre Cote.

Minister of Justice and Attorney-General—John Turner.

Minister of Indian Affairs and Northern Development—Jean Chretien.

Minister of Labor—Bryce Mackasey.

Minister of National Health and Welfare—John Munro.

Secretary of State—Gerard Pelletier.

Minister of Fisheries—Jack Davis.

Minister of Agriculture—Horace Olson.

Minister for Veterans Affairs—Jean-Eudes Dube.

Minister of Consumer and Corporate Affairs—Ron Basford.

Postmaster-General, Minister of Communications—Eric Klerans.

Minister of Supply and Services—Donald Jamieson.

Minister without portfolio—Robert K. Andras.

Minister without portfolio—James Richardson.

Minister without portfolio—Otto Lang.

House of Commons

The House of Commons is the lower but more important body in Canada's bi-cameral Parliament. Members are elected to the 264 seats at federal elections held at least every five years; four years is the traditional term. The government of the day (the party with the most seats in the House) chooses the date of the election, with voting by universal suffrage over the age of 21.

The House of Commons is controlled by the government party through the cabinet. The business of the House, however, is directed by an impartial Speaker who until 1968 had always been a member of the governing party. In that year, by agreement between the two largest parties, the former Speaker, Lucien Lamoureux, successfully stood for election as an Independent and on resumption of Parliament, became the first non-party speaker.

Legislation becomes law by receiving three "readings" in the House of Commons, passing the Senate, or upper chamber, for approval, and ob-

taining Royal Assent from the Governor-General. Only in the House of Commons can legislation be introduced requiring the spending of public monies.

Hon. Robert L. Stanfield, leader of the Progressive Conservative party, is Leader of the Official Opposition in the House of Commons. Other opposition party leaders are T. C. Douglas of the New Democratic party (who failed to win a seat in the 1968 election) and Real Caouette of the Creditiste party.

1968 FEDERAL ELECTION

Party	Seats	% of Vote
Liberal	155	45.7%
Progressive Conservative	72	31.4%
New Democratic	22	17.2%
*Creditiste	14	4.4%
Independents	1	1.3%
TOTAL	264	100.0%

*French-Canadian splinter of Social Credit party, which failed to elect any members outside Quebec.

Seats Won in Federal Elections by Provinces, 1968

Party	B.C.	Alta.	Sask.	Man.	Ont.	Que.	P.E.I.	N.B.	N.S.	Nfld.
Liberal	16	—	2	5	88	74	—	5	1	1
Prog. Cons.	—	15	5	5	17	4	4	5	10	6
N.D.P.	7	—	6	3	6	—	—	—	—	—
Creditiste	—	—	—	—	—	14	—	—	—	—

Note: Liberals won Northwest Territory seat; Progressive Conservatives Yukon Territory seat. One Independent elected in Ontario.

The Senate

The Senate comprises 102 members appointed by the Prime Minister for life, but with automatic retirement at age 75. The British North America Act requires that membership be divided 24 to Quebec, 24 to Ontario, 30 to the Atlantic provinces, and 24 to the Western provinces.

Hon. Paul Martin is government leader in the Senate. Sen. Jacques Flynn, Prog. Cons., is leader of the Opposition in the Senate.

GOVERNORS-GENERAL

Since 1952, the Governors-General of Canada have been native-born, replacing the former practice of appointing distinguished Britons. Canadian-born appointees have been:

Rt. Hon. Vincent Massey 1952-1959
Gen. Rt. Hon. Georges Vanier ... 1959-1967
Rt. Hon. Roland Michener 1967-

Mayors of Canada's Largest Cities

Montreal	Jean Drapeau	Winnipeg	Stephen Juba	Quebec	Gilles Lamontagne
Toronto	William Dennison	Ottawa	Donald Reid	Edmonton	Vincent M. Dantzer
Vancouver	Tom Campbell	Hamilton	Victor Copps	Calgary	J. C. Leslie

Supreme Court of Canada

Canada's chief judicial bodies are the Supreme Court of Canada, which sits in Ottawa and hears civil and criminal appeals from lower courts, and the Exchequer Court of Canada which hears claims made by or against the Crown and also serves as a Court of Admiralty. The nine members of the Supreme Court and the five members of the Exchequer Court are appointed by the federal cabinet.

As the Supreme Court does not interpret legislation in respect to constitutional statutes (except to determine whether an act falls within the jurisdiction of a provincial or the federal government), it does not figure nearly as prominently in national life as does the Supreme Court in the United States. The Chief Justice of the Supreme Court of Canada is Hon. J. R. Cartwright.

Prime Ministers Since Confederation

Name	Party	Term
Sir John A. Macdonald	Conserv.	1867-1873, 1878-1891
Alexander Mackenzie	Liberal	1873-1878
Sir John J. C. Abbott	Conserv.	1891-1892
Sir John S. D. Thompson	Conserv.	1892-1894
Sir Mackenzie Bowell	Conserv.	1894-1896
Sir Charles Tupper	Conserv.	1896
Sir Wilfrid Laurier	Liberal	1896-1911
Sir Robert L. Borden	Conserv.	1911-1920
	Unionist	

Name	Party	Term
Arthur Meighen	Conserv. Unionist	1920-1921, 1926
W. L. M. King	Liberal	1921-1926, 1926-1930, 1935-1948
R. B. Bennett	Conserv.	1930-1935
Louis St. Laurent	Liberal	1948-1957
John G. Diefenbaker	Prog.	1957-1963
Lester B. Pearson	Conserv.	
Pierre Elliott Trudeau	Liberal	1963-1968 1968-

Canada's Provincial Governments

Each Canadian province except one maintains a single legislative assembly, the exception being Quebec which also has an appointive Consultative Council. The parliamentary system applies in each province, the head of the government bearing the title of Premier (or Prime Minister in Quebec and Ontario). The Queen's representative in each province is a Lieutenant-Governor, appointed by the federal cabinet.

Province	Premier	Party Affiliation	Party in Power Since
Newfoundland	Joseph E. Smallwood	Liberal	1949
Prince Edward Island	Alexander Campbell	Liberal	1966
Nova Scotia	G. I. Smith	Prog. Cons.	1956
New Brunswick	Louis J. Robichaud	Liberal	1960
Quebec	Daniel Johnson	Union Nationale	1966
Ontario	John Robarts	Prog. Cons.	1943
Manitoba	Walter Weir	Prog. Cons.	1958
Saskatchewan	Ross Thatcher	Liberal	1964
Alberta	E. C. Manning	Social Credit	1935
British Columbia	W. A. C. Bennett	Social Credit	1952

Canadian Taxation Structure

The Government of Canada levies corporate and personal income taxes; old age security tax; excise (import) taxes; and a federal sales tax. Provincial governments levy personal income taxes and sales taxes. Municipalities levy commercial and private property taxes. Some rates:

Personal Income Tax

In all provinces except Quebec, taxpayers receive an abatement of their federal personal income tax equal to the amount of their provincial income tax. Quebec levies and collects its own income tax in addition to the federal levy. For a Canadian resident in most provinces, married, with two children, his basic tax rate will be as follows (slightly higher in Saskatchewan, Manitoba and Quebec):

Weekly Earning	Income Tax
\$ 75.00	\$ 3.55
100.00	8.45
125.00	13.95
150.00	20.80
175.00	27.20
200.00	34.20

Corporate Income Tax

The federal corporate income tax rate in Canada is 18 per cent on taxable income up to \$35,000 annually, and 47 per cent on any amount in excess of \$35,000. There is a federal abatement of 10 per cent on these taxes, but provincial corporate income taxes range from 10 to 12 per cent. In addition, there is a federal old age security tax of 3 per cent. These taxes provide a total corporate income tax, in Ontario as an example, of 23 per cent under \$35,000 and 52 per cent over \$35,000.

Sales Taxes

The federal sales tax of 12 per cent is applied at the wholesale level. Provincial sales taxes, mostly 5 per cent, are applied at the retail level. Alberta is the only province without a retail sales tax.

Canadian Postal Information

The Canada Post Office, reorganized in 1968 as part of the newly-created Department of Communications, employs more than 40,000 and operates more than 11,000 Post Offices.

Postal Rates

First Class

Five cents for the first ounce, 3¢ each additional ounce. Local delivery, 4¢ first ounce, 2¢ each additional ounce. Postcards, 4¢ to Canadian destinations.

Air Mail

All first class mail up to 8 oz. goes automatically by air at the standard rates where such will speed delivery. Air mail exceeding 8 oz. is 7¢ for the first oz. and 5¢ for each oz. after.

Printed Matter

Books, newspapers, magazines, etc. mailed by the public, including unsealed Christmas, Easter and other such greeting cards, 3¢ first two oz., 2¢ each additional 2 oz. up to 1 lb., 1¢ each additional 2 oz. over 1 lb.

International

Surface: To Great Britain and northern Ireland and other places in the Commonwealth, Republic of Ireland, France, Spain, United States and rest of North, Central and South America—Letters, 5¢ for first oz. and 3¢ each oz. after. Postcards, 4¢. All other countries—4¢ first two oz., 2¢ each two oz. after.

Air Mail: To United States and all of North, Central and South America—Letters, 8¢ first oz., 6¢ each oz. after. Postcards, 10¢. All other countries—Letters, 25¢ each half oz. Postcards, 10¢. Aerogrammes to all countries, 10¢.

Registration Fees

To Canada and U. S.—50¢ for \$50.00 indemnity; 75¢, \$100.00 indemnity. All other countries, 50¢, \$8.83 indemnity. Acknowledgement of receipt, 15¢.

Special Delivery

Additional fee of 40¢ on first class mail, 50¢ on parcels, to Canada, Australia, France, Germany, Great Britain, Netherlands, Switzerland, United States only.

Canadian Agriculture—Income And Employment

Source: 1966 Census

Although some 70% of Canadians live in urban centers, agriculture remains the nation's largest single industry. According to the 1966 census, Canada had a total of 430,522 farms, providing direct employment to some 600,000 persons.

However, according to a 1958 survey, one-third of total farm family income is obtained from off-the-farm work.

Ontario accounts for more total farm production than any other province but Saskatchewan, noted for its wheat, is Canada's greatest grain producing province.

Most Canadian farms are large—50.1% over 200 acres, 24.2% from 100 to 200 acres, and 25.7% under 100 acres. Only 4.5% are less than 10 acres.

Value of Agricultural Products Sold Annually

Field crops	\$8,24,150,150	Livestock	753,114,440
Vegetables, fruits, greenhouse and nursery products	123,684,700	Dairy products	402,944,560
Poultry and eggs	195,905,950	Other (includes wool)	46,891,430
		Total agricultural products sold	\$2,346,691,230

Livestock and Poultry

Cattle	11,941,184	Hens and chickens	69,612,229
Pigs	5,332,736	Turkeys	7,670,479
Sheep	1,563,534	Ducks	397,964
Horses	512,021	Geese	314,800

Crop Acreage in Canada

Wheat	25,315,964	Other fodder crops	368,875
Oats	10,515,367	Flaxseed	2,083,218
Barley	5,528,424	Rapeseed	711,054
Mixed grains	1,564,707	Mustard seed	120,812
Rye	561,834	Soybeans	212,776
Field peas	66,658	Potatoes	305,727
Field beans	68,387	Sugar beets	93,127
Corn	407,174	Tobacco	139,638
Tame hay	12,238,263	Vegetables	216,993
Oats cut for fodder	1,222,946	Tree fruits	148,159
Corn cut for fodder	366,358	Small fruits	54,539

Labor Unions In Canada

Canadian industry is highly unionized, in most cases through Canadian branches of international unions having their headquarters in the United States. Most of these unions, with a total membership of about 1,200,000, are affiliated in the Canadian Labor Congress. A Quebec-based labor body, the Confederation of National Trade Unions, has about 150,000 members. Two smaller groupings of independent Canadian unions are the 11,000-member National Council of Canadian Labor and the 20,000-member Council of Canadian Unions.

Canada's Chartered Banks

The Canadian banking system is built around nationwide banking chains, chartered by acts of Parliament. Local banks are thus branches and are not locally owned. The government-owned Bank of Canada has been the sole authority to issue paper money since 1945. It does not operate as a commercial bank, but sets fiscal policy and controls the money supply through the chartered banks.

In addition to the chartered banks, the Post Office operates a savings bank as do the provincial governments in Ontario and Alberta. There are also two independent savings banks in Quebec.

Trust companies have assumed an increasingly active role in public savings in the recent years. Thousands of credit unions also provide savings

and loan facilities to their members. As of April 30, 1968, the chartered banks held 14,497,017 savings accounts.

Assets of chartered banks:

Bank	Assets (1967)
Royal Bank	\$7,779,659,283
Canadian Imperial Bank of Commerce	7,481,582,256
Bank of Montreal	6,132,452,838
Bank of Nova Scotia	4,138,719,179
Toronto-Dominion Bank	3,458,300,753
Banque Canadienne Nationale	1,235,077,693
Banque Provinciale du Canada	642,455,289
Mercantile Bank	222,838,454
Bank of British Columbia	Not available
	(opened July 18, 1968.)

Education and Religion

Canada is officially bilingual, employing English and French. Educational institutions include provincially controlled schools, private schools, universities and colleges, and Dominion Indian schools.

COMMUNICANTS, 1961 CENSUS

Roman Catholic	8,342,826	Jewish	254,368
United Church of Canada	3,664,008	Greek Orthodox	239,766
Anglican Church of Canada	2,409,068	Ukrainian (Greek) Catholic	189,653
Presbyterian	818,558	Mennonite	152,452
Lutheran	662,744	Others and not stated	911,251
Baptist	593,553		

Canadian Consumer Price Index

(1958=100%)

Year	Level	% Increase	Year	Level	% Increase
1959	101.1	1.1	1964	108.2	1.8
1960	102.3	1.2	1965	110.9	2.5
1961	103.3	1.0	1966	115.0	3.7
1962	104.5	1.2	1967	119.1	3.6
1963	106.3	1.7	1968 (Jan.-May)	122.4	4.3

Canada's Population Clock Hits 20,800,000

The new population clock at the Dominion Bureau of Statistics in Ottawa hit the unprecedented mark of 20,800,000 on July 29, 1968. At the current rate, one new Canadian is added to the estimated population when the clock's illuminated figures change every 82 seconds. The totals reflect the bureau's calculations of births, immigration, deaths and emigration.

Canadian Government Revenue and Expenditures (in Canadian Dollars)

Source: Department of Finance (p-preliminary)

CHIEF SOURCES OF REVENUE AND GRAND TOTAL (\$1,000 omitted)

Fiscal year ending	Income tax	Sales tax	Other excise taxes	Excise duties	Customs duties	Estate taxes	Other taxes	Post office	Other non-tax rev.	Total budgetary rev.
1964...	3,248,531	946,055	273,415	393,326	581,441	90,671	92	200,717	518,955	6,253,204
1965...	3,770,814	1,204,610	269,082	411,402	622,102	88,626	140	230,436	583,098	7,180,310
1966...	3,919,095	1,395,129	296,178	445,885	685,519	108,352	161	237,482	665,181	8,358,178
1967...	4,270,666	1,513,566	315,581	460,980	777,586	101,106	170	253,342	683,185	8,376,182
1968p...	4,738,000	1,600,000	337,000	489,000	746,000	102,000	—	280,000	763,000	9,055,000

CHIEF AND TOTAL EXPENDITURES (\$1,000 omitted)

Fiscal year ending	Defense expenditure	Interest on public debt	Payments to provinces ¹	Health and welfare services	Post office	Public works	Transportation services	Veterans affair	Total budgetary expenditures ²
1964.....	1,730,032	954,544	254,330	1,167,826	206,895	167,001	423,258	333,740	6,872,402
1965.....	1,585,644	1,012,097	358,357	1,261,513	210,459	234,412	470,813	352,098	7,218,275
1966.....	1,694,981	1,077,296	465,993	1,129,749	240,206	275,147	532,499	369,337	7,734,796
1967.....	1,695,872	1,190,523	515,523	1,315,943	268,494	294,373	568,178	390,821	8,779,681
1968p...	1,811,000	1,295,000	737,500	1,489,200	304,800	301,600	612,600	403,821	9,863,000

¹Fiscal, tax-sharing, subsidy and other payments.

²Total includes other unenumerated items.

ASSETS, DEBT, PER CAPITA TAX REVENUE, IN DOLLARS¹

Fiscal year ending	Gross debt	Net assets	Net debt	Per capita net debt ²	Inter. paid on debt	Per capita tax revenue ²
1964.....	25,923,732,116	10,853,582,664	15,070,149,452	785.97	954,543,790	288.60
1965.....	26,573,425,709	11,068,953,165	15,504,472,544	794.44	1,012,097,143	326.23
1966.....	27,482,940,350	11,939,492,485	15,543,447,865	782.69	1,077,295,513	344.95
1967.....	30,340,137,314	14,375,186,836	15,964,950,478	785.14	1,190,523,000	365.87
1968p...	32,925,300,000	16,152,300,000	16,773,000,000	810.29	1,295,000,000	387.05

¹Figures apply to Government of Canada only.

²Based on population as of Apr. 1 of the same year.

EXTERNAL TRADE OF CANADA (Excluding Gold). In Thousands of Dollars

Year	Imports			Exports		
	Dutiable	Free	Total	Domestic	Re-exports	Total
1960.....	3,048,583	2,434,112	5,284,695	5,255,575	131,217	5,386,792
1961.....	3,115,408	2,653,170	5,768,578	5,754,986	140,229	5,895,215
1962.....	3,480,282	2,777,494	6,257,776	6,178,522	169,190	6,347,713
1963.....	3,542,601	3,015,607	6,558,208	6,798,529	181,613	6,980,142
1964.....	4,034,903	3,452,804	7,487,707	8,094,219	209,186	8,303,546
1965.....	4,266,300	4,366,848	8,633,148	8,525,078	241,599	8,766,677
1966.....	4,831,709	5,034,730	9,866,439	10,070,627	254,693	10,325,320
1967.....	5,096,920	5,984,233	11,081,153	11,111,804	299,284	11,411,088

TRADE OF CANADA WITH U. S. AND BRITAIN (In Thousands of Dollars)

Year	United States				Britain	
	Imports	Domestic Exports	Re-exports	Total Exports	Imports	Domestic Exports
1961.....	3,863,968	3,107,176	107,342	3,214,518	618,221	909,344
1962.....	4,299,539	3,608,439	136,226	3,744,665	583,062	909,041
1963.....	4,444,556	3,766,380	146,972	3,913,352	526,800	1,006,838
1964.....	5,164,285	4,271,059	165,899	4,436,958	573,995	1,199,779
1965.....	7,135,611	4,840,456	206,756	6,234,478	619,058	1,174,309
1966.....	7,135,860	6,027,722	207,137	6,234,859	644,741	1,122,574
1967.....	8,021,771	7,079,296	243,747	7,323,143	673,050	1,169,052

Public Days in Canada, 1969

New Year's Day, Jan. 1; Good Friday, April 4; Easter Monday, April 7; Sovereign's Birthday, May 19 (always first Monday preceding May 25); Dominion Day, July 1; Labour Day, Sept. 1; Thanksgiving Day, Oct. 13 (the second Monday of October); Remembrance Day, Nov. 11; Christmas Day, Dec. 25.

When the statutory holidays fall on Sunday, the following day is observed. Although the general observation of holidays on Mondays, in order to give people long weekends, has been a matter of discussion, no legislation has yet been passed on this regard, with the exception for Victoria Day.

Civic Holiday is not a statutory holiday, but any city, town or municipality may appoint any day as such by resolution of the Council or the statutory body. However, the first Monday in August is generally observed throughout Canada as Civic Holiday (August 4, in 1969).

NATIONS OF THE WORLD

The nations of the world are listed in alphabetical order, except for Canada and the United States, about which separate articles and other information and statistical tables appear in other sections of the Almanac (see Index for listings).

The article on Rhodesia, whose independence has been an unsettled question, will be found under United Kingdom among other states not completely independent. These also include Bahrain, Qatar, the Trucial States and Brunei, all British Protected States. Sikkim, an Indian Protected State, is described under India.

Some international groups, of which various nations are members, are referred to, in the following articles, by initials (such as NATO). Articles on these groups may be found through the Index.

See special color section for maps and flags of all nations.

Note—Exchange rate of foreign currencies in terms of U. S. dollars is latest available, but in some cases is subject to frequent fluctuation.

Afghanistan

DOULAT I PADSHAHI YE AFGHANISTAN

Capital: Kabul. Area: 253,861 sq. mi. Population (UN est. 1967): 15,751,000. Monetary unit: Afghan (45 per U. S. \$1, official rate).

Afghanistan is a landlocked constitutional monarchy occupying a mountainous area much of which is 4,000 ft. and more above sea level. It is slightly smaller than Texas. Its neighbors are Iran, Pakistan, India and the USSR. The north-east tip of the country just touches China's Sinkiang Province.

The Hindu Kush mountains tower 16,000 ft. above the capital of Kabul and reach a height of more than 25,000 ft. some 200 miles to the east of the capital. Trade with India flows through the 35-mile long Khyber Pass from Kabul to Peshawar. The climate is dry, with extreme temperatures.

Ninety percent of the country's exports are agricultural products. Chief items are cotton, wool, karakul pelts, hides, casings, oil seed and fresh and dried fruit. Handwoven carpets are the only manufactured goods exported. Some 4,000,000 head of broad-tail Karakul sheep are raised, as well as goats and camels. The sheep provide the principal meat item in the Afghan's diet and the tightly curled, glossy black coats of the newborn lambs are a valuable fur. Minerals include copper, lead, zinc, iron, silver, asbestos and oil. The country has received considerable economic aid from the U. S., USSR and Communist China.

History and Government. Afghanistan was so named in about the middle of the 18th Century. In ancient times it was known as Aryana, in the Middle Ages as Khurasan. Pukhtuns (Pashtuns) comprise 53.5% of the population; Tajiks 36.7%; Uzbeks 6%; Hazaras 3%.

On Sept. 19, 1964 a Grand Assembly approved a new constitution providing for an elected Lower House, partly-elected Upper House, an independent judiciary, a prime minister chosen by the King and barring relatives of the King from important posts—reforms the King had sought. Under the old government, legislative power was vested in a parliament consisting of the King, a Senate appointed by the King for life, and a National Assembly. The reigning King is Mohammed Zahir Shah, born Oct. 15, 1914, who ascended the throne Nov. 8, 1933, on the assassination of his father, Mohammed Nadir Shah. Afghanistan is a member of the UN.

Bordering on both Russia and China, Afghanistan has been traditionally neutral. Student riots in 1965 were followed by appointment of a new Prime Minister, Mohammed Hasim Malwandai, who appointed at least 4 Afghans educated in the U. S. to his Cabinet, along with the first woman Cabinet minister. In 1966 the government refused to condemn U. S. policy in Vietnam as urged by visiting Communist Chinese leaders.

Education and Religion. Education is free and, where facilities are available, compulsory. The University of Kabul was established in 1932. Principal languages are Pushtu and Persian. English is taught. Islam is the predominant religion.

Defense. There is compulsory military service for a two-year period.

Albania

SHQIPERIA

REPUBLIKA POPULLORE E SHQIPERISE

Capital: Tirana. Area: 11,100 sq. mi. Population (1968 Govt. est.): 2,000,000. Monetary unit: Lek (5 per U. S. \$1, basic rate).

Albania, a Balkan communist republic, is a narrow mountainous land, slightly larger than Maryland, extending for 225 mi. along the E coast of the Adriatic. Yugoslavia and Greece are its neighbors. Off the E coast in the Strait of Otranto is the island of Saseno. The Buna is the principal navigable river. Mt. Korab, 9,066 ft. is the tallest peak.

Resources and Industries. There are important forest resources and some mineral wealth, the latter not fully developed. Chief products of the country are tobacco, timber, wool, hides, furs, cheese, and dairy products, fish, olive oil, corn and cattle. Industrial output in 1964 increased 7%. Minerals, including chromite, petroleum, iron and copper, account for over half the value of exports. Durazzo is the main seaport.

History and Government. Albania has been overrun by warring armies for over 2,000 years. It declared its independence from the Turks in 1912; this was backed by a conference of European powers which placed Prince William of Wied on the throne in 1914. He died within months because of uprisings. During World War I armies of several nations occupied the land by turns. In 1920, a republic was set up. In 1925, Ahmed Zogu seized the presidency; in 1928 he proclaimed himself King, assuming the title Zog I.

King Zog fled in 1939 when Italy invaded and annexed Albania. When Italy surrendered to the Allies in 1943, German troops took over; they left in 1944 and Communist partisans seized power. Gen. Enver Hoxha was named provisional president; a Communist front won a 1945 election; in 1946 a new constitution, modeled on that of the USSR, was adopted under Hoxha's leadership.

Albania requested U. S. recognition early in 1945, and a U. S. mission was sent to the country to make arrangements. Albania did not agree to one condition, that it recognize pre-war treaties between the U. S. and Albania. The U. S. mission was withdrawn in Nov. 1946.

Britain recognized Albania in 1945 but broke off relations in 1946. The U. S. and Britain voted against Albanian admission to the UN in 1948; it finally won admission in 1955 with Britain voting "yes" and the U. S. abstaining. In 1955 it was admitted to the Warsaw Pact. Its policies have been strongly pro-Stalinist, anti-Khrushchev, pro-Communist China and hostile to Tito's Yugoslav regime. The USSR broke relations with Albania in Dec. 1961 and blocked its participation in the Jan. 1962 meeting of the Warsaw Pact nations in Prague.

Ties with Communist China were strengthened in 1966 as the Premiers of the two countries exchanged visits, and Albania, like China, abolished the insignia of rank in its armed forces.

Education and Religion. There is no state religion. The largest segment of the population is Moslem, followed by Orthodox Christians (Church of Albania), and Roman Catholics. Primary education nominally is compulsory and free under the constitution.

Racially the Albanians are mainly Ghegs in the north and Tosks in the south.

Defense: Service is compulsory between 19 and 35. The Army numbers about 25,000. The Navy has 3,000 men and the Air Force, under the command of the army, has 7,000 men.

Algeria

ALGERIE REPUBLIC OF ALGERIA

Capital: Algiers. Area: 919,591 sq. mi. Population (UN est. 1967): 12,540,000. Monetary unit: Dinar (4.937 per U. S. \$1).

Algeria, an independent republic more than 3 times the size of Texas, is located in northern Africa extending for 640 mi. along the Mediterranean Sea between Tunisia and Morocco. The southern Saharan Departments extend into the Sahara Desert and border on Niger, Mali and Mauritania. The Tell, located on the coast, comprises fertile plains from 50 to 100 mi. wide. Several chains of the Atlas Mtns., running roughly E-W and reaching altitudes of 7,000 ft., separate the coast regions from inland plateaus and the Sahara. Algiers, the capital, is the largest city.

Resources and Industries. Agricultural products include wheat, barley, oats, corn, potatoes, artichokes, flax and tobacco. Wine and olive oil are produced. Dates, pomegranates and figs grow abundantly. Cattle raising is paramount. There are large deposits of iron, zinc, lead, mercury, copper and antimony.

Exports consists chiefly of wines, cereals, skins, fruits, iron and zinc ores, phosphate rock, cork, esparto grass, manufactured tobacco products, vegetables and petroleum. Production of the latter is valued at over \$470,000,000 a year. Trade is mainly with France.

Exploitation of the Sahara's vast oil and gas deposits and its tourist potentiality is being pressed.

On Aug. 30, 1967 the government nationalized 5 U. S.-owned oil companies which had been seized June 3, at the outbreak of the Israeli-Arab war. In 1968, several British and French industries were nationalized. Foreign observers reported unemployment had risen to 50%.

History and Government. The fertile Tell plains have attracted a succession of conquerors to Algeria from before the time of Christ. Once ruled over by Carthage, the country after 146 B.C. came under control of the Roman Empire and it was not until the incursions by the Vandals, 430-51 A.D., that the Roman hold was fully broken. The Byzantines regained part of Roman Africa in 534, but it was the Arabs, who arrived in the 7th Century who were to have the most lasting influence on the country, forging it into the Moorish Empire. But local control was lax and local potentates rose and fell, and in 1518 Algiers and the coastal area came under Turkish domination. The country did not become a political entity until France took control in 1830, annexed it in 1842 and began to develop the land.

From 1954-62 growing Arab nationalism led to outright warfare between the French and the Algerians. The political impasse was not broken until French President Charles de Gaulle negotiated with the Front de Libération Nationale (FLN). Algeria in a referendum July, 1962, voted overwhelmingly for independence; De Gaulle proclaimed it independent July 3.

Internal strife continued, however, between opposing Algerian factions, and Ahmed Ben Bella, with Army support, assumed control in Aug. 1962.

A constitution was approved Sept. 8, 1963, and Premier Ben Bella, sole candidate, was elected President for a 5-year term Sept. 15. Nationalization of lands and industries proceeded rapidly. Algeria received a \$100,000,000 long-term industrial loan from the USSR in Sept. 1963, and continues to receive French aid.

President Ben Bella was arrested and deposed June 19, 1965, in a bloodless, army-backed coup d'état led by Col. Houari Boumedienne (born Mohammed Boukharouba), Defense Minister and Vice President. Col. Boumedienne assumed leadership of a new 26-man Revolutionary Council and, on July 11, announced a new Cabinet with himself as President and Defense Minister and including 9 members of the former Cabinet. U. S. Government aid, which had tapered off as Ben Bella's alignment with the Communist world grew, was stepped up after his ouster.

Algeria is a member of the UN and Arab League.

Education and Religion. The population before independence included approx. 1,000,000 Europeans, 80% of them Algerian-born, since reduced to about one-tenth of that total. The natives are Arabs and Berbers, of Moslem faith. There is a university at Algiers. French and Moslem primary schools have been amalgamated.

Defense. The Army and Air Force are being expanded and modernized with aid from USSR and UAR.

Andorra

PRINCIPAT D'ANDORRA

Capital: Andorra la Vella. Area: 179 sq. mi. Population (est. 1968): 17,216. Monetary units: Franc, Peseta (4.9371 and 69.76 per U. S. \$1).

Andorra is a tiny principality of valleys and mountains set high in the Pyrenees on the border of France and Spain. It has two Co-Princes, the President of France and the Spanish Catholic Bishop of Urgel, whose representatives are charged with the administration of justice, but the country has enjoyed practical sovereignty since 1278. It pays an annual tribute of 960 francs to France and 460 pesetas to the Bishop of Urgel.

Actual government is in the hands of a Council-General of 24 elected members (suffrage is for men only) who enact laws and elect a Syndic General, the top administrator.

The main industry is tourism (150 hotels), followed by sheep-raising. Andorra has considerable iron, lead, alum, stone and timber. Sking, trout fishing and chamois hunting are among tourist attractions.

The official language is Catalan; principal religion is Roman Catholicism.

Argentina

REPUBLICA ARGENTINA

Capital: Buenos Aires. Area: 1,072,068 sq. mi. Population (UN est. 1967): 23,031,000. Monetary unit: Peso (350 per U. S. \$1, free rate).

Argentina, 4 times the size of Texas, extends from Bolivia 2,300 miles to Tierra del Fuego and from the Andes to the South Atlantic, and is the 2nd largest and 2nd most populous country in South America, next to Brazil.

The mountains are grouped into 4 isolated systems: the Andean, Central, Misiones and Southern. Aconcagua is the highest peak in the Western Hemisphere, altitude 22,834 ft. (Official Arg. figure.) The southern Andes have lakes, trout and salmon streams.

East of the Andes are great plains, heavily wooded and called the Gran Chaco in the north, and the fertile, treeless Pampas, given over to wheat and cattle raising, in the central region. Patagonia, in the south, is bleak and arid; petroleum and sheep are its main products.

Rio de la Plata is the estuary of one of the world's great drainage systems. It is a wide gulf of mostly fresh water, 170 mi. long, 140 mi. wide at its mouth. On its banks are 3 important cities, Buenos Aires and La Plata in Argentina and Montevideo in Uruguay. Emptying into it are the Parana River, 2,500 mi. long, and the Uruguay, 1,000, both starting far to the north in Brazil. Further south, other large rivers flow from the Andes, in the west, to the Atlantic, including the Colorado, Negro and Chubut.

Buenos Aires, the capital, is one of the largest cities in South America.

Resources and Industries. The mountains of Argentina contain deposits of coal, lead, zinc, iron, sulphur, silver, copper and gold. Petroleum is produced by the government and by private companies; production in 1967 was 18,200,000 metric tons.

Cotton, wheat, barley, rye, linseed, oats, alfalfa are important. Sugar, wine, confection, and fruit industries are large. Sunflower seeds, tobacco and peanuts are cultivated. Sheep, cattle, horses, goats and pigs form the chief wealth of the ranches. In 1968, there were 55,000,000 cattle, 5th highest in the world, and 51,000,000 sheep. Meat processing is the chief industry. Flour milling is 2nd.

Railroads and one domestic airline are state-owned. Three other domestic airlines are privately owned.

Foreign trade (in U. S. dollars):

	Imports	Exports
1966	\$1,124,000,000	\$1,593,200,000
1967	\$1,096,000,000	\$1,464,000,000

History and Government. Discovered 1515-16 by

Spanish explorers headed by Juan Diaz de Solis, Argentina remained under Spanish domination until the provinces, in a successful revolt May 25, 1810, established an independent republic. In 1853 a liberal constitution was adopted.

The present constitution, proclaimed May 1, 1950, is essentially that of 1853.

There are 22 provinces which elect their own governors and legislatures, and a Federal District, Buenos Aires (area 72 sq. mi.), whose Mayor is appointed by the President.

The President and Vice President must be Roman Catholic and Argentine by birth. They are elected for six-year terms by direct popular vote. Congress consists of a Senate of 46 and a House of Deputies. Voting is compulsory for both men and women.

Beginning in 1944, and after the election of Juan D. Peron, an army officer, as President in 1946, Argentine democracy was replaced by a dictatorship. By concessions to labor Peron built a following; he then suppressed freedom of speech and of the press, religious schools and ran the country deeply into debt. Civilians, clericals and part of the armed forces unseated Peron Sept. 16, 1955, and he went into exile. A provisional government was replaced November, 1955, by a military junta, which chose Maj. Gen. Pedro Aramburu provisional President. He restored civil liberties, dissolved the Peronist party and returned expropriated property.

In the first free elections in 12 years, Feb. 22, 1958, Dr. Arturo Frondizi was elected President. Dissension among military leaders, democratic parties and the Peronist unions which had supported Dr. Frondizi resulted in a bloodless military coup Mar. 29, 1962. He was succeeded by Jose Maria Guido, head of the Senate. Elections were ordered and Dr. Arturo Illia was elected President, July 7, 1963, taking office Oct. 12, 1963.

Early in 1966 Peronists won several provincial elections. On May 30 inflation brought the 7th devaluation of the peso within two years.

On June 28, 1966, a 3-man military junta ousted Dr. Illia and named retired Lt. Gen. Juan Carlos Onganía President; the junta dissolved Congress and all political parties and temporarily closed national universities in a move against leftist activities. Gen. Onganía had accused the Illia government of allowing Peronists and Communists too much freedom.

In March, 1967, the peso was devalued from 255 to 350 per U. S. \$1. And in June, Argentina announced a new oil law inviting private companies to return after a 3½-year absence.

Argentina is a member of the UN and OAS.

Education and Religion. The population is about 90% Roman Catholic, the constitutional religion since 1810. Primary education is free, secular, and compulsory. There are national universities in Cordoba (founded in 1813), Buenos Aires, Mendoza, La Plata, Tucuman, Santa Fe, Bahia Blanca and Cuyo. Private universities have been founded in Buenos Aires, Cordoba, Mar del Plata, Mendoza and San Juan. The language is Spanish. The people are of Spanish and Italian descent, with Basques, Swiss, Germans and British represented.

Defense. Service in the Army is compulsory from 20 years to 45. In addition to the Army of about 85,000, there is a trained reserve of 300,000 of whom 250,000 are members of the National Guard and 50,000 the Territorial Guard.

The Navy includes an aircraft carrier, several cruisers, destroyers and submarines and other craft; total personnel is about 20,000. The Air Force includes fighter, fighter-bomber and transport groups.

Australia

COMMONWEALTH OF AUSTRALIA

Capital: Canberra. Area: 2,967,902 sq. mi. Population (Govt. est. 1967): 11,928,889. Monetary unit: Australian dollar (.8962 per U. S. \$1).

The continent of Australia, a huge island 5 times the size of Alaska, is situated SE of Asia proper and below the islands of Indonesia. The Indian Ocean is W and S, the Pacific E and their waters meet N of Australia in the Timor and Arafura Seas. The Great Barrier Reef extends along the NE coast. About 150 mi. S of the state of Victoria lies the island state, Tasmania. Branches of the Pacific are the Coral Sea, NE, and the Tasman Sea, SE.

The Tropics of Capricorn bisects Australia. The Great Dividing Range along the E coast has Mt.

Kosciusko, 7,316 ft., in New South Wales. The W plateau rises to 2,000 ft., with arid areas in the Great Sandy and Great Victoria Deserts. The NW part of Western Australia and Northern Territory are arid and torrid; Arnhem Land, in the latter, is a rugged wooded area reserved for aborigines. The NE has heavy rainfall and Cape York Peninsula has jungles. The Murray River rises in New South Wales, flows 1,600 mi. into the Indian Ocean and supplies hydroelectric plants.

States and territories of the Commonwealth with their areas in sq. mi. and populations, Dec. 1967, were:

	Area	Population
New South Wales	309,433	4,347,309
Victoria	87,884	3,303,631
Queensland	667,000	1,718,266
South Australia	380,070	1,118,477
Western Australia	975,920	892,763
Tasmania	26,383	379,628
Northern Territory	520,280	60,639
Australian Capital Territory	939	108,176
Totals	2,967,909	11,928,889

The capitals are: New South Wales, Sydney; Victoria, Melbourne; Queensland, Brisbane; South Australia, Adelaide; Western Australia, Perth; Tasmania, Hobart; Northern Terr., Darwin; Capital Territory, Canberra.

Home of the kangaroo, Australia also is the habitat of other strange flora and fauna: the koala, or living teddy bear; the platypus, wombat, dingo, Tasmanian devil, a blind mole, and barking and frilled lizards.

By 1968, Australia had added more than 2,150,000 population from immigration since World War II. About one-half was British. Australia's aborigines in the tribal state are primitive and nomadic, but most now are detribalized. Programs are directed toward their ultimate assimilation.

The Melbourne Cup horse race is the biggest annual sports event; cricket, tennis and football also are played extensively. Excellent beaches are numerous and surf riding is popular.

Resources and Industries. Almost from earliest days of settlement a primary producing country, Australia has become highly industrialized. More than 25% of the total labor force of approx. 4,750,000 work in factories; about 15% are engaged in rural occupations.

Wool is Australia's greatest industry. With an annual clip of more than 1.7 billion lbs. Australia produces 30% of the world's wool, 50% of its merino wool. The continent also is one of the world's largest wheat producers, reaching 290,000,000 bu. annually. About one-half is exported. Other important products are sugar, wine, fruit, vegetables, meat, grains, minerals, including uranium, gold, coal, copper, iron, silver, lead, bauxite, rutile and petroleum products.

Discovery of vast iron ore deposits in Western Australia brought a mining boom to desolate areas in the northwest in 1965. New oil and gas fields were discovered 1965-1968, including a major oil field on Barrow Is., off the NW coast.

Principal manufactures include iron and steel, textiles, electrical and radio equipment, drugs, chemicals, paints, machinery, metal work, clothing, motor cars and engines, aircraft and ships. Unemployment in 1967 was est. at 1% of the work force. Gross national product in 1967 was est. at \$22.7 billion, up 5%; per capita income was \$1,600, 38% above 1958.

In recent years exports of industrial products have increased considerably. Main imports: Metals, textiles, machinery, paper and drugs (United Kingdom); metals, machinery, paper and timber (Canada); machinery, tobacco, drugs, optical and surgical instruments, paper (United States); tea, rubber, silk, cotton, linen, burlap (Asia).

Australia changed its currency from pounds-shillings-pence to dollars and cents Feb. 14, 1966, with its dollar worth \$1.12 U. S., or half the old Australian pound.

Foreign trade, in thousands of U. S. dollars:

	Imports	Exports
1966	\$3,246,000	\$3,157,000
1967	\$3,410,000	\$3,386,000

Tourism is a rapidly expanding industry. In 1967 Australia had 255,221 overseas visitors, more than double the number 5 years earlier.

History and Government. Australia has been settled since 1788. The Commonwealth, proclaimed Jan. 1, 1901, is a self-governing federation of six

states and two territories. Parliament consists of the Crown (represented by the Governor-General), the Senate and House of Representatives.

In 1966 elections, the Liberal-Country party coalition increased its majority in the House of Representatives from 71 seats to 81, while the Labor party (which favored withdrawal of Australian forces from Vietnam) dropped from 51 seats to 41.

Prime Minister Harold E. Holt was lost at sea while swimming Dec. 17, 1967, and presumed drowned. John McEwen served briefly in his place until Jan. 10, 1968, when John G. Gorton became Prime Minister.

Australia is a member of the UN, Commonwealth and SEATO; and has had a Mutual Defense Assistance Agreement with the U. S. since 1951.

Pension acts provide for payments of war, old age and invalid pensions; also cover the blind, the unemployed, victims of tuberculosis and, in some cases, dependents of former soldiers. The National Health Scheme provides free drugs and subsidizes hospital and medical expenses.

A maternity act provides for the payment of a maternity allowance for every child born in Australia. Social security for children includes child endowment payments for children under 16.

Education and Religion. Education is free and compulsory. There are 10 universities and two university colleges. The Church of England claims 37.7% of the population, the remainder being Roman Catholic, 23.3%; Presbyterian, 9.7%; Methodist, 10.8%, and others.

Defense. Australia has expanded its small Army, Navy and Air Force, adopting its first peacetime draft in 1966. By 1967 the armed forces totaled over 79,000 plus 35,000 in volunteer Citizens Forces. Troops fighting alongside the U. S. in Vietnam were increased from 1,350 in 1965 to 4,500 in 1966 and to 8,500 in 1967-68.

AUSTRALIAN TERRITORIES

The jointly administered Territory of Papua and New Guinea, originally two separate territories, is governed by a 1949 Act placing New Guinea under the UN Trusteeship system, but retaining the status of Papua as a Crown territory. Combined pop. of the two was est. in 1967 at 2,200,000.

New Guinea, once German New Guinea, later a League of Nations mandate and UN Trust Territory of Australia, occupies the NE quarter of the island of New Guinea, N of Australia, and includes nearby island groups: New Britain, New Ireland and the Admiralty Islands of the Bismarck Archipelago; Bougainville, 3,880 sq. mi.; Buka, 220 sq. mi., and smaller islands of the Solomons. Total area of the territory is about 93,000 sq. mi., with a population est. in 1966 at 1,576,000.

Papua is the southeastern part of the island. Area, 90,540 sq. mi.; population est. 1965, 573,000.

Papua-New Guinea is governed by an Administrator, a cabinet and a legislative House of Assembly, popularly elected for the first time in 1964; native members outnumbered whites, 38-26. Its acts are subject to veto by Australian authorities.

Principal products are copra, cacao, rubber and coffee.

Norfolk Island was taken over by Australia, 1914. It has an area of 13.5 sq. mi. and a population (est. 1966) of 1,152. The soil is very fertile and is suitable for the cultivation of citrus fruits, bananas and coffee. Many of the inhabitants are descendants of the Bounty mutineers; some descendants moved to Norfolk in 1856 from Pitcairn Is.; some stayed, some returned to Pitcairn.

Territory of Ashmore and Cartier Islands in the Indian Ocean came under the authority of Australia May, 1934 and are administered as part of Northern Territory. Heard and McDonald Islands are governed by Capital Territory.

Cocos-Keeling Islands, 27 small coral islands in the Indian Ocean 1,300 miles NW of Australia, formerly administered from Singapore, are important for aviation use. Pop. (est. 1966): 684.

Christmas Island, 64 sq. mi., pop. est. 1966, 3,381, 230 mi. S of Java, was taken over from Singapore in 1958. It has phosphate deposits.

Australian Antarctic Territory came under the authority of Australia in 1933. It claims 2,472,000 sq. mi. of territory S of 60th parallel S. Lat. and between 160th-45th meridians E. Long. except for French-claimed Adelle Land.

(Nauru, former UN trust territory, became independent Jan. 31, 1968. See separate article, Nauru.)

Austria

REPUBLIK OESTERREICH

Capital: Vienna. **Area:** 32,374 sq. mi. **Population** (UN est. 1967): 7,323,000. **Monetary unit:** Schilling (25.90 per U. S. \$1).

Austria is a republic in the mountainous region of central Europe, 360 mi. long, 160 mi. wide—slightly smaller than Maine. It is bounded by Switzerland with the Rhaetian Alps, Liechtenstein, Italy's South Tyrol, Carnic Alps and Dolomite Mts., Yugoslavia and the Karawanken Mts., Czechoslovakia with the Little Carpathians, Bavaria (Federal Republic of Germany) and Hungary.

Near Switzerland are the Oetzal Alps, with Wildspitze, 12,309 ft. tall. The Hohe Tauern range has Gross Glockner, 12,457 ft., and a 6-mile glacier. Mountain passes cross frontiers; the Brenner, below the Stubai Alps, has been a major route to Italy since ancient times. Austria has many forests, rich in conifers; the Wiener Wald is a forest belt near Vienna.

Principal river, the Danube, flows from Bavaria in NW to Czechoslovakia. E. Others are the Enns, Inn, Drau, Ill, Mur and Salzach, some furnishing hydroelectric power. There are numerous lakes and popular spas, such as Bad Gastein and Bad Ischl.

Resources and Industries. Austria produces iron ore, oil, timber, magnesite, aluminum, coal, lignite, cement and copper. It is an important source of high-grade graphite. Hydroelectric power, with high potential, is under extensive development. It manufactures steel, machinery, vehicles, electrical and optical instruments, glassware, sporting goods, paper, yarns, textiles, fertilizers, chemicals and artistic leather goods.

Although farmland is limited, Austria produces about 90% of its foodstuffs. It grows wheat, rye, barley, oats, corn, potatoes, sugar beets. Vineyards flourish in Lower Austria and in Burgenland. Principal livestock: cattle, sheep, pigs, horses, goats.

Tourism, largest source of foreign funds, earns about \$400,000,000 annually. The annual Mozart festival at Salzburg and the Vienna State Opera are internationally famous.

Principal exports are iron, steel, paper, textiles, machinery, chemicals, metal products, vehicles, aluminum, electric power. Trade is heavy with West Germany, Italy and United States.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$2,328,000	\$1,684,000
1967	\$2,309,000	\$1,809,000

History and Government. Austria, the East Mark (Ost Mark) of Charlemagne (788 A. D.) came under the Hapsburgs in 1278. Tyrol was added 1363, Bohemia (Czech) and Hungary, 1526. The Turks were twice turned back at Vienna, 1529 and 1683. Austrian dominance of German lands was challenged in the 18th century and Empress Maria Theresa (ruled 1740-1780) lost Silesia to Frederick II (the Great) of Prussia. Austria took slices of Poland in the partitions of 1772, 1793 and 1795. Austria was the scene of major Napoleonic battles and helped defeat him. The Congress of Vienna, 1815, awarded it Istria, Illyria, and the Italian provinces of Lombardy and Venetia. Austria lost Lombardy to Italy 1659 and Venetia 1866, after Prussia defeated Austria in the Seven Weeks' War.

Under the Dual Monarchy of Austria-Hungary, estab. 1867, to recognize the aspirations of the Magyars, Francis Joseph was Emperor of Austria and King of Hungary. The country had an area of 261,259 sq. mi., population c. 51,000,000. It contained Austria, Hungary, Bohemia, Transylvania, Polish Galicia, Trentino, Slavonia, Croatia, Bosnia, Herzegovina, Banat. After Archduke Francis Ferdinand, heir to the Austrian throne, and his consort were assassinated in Sarajevo, Bosnia, June 28, 1914, Austria declared war on Serbia, which helped precipitate World War I. It was dismembered after that war; became a republic comprised of nine states in 1918.

Between the two world wars Austria had a turbulent political history. Socialists introduced some socio-economic changes. These were checked by Chancellor Engelbert Dollfuss, 1934. Dollfuss was murdered by Nazi conspirators July 25, 1934. Adolf Hitler, German Fuehrer, occupied Austria Mar. 13, 1938, and proclaimed its union with Germany. It was re-established as a republic in 1945, consisting of the states of Burgenland, Lower Austria, Upper Austria, Salzburg, Styria, Carinthia, Tyrol, Vorarlberg, and the city of Vienna.

Dr. Karl Renner was elected President of the provisional government after liberation by the

Allies, 1945 (died 1950). After 17 years of occupation, delayed by tactics of the Soviet Union, a treaty of May 15, 1955 restored the frontiers existing Jan. 1, 1938, prohibited economic or political union with Germany, required support of democratic institutions. With final ratification July 27, 1955, Austria formally regained sovereignty.

Austria was relieved of reparations payments to the Soviet Union under the treaty of 1955 on Feb. 20, 1964. It had delivered 10,000,000 tons of crude oil and goods valued at \$150,000,000 to buy back its wells, refineries, factories and Danube shipping.

The President is elected by secret ballot for a 6-year term. He appoints the Chancellor and approves the ministers.

Parliamentary elections Mar. 6, 1966, gave the conservative People's party of Chancellor Josef Klaus a majority of 85 of the 165 seats; the Socialists won 74, the right-wing Freedom party 6. Dr. Klaus formed a conservative cabinet, ending 21 years of conservative-Socialist coalition governments. The Communists had lost their last 3 seats in 1959.

Austria is a member of the UN and EFTA.

Education and Religion. The predominant religion is Roman Catholicism. Elementary education is free and compulsory between the ages of 6 and 14. There are universities in Vienna, Graz, Innsbruck and Salzburg. The language is almost entirely German.

Defense. Under agreements after World War II, Austria may not possess atomic or other major offensive weapons. The armed forces presently comprise an Army and Air Force totaling about 60,000 men. By a law of Oct. 26, 1955, Austria declared its permanent neutrality.

Barbados

Capital: Bridgetown. **Area:** 166 sq. mi. **Population** (UN est. 1967): 246,000. **Monetary unit:** West Indies Dollar (2 per U. S. \$1).

Barbados achieved full independence from Great Britain Nov. 30, 1966. It became a member of the UN Dec. 9, 1966. Furthest east of the West Indies, the island is about 2½ times the size of the District of Columbia; it lies alone in the Atlantic almost completely surrounded by coral reefs. Its highest point is Mt. Hillaby, 1,115 ft. The name Barbados (bearded) was believed given it by Portuguese or Spanish sailors, referring to bearded fig trees.

An English ship visited the island in 1605; English settlers arrived in 1627. Slaves were imported, but freed in 1834. Most of the islanders are Negroes, the language is English and the religion of most is Anglican.

A charter of 1652 provided for a governor-general, council and assembly. Self-rule was achieved gradually; universal suffrage was granted in 1950, cabinet government in 1958, full internal self-government in 1961.

Sugar, molasses, rum, cotton and building lime are the main products; there is a lively flying fish industry and, thanks mainly to the attractions of excellent beaches, the tourist business is booming.

With about 1,506 persons per sq. mi., the population density is one of the world's highest. Barbados also has one of the world's lowest illiteracy rates—less than 1%.

Belgium

ROYAUME DE BELGIQUE—
KONINKRIJK BELGIE

Capital: Brussels. **Area:** 11,781 sq. mi. **Population** (UN est. 1967): 9,581,000. **Monetary unit:** Franc (49.63 per U. S. \$1).

Belgium's seacoast of 40 mi. borders on the North Sea at the Strait of Dover. Slightly larger than Maryland, the country shares borders with the Netherlands, Germany, Luxembourg and France. The Meuse (Maas) River crosses the country from France to the Netherlands. The Scheldt (Escaut/Schelde) makes Antwerp an ocean port via the Netherlands. Annual mean temperature in the capital, Brussels, is 49°: summer 65°, winter 37°.

Brussels, Bruges, Ghent and Antwerp are noted for art and architecture; Liege and Charleroi are important industrially. Antwerp is the world's 4th largest port. Total net tonnage entering the harbor in 1965 was 55,383,000 tons.

Resources and Industries. Coal is the nation's only important mineral. Although Belgium is essentially a manufacturing country, agriculture and forestry are profitable industries. The principal crops are oats, rye, wheat, potatoes, barley and sugar beets.

Important industries are mining, steel manufacture, glassware, diamond cutting, food and beverages, fishing, textiles and chemicals. Beurs voor Diamant in Antwerp is the world's largest diamond trading center.

Belgium lives by its foreign trade; about 40% of its entire production is sold abroad (75% of steel and glass). The Belgium-Luxembourg Economic Union is the world's foremost exporter of steel.

The gross national product rose from \$17.9 billion in 1965 to \$19.7 billion in 1966 (U. S. dollars). Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$7,054,000	\$6,811,000
1967	\$7,118,000	\$7,037,000

History and Government. Belgium, land of the Belgae conquered by Julius Caesar, has a 2,000-year history during which it was ruled by the Romans, Merovingian Franks, Burgundy, Spain, Austria and France. After the fall of Napoleon, 1815, Belgium was made a part of the Netherlands. Its citizens demanded separation from the Dutch in 1830. Belgium became an independent constitutional monarchy in 1830 and chose Prince Leopold of Saxe-Coburg King, as Leopold I.

By the treaty of London, Apr. 19, 1839, Austria, France, Great Britain, Netherlands, Prussia and Russia guaranteed the inviolability of Belgium; this was the "scrap of paper" repudiated by Germany when its troops entered Belgium, Aug. 2, 1914. After World War I the Treaty of Versailles gave Belgium the cantons Eupen, Malmédy and Moresnet, 382 sq. mi., 64,250 population, added to the province of Liège in 1925.

Leopold II, son of Leopold I, was King 1865-1909, succeeded by his nephew, Albert I. Albert was killed while mountain climbing, Feb. 17, 1934; Leopold III, his son, succeeded.

During World War II, Leopold surrendered to Germany, May 28, 1940, to avoid further bloodshed. His cabinet maintained a government-in-exile in London. Nevertheless, Belgium suffered heavily. Ancient churches, houses and records were ruined at Nivelles, Mons, Tournai, Liège, Louvain; the University Library at Louvain, burned in 1914, restored with American aid, was again burned with 900,000 vols. About 50,000 Belgians died, some in Nazi prison camps.

Bastogne, in the Ardennes, became famous as the site of the heroic defense by the 101st U. S. Airborne troops, Dec. 20-26, 1944, during the Battle of the Bulge. Called upon to surrender Maj. Gen. McAuliffe replied: "Nuts." The defenders were rescued.

In 1950 Belgians voted 57% in favor of recalling Leopold III (who had been in Switzerland since being freed from German internment), but Socialist opposition was so vehement that the King abdicated and his son became King Baudouin I July 17, 1951. Born Sept. 7, 1930, he is the son of Leopold's first wife, Princess Astrid of Sweden. Baudouin married (Dec. 15, 1960) Dona Fabiola de Mora y Aragon of Spain.

Universal suffrage is in force and those who fail to vote are fined. Women have voted since 1949.

Parliament consists of a Senate with members elected for four years, partly directly and partly indirectly; the number elected directly is equal to half the number of members of the House of Representatives. The members of Parliament are directly elected, for four years, by proportional representation (one for every 40,000 population).

Flemish, a form of Dutch, is the language of northern Belgium and French is the language in the south. The language difference has been a perennial source of controversy, particularly as it affects education, with Flemish parents unwilling to have their children taught in French.

Disagreement between the two groups became embittered in Mar. 31, 1968, elections in which minority extremist parties increased their strength. Dr. Gaston Eyskens, named Premier June 12, 1968, headed a center-left coalition and sought to end the crisis by naming a Cabinet of 14 Flemings and 14 Walloons.

Belgium is a member of the UN, NATO, EEC and the Benelux economic union.

On June 30, 1960, Belgium granted full independence to its colony, Belgian Congo. See *Democratic Republic of Congo*. In 1962 Ruanda and Urundi, former Belgian UN trusteeships, became independent nations. See *Index for Rwanda and Burundi*, their new names.

Education and Religion. The population is divided into two well defined groups, the Flemings and the Walloons. Roman Catholicism is the

religion of the great majority. Part of the income of the ministers of the Catholic, Jewish, Church of England and Protestant Evangelical religions is paid by the government. There are universities in Ghent, Liege, Brussels and Louvain and agricultural, technical, art and music schools.

Defense. Universal military training has been in force since World War I. Conscription service term was reduced from 18 to 12 mos. in 1957 except for officers on reserve. The Navy comprises small warcraft.

Bhutan

DRUK-YUL

Capital: Thimbu. Area: 18,147 sq. mi. Population (est. 1966): 750,000. Monetary unit: Indian rupee (7.539 per U. S. \$1).

The tiny kingdom of Bhutan is a semi-independent state in the eastern Himalayas, adjoining Tibet, Sikkim and the Indian provinces of West Bengal and Assam. It is 190 mi. long from east to west and 90 mi. across at its widest point. Punakha, winter residence of the king, is a great natural fortress. The inhabitants are Mongolians and adhere to a form of Buddhism.

Agriculture is the chief industry. The principal products are rice, corn, yak butter, lac, wax, cloth, musk, elephants, ponies and chowries.

The ruler of the kingdom is the Dragon King, Jigme Dorji Wangchuk (born 1929), who ascended the throne Oct. 27, 1952. The 130-member Tsongdu (Assembly) is an advisory body. By a treaty signed with India, Aug. 8, 1949, Bhutan receives an annual cash subsidy of 500,000 rupees and transportation rights through India, the state's only avenue to the outside. India controls its external relations.

Modernization has begun, including the country's first road network usable by automobiles, linking central Bhutan and India.

Bolivia

REPUBLICA DE BOLIVIA

Capital: Sucre. Seat of gov't: La Paz. Area: 424,163 sq. mi. Population (UN est. 1967): 3,801,000. Monetary unit: Peso (11.88 per U. S. \$1).

Bolivia is a landlocked nation, over 8 times the size of N.Y. State. It lies across the Andes, and its chief topographical feature is the great central plateau at an altitude of 12,000 ft., over 500 mi. long, lying between two great cordilleras having three of the highest peaks in America. More than 50% of the population are Indians; 13% are white, and 25% are mixed.

Lake Titicaca, on the Peruvian-Bolivian border, is the highest lake in the world on which steamboats ply (12,506 ft.), and is the 2nd largest lake in South America (est. 3,200 sq. mi.).

The legal capital is Sucre, but La Paz, a city more accessible, is the actual seat of government. La Paz lies in the heart of a gigantic canyon about 3 mi. wide, 10 mi. long and 1,500 ft. deep, at an altitude of about 11,800 ft., and framed with high Andean peaks. Its huge cathedral seating 12,000, begun 1835, was dedicated 1933.

Resources and Industries. Agriculture claims 70% of the population. Products include potatoes, cacao, sugar, coffee, barley, cocoa, highland rice, corn, bananas, citrus, rubber and cinchona bark. Much rubber is exported and some raw sugar.

The most important industry is mining. There are large deposits of tin, silver, copper, lead, zinc, petroleum, antimony, bismuth, wolfram, gold, iron, cadmium, borate of lime and natural gas. More than 15% of the world's output of tin is produced in Bolivia, running to 25,000 tons or more annually. The three largest tin producers—Patio, Hochschild and Aramayo companies—were nationalized Oct. 31, 1952. The country ranks high in the mining of antimony and tungsten. Oil and natural gas are growing industries. In 1966 a pipeline was constructed to carry oil 360 mi. from Santa Cruz in the eastern lowlands across the Andes, nearly 2½ mi. high, to join another pipeline carrying it 210 mi. to the Chilean port of Arica on the Pacific.

Bolivia receives economic aid from the U. S. and the Inter-American Development Bank, the World Bank and the International Monetary Fund. It is a member of the UN and OAS.

History and Government. Once part of the ancient Inca empire, Bolivia was under Spanish domination for centuries before it gained independence Aug. 6, 1825, naming itself after Simon Bolivar, famed liberator.

Bolivia's 16th constitution, adopted in 1967, provides for strong executive power, nationalization

of mines, and agrarian reform. The President is elected for 4 years by direct popular vote. Congress is composed of a Senate of 27 members elected for 6 years, one-third renewable every 2 years, and a Chamber of Deputies of 102 elected for 4 years, one-half renewable every 2 years.

Dr. Victor Paz Estenssoro, elected to a 3rd term as President May 31, 1964, was ousted Nov. 4 and the government was taken over by a military junta headed by Gen. Rene Barrientos Ortuño. On July 3, 1966, Gen. Barrientos was elected President in a constitutional election and was inaugurated Aug. 6.

Communist guerrillas, led by Ernesto Che Guevara, once Cuban Premier Fidel Castro's right-hand man, began operating in Bolivia in March 1967. Guevara was captured and executed by the Bolivian Army Oct. 9, 1967.

Bolivian tin-miners' attempts to negotiate better working conditions with the Government-owned Bolivian Mining Corp. were led during 1967-68 by a group of Roman Catholic priests. An agreement was reached in March 1968 in which the corporation agreed to permit union activities and provide better working conditions and more housing and hospitals for the 23,000 workers.

Education and Religion. Primary education is free and compulsory. Adult illiteracy, estimated at 58%, is being lowered. There are 7 universities. Roman Catholicism is the predominant religion. Spanish is the official language.

Defense. There is compulsory military service beginning at 19 years of age.

Botswana

(FORMER BECHUANALAND)

Capital: Gaborone. Area: 275,000 sq. mi. Population (UN est. 1967): 593,000. Monetary unit: South African rand (.7143 per U. S. \$1).

This former British protectorate received full independence Sept. 30, 1966 and joined the UN Oct. 17, 1966.

In the center of southern Africa and populated predominantly by Negroes, Botswana shares borders with the Republic of South Africa, South-West Africa (administered by South Africa) and Rhodesia. It is slightly larger than Texas.

The Kalahari Desert, supporting only nomadic Bushmen and a few wild animals, spreads over the southwestern areas of Botswana; there are swamplands and farming areas in the north, and rolling plains in the east where livestock are grazed.

Cattle raising is the largest industry but in 1966-67 it was suffering the effects of a 5-year drought. Large copper and nickel deposits were discovered in 1967. Corn, sorghum, beans and peanuts are raised in the north. Tourism is flourishing; black-maned lions and swamp antelopes are hunted by safaris.

Many Bechuana work as migrant labor in South Africa and much of the country's chief export, meat, goes to that country. British grants also provide much of the country's income.

In 1885, Bechuanaland was made a British protectorate after local chiefs appealed to Great Britain for aid to halt encroachment on their territories by Boers of South Africa's Transvaal. In March, 1965, the British granted Bechuanaland internal self-rule as a step toward independence.

Its new constitution forbids any form of racial discrimination.

Brazil

BRASIL

Capital: Brasilia. Area: 3,286,473 sq. mi. Population (UN estimate 1967): 85,655,000. Monetary unit: Cruzeiro (3.22 free market rate per U.S. \$1).

Brazil is the largest nation in South America in area and population. Larger in area than the 48 states in continuous U. S., it is smaller than the 50 states. It has a coastline on the Atlantic Ocean of 4,603 mi., and extends approximately 2,689 from N to S and 2,684 from E to W. The northern part is the great, heavily-wooded basin of the Amazon (1,465,637 sq. mi. in Brazil) which rises in the Peruvian Andes and empties into the Atlantic at the Equator.

The Amazon basin has a network of rivers which are navigable for 15,814 mi. The Amazon River by itself is navigable for 2,093 mi., the extent of its course in Brazilian territory. In all its rivers, Brazil possesses 27,318 mi. of navigable waterways. The majestic falls of the Iguazu, 230 ft. high but extremely wide, are on the Brazil-Argentina

border: Glass Falls, in Bahia west of Salvador, are 1,325 ft. high. Tallest mountain is Pico da Neblina, 10,046 ft., on the Venezuela border.

The south central region, favored by climate, resources and communications, has 45% of population and produces 75% of agricultural goods and 80% of industrial output.

Brasilia, the capital city, was inaugurated Apr. 21, 1960, superseding Rio de Janeiro.

Resources and Industries: Brazil has vast mineral wealth and exploitation is being spurred. It leads the world in output of quartz crystal and beryl; is 2nd in sheet mica; 3rd in manganese, columbium and tantalum; 8th in iron ore. It has large deposits of iron (one-third of the world's reserves) and monazite, a source of thorium, alternate to uranium as a supplier of fissionable material. Gold output is about 142,000 Troy oz. annually. Also important are oil, nickel, chrome, diamonds, coal, tungsten, bauxite, various gem stones.

Hydroelectric power potential is est. at more than 80,000,000 kw (4th in the world).

Cotton weaving is the most important manufacturing industry, occupying 25% of workers. Brazil produces more than 3,000,000 tons of steel annually, about 40% in the Volta Redonda national mills. Automotive, aluminum, petrochemical, cement, pharmaceutical, plastics, food and beverage, electrical appliances, shipbuilding, ceramics, glass and heavy machinery industries are growing.

Brazil, world's greatest coffee grower, supplies about 30% of coffee consumed in the U. S. Paranaguá, Santos, Rio and Vitoria are the largest coffee ports. Brazil has become a world leader in sugar. There also are large crops of bananas, cotton, oranges, pineapples, rice, cotton and corn.

Brahman (zebu) cattle of India thrive in Brazil, which is among world leaders with 91,000,000 cattle, 63,000,000 hogs and 22,000,000 sheep.

Rice, cocoa, pinewood, castor beans, cotton, sugar, coffee, tobacco, hides and oiticica oil are important agricultural exports. The country is the only producer of Carnauba wax.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$1,496,000	\$1,742,000
1967	\$1,668,000	\$1,654,000

History and Government. Pedro Álvares Cabral, a Portuguese navigator is generally credited as the first European to reach Brazil, 1500.

Brazil was developed as a colony of Portugal until the royal house of Bragança, fleeing from Lisbon before Napoleon's army in 1807, transferred the seat of government to Rio de Janeiro, March, 1808. Brazil thereupon became a kingdom under Dom João VI. After his return to Portugal, his son Pedro I, proclaimed the independence of the country, Sept. 7, 1822, and was acclaimed emperor, Oct. 12, 1822. The second emperor, Dom Pedro II, was driven from the throne Nov. 15, 1889, by a revolution which established a republic, the United States of Brazil, which was the country's official name until Jan. 1967 when a new constitution shortened it to Brazil.

There are 22 states, with limited autonomy, a federal district and four territories: Roraima (formerly Rio Branco), Rondonia (formerly Guapore), Amapá, and Fernando de Noronha Island.

Brazil took part in World Wars I and II on the Allied side. It is associated with the U. S. in the Mutual Security Agreement for Hemisphere Defense (1953) and the Inter-American Treaty of Reciprocal Assistance (1947).

It is a member of the UN and OAS.

Since 1930, when a military junta took control, Brazil has fought depression, inflation and economic crises. Getúlio D. Vargas (Labor party) became provisional President until 1933, when he was elected President under a new constitution. Out in 1945, he was reelected in 1950, but in 1954 the army forced him to retire; he immediately committed suicide.

President Janio Quadros, elected in Oct. 1960, became President Feb. 1, 1961, resigned Aug. 25, 1961, blaming "reactionary forces." In Sept. 1961, a constitutional amendment gave Brazil a parliamentary government and Vice President João Goulart succeeded to the presidency with reduced powers. The amendment was repealed Jan. 6, 1963, and Brazil returned to the presidential form of government.

Pres. Goulart, whose regime was criticized as leftist, was ousted Apr. 1, 1964, and Gen. Humberto Castelo Branco was elected Pres. Apr. 11. In 1966 his government decreed that elections of national, state and municipal executives would be in-

direct, by legislative bodies, rather than by direct popular vote as provided in the 1946 constitution.

Under this decree, Arthur Costa e Silva, an anti-Communist and former Army marshal, was elected Pres. by Congress Oct. 3, 1966 and inaugurated Mar. 15, 1967.

A new constitution adopted in 1967, strengthened the powers of the presidency, reducing those of Congress.

Education and Religion. Roman Catholicism is the predominant religion.

There are 32 official universities including the Univ. of Brazil, established in 1920; in addition, there are 3 Catholic universities and 466 others of high rank. Primary education is free and compulsory. The language is Portuguese.

Defense. All males between the ages of 18 and 45 are subject to military duty under a selective service system. There is one year of service in the first line and five years in the reserve. The Air Force, largest in South America, is equipped with American-built planes.

Bulgaria

BULGARIYA

NARODNA REPUBLIKA BULGARIA

Capital: Sofia. Area: 42,729 sq. mi. Population (UN est. 1967): 8,309,000. Monetary unit: Lev (1.17 official rate per U. S. \$1).

Bulgaria, fronting on the Black Sea, is about the size of Ohio. It is bounded by Romania, Turkey, Greece and Yugoslavia. The Balkan Mts. stretch across the center of the country with the Danubian Plain in the north and the Rhodope Mts. and Thracian Plain in the south.

Resources and Industries. The principal crops are wheat, rye, barley, oats, corn, potatoes and tobacco. Fruit is exported. Agriculture claims a large percentage of the population, but the country is being industrialized under a nationalized planned economy which emphasizes electric power, chemicals, coal, machinery, metals, textiles, building materials, fur, leather goods and oil. A socialized economy embraces 98% of industry, 95% of agriculture and 99% of retail trade. Rich oil and gas fields were discovered near Pleven in 1964.

New economic reforms were launched Jan. 1, 1966, to decentralize planning and management. Industrial output rose 12.2% in 1966, 13.2% in 1967. Exports were also up. About 1,000,000 tourists now visit Bulgaria each year.

About 80% of trade is with nations of the Communist bloc. Exports include maize, wheat, vegetables, chemicals, silver, textiles, hides, tobacco, rose attar, lead, zinc, cement, machinery.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$1,478,000	\$1,305,000
1967	\$1,572,000	\$1,458,000

History and Government. The Bulgars, a Slavic people, settled Bulgaria in the 7th Century and became Christians in 865 A.D. The Turks conquered Bulgaria in 1393. It revolted in 1875 and in 1878 was made a principality. In 1908 it became an independent kingdom and Ferdinand of Saxe-Coburg-Gotha became Czar Ferdinand I of Bulgaria. It expanded after the first Balkan war but lost its Aegean coastline in World War I, when it sided with Germany.

Under the influence of King Boris III, Bulgaria joined the Axis in World War II, occupying considerable Balkan territory. King Boris died 1943 and a regency ruled for Simeon II, born 1937. In 1944 Bulgaria withdrew from the war, but the USSR refused to recognize its neutrality, declared war Sept. 5, Bulgaria asked for an armistice and declared war on Germany Sept. 7. In a one-ticket plebiscite Sept. 8, 1946, the monarchy was abolished and a republic voted, which was established one week later. Georgi Dimitrov, Communist party leader, became premier.

Present premier is Todor Zhivkov who is also first secretary of the Communist party.

The constitution of Dec. 4, 1947, modeled after that of the USSR, provides that the unicameral National Assembly shall be the supreme organ of government. The National Assembly is elected for a four-year term and chooses the Presidium and Premier.

It was admitted to the UN in 1955 and is a member of the Warsaw Pact.

Education and Religion. Bulgarian is a Slavonic language. Elementary education is obligatory from seven to 14 years of age. There are 21 universities

and colleges, including the University of Sofia. The main religion is Eastern Orthodox. The National Church is disestablished and may not have schools or hospitals. There are over 750,000 Moslems.

Defense. Army service is compulsory between the ages of 17 and 65 and usually is for two years.

Burma

PYEE-DAUNG-SU MYANMA NAINGGAN-DAW UNION OF BURMA

Capital: Rangoon. **Area:** 261,789 sq. mi. **Population** (UN est. 1967): 25,811,000. **Monetary unit:** Kyat (4.778 per U. S. \$1).

The Union of Burma, slightly smaller than Texas, is a republic in the western part of the former Indo-Chinese peninsula. It is bounded by China, Laos, Thailand, India, Pakistan and the Bay of Bengal. Rivers flowing from the rugged mountains in the north provide habitable valleys down the peninsula. The largest is the Irrawaddy River which is navigable for 900 mi. A tributary, the Chindwin, is navigable for 300 mi.

The **Burma Road**, extending from Lashio to Kunming in Yunnan province, China, was the principal military supply line from Burma into China 1938-1942. It winds for 700 mi. over an airline distance of 260 mi. It was completed by American help and protected by Gen. Claire Chennault's Flying Tigers. The **Ledo Road** was used when the Japanese closed the Burma Road.

Rangoon, on the Gulf of Martaban is the chief port; Mandalay is on the Irrawaddy River. Mingaladon airport, near Rangoon, handles international traffic.

Resources and Industries. Mineral wealth is great; included are petroleum, lead, silver, tin, tungsten, zinc, and gem stones. The rubies, sapphires and jade are of highest quality. The principal products are rice, cotton, maize, teakwood, tobacco, tin, silver and petroleum. In value of exports, rice accounts for 70%.

Large expenditures are being made on agriculture, water resources, mining, power, transport, and communications. The country has an unfavorable balance of trade. Both exports and imports fell off in 1965, 1966 and 1967.

History and Government. Burma was a Buddhist monarchy in the Middle Ages and came under the influence of the East India Co. (British) about 1612. Britain gained control of Lower Burma in 1824 and of Upper Burma in 1884 and administered them as part of India until 1937, when Burma became a self-governing unit of the British Commonwealth. It was overrun by the Japanese in World War II. Burma became an independent nation outside the Commonwealth by treaty effective Jan. 4, 1948 and a member of the UN 1948.

Constituent units of the Union, resulting from amalgamations of a number of smaller states, are Shan State, Karen, Kachin, Kayah (former Karen states), Special Division of the Chins (Chin Hills District and Arakan Hill Tracts).

A constitution, adopted 1947, guarantees private property but forbids monopolies and provides for nationalization of certain enterprises. The Union Parliament, elected for four-year terms, consists of the Chamber of Deputies, comprising about 250 members, and a Chamber of Nationalities of 125 members. The President is elected by Parliament for a five-year term and may be reelected once.

The government of Premier U Nu, elected in 1960, was overthrown Mar. 2, 1962, by a military coup by Gen. Ne Win, Chief of Staff, who formed a junta. Parliamentary rule was dissolved and a new constitution promised. Gen. Ne Win had previously ruled, Oct. 28, 1958, to Feb. 6, 1960.

The Ne Win government pursues a socialistic program and has nationalized many industries. It holds to a neutralist foreign policy.

In June, 1967 Rangoon was placed under martial law for a month to control riots against local Chinese who had provoked the attacks by holding pro-Communist China rallies. Communist China discontinued its aid program in Burma in July as the Sino-Burmese friendship became a casualty of Mao Tse-Tung's "cultural revolution."

Education and Religion. The indigenous races of Burma are of Mongoloid stock, allied to the Thais, Tibetans, Malays, Chinese and others of eastern Asia. Burmese or one of its variants is spoken by nearly three-fourths of the population. Higher education is provided at the Universities of Rangoon, Mandalay and constituent colleges. A

state-controlled and homogeneous system of schools was introduced after 1948. The Burmese language is preferred, with English second.

The chief religion is Buddhism (about 90%), adopted as the state religion Aug. 18, 1961.

Defense. Compulsory military service was voted 1959 for men between 18 and 46, and women between 18 and 36; technical specialists 18-56.

Burundi

Capital: Bujumbura. **Area:** 10,747 sq. mi. **Population** (UN est. 1967): 3,340,000. **Monetary unit:** Franc (87.5 per U. S. \$1).

Burundi, a country the size of Maryland in east central Africa, became independent July 1, 1962. Formerly part of the Belgian UN Trusteeship of Ruanda-Urundi, it is bordered by Rwanda, Tanganyika, Lake Tanganyika and the Democratic Republic of Congo. Much of the country is grasslands and mountains.

For 3 centuries in the present Burundi and Rwanda area, the Batutsi, a minority tribe, were overlords and political masters of the Bahutu. (The Batutsi are an extremely tall race; the Bahutu, the vast majority, are of average height; a 3rd tribe, the Batwa, are pygmies.) Under German control in the late 19th Century, the area was taken over by Belgium in World War I; the League of Nations in 1923 gave the king of Belgium a mandate over the combined Ruanda-Urundi territory; Belgium received a UN Trusteeship in 1946.

Burundi became an independent constitutional monarchy in 1962 with Mwami Mwambutsa IV as King; there are a premier and cabinet, an Assembly elected by universal suffrage and a Senate. The government was mainly supported by the Uprona party, a coalition of moderate Batutsi and Bahutu. Two premiers were slain by extremists and in Oct. 1965 a 3rd, Leopold Biha, was severely wounded. Bahutu extremists opposed the power of the minority Batutsi in the government; Batutsi extremists, accused of receiving Chinese Communist aid, opposed the government as too moderate.

In July 1966 the King's son, Prince Charles, 19, deposed him and ousted Premier Biha, appointing Michael Micombero Premier. Extremist Batutsi returned to power; on Sept. 1 Prince Charles was proclaimed King Mwami Ntare V. But in a coup d'etat Nov. 28, King Ntare was overthrown by Col. Micombero, who declared himself president. Micombero reportedly had the backing of the Communist Chinese, whose embassy and staff had been ousted from Burundi in 1966.

The economy is agricultural, with 90% of the people farmers or livestock raisers. Coffee is the main crop and export. Much of the land is overgrazed and eroded. The nation receives aid from Belgium and the UN. It is a member of the UN and OAU.

About half the population is Christian, mostly Roman Catholic. Many others believe in a supreme deity, Imana, called the Principle of Good. Kirundi, a Bantu tongue, and French are the official languages; Swahili is also widely used. (See also *Rwanda*.)

Cambodia

PREAH REACH ANA CHAK KAMPUCHEA

Capital: Phnom Penh. **Area:** 69,898 sq. mi. **Population** (UN est. 1967): 6,415,000. **Monetary unit:** Riel (35 per U. S. \$1).

Cambodia is a constitutional monarchy in southern Asia which, with Vietnam and Laos, comprised the former associated states of French Indo-China. It is slightly larger than Utah. It is bordered by Laos, Thailand, the Gulf of Siam and Vietnam. About three-fourths is forested; the central part is level, forming a huge basin for the Mekong River. The climate is tropical. Sihanoukville is the principal seaport.

Resources and Industries. The country is largely undeveloped; 50% of the land is virgin forest. Main industries are forestry, fishing, and agriculture, rice occupying about 80% of the land usage. Other products are rubber, maize, pepper, kapok, palm-sugar, tobacco, cotton, silk, oil seeds, beans. Cattle flourish; the forests have valuable hardwoods. Some iron, copper, manganese and gold exist. Industry is developing, featuring textiles, paper, plywood.

History and Government. Early kingdoms dating from that of Founan in the 1st Century A.D. culminated in the great Khmer civilization which flourished from the 9th Century to the 14th. The

Khmer "God-Kings" built a series of monumental cities, distinguished for their temple tower architecture and striking wall sculptures. Abandoned and overgrown by jungles, the cities remained lost until one of the greatest, Angkor Wat, was found by French explorer Henri Mouhot, 1860.

Cambodia came under French protection in 1863. A national constitution promulgated May 6, 1947, replaced the former absolutism. It became an associated state within the French Union by a treaty of Nov. 8, 1949, but declared its independence from France, Nov. 9, 1953. It is a UN member.

Prince Norodom Sihanouk was King, 1941-55; he abdicated in favor of his father, Norodom Suramarit, who died Apr. 3, 1960. On June 13, 1960, Sihanouk, refusing to become King again, was named Chief of State with wide powers.

The legislature consists of a National Assembly of 77 members elected for 4-year terms and a Council of the Kingdom (upper house) of 24.

Cambodia severed its economic and military ties with the United States Nov. 20, 1963, charging U.S. intervention in its affairs, and in March, 1964, sent military missions to Communist China and the USSR to purchase arms. Because of an attack by South Vietnam planes on Cambodian villages, Sihanouk broke off diplomatic relations with U. S. in May 1965. Cambodia has also accused the U. S. and Thailand of border violations; South Vietnam and the U. S. have charged that Vietcong forces attacked their troops from Cambodian soil.

In 1967 and 1968 Sihanouk charged that Vietnamese and Thailand Communists were supplying arms to Cambodian insurgents who were terrorizing remote villages. He also charged that Communist China was "behind" these troubles. Further, he invited the U. S. to send a special envoy to discuss problems of "hot pursuit" of Communist forces from Vietnam into Cambodia.

In Jan. 1968, Chester Bowles, U. S. Ambassador to India, met with Sihanouk in Phnom Penh. The two announced agreement on proposals to strengthen the 1954 Geneva International Control Commission so it might investigate any foreign infiltration into Cambodia.

Education and Religion. The national language is Cambodian, or Khmer; French is widely spoken and English is taught. In 1965 there were over 4,000 schools and 37 faculties of higher learning. Buddhism is the state religion.

Cameroon

REPUBLIQUE FEDERALE DU CAMEROON FEDERAL REPUBLIC OF CAMEROON

Capital: Yaoundé. **Area:** 183,581 sq. mi. **Population** (UN est. 1967): 5,470,000. **Monetary unit:** CFA franc (246.85 per U. S. \$1).

Cameroon, which became a republic in 1960, lies on the western coast of Africa, bounded N and NW by Nigeria, NE by Chad, E by Central African Republic, S by Congo (Brazzaville), Gabon and Rio Muni, W by Gulf of Guinea. It is larger than California.

Cameroon is comprised of two states: East Cameroon, formerly Republic of Cameroon, previously a French mandate and trusteeship; and West Cameroon, formerly British Southern Cameroons. Douala is the principal seaport and one of nine airports.

The population comprises some 200 tribes, including Bantus, Semitic and Sudanese peoples, Kirdi Animists, Foulbes and Bamilekes. There are about 600,000 Christians and 800,000 Moslems.

Resources and Industries. Mainly agricultural. Cameroon exports cocoa, coffee, palm products, leather, timber, rubber, peanut oil, tea, bananas, ginned cotton. Livestock includes cattle, horses, donkeys, pigs, sheep and goats.

Aluminum processing is the most important manufacturing industry. Trade is heavy with France and United Kingdom. Import and export totals are each over \$135,000,000 annually.

To combat a rural exodus, a program of resettlement of unemployed persons on farms was under way in 1968, along with modernization of agriculture.

History and Government. Cameroon embraces the larger part of the former German colony of Kamerun which was occupied by France and Britain in 1916, and placed under trusteeship, 1919. France passed a statute Dec. 31, 1958, conferring internal autonomy on the French trusteeship as a step toward complete independence which took effect Jan. 1, 1960.

Following a referendum by the UN in former

British Cameroons, the southern section joined the Republic to form the Federal Republic of Cameroon, Oct. 1, 1961. The republic, composed of two federated states, is a member of the UN. (The northern section of British Cameroons voted to become part of Nigeria.)

The 50-member Federal Assembly is elected by direct universal suffrage, 40 from the eastern zone and 10 from the western portion. President: Ahmadou Ahidjo, elected May 5, 1960, reelected March 20, 1965.

Canada

See Index and special article preceding this section.

Central African Republic

Capital: Bangui. **Area:** 236,293 sq. mi. **Population** (UN est. 1967): 1,459,000. **Monetary unit:** CFA franc (246.85 per U. S. \$1).

The former French Overseas Territory of Ubangi-Shari in Equatorial Africa is 350 mi. NE of the Gulf of Guinea and is bounded by Chad, Sudan, the two Congos and Cameroon. Slightly N of the Equator, it is mostly rolling plateau, average alt. about 2,000 ft., with rivers draining S to the Congo and N to Lake Chad. Landlocked, it is slightly smaller than Texas.

It achieved partial self-government in 1958. Complete independence was proclaimed Aug. 13, 1960, and the Republic became a UN member Sept. 20. It is a member of the French Community.

A few months after his election in 1960, Pres. David Dacko dissolved all political parties. He was re-elected Jan. 1965, running as the sole candidate. The country became a center for Chinese Communist activities.

On Jan. 1, 1966, the Army Chief of Staff, Col. Jean Bedel Bokassa, deposed Pres. Dacko; a few days later Pres. Bokassa broke off diplomatic relations with Peking.

Diamonds are the main export, amounting to over \$15,000,000 or half the total outgoing trade in 1967. Cotton, coffee and peanuts are also important. Some 90% of the pop. earns its living from farming. There are thick forests and lumber exports are increasing. Manufacturing showed a 20% gain in 1967 and a large textile mill was under construction in Bangui in 1968.

In 1968, the nation joined Chad and the Democratic Republic of Congo in a common market plan, the Union of Central African States.

French is the official language; Sangho is a lingua franca of the 4 ethnic groups: Banda, M'Baka, Zande, Mandjia-Baya.

Ceylon

SRI LANKA

Capital: Colombo. **Area:** 25,332 sq. mi. **Population** (UN est. 1967): 11,741,000. **Monetary unit:** Rupee (5.928 per U. S. \$1).

Ceylon, an independent nation within the Commonwealth, is an island in the Indian Ocean 31 mi. off the southern tip of India at its closest point. Its greatest length from N to S is 270 mi., and its greatest width, 140 mi. The coastal area of the island is flat, but the central part is mountainous with the highest peak, Pidurutalagala, 8,281 ft. The climate is hot, with high relative humidity. There are many mountain streams, which are navigable only by small river craft. Colombo is served by world airlines.

Resources and Industries. Minerals and metals include graphite, limestone, iron, precious and semi-precious stones, limonite, monazite, zircon, quartz. Manufactures include plywood, paper, glassware, ceramics, cement, chemicals, textiles, fertilizers and vegetable oil products.

Principal agricultural products are tea, rubber, coconuts, rice, cacao, cinnamon, citronella, tobacco. Ceylon produces over 500,000,000 lbs. of tea annually, equal to about 60% of India's production. But Ceylon exports more tea than India or any other country.

A major source of precious stones, the island produces about 20 varieties including sapphires, star sapphires, rubies, alexandrites, topaz, tourmalines and cat's-eyes. Most are mined at pits in Ratnapura.

History and Government. Ceylon was known to the ancient Romans as Taprobane (copper-colored). It was first settled by colonists from the valley of the Ganges in India who immigrated about 543 B.C. and whose descendants, the Sinhalese, still form three-fourths of the population.

Descendants of Tamil immigrants from Southern India account for one-tenth of the population. Parts of the maritime areas were occupied in turn by the Portuguese in 1505 and by the Dutch in 1658. The British annexed the island to the presidency of Madras, India, in 1796 and it became a Crown colony in 1802. Universal suffrage was granted in 1931 and a new constitution on the British model in 1946.

Ceylon became an independent member of the Commonwealth in 1948. It is a member of the UN.

The constitution provides for a parliament composed of a Senate, with 30 members, and a House of Representatives currently with 151 members. The administration of the island is in the hands of the Cabinet of Ministers, headed by the Prime Minister and responsible to the legislature.

Prime Minister W. R. D. Bandaranaike, appointed Apr. 12, 1956, was assassinated Sept. 25, 1959. After two short-lived regimes, new elections were held in which the Sri Lanka Freedom party was victorious. Its leader, Mrs. Sirimavo Bandaranaike, widow of the former Prime Minister, was sworn in to the office.

The regime pledged itself to a neutralist policy and nationalized a number of industries. In April, 1962, the government expropriated service and terminal facilities of one British and two U. S. oil companies and announced contracts to purchase oil from the USSR and the UAR. In March 1965 elections the conservative, pro-Western United National party won the largest number of seats and its leader, Dudley Senanayake, became Prime Minister.

In Dec. 1965, the new government agreed to pay compensation for the seized oil companies. The U. S., in Feb. 1966, agreed to resume economic aid, which had been cut off when the oil companies were expropriated.

In 1966, with financial aid from a group of Western nations, the government launched a 5-year plan to expand the tea, rubber and coconut industries which together account for 98% of Ceylon's export income.

Private industry has been growing, with gains in 1967 in food processing and confectioneries, chemicals and machinery.

On Jan. 1, 1966, Parliament abolished Sunday as a legal holiday, substituting "pooya" days—which mark the 4 phases of the moon in the Buddhist lunar calendar.

Education and Religion. All education is free in government schools from kindergarten to university. The majority of the population, Sinhalese, numbering over 6,000,000 belongs to the Buddhist faith. The Tamils, mostly Hindu, are est. at about 1,000,000. Sinhalese became the official language in 1961 but in Jan. 1966 Parliament amended the law to permit the Tamil minority to transact business in its own language.

Defense. Organized in Oct., 1949, Ceylon's armed forces comprise a regular force, a reserve, a volunteer force and volunteer reserves, a small Navy and an Air Force.

Republic of Chad

LA REPUBLIQUE DU TCHAD

Capital: Fort-Lamy. **Area:** 495,753 sq. mi. **Population** (Govt. est. 1967): 3,500,000. **Monetary unit:** CFA franc (246.85 per U. S. \$1).

A former French Overseas Territory in Equatorial Africa, 500 mi. NE of the Gulf of Guinea, 550 mi. S of the Mediterranean, Chad is bounded N by Libya, E by Sudan, S by Central African Republic, W by Cameroon, Nigeria, Niger. It is four-fifths the size of Alaska.

Moslem groups predominate in the north, and Negro Animists and others in the south. The country is completely rural, its geographic zones including a southern wooded savannah, a steppe and a desert region, part of the Sahara, in the north. On the west is Lake Chad, the dwindling remains of what was once a large inland sea.

There is a wide variety of wild animals, particularly in the southeast.

Chad proclaimed complete independence Aug. 11, 1960, and joined the UN Sept. 20. President: Francois Tombalbaye, appointed Aug. 12, 1960. It is a member of the French Community, OAU and UN. French is the official language.

Cotton is the main export; others are cattle, meat, hides, fish and natron (sodium carbonate), the country's only mineral product.

With UN aid, land is being reclaimed from Lake Chad, 17th largest lake in the world, for wheat growing. Dikes are being built across the shallow

lake; water is then pumped out of the enclosed polder. In 1966, the 4,900 acres in the first polder produced 1,800 tons of wheat.

The UNESCO Chad Basin Commission was hoping in 1968 to tap a large, natural reservoir beneath the lake for irrigation of neighboring areas.

Chile

REPUBLICA DE CHILE

Capital: Santiago. **Area:** 286,396 sq. mi. **Population** (UN est. 1967): 8,935,000. **Monetary unit:** Escudo (official rate 6.53 per U. S. \$1).

The Republic of Chile lies along the southern half of the west coast of South America, a narrow strip of land 2,620 mi. long between the towering Andes and the South Pacific.

Most of Chile lies in the temperate zone, but the Atacama Desert in the north is one of the world's driest regions, with little or no rainfall. Chile itself is slightly larger than Texas; it also claims sovereignty over a large area of the Antarctic Continent, some 500,000 sq. mi.

The Andes have many lofty peaks, notably Aconcagua in Argentina near the Chilean border, the highest peak in the Americas (23,081 ft. acc. to Chile, 22,834 acc. to Argentina); Ojos Del Salado (Argentina-Chile, 22,539 ft.); Tupungato (Argentina-Chile, 22,310 ft.).

The Christ of the Andes, a heroic-size statue in Uspallata Pass, symbolizes peace between Chile and Argentina.

Tierra del Fuego is the largest (18,800 sq. mi.) island in the archipelago of the same name at the southern tip of South America, an area of majestic mountains, tortuous channels and high winds. It was discovered 1520 by Magellan, who sailed through the strait (named after him) which separates the main island from the mainland; he named the island Land of Fire because of its many Indian bonfires. Two-thirds of the island are in Chile, the eastern third in Argentina. Punta Arenas, on a mainland peninsula in Chile, is a center of sheep-raising and the world's southernmost city (pop. over 44,500); Puerto Williams, pop. 350, at a Chilean naval base on Navarino Is., is the southernmost settlement. Beagle Channel, between Navarino and the main island, and Mt. Darwin were named after Chas. Darwin's visit to the area aboard the ship Beagle. The area's tallest mt. is Sarmiento, 7,546 ft. Cape Horn, about 1,400 ft., is a tiny island, named Horn by Dutch explorers after a town in the Netherlands.

Possessions in Pacific: Sala y Gomez and Easter Is. (Rapa Nui), with its huge stone statues, both over 2,000 mi. west; San Ambrosio and San Felix, 600 mi. west, and Juan Fernandez Islands (2 large, 1 small), center of lobster fishing and place where Alexander Selkirk, whose life reputedly was the inspiration for Defoe's Robinson Crusoe, lived 4 years.

Resources and Industries. The arid deserts of northern Chile contain incalculable mineral wealth. Mining industries account for approx. 65% of Chile's exports. Nitrate production is about 100,000 metric tons a month. About 47% of the world's supply of iodine is a by-product of Chilean nitrate works. Chile is the world's 3rd largest copper producer, behind the U. S. and Canada; estimated annual output is 780,000 tons.

The provinces of Atacama and Coquimbo have enormous iron deposits estimated at a billion tons. Coal reserves are estimated at 2 billion tons. Oil wells, mostly in Tierra del Fuego, supply Chile's needs and offer an export potential. Other minerals are gold, silver, molybdenum, cobalt, zinc, manganese, borate, mica, mercury, iodine, salt, sulphur, marble, onyx. Chile has abundant water-power. Patagonia, the sparsely-populated southern third of the nation, is undergoing extensive industrial development.

Agriculture is an important industry. There are many large dairy farms. Wheat, rice, barley, oats, beans, lentils, apples, melons, peaches, plums, nectarines, peas and potatoes are grown in abundance. Sugar beet, automotive, aviation and textile industries are being developed. Vineyards cover 250,000 acres and much wine is exported. Forests have large reserves of hard and soft woods. Coastal waters have shellfish, lobster, tuna, swordfish, sardines.

Manufacturing industries have developed greatly. With the creation of the Corporacion de Fomento de la Produccion (Chilean Development Corporation) with a capital of \$40,000,000, agricul-

tural and factory production has vastly increased. Huachipato, steel plant near Concepcion, is second only to Brazil's Volta Redonda plant in Latin America.

Besides minerals the exports are mainly fishmeal, barley, oats, wine, lentils, fruits, fish, sea-food, cellulose, newsprint, wood.

Chile has many airports and is served by 11 international airlines. About 85% of Chile's 6,700 mi. of railroads is state owned.

Since 1965 under an agrarian reform program more than 2,000,000 acres have been expropriated, with due compensation to the owners, to be distributed among rural workers. A new Agrarian Reform Law passed in 1967 will give 60,000 rural families land within the next 3 years.

In Santiago the Jesuit House of Christ housing program has provided, 1960-66, some 40,000 small homes, at low or no cost. Thousands of low-cost houses have been built by the government to meet an estimated shortage of 500,000 houses.

The government in 1966 set out to abolish the traditional two- or three-hour siesta, first for government workers, then for private businesses.

In 1968 Chile was struck by the worst drought in its history. More than 150,000 cattle died from lack of feed; lack of hydroelectric power caused industrial cutbacks.

History and Government. Diego de Almagro entered Chile for Pizarro 1536 and Valdivia completed Spanish conquest 1540. Sir Francis Drake raided the coast. A Captain General appointed by Spain ruled Chile until 1778, when it was made a separate colonial division under a governor.

Independence was gained, 1810-18, under Jose de San Martin and Bernardo O'Higgins; the latter as supreme director, 1817-1823, sought social and economic reforms until deposed. Chile defeated Peru-Bolivia in 1836-39 and 1879-84, taking Tacna and Arica provinces from Peru, returned Tacna, 1929, Arica (town) and Antofagasta are free ports for landlocked Bolivia.

Valparaiso, chief seaport, was founded in 1536; Santiago, the capital, in 1541.

Under the constitution the President is elected for 6 years, the 45 senators for 8 and deputies (1 for each 45,000 pop.) for 4, all by direct popular vote. President: Eduardo Frei Montalva, Christian Democrat, elected Sept. 4, 1964. Suffrage is universal for literate persons over 21. Chile is a member of the UN and OAS.

About two-thirds of the Chileans are of mixed Spanish and Indian descent; about one-fourth of Spanish only; a small percentage are Indian only; there are some of German and other European descent.

Education and Religion. Education is free and compulsory between 7 and 15. A National Library, the Univ. of Chile, State Technical Univ. and a Catholic Univ. are in Santiago. There are universities in Concepcion, Valparaiso, Antofagasta and Valdivia. A Council of Rectors of the 8 principal universities fosters research and teaching progress. The Roman Catholic religion is dominant though not state-supported. The language is Spanish.

Defense. All able-bodied citizens from 18 years to 45 are liable for army service. Service in the reserve of active Army is for 12 years and with the second reserve to the end of the 45th year. The Navy consists of two cruisers, 8 destroyers, 3 frigates, 3 corvettes, 2 submarines and auxiliary vessels. There is an Air Force of about 8,000 personnel, with modern equipment.

China

The ancient land of China is split into two hostile parts, with the Republic of China limited to Taiwan (Formosa) and the mainland controlled by a Communist regime called the People's Republic of China.

China, with about one-fourth of the world's population, occupies a territory in the eastern part of Asia about one-third larger than continental United States.

The mainland is of rolling topography, rising to high elevations in the N in the Khyngan Mtns., separating Manchuria and Mongolia; the Tarabagata Mtns. in Sinkiang; the Himalayan and Kunlun Mtns. in the SW in Tibet. Its length from N to S is 1,869 mi. and its breadth from E to W more than 2,000 mi.

The eastern half of China is one of the best-watered lands in the world. Three great river systems, the Yangtze, the Hwang (Yellow) and the Si (Si Kiang) provide water for vast farmlands.

Resources and Industry. Until Communism prevailed, China was chiefly agricultural. Wheat, barley, corn, kaoliang, and millet and other cereals, peas and soy beans are produced in the north; rice, sugar and indigo in the south. Rice is the staple food of the Chinese. Fruit is grown in abundance. Fiber crops are important and include abutilon, hemp, jute, ramie and flax. Cotton is produced mostly in the Yangtze and Yellow River valleys. Tea is cultivated principally in the west and south. One of the most important industries of prewar China was silk culture which has flourished 4,000 years. Livestock is raised in large numbers. In years before World War II flour and rice milling had become extensive, together with tanning, cement and glass manufacture.

China is one of the foremost coal countries in the world. Other minerals are iron ore, tin, antimony, petroleum, tungsten, molybdenum, salt.

Education and Religion. Buddhism had the largest following. Confucianism, which reveres God but stresses ethical and philosophical principles rather than divine revelation, had wide acceptance. Taoism (after Lao-Tze, b. 604 B.C.) is more metaphysical and looks to immortality. Islam, at one time, had 50,000,000; there were 3,280,000 Roman Catholics and 700,000 Protestants. On the mainland foreign missionaries and church schools are no longer tolerated.

Republic of China CHUNG-HUA MIN-KUO

Provisional Capital: Taipei, Taiwan. **Area** under control, 13,886 sq. mi. **Population** (UN est. 1967): 13,142,000. **Monetary unit:** Taiwan dollar (40.10 per U. S. \$1).

History and Government. One of the oldest of monarchies, with a history reaching back to 2205 B.C., China became a republic Jan. 1, 1912, following the Wuchang Uprising inspired by Dr. Sun Yat-sen, begun Oct. 10, 1911.

For a period of 50 years after the Sino-Japanese War, 1894-95, China was involved in conflicts with Japan. On Sept. 18, 1931, Japan seized the North-eastern Provinces (Manchuria) and set up a puppet state called Manchukuo. The border province of Jehol was cut off as a buffer state in 1933. Japan invaded China in the vicinity of Peiping (now Peking), July 7, 1937, precipitating war. After its defeat in World War II Japan returned all seized land.

After more than seven years of war with Japan ending Aug. 5, 1945, internal disturbances arose involving the Kuomintang, Communists and other factions. Manchuria was lost by the Chiang regime Oct. 30, 1948, and China proper came under domination of Chinese Communist armies during 1949-1950. The Nationalist government moved to Taipei, Taiwan (Formosa), 90 mi. off the mainland Dec. 8, 1949.

China concluded a treaty of friendship and alliance with the USSR, Aug. 14, 1945. After the Chinese Communists overran the mainland in 1949, the Soviet Union repudiated the treaty, withdrew its recognition of the Nationalist government, and signed a new treaty with the Communist regime, Feb. 15, 1950.

A new constitution became effective Dec. 25, 1947. The National Assembly is the supreme organ of the people. Members are elected on the basis of territorial and professional representation. They serve for a six-year term, subject to recall. The Assembly elects the President and Vice President, who likewise serve six-year terms; it also has the power to amend the constitution. A Yuan (Council), elected on the basis of regional and vocational representation, serves as the legislature. The cabinet, appointed by the President, is responsible to the Legislative Yuan.

Generalissimo Chiang Kai-shek, except for a period of semi-retirement, has been virtual ruler since 1927. He was elected President for a six-year term in April, 1948; reelected in 1954, 1960 and 1966. C.K. Yen was elected Vice President in April, 1966. The Nationalist government is a founding member of the UN.

Defense. Nationalist China has compulsory universal service. The regular Army requires service for 6 years. The armed forces had an estimated strength of about 600,000 on Taiwan and adjacent islands in 1966. Including a Navy and an Air Force, largely equipped by the U. S. The U. S. Navy maintains a peace patrol in Taiwan waters.

The Nationalist government signed a mutual defense treaty with the U. S., in force Mar. 3, 1955. It provides for consultation on threats of

attack and promises that if China is subject to unprovoked attack the U. S. will act according to its constitutional procedures.

The government broke off diplomatic relations with France Feb. 10, 1964, after the latter recognized the People's Republic.

TAIWAN (FORMOSA)

Taiwan is an island 110 mi. E of the mainland, but the term Taiwan is used by the Nationalist government to include 14 other islands nearby and 64 others comprising the Penghu group. Principal harbors are Keelung, Kaohsiung and Hualien.

Taiwan was ceded by China to Japan in 1895, after the Sino-Japanese War and was returned to China as a province, 1945, after the surrender of Japan. Japan renounced all claims to Taiwan and the Penghus in the Treaty of Peace, Sept. 8, 1951. China did not take part in the treaty, signing a separate treaty with Japan Apr. 27, 1952.

A range of mountains forms the backbone of the island. The eastern half is exceedingly steep and craggy but the western slope is flat, fertile and well cultivated, yielding two rice crops a year. The principal crops, besides rice, are tea, sugar, sweet potatoes, ramie, jute, turmeric and camphor. Minerals include gold, silver, copper and coal. A joint U. S.-Chinese commission aids agriculture, rural health, forestry, irrigation and food.

Taiwan's economic growth rate in recent years has been 8-10% annually. Index of industrial production in 1967 (1963-100) was 171. Industries include flour-milling, tobacco, oil, lumber products, textiles, machinery, glass and other manufactures.

Foreign trade has shown steady gains.

U. S. economic aid, begun in 1951 and totaling \$1.5 billion, terminated June 30, 1965 (with exception of some funds previously committed through 1967). Military aid, which totaled \$2.5 billion, continued, but at a reduced scale of about \$90,000,000 a year. During the 15 years, industrial production went up 300%, agricultural 70%; exports nearly tripled. Switching roles, the republic has begun extending technical assistance to some 30 countries in Asia, Africa and Latin America.

The Penghus (Pescadores), 50 sq. mi., pop. (1964) 108,800, lie between Taiwan and the coast of China, by which they were ceded to Japan in 1895. The islands remained under Japanese rule until restored to China, 1945.

The islands of Quemoy and Matsu, near the mainland, have been under Communist artillery fire at intervals since 1958.

People's Republic of China

CHUNG-HUA JEN-MIN KUNG-HO KUO

Capital: Peking. Area under control: 3,746,453 sq. mi. Population (U. S. est. 1966): 760,300,000. Monetary unit: Yuan (basic rate 2 per U. S. \$1).

The People's Republic of China was proclaimed in Peking (Peiping) Sept. 21, 1949, by the Chinese People's Political Consultative Conference under Mao Tse-tung, Communist leader. Chou En-lai was named premier and foreign minister Oct. 1, 1949. With defeat of the Nationalist armies, the Chinese mainland, the islands of Hainan and Chusan and the principal cities fell to the Communists.

Under the Communist regime, China comprises 22 provinces, including Taiwan, which it claims; 5 autonomous regions (Inner Mongolia, Sinkiang-Uighur, Kwangsi-Chuang, Ningxia-Hui, Tibet-Chamdo) and two municipalities—Peking and Shanghai. Government estimate of population in 1964 approached 750,000,000. The government pressed birth control programs; without them experts said, China's population would reach 1 billion by 1980.

Communist party chairman: Mao Tse-tung. Chief of State or President: Liu Shao-chi, elected Apr. 27, 1959 re-elected 1965. Premier: Chou En-lai, app. 1949, reapp. 1965.

The Communist regime and the USSR signed a 30-year treaty of "friendship, alliance and mutual assistance," Feb. 15, 1950, repudiating the 1945 treaty between the Soviet Union and Nationalist China authorized by the Yalta Agreement. Great Britain recognized the People's Republic Jan. 1, 1950; the two countries have embassies in each other's capitals headed only by charge d'affaires. Recognition has been granted by about 20 nations.

United States Policies. The U. S. refused recognition, and after its consular officers met with

abuse, withdrew them. On Nov. 26, 1950, when U. S. military forces and those of certain other UN members had the North Korean Communist rebels virtually defeated, the People's Republic sent armies of "volunteers" into Korea and, with the help of limitations on U. S. offensive action, forced a stalemate.

The U. S. has led opposition to the entry of Communist China in the UN as representative of all China and, in concert with its major allies, restricts trading with Communist China, but Great Britain and Canada resumed trade. In 1966, U. S. President Johnson, Vice Pres. Humphrey and Secy. of State Rusk all suggested in speeches that the U. S. and Communist China might eventually be reconciled. The suggestions were rebuffed.

France recognized the Peking regime in Jan. 1964 and Nationalist China broke off relations with France Feb. 10, 1964.

Peking Foreign and Domestic Policies. On Feb. 27, 1957, Mao Tse-tung, then Chief of State, condemned the Stalinist terror but admitted an est. 800,000 anti-Communist Chinese were executed 1949-54. Leniency for political criticism, proposed by Mao Tse-tung, led to anti-Communist disturbances among students and a quick return to repressive measures. In 1958 the regime announced all "rightists" in govt. service had been removed. It endorsed the Soviet attack on Hungary, condemned Yugoslavia's independence. It pursued a more rigid Communist ideology than the USSR and, with Albania, has maintained a continuous propaganda campaign against the USSR. The regime called on the international Communist movement Mar. 31, 1964, to repudiate Khrushchev's leadership.

It hailed Khrushchev's ouster, Oct. 14-15, 1964, as a victory for its own policies but soon attacked the new Soviet leaders for continuing a policy of "peaceful coexistence" with the West. A visit by Chou En-lai to Moscow in Nov. 1964 failed to heal the bitter rift between the two Communist powers. Vituperative Chinese attacks on Russian "revisionism" grew during 1966.

Early in 1966 a long, widespread purge of "anti-party intellectuals" was launched; it was viewed as a possible symptom of a struggle for power and the succession to the aging Mao. Premier Chou En-lai called the purge a "cultural revolution." Ousted from office and denounced were the Chief of the Army's General Staff, Minister of Culture, the party propaganda chief, 3 university presidents, newspaper editors and writers, opera producers, youth officials, economists, Peking's Mayor, atom experts and others.

In August, 1966 Defense Minister Lin Biao emerged as top deputy and heir apparent to Mao.

In the same month the "cultural revolution" took a new turn as thousands of Peking teen-agers, calling themselves the Red Guards and acting with official blessing, took over the city, ordering everyone to rid themselves of "western ways." Women took the curls out of their hair, streets were renamed, shopkeepers were ordered to remove foreign names from goods, the few churches in the city were defaced, bloodshed and beatings of old people were reported and the reign of terror spread to other cities.

The "cultural revolution" continued unabated in 1967 with reports of fighting in many provinces between pro and anti-Maoists.

In 1968 student unrest continued and the official press continued attacking President Liu Shao-chi, calling him an agent of Nationalist Pres. Chiang Kai-shek.

On Oct. 16, 1964, Communist China exploded a low-yield atomic bomb in Sinkiang Province, becoming the 5th nation to possess such power, and announced May 14, 1965, it had exploded a 2nd bomb. A 3rd was exploded May 9, 1966. An explosion of a hydrogen bomb was announced June 17, 1967.

Internationally, Communist China has sought to promote revolutionary movements in Africa, Asia and South America. The program suffered serious setbacks, 1965-66. An abortive Communist coup in Indonesia, Sept. 30, 1965, was followed by destruction of the party there and attacks on Red Chinese representatives. Three friends and a lot of influence were lost in the ouster of Algeria's Ahmed Ben Bella, June 19, 1965; in a squabble with Cuba's Fidel Castro over a cut in rice exports to Cuba; and in the overthrow of Ghana's Kwame Nkrumah, Feb. 24, 1966. Dahomey and the Central African Republic broke off relations with China in Jan. 1966 and the Ivory Coast

accused it of plotting a rebellion in that country.

Application of radical theories to industry and agriculture have resulted in erratic economic development. Serious food shortages have existed since 1959 after more than 148,000,000 acres of farm land were damaged by storms, floods, drought and mismanagement. The regime has been forced to obtain grain from Tibet, Argentina, Mexico, Canada and Australia. Light industries dependent on agriculture for their raw materials also were affected—cotton textiles, knitted goods, vegetable oils, sugar and cigarettes. The "people's commune" system of agriculture, in effect since 1958 and which had disrupted family life, was drastically modified in 1960-61 to increase individual incentives to stimulate production, but the collectivization drive was renewed in 1963-1964. Many thousands fled to overcrowded Hong Kong.

Vast hydroelectric and irrigation projects are under construction or in partial operation. Largest of 11 major water projects is the Sanmen Gorge project on the Yellow River in Honan, expected to store 84.6 billion cu. yds. of water, with power stations to have capacity of 1,100,000 kw. The nation plans a new canal system with four trunk routes spanning China from south to north, to connect the Yangtze with the Yellow River. Industrial progress was hampered, 1960-1964 by the withdrawal by the USSR of technicians and equipment. Steel production in 1963 was est. 9-10,000,000 metric tons, 50% below that of 1960.

Institutes of higher education include 15 universities, 48 engineering colleges and 31 agricultural colleges. English and Russian are required in high schools.

The regular Army is estimated at approx. 2,600,000, formed into 160 divisions—3 armored, one air-borne, a number of cavalry and the remaining in infantry divisions. Air Force equipment and training were originally furnished by the USSR. The Air Force has an est. 3,000 planes of Soviet design. The Navy, with est. 135,000 personnel, has 2 light cruisers, 5 destroyers, 24 submarines, 32 frigates and smaller craft.

Manchuria, 404,428 sq. mi., is administered as part of Communist China. Seized by Japan in 1931, it was renamed Manchukuo, a puppet "independent" nation, Mar. 1, 1932. In 1945 it was returned to China.

Kwantung is the southern part of the Liaotung peninsula, the southernmost portion of Manchuria. Russia in 1898 forced China to lease it Kwantung and constructed the strongly fortified city of Port Arthur and the nearby commercial ice-free port of Dairen (Talien).

Japan seized Port Arthur in 1905, and at the close of the Russo-Japanese War took over the lease in the Treaty of Portsmouth. It was restored to the USSR by the Yalta Agreement, Feb. 11, 1945, which also internationalized Dairen. Following the 1950 Soviet-Chinese treaty the USSR returned the Changchung railroad, Port Arthur and Dairen to Communist China.

INNER MONGOLIA

Inner Mongolia was organized by the People's Republic as an Autonomous Region in May 12, 1947. Its boundaries have undergone frequent changes. In 1950 it comprised northern Chahar and parts of former Manchuria. Suiyuan province was incorporated June 1954, and parts of Jehol in Aug. 1955. Population is about 6,200,000 of which less than 20% are Mongol. Capital: Huhehot (Kweisui).

Outer Mongolia: For People's Republic of Mongolia, see Mongolia in Index.

SINKIANG

Sinkiang (New Dominion), in Central Asia, comprising Chinese Turkestan, Kulia and Kashgaria, is 633,802 sq. mi.; pop. (est. 1958), is 6,000,000, of whom 75% are Uighurs, a Turkic Moslem group, with a heavy Chinese increase in recent years. Tihwa (Urumchi), the capital, and Kuldja are the chief cities.

Sinkiang is considered China's richest region in strategic materials, including tungsten, wolfram, molybdenum, copper, zinc, coal, uranium and oil. The province was declared autonomous in 1953.

TIBET (PO)

Tibet, 470,000 sq. mi., is a thinly populated region of high plateaus and massive mountains, almost twice the size of Texas. The Himalayas ring it on the S, the Kunluns on the N. Lofty passes link it with India and Nepal to the S; roads and a railroad lead into China proper. The capital is Lhasa. The average altitude is 15,000 ft.

Gartok, 15,100 ft., is believed to be the highest inhabited town on earth. Agricultural methods are primitive. Cereals are the main crops. The religion is Lamaism, a form of Buddhism. Pop. (1964 est.) 1,300,000.

With only token resistance, Tibet accepted suzerainty of the Chinese Communist regime under a pact signed May 23, 1951. A communist Tibetan Autonomous Government was announced Dec. 20, 1953, revising the quasi-religious administration of the Dalai and Panchen Lamas.

A revolt against the Communists occurred in 1959, when the latter attempted to arrest the Dalai Lama. The Tibetan cabinet denounced the 1951 treaty. The Communists crushed the revolt and placed the Panchen Lama on the Tibetan throne. The Dalai Lama fled to India. The Panchen Lama was demoted Dec. 1964. A new ruler was sponsored by Peking Sept. 9, 1965, when it announced election of Ngapo Ngawang Jigme as chairman of the newly-established Tibet Autonomous Region. Revolts continued in 1965 and 1966.

A reform program, including land redistribution and abolition of serfdom (assertedly practiced in some monasteries) was announced July 3, 1959.

The International Commission of Jurists at Geneva in 1961 charged the Communist regime with genocide in Tibet. About 20,000 Tibetans have fled to India since the Chinese takeover.

Colombia

LA REPUBLICA DE COLOMBIA

Capital: Bogota. Area (UN est.): 455,335 sq. mi. Population (Govt. est. 1968): 19,300,000. Monetary unit: Peso (16.30 per U. S. \$1).

The Republic of Colombia, situated in the extreme northwest of South America, extends up the Isthmus of Panama to the Republic of Panama. It has a coast line of 913 mi. on the Pacific Ocean, and 1,094 mi. on the Caribbean Sea. It has as neighbors Venezuela and Brazil on the E, and Ecuador and Peru on the S. It is 4 times the size of Arizona.

Three great ranges of the Andes, the Western, Central and Eastern Cordilleras, run through the country from N to S. The eastern range consists mostly of high table lands, cool and healthful, and densely populated. The Magdalena River, in the NE, rises in the high Andes and flows N into the Caribbean Sea near Barranquilla. It is navigable over 800 mi. The Magdalena Valley is a plain of rich alluvial land.

Snow-crested mountains standing almost directly over the Equator are one of many examples of scenic splendor in Colombia. Tourists are also attracted by the famous Tequendama Falls, a natural wonder near Bogota, 427 ft. high.

The Salt Cathedral of Zipaquirá, 32 mi. N of Bogota, is an actual church carved with Gothic arches 1,300 ft. underground in a salt mine. It can accommodate 10,000 worshippers.

Bogota, the capital founded in 1538, is in the Andes, 8,660 ft. alt.

Resources and Industries. Colombia is second to Brazil in exports of coffee, annually shipping approx. 6,600,000 bags of 132 lbs. each, accounting for 70% of export trade. Rice, tobacco and cotton are cultivated, besides cocoa, sugar, tegua, wheat and bananas. Dyewoods, rubber, balsam and copaiba trees are important.

The country is rich in minerals. It has become a heavy producer of petroleum, with more than 72,670,000 bbl. in 1965. Seventy-five miles from Bogota are the Muzo emerald mines which have been in operation for four centuries. Colombia produces 95% of the world's gem emeralds. Other minerals are gold, silver, copper, lead, mercury, cinnabar, manganese, platinum, coal, iron, limestone, salt. Colombia is accelerating expansion of its hydro-electric power which has est. potential of 40,000,000 kw. Food processing leads industry; other products are textiles, rubber goods, steel, and chemicals. Colombia has received loans from the Inter-American Development and World Banks.

An Atlantic railroad, completed in 1961, running from Santa Marta on the Caribbean Sea to Salgar, opened the Magdalena Valley to cultivation and improved travel between the coast and industrial cities of the interior. Aviation has done much to unify the country. An oil pipeline from the new Orito field in the SE, across the Andes to the Pacific port of Tumaco, was to be finished in late 1968.

History and Government. The country, conquered and ruled by Spain for 300 years, won its freedom

in the revolt of the Spanish-American colonies 1810-1824, the liberator, Simon Bolivar, establishing the Republic of Greater Colombia in 1819 from which Venezuela and Ecuador withdrew in 1829-1830. From the remainder of the confederation evolved New Granada, Confederation Grana-dina, and finally the Republic of Colombia under a constitution dated Aug. 5, 1886. Panama with-drew, Nov. 3, 1903, becoming a separate republic.

The Congress consists of a Senate of 106 mem-bers, elected for a term of four years, and a House of Representatives (one to every 90,000 pop.), elected directly by the people every two years. The President is elected by direct vote for four years and is ineligible for the following term.

Dr. Carlos Lleras Restrepo, a Liberal, was in-augurated Colombia's 110th President Aug. 7, 1966. He was the candidate of the National Front coalition (started in 1958 to run to 1974) under which Liberals and Conservatives agreed to al-ternate the Presidency and share other govern-ment posts equally.

The government has sought to reduce vast land-holdings and increase the size of small farms. From 1961 to 1968 the Institute for Land Reform acquired or developed 6,000,000 acres; more than 60,000 families were given title to farm plots.

Education and Religion. Most of the people are of mixed Indian and white descent; the next largest group is white; the smallest groups are Indians and Negroes. Education is free but not compulsory. The National Univ., founded 1572, is in Bogota. Roman Catholicism is the prevailing religion, but others are tolerated. Spanish is the language.

Defense. Military service is compulsory between the ages of 21 and 30 with actual service for one year. The Navy consists of 4 destroyers, 3 frigates, gunboats and others. The Air Force is equipped with American and Canadian fighters, fighter-bombers, transports and a number of heli-copters. Member: UN, OAS.

Republic of Congo—Brazzaville (FORMER FRENCH CONGO)

Capital: Brazzaville. **Area:** 132,046 sq. mi. **Popu-lation** (UN est. 1967): 860,000. **Monetary unit:** CFA franc (246.85 per U. S. \$1).

Formerly the French Middle Congo Overseas Territory, the Republic of Congo (Brazzaville) straddles the Equator. It is bounded on the E and S by the Democratic Republic of Congo; on the W by Cabinda (Port.), the Atlantic and Gabon; on the N by Cameroon and Central African Republic. It is twice the size of Missouri.

Complete independence was proclaimed Aug. 15, 1960, and the Republic joined the UN Sept. 20. Fulbert Youlou was elected President Nov. 21, 1959, and resigned in Aug. 1963 in a coup sparked by trade unions. In March 1965 he escaped house arrest and fled the country. Under his successor, Pres. Alphonse Massamba-Debat, the country moved into the Red Chinese sphere of influence and announced a "scientific Socialist state" with one-party control.

In Aug. 1965 the U. S. withdrew its embassy staff, a step short of breaking off relations, charg-ing harassment of American officials.

A member of the French Community, the nation receives aid from France and Communist China.

Forests are a prime resource, covering 54,000,000 acres, and wood products form a major export. Chief commercial agricultural products are palm oil and kernels, cacao, bananas, and peanuts. In-dustrialization has progressed and its output now accounts for 11% of the total national product. Petroleum reserves are extensive. Brazzaville and Pointe-Noire have modern airports.

Democratic Republic of Congo REPUBLIQUE DEMOCRATIQUE DU CONGO (FORMER BELGIAN CONGO)

Capital: Kinshasa (former Leopoldville). **Area** (estimated): 905,563 sq. mi. **Population** (UN est. 1967): 16,353,000. **Monetary unit:** Zaire (.5 per U. S. \$1).

Until June 30, 1960, the Congo was a colony of Belgium in Equatorial Africa, entirely inland ex-cept for 25 mi. on the Atlantic Ocean, N of the mouth of the Congo River. It is larger than Texas and Alaska combined.

Along the eastern border lie several of Africa's Great Lakes: Albert, Edward, Kivu, Tanganyika and Mweru. North of the Equator on the Uganda

border, stand the Ruwenzori Mtns., believed to be the "Mountains of the Moon" of ancient legend. Mt. Margherita is 16,763 ft.

The Congo River, one of the world's longest, rises near the Zambian border in the SE and flows 2,718 mi. N, then W and finally SW, emptying into the South Atlantic.

Wildlife is abundant and includes most of the species Africa is famous for: elephant, lion, gorilla, hippopotamus, crocodile, python, etc.

Resources and Industry. There are extensive mineral deposits in the Katanga, Ituri and Kivu highlands. The Congo normally produces 6% of the world's copper and over 50% of its cobalt and industrial diamonds. Also produced are cadmi-um, gold, silver, tin, germanium, zinc, iron, tung-sten, manganese, uranium and radium.

Tropical rain forests cover much of the land; trees often are 150 to 200 ft. tall. They include ma-hogany, ebony, teak, copal, palms, cedars and gum and resin trees. Some livestock is raised in insect-free areas. Bananas, coffee, rubber, mangoes, plantain, coconuts are grown. Chief agricultural exports normally are fats and oils, timber, coffee, cotton, rubber and bananas.

History and Government. Leopold II, King of the Belgians, formed an international group to ex-ploit the Congo in 1876. In 1877 Henry M. Stanley explored the Congo and in 1878 the King's group sent him back to organize the region and win over the native chiefs. Claims having been advanced by Portugal and others, the Conference of Berlin, 1884-85, organized the Congo Free State with Leopold as King and chief owner. Exploitation of native laborers on the rubber plantations caused international criticism and led to granting of a colonial charter, Oct. 18, 1908, whereby the state became a Belgian colony.

Belgian and Congolese leaders agreed Jan. 27, 1960, that the Congo would become independent June 30. In the first general elections, May 31, the National Congolese movement of Patrice Lumumba won 35 of 137 seats in the National Assembly, lower House of Parliament. He was appointed Premier June 21, and formed a coalition cabinet. Bel-gium's King Baudouin formally proclaimed the territory's independence at Leopoldville (now Kinshasa) June 30, 1960.

Widespread violence in which mutinous Congo-lese troops took part caused Europeans and others to flee the country. Pres. Moise Tshombe of Katanga seceded from the republic July 11, but ended the secession Jan. 15, 1963. Katanga was the seat of the copper-mining operations of the Union Minière, which paid taxes formerly sufficient to de-fray one-half of the costs of the government. The UN Security Council Aug. 9, 1960, called on Belgium to withdraw its troops and sent a UN contingent to guard against civil war. Pres. Kasavubu removed Lumumba as premier and Lumumba fought for control with the backing of Ghana, Guinea and India. On Feb. 12, 1961, Lumumba was murdered by tribesmen in Katanga and Antoine Gizenga, vice premier, attempted to succeed him.

The last UN troops left the Congo June 30, 1964, and Cyrille Abdoula, Premier since Aug. 1, 1961, resigned, succeeded by Tshombe.

On Sept. 7, 1964, leftist rebels set up a "Peoples Republic" in Stanleyville with Christo-pher Gbenye as president. Premier Tshombe hired foreign mercenaries and sought to rebuild the Congolese Army. In Nov. and Dec. 1964 rebels slew scores of white hostages and thousands of Congolese; Belgian paratroops, dropped from U. S. transport planes, rescued hundreds. By July 1965 the rebels, though supplied with smuggled arms, had lost their effectiveness.

Growing rivalry between Pres. Kasavubu and Premier Tshombe ended when the former ousted the latter from office Oct. 13, 1965. Evariste Kimba became Premier but both he and Pres. Kasavubu were ousted Nov. 25 by Gen. Joseph D. Mobutu who named himself President. Tshombe went into exile.

In March 1966 Pres. Mobutu took over from Parliament all of its legislative powers. On July 1 he renamed Leopoldville Kinshasa; Stanleyville, Kisangani; and Elisabethville, Lubumbashi.

On June 2 ex-Premier Kimba and 3 former Cabinet ministers were ousted on charges of plotting to kill Pres. Mobutu.

In 1967 Tshombe was kidnapped in a private plane over the Mediterranean and flown to Algeria, where attempts were made to extradite him to the Congo where he faced execution. Shortly after-ward, a revolt, led by Belgian and French mer-cenaries, broke out in the eastern Congo.

This revolt died and most of the mercenaries fled the country; the government was aided by 3 large U. S. transport planes sent to the Congo to help transport government troops and supplies.

Education and Religion. The population is principally Bantu. More than 200 tribes are represented. Swahili, Lingala, Tshiluba and Kikongo are most widely spoken languages. There are an estimated 5,000,000 African Christians, predominantly Roman Catholic. Most schools are operated by church missions.

Costa Rica

REPUBLICA DE COSTA RICA

Capital: San Jose. **Area:** 19,575 sq. mi. **Population** (UN est. 1967): 1,594,000. **Monetary unit:** Colon (6.6¢ per U. S. \$1).

Costa Rica, in Central America, has Nicaragua for its neighbor on the N and Panama on the S. The lowlands by the Caribbean have a tropical climate. The interior plateau, with an altitude of about 4,000 ft., is temperate.

San Jose, the capital, situated inland—103 mi. by rail from Puerto Limon on the Atlantic; 93 by rail from Puntarenas on the Pacific—is the country's industrial and cultural center. Limon and Puntarenas are the principal ports. The crater atop Poas Volcano is the largest in the world. Puerto Limon occupies one of the sites where Columbus landed on his fourth and last visit to America.

Resources and Industries. A 1962 law giving new industries a tax holiday of up to 10 years has brought a wide variety of factories. The Irazu volcano near San Jose erupted from March 1963 to Dec. 1964, dropping millions of tons of ash which severely damaged coffee, vegetable and dairy crops, but higher world coffee prices aided the economy. Coffee of a high quality is the chief crop and export, followed by bananas, cocoa, cattle, cotton, fish and hemp.

New industries include fiberglass products, aluminum, fertilizer, roofing and cement.

The forests are extensive, and the lumber industry is important. Gold and silver are mined on the Pacific slope. Other minerals are quartz, alabaster, granite, oil, alum, slate, onyx, mercury, sulphur, copper.

Chief imports are flour, textiles, industrial machinery, gasoline, leather, hardware and tools. Three-fourths of foreign trade is with U. S. The balance of trade is adverse although increasing light industry and membership in the Central American Common Market have improved the situation.

Costa Rica was one of the Central American nations visited and promised aid in July 1968 by U. S. President Johnson.

The nation has a comparatively high standard of living and of social services.

History and Government. Although once a part of the Confederation of Central America, 1824-1829, Costa Rica has been independent since 1821.

An unusual Constitution was adopted Nov. 8, 1949. It abolishes the Army as a permanent institution. The legislative power is vested in a Chamber of Deputies, 57 in number, with four-year terms, under universal suffrage. The President, elected for four years, appoints a Cabinet of nine. Deputies may not serve successive terms but may be reelected after an intervening 4 years. A President may not be reelected until two succeeding terms have elapsed. There is a fine for not voting.

Religion and Education. Primary education is compulsory. Higher education is free; its institutions include the University of Costa Rica in San Jose; Inter-American Institute of Agriculture Sciences in Turrialba. The language of the country is Spanish. English is taught in the public schools. Roman Catholicism is the predominant religion, but the nation has religious liberty.

Defense. Order within the country is kept by a Civil Guard force of about 3,500. Costa Rica is a member of the UN and OAS.

Cuba

REPUBLICA DE CUBA

Capital: Havana. **Area:** 44,218 sq. mi. **Population** (UN est. 1967): 8,033,000. **Monetary unit:** Peso (1 per U. S. \$1).

Cuba, the Pearl of the Antilles, is both an island, the largest in the West Indies, and, including its offshore islands, a nation which is about the area of Pennsylvania. The Straits of Florida lie to the

N, the Gulf of Mexico to the W, the Caribbean to the S.

Key West, Fla., is about 90 mi. N. The Windward Passage, 50 mi. wide, separates Cuba from Haiti to the E, and Jamaica lies 90 mi. to the S. Cuba's length is 790 mi., its breadth averages 50 mi. The coastline, including the larger keys, is about 2,500 mi. It has numerous harbors, notably that of Havana, one of the finest in the world. The Isle of Pines (Isla de Pinos) is 1,180 sq. mi. in area.

Mountains rise in Pinar del Rio Province in the W, and in Oriente in the E where they reach a general elevation of about 3,000 ft., with Pico Turquino, 6,467 ft., the highest.

Havana (La Habana), pop. over 1,000,000, is the busiest port. Santiago de Cuba, on the SE coast, is next largest port.

Resources and Industries. Chief barometer of the nation's economy is the sugar industry which represents about 85% of exports. U. S. sugar mills, seized by the revolutionary regime in 1960, represented an investment of approx. \$275,000,000, producing about 40% of Cuba's output.

In 1968 the government indicated sugar production would fall short of the 1967 total.

Tobacco raising and the manufacturing of cigars and cigarettes rank second. Other products are molasses, coffee, pineapples, bananas, citrus fruit and coconuts. Textiles, cabinet woods (mahogany and cedar), dyewoods, fibers, gums, resins and oils are important. Iron, copper, manganese, nickel and salt are some of the minerals. Industries include rayon, cement, naphtha and gasoline, chemicals.

Cuba was discovered by Christopher Columbus, Oct. 28, 1492. Its name derives from the Indian Cubanacan. Except for British occupation of Havana, 1762-63, Cuba remained Spanish until 1898.

Under Spanish governors Cubans were denied citizenship, slavery was retained until 1886, and patriots who revolted were executed. On Oct. 10, 1868, Carlos Manuel de Cespedes led Cubans in a proclamation of independence. Their ten-years' war ended in 1878 with guarantees of rights by Spain, which Spain failed to carry out. A full-scale movement for independence began Feb. 24, 1895, under Jose Marti, with the military under the command of Maximo Gomez, Antonio Maceo and Calixto Garcia. By 1897 over half the island was in Cuban hands. The Spanish governor, Valeriano Weyler, destroyed sugar plantations, banned export of tobacco and held patriots in "reconcentration camps." A U. S. offer to mediate was rejected by Spain.

The movement to help Cuba gain its independence was speeded up by the sinking of the U.S.S. Maine in Havana harbor. The U. S. declared war on Spain Apr. 25, 1898, and defeated it in the short Spanish-American War. In the Treaty of Paris, Dec. 10, 1898, Spain gave up all claims to Cuba. The U. S. formally withdrew May 20, 1902, when Tomas Estrada Palma was inaugurated first president of the republic.

Under 1903 and 1934 agreements, the U. S. leases a site for its naval base at Guantanamo Bay, on the SE coast.

In 1952 Fulgencio Batista seized control of the government and imposed a dictatorship.

Opposition to the corrupt Batista regime became vigorous in 1956 under leadership of Fidel Castro, born 1927, lawyer and former leader of student opposition. Known as the 26th of July Movement, the revolutionists in 1958 carried on intensified guerrilla warfare. Batista resigned Jan. 1, 1959, and fled to Lisbon.

Castro proclaimed Dr. Manuel Urrutia Lleo Provisional President and Urrutia dissolved the Cuban Congress, Jan. 6. Castro became Premier Feb. 16.

Pes. Urrutia resigned after accusing Communists of plotting treason. Dr. Osvaldo Dorticos Torrado was made Provisional President July 17, 1959.

The government, quickly dominated by left-wing extremists, began a program of sweeping economic and social changes, led by an agrarian reform law approved May 18, 1959. It executed hundreds of dissidents, and ousted moderates.

The National Institute of Agrarian Reform, principal agent for economic control, nationalized cattle and tobacco lands and instituted a system of cooperatives. All private enterprise was brought under control by a Central Planning Board created Feb. 20, 1960. By the end of 1960 all Cuban banks and industrial companies had been nationalized, including an est. \$1 billion worth of U. S. owned properties.

Soviet, Communist Chinese and Czechoslovakian

economic penetration was extended by trade and credit agreements, including sugar purchases and a USSR credit equiv. to \$100,000,000 for construction of factories and other installations.

Citing the open hostility of the regime, the U. S. cut back Cuba's remaining 1960 sugar quota by 700,000 tons. The U. S., Oct. 19, imposed an extensive embargo on exports to Cuba and, Feb. 4, 1962, Pres. Kennedy ordered a total embargo. Another U. S. order, July 8, 1963, halted virtually all financial transactions.

The OAS nations voted July 26, 1964, 15-4, resolution for mandatory sanctions against Cuba and for strengthening defenses against Cuban subversion efforts.

In 1962-1964 deficiency in the sugar crop and food shortages resulted in collectivization of farming and stringent labor controls. As the economic crisis deepened, food, shoes, clothing, gasoline were rationed.

In 1963, restrictions similar to rationing were in effect for eggs, bread, sugar, milk, etc.

Bay of Pigs Raid. In April, 1961, Jose Miro Cardona, pres., Cuban National Revolutionary Council, called on Cubans to unite to overthrow the Castro regime. On Apr. 17 about 1,400 Cuban patriots, who had trained in the U. S. and Guatemala, landed in the Bahia de Cochinos (Bay of Pigs) on Cuba's southern coast. They were overwhelmed by Castro forces and killed or imprisoned. The attempt created severe criticism in Congress of activities of the U. S. Central Intelligence Agency. Pres. Kennedy previously had declared there would be no intervention by the U. S. On Dec. 21, 1962, Castro agreed with James B. Donovan, representing welfare agencies, to release 1,113 prisoners in exchange for medical supplies worth a reputed \$53,000,000. American drug concerns and religious groups raised the supply. Eventually Donovan was able to effect the transfer of nearly 10,000 Cubans, including families of exiles.

Kennedy vs. Soviet Missiles. In the fall, 1962, the U. S. ascertained that the Soviet Union was delivering nuclear missiles and other weapons to Cuba and building bases. On Oct. 22 Pres. Kennedy warned that any missile launched from Cuba would be regarded as an attack by the Soviet Union and would call for full retaliation. He asked Premier Khrushchev to halt this "clandestine, reckless and provocative threat to world peace." Khrushchev removed the missiles.

Cuba complained of numerous raids by infiltrators, 1964-66. The U. S. said a Guantanamo Base sentry fired on an armed Cuban soldier who infiltrated base territory, May 21, 1966, Castro charged the Cuban was killed on Cuban soil.

In Feb. 1966, Castro denounced Communist China for "blackmail and extortion" for slashing rice exports to Cuba.

In 1968, Anibal Escalante, leader of a pro-Soviet party clique, was sentenced to 15 years and 34 followers drew lesser terms.

Cuba is a member of the UN.

Education and Religion. Education is compulsory between the ages of 6 and 14. Among the institutions of higher learning is the University of Havana, founded in 1721. The Roman Catholic religion is dominant. The language is Spanish with English widely understood.

Education was nationalized June 7, 1961, and many Catholic schools were seized. Many Catholic priests of Spanish origin were deported.

Defense. Compulsory military service was established Jan. 5, 1942. A large defense force, including women, has been trained by the Castro regime and arms have been supplied by Communist countries.

Cyprus

KYPRIAKE DIMOKRATIA
KIBRIS CUMHURİYETİ

Capital: Nicosia. **Area:** 3,572 sq. mi. **Population** (UN est. 1967): 614,000. **Monetary unit:** Pound (.4167 per U. S. \$1.).

Cyprus, former British Crown Colony, became a republic Aug. 16, 1960, and joined the Commonwealth, UN and Council of Europe. It is the third largest island in the Mediterranean Sea, 40 mi. S of Turkey, 60 mi. W of Syria, and 350 mi. E of Crete. Two mountain ranges run E-W, separated by a wide, fertile plain. It is smaller than Connecticut.

Four-fifths of the inhabitants are Greek Orthodox Christians, nearly all the rest are Turkish Moslems. Greek and Turkish are official languages; English is widely spoken.

Chief ports are Limassol, Larnaca and Famagusta.

Resources and Industries. Cyprus is mainly agricultural, with cereals, grapes, wine, carobs, citrus fruits, potatoes and olives as principal crops. Agricultural products account for about 50% of the island's exports, but minerals are the mainstay—cupreous and iron pyrites, asbestos, gypsum, chrome and amber—making up 36% of total exports. Manufacturing is limited mainly to light industries. Cement and oil refining industries are under development.

The nation suffers an unfavorable balance of trade. Value of imports (in U. S. dollars) rose from \$159,000,000 in 1966 to \$167,000,000 in 1967. Exports in 1966 totaled \$82,000,000; in 1967, \$83,000,000.

History and Government. Cyprus was inhabited as early as the New Stone Age in the 4th millennium B.C. Achaeans from Greece traded with the early Cypriots from 1600 B.C., set up colonies after the end of the Trojan War (c. 1184 B.C.). From the middle of the 8th Century B.C., Cyprus was dominated successively by Phoenicians, Assyrians, Egyptians, Persians, Alexander and the Ptolemies, Romans, Byzantines, Moslems, Crusaders, Venetians and Turks. Great Britain took over administration in 1878 under an agreement with Turkey, annexed the island in 1914, made it a Crown Colony in 1925.

Agitation for enosis (union) with Greece resulted in the British abolishing the legislative council in 1931. Demands for enosis were renewed after World War II; the Turkish minority, about 100,000, was opposed. Widespread violence in 1955-56, led by EOKA, an underground organization, brought harsh disciplinary measures, including the temporary exiling of Archbishop Makarios III, patriarch of the Orthodox Church in Cyprus and leader of the enosis movement.

In 1959, conflict was brought to a temporary halt by an agreement signed by British, Greek, Turkish and Cypriot leaders; under which Cyprus would become a republic, with a President elected from and by the ethnic Greek community, and a Vice President from and by the corresponding Turkish community. A 70-30% proportion of the Greek and Turkish communities was to be represented in the House of Representatives. Britain retained 2 military enclaves, Akrotiri and Dekelia, approx. 99 sq. mi.

Separate Greek and Turkish Communal Chambers dealt with religious, educational and other communal affairs.

Archbishop Makarios was elected President for a 5-year term and Dr. Fazil Kutchuk Vice President, Dec. 14, 1959. The constitution was approved April 6, 1960; independence became final Aug. 16, 1960, and Pres. Makarios took office.

Communal strife again broke out in December, 1963, following proposals by Pres. Makarios to make changes in the constitution which the Turkish minority felt would reduce their rights.

The UN Security Council approved Mar. 4, 1964, a resolution providing for an international peace-keeping force and UN troops began action Mar. 27.

Tension worsened after Turkey charged that Turkish Cypriots had been massacred in a Greek push against the northwest coast and bombed and strafed Greek positions Aug. 7-10, 1964. Both sides accepted a UN appeal for a cease-fire Aug. 10.

During a 1965 crisis, the UN Security Council urged all parties to avoid increasing tensions.

Another crisis ended in Aug. 1966 when Pres. Makarios, on an appeal from UN Sec. Gen. U Thant, lifted a blockade imposed on Turkish Cypriots which had led to a threat of "counter-measures" by Turkey.

War between Greece and Turkey over Cyprus appeared imminent in Nov. 1967 but was averted mainly because of mediation work by Cyrus R. Vance, special envoy of U. S. President Johnson.

Archbishop Makarios, whose term as Pres. had been twice extended by Parliament, was reelected Feb. 25, 1968, by an overwhelming popular vote. Vice Pres. Kutchuk was returned to office unopposed.

Czechoslovakia

CZECHOSLOVAK SOCIALIST REPUBLIC

Capital: Prague (Praha). **Area:** 49,370 sq. mi. **Population** (UN est. 1967): 14,305,000. **Monetary unit:** Koruna (7.2 official rate per U. S. \$1.).

Czechoslovakia is a central European socialist republic about 600 mi. long and 50 to 100 mi. wide—about the size of New York State. It is bounded

by West Germany (Bavaria), East Germany (Saxony), Poland, the Soviet Union, Austria and Hungary.

The Vltava (Moldau) and Labe (Elbe) flow from Bohemia to Germany; the Danube separates Slovakia from Hungary. The Carpathian Mts. are in the E and NE; tallest are the Tatras, with Gerlachovka peak 8,737 ft. The Ore Mts. (Ger. Erzgebirge) are on the Saxon border. The Great Bohemian Forest, rich in game and timber, lies on the Bavarian border.

Resources and Industries. Czechoslovakia has considerable natural resources, developed by farming, mining and industry. About one-third is agricultural, with about 60% in grain. Sugar beets and hops are grown and beer is exported from Pilsen (Pilsen).

Coal is mined in the Ostrava-Karvina basin and at Pilsen and Brno. Much iron is found in the Beroun basin and Slovakia. Oil, imported mainly from the USSR via the "Friendship Pipeline," is refined at Bratislava on the Danube. Jachymov (Joachimsthal), has Europe's richest deposits of pitchblende (for radium) and uranium, extensively mined by the USSR under contract. Czechoslovakia is a major exporter of arms and machinery. Ostrava and Kosice are important steel centers.

Glass crystals and kaolin support a large glass and china industry; other products include light aircraft, wood pulp, textiles, shoes.

The nation bettered its balance of trade in 1967. Imports in 1967 were worth \$2.68 billion (\$2.736 billion in 1966). Exports in 1967 were worth \$3.013 billion (\$2.745 billion in 1966).

History and Government. Since February, 1948, Czechoslovakia has been a unitary socialist republic composed of two Slav nations—the Czechs and the Slovaks—with a socialist constitution, nationalized industry and one-slate elections. The Czechs number over 8,000,000 and Slovaks about 4,000,000. In addition, there are some 450,000 Hungarians, 200,000 Germans, 300,000 gypsies, 100,000 Ruthenian-Ukrainians and 100,000 Poles. Large numbers of Hungarians were moved out of Slovakia and many Slovaks were moved from Hungary to Slovakia in 1945-46. An estimated 3,000,000 Sudeten Germans were transferred to Germany under the Potsdam Agreement.

Bohemia, Moravia and Slovakia were part of the Great Moravian Empire when overrun by the Magyars 906 A.D. Bohemia and Moravia later became part of the Holy Roman Empire. Under the kings of Bohemia Prague in the 14th Century was the cultural center of Central Europe. The Hussite religious wars were fought here, 1420-36. In 1526 Ferdinand, brother of Emperor Charles V, became king of Bohemia and Hungary and began Germanization of the Slavs, never fully successful. In 1618 the Thirty Years' War opened in Prague.

In 1914-1918 Thomas G. Masaryk and Eduard Benes formed a provisional government with the support of Slovak leaders, of whom Milan Stefanik organized freedom fighters in foreign countries. When Austria fell, Oct. 28, 1918, they proclaimed the republic of Czechoslovakia Oct. 30. Masaryk became President, Benes Foreign Minister and Stefanik Minister of War. Benes succeeded Masaryk in 1935.

By 1938 Adolf Hitler of Nazi Germany had worked up disaffection among German-speaking citizens in Sudetenland and demanded its cession. To avoid war Prime Minister Neville Chamberlain of Great Britain, with the acquiescence of France, signed an agreement with Hitler at Munich, Sept. 30, 1938, agreeing to the cession, with a guaranty of peace by Hitler and Mussolini. Nazi Germany occupied Sudetenland Oct. 1-2. President Benes resigned Oct. 5, Germany and Italy agreed Nov. 2 to convey 4,000 sq. mi. of Czechoslovakia to Hungary. Other parts of the nation were sliced off to benefit Poland.

Hitler on Mar. 15, 1939, dissolved Czechoslovakia, made protectorates of Bohemia and Moravia, and supported the autonomy of Slovakia, which was proclaimed independent Mar. 14, 1939, with Jozef Tiso as President.

In May, 1942, the German governor, Reinhard Heydrich, was assassinated near Prague; Hitler in reprisal leveled the village of Lidice, shot the men, interned the women and sent the children to Germany.

Soviet troops with some Czechoslovak contingents entered eastern Czechoslovakia in 1944 and reached Prague in May 1945; Benes returned as President. In May 1946 elections, the Communists won 38% of the votes, largest for a single party,

and Benes accepted Klement Gottwald, a Communist, as Prime Minister. Tiso was executed in 1947.

In Feb. 1948 a crisis resulted in the resignation of 12 anti-Communist ministers and Benes accepted a new Gottwald Cabinet Feb. 25. Jan Masaryk, son of Thomas Masaryk, had not resigned as Foreign Minister. He was found dead March 10, apparently a suicide but there was widespread speculation he was murdered.

In May 1948 a new constitution was approved by the constituent assembly; Benes refused to sign it. On May 30 the voters were offered a one-slate ballot and the Communists won full control. Benes resigned June 7, Gottwald became President and Benes died Sept. 3.

The present constitution, announced in July, 1960, reorganized the nation into a highly centralized state. It has a National Assembly of 300 and a Slovak National Council, the latter limited to regional matters.

In Jan. 1968 a liberalization movement spread explosively through Czechoslovakia. Antonin Novotny, long the Communist boss of the nation, was deposed as party leader and succeeded by Alexander Dubcek, a Slovak, who declared he intended to make Communism democratic. On Mar. 22 Novotny resigned as President and was succeeded by Gen. Ludvik Svoboda. On Apr. 6, Premier Joseph Lenart resigned and was succeeded by Oldrich Cernik, whose new cabinet was pledged to carry out democratization and economic reforms.

In July 1968 the USSR and 4 hard-core Warsaw Pact nations demanded an end to liberalization. At summit meetings held in Czechoslovakia, it was apparently agreed the nation could continue these policies. But on Aug. 20, Russian, Polish, East German, Hungarian and Bulgarian military forces invaded Czechoslovakia. (See Index for further details.)

Education and Religion. An estimated 75% of the population is Roman Catholic, the rest are Protestant (Hussite), Greek Orthodox, etc.

Institutions of higher learning are the Czech University in Prague, founded in 1348; the Universities of Brno, Bratislava, Kosice, Hradec, Kralove, Plzen; also technical universities. Czech and Slovak are official languages.

Defense. Universal military service for all between 20 and 50 was re-established in 1945, with service for two years. Since 1950 the Army has been trained by Soviet advisers. Its strength is est. at 185,000, with an additional 45,000 men in security forces and frontier guards. The Air Force is believed to have 25,000 personnel and about 1,500 Soviet-type jet planes.

Dahomey

REPUBLIC OF DAHOMEY

Capital: Porto-Novo. Area: 43,483 sq. mi. Population (UN est. 1967): 2,505,000. Monetary unit: CFA franc (246.85 per U. S. \$1).

The Republic of Dahomey, former Overseas Territory in French West Africa, is a narrow strip 415 mi. long and 77 mi. wide, bounded by the Republics of the Niger and Upper Volta, Nigeria, Gulf of Guinea and the Republic of Togo. It is about as large as Tennessee.

In accordance with the 1958 French constitution, Dahomey became fully independent Aug. 1, 1960, and became a member of the UN Sept. 20. It is a member of an economic alliance known as the Council of the Entente, formed May 29, 1959, the other members being Ivory Coast, Niger and Upper Volta. Dahomey signed agreements Apr. 24, 1961, providing for close ties with France outside of the French Community proper.

Under the constitution the President and National Assembly are elected for five-year terms. Pres. Hubert Maga, elected Dec. 11, 1960, was deposed Oct. 28, 1963, and replaced by a provisional government headed by Gen. Christophe Soglo. The constitution of the second republic was adopted Dec. 19, 1963. Sourou Migan Apithy was elected Pres. Jan. 24, 1964; he was deposed by Soglo Nov. 27, 1965; Tahirou Congacou was named Provisional Pres.; he was ousted by Soglo Dec. 22 and Soglo took over the Presidency.

Principal products: palm oil, kernels and nuts; peanuts, cotton, kapok, coffee, tobacco.

Gen. Soglo was ousted Dec. 17, 1967, by a military group. Lt. Col. Alphonse Alley became head of state. A constitution providing for a one-party state for 5 years was approved Mar. 31, 1968. An

election for President in May was boycotted by most voters and was declared void.

The military leaders installed Emile Derlin Zinsou, a civilian, as President June 27, 1968.

Small industries were under construction in 1968, including a bicycle plant, cotton mill and peanut-oil plant.

Denmark

KONGERIGET DANMARK

Capital: Copenhagen. Area: 16,619 sq. mi. Population including Faeroe Islands and Greenland (UN est. 1967): 4,839,000. Monetary unit: Krone (7.466 per U. S. \$1).

Denmark, a kingdom, occupies the peninsula of Jutland, thrusting out to the North from Germany, which is its only land neighbor, between the North Sea and the Baltic Sea, and adjacent islands. The Skagerrak separates it from Norway; the Kattegat and Oresund from Sweden. The country consists of low undulating plains. It is about the size of New Hampshire and Massachusetts combined.

The Faeroe Islands in the North Atlantic, about 300 mi. NE of the Shetlands, and 850 mi. from Denmark proper, 18 inhabited, have an area of 540 sq. mi. and pop. (est. 1967) of 37,000. They are part of the kingdom as is Greenland, described below.

Resources and Industries. About 25% of the population lives by agriculture on more than 70% of the usable land. Denmark normally exports more butter and produces more bacon than any other country except the U. S. Fisheries are valuable. Tourist trade accounts for 5% of foreign exchange. Denmark exports machinery, ships, textiles, furniture, iron and steel goods. Most raw materials and fuels have to be imported, but manufactures have increased; industrial exports jumped 228%, 1956-66, surpassing agricultural exports. Danish furniture has a large sale in the U. S.

The first cooperative consumers' society was established 1866; the system currently has about 1950 affiliated societies and includes 517,000 households, about 45% of the whole population.

More than 1,000,000 tourists visited Denmark in 1966. Many tourists leave their children in Danish camps while visiting other countries.

Denmark's merchant fleet comprises an est. 335 vessels over 1,500 gross tons aggregating more than 2,250,000 gross tons.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$3,002,000	\$2,454,000
1967	\$3,152,000	\$2,537,000

History and Government. The origin of Copenhagen dates back to ancient times, when the fishing and trading place named Havn (port) grew up on a cluster of islets in the Sound, but Bishop Absalon (1128-1201) is regarded as the actual founder of the city. On one of the islets he built a stronghold against the pirating Wends and the remnants of this still exist underground in front of Christiansborg. Elsinore (Helsingør) contains the reputed grave of Hamlet, the Danish prince immortalized by Shakespeare.

The King and Parliament jointly hold legislative power. A new constitution, signed June 5, 1953, made women eligible to succeed to the throne, substituted a unicameral Parliament (the Folketing) of 179 members for the former two-chamber Rigsdag, made Greenland a full member of the Danish Realm with representatives in Parliament.

The King of Denmark is Frederick IX (born March 11, 1899) who succeeded to the throne on the death of his father, King Christian X, April 20, 1947. He married Princess Ingrid of Sweden and they have three daughters: Princess Margrethe, heir (born April 16, 1940), Princess Benedikte (born April 29, 1944, married Feb. 3, 1968, to Prince Richard-Casimir of Sayn-Wittgenstein) and Princess Anne-Marie (born Aug. 30, 1946, Queen of Greece). The King has one brother, Prince Knud (born July 27, 1900).

On Sept. 18, 1964, Princess Anne-Marie married King Constantine of Greece. On July 10, 1965, their 1st child, a daughter, Alexia, was born. A son, Paul, was born May 20, 1967.

Princess Margrethe was wed June 10, 1967, to Count Henri Marie Jean Andre de Laborde de Monpezat of France, now Prince Henrik of Denmark. A son, Frederik Andre Henrik Christian, was born May 26, 1968. He is 2nd in line to the throne.

Denmark has public assistance, health insurance, disability and old-age pensions, workmen's com-

pensation and unemployment insurance. If a worker refuses to take an offered job, aid ceases. A pension is paid to men aged 67, widows and single women aged 62.

Denmark is a member of the UN, NATO and EFTA.

Education and Religion. The Evangelical Lutheran is the established religion, but there is complete religious tolerance. Education is compulsory and includes vocational courses. Leading institutions are the Univ. of Copenhagen (1479), the Univ. of Arhus (1934), the Technical Univ. (1824), and the Univ. of Odense. Apprenticeship training and occupational training of unskilled workers are provided by law. State grants aid the nation's 1,460 libraries. Royal Library has more than 1,650,000 vols.

Defense: The Army has compulsory training ages 10-25. The Navy comprises fleet and coast defense forces. Mobilized strengths are: Army, 98,000; Navy, 12,000; Air Force, 7 fighter and fighter-bomber squadrons totaling 16,000, and a home guard of 71,000 men and women. Seven airfields come under the NATO program.

GREENLAND

Greenland, a huge island between the North Atlantic and the Polar Sea, is separated from the North American continent by Davis Strait and Baffin Bay. Its total area is 840,000 sq. mi., 705,234 of which are ice-capped. Most of the island is a lofty plateau 9,000 to 10,000 ft. in altitude. The average thickness of the ice cap is 1,000 ft. The population (est. 1965) is 39,615. The capital is Godthaab. Under the 1953 Danish constitution the colony became an integral part of the realm.

The deposits of cryolite are the largest in the world. Fish and fur are exported.

Denmark has built six Loran towers up to 1,345 ft. tall on Greenland and the Faeroe Islands to provide navigational aid to ships and planes.

Dominican Republic

REPUBLICA DOMINICANA

Capital: Santo Domingo. Area: 18,816 sq. mi. Population (UN est. 1967): 3,889,000. Monetary unit: Peso (1 per U. S. \$1).

The Dominican Republic occupies the eastern two-thirds of the Island of Hispaniola (discovered by Columbus in 1492), second largest of the Greater Antilles, lying between Cuba on the W and Puerto Rico on the E. The boundary between it and the Republic of Haiti, which occupies the western part of the island, is 241 mi. long. It has a coastline of 979 mi. It is twice the size of New Hampshire. Climate is generally sub-tropical.

The city of Santo Domingo, founded 1496, is the oldest settlement by Europeans in the hemisphere and has the supposed ashes of Columbus in an elaborate tomb in its ancient cathedral.

Resources and Industries. The land is fertile. Chief products are sugar, cocoa, coffee, tobacco, corn, peanuts, bananas and livestock products.

The country has gold, copper, iron, salt, chalk, bauxite, marble, amber, kaolin.

Chief manufactures are sugar, molasses, rum, alcohol, cement, peanut oil, chocolate, tobacco products, cordage, textiles, apparel, lumber, furniture. The U. S. buys more than 50% of its exports, mostly sugar, cocoa and coffee, and supplies about 50% of imports.

In 1968 a group of U. S., European and Japanese companies joined the Dominican government in a consortium designed to press industrial development and technical training.

History and Government. Spain ceded Santo Domingo to France, 1795. Toussaint L'Ouverture, Haitian leader, seized it, 1801. Spain returned intermittently 1803-1821, and several native republics came and went. From 1822 to 1844 Haiti governed it. The republic was formed 1844. Spain occupied it 1861-63.

The country was occupied by American Marines from 1916 until 1924, when a constitutionally elected government was installed.

In 1930, Gen. Rafael Leonidas Trujillo Molina was elected President. Trujillo remained in power, ruling the nation with an iron hand (though turning the Presidency over to his brother, Hector, in 1952 and to Joaquin Balaguer in 1960) until his assassination May 27, 1961.

Pres. Balaguer resigned under pressure Jan. 17, 1962. Pending general elections, the country was governed by a 7-member Council of State headed by Rafael F. Bonnelly who was named President

Jan. 18, 1962. He was succeeded by Juan Bosch, elected President Dec. 20, 1962, in first free elections in 38 years. Pres. Bosch was overthrown Sept. 25, 1963, and his regime replaced by an army-backed civilian triumvirate led by Donald Reid Cabral.

On April 24, 1965, a revolt was launched by followers of Bosch and others, including Communists, and led by Col. Francisco Caamaño Dengo. The Reid Cabral government was ousted, but the rebel regime was replaced Apr. 28 by a 3-man counter-revolutionary junta led by Gen. Elias Wessin y Wessin; on May 7 it was succeeded by a 5-man regime headed by Gen. Antonio Imbert Barreras, another anti-Bosch leader; fighting continued in Santo Domingo.

A force of 405 U. S. Marines landed by helicopter April 28, primarily, according to U. S. Pres. Johnson, to save American and other lives; U. S. forces were expanded to a high of 24,000 as the U. S. sought to restore order and prevent a Communist take-over.

At U. S. urging, the Organization of American States sent an Inter-American Peace Force to Santo Domingo starting May 23, under a Brazilian commander with the head of the U. S. forces as deputy commander. Some U. S. forces were withdrawn and the Inter-American Force consisted of 11,200 men, including 9,400 U. S. troops, 1,100 Brazilians, and units from Honduras, Nicaragua, Paraguay and Costa Rica.

On Sept. 3, Hector Garcia-Godoy became provisional President under sponsorship of the OAS with agreement by all major local groups. The junta and Col. Caamaño announced their resignations as heads of their rival governments.

An election was held June 1, 1966; former Pres. Balaguer defeated former Pres. Bosch, 754,409 votes to 517,783. The Balaguer Reformist party won control of both houses of Congress. The new President was inaugurated July 1. The Inter-American Peace Force began moving troops out and completed their departure Sept. 20.

Thousands of Dominicans had lost their lives in the communal strife; U. S. forces suffered 26 dead, 155 wounded.

Education and Religion. The population is mostly mixed white and Negro, plus about 15% white and a slightly larger number of Negro. The people are mostly Roman Catholics. Education is free and compulsory. The language is Spanish, but English is widely spoken. The University of Santo Domingo was established 1538 by Dominican fathers.

Defense. Active armed forces comprise approximately 25,000 officers and men. The Navy has modern units—2 destroyers, 4 frigates, 5 corvettes, patrol vessels and coast guards. The Air Force has fighters, light bombers, transport and rescue squadrons. The republic is a member of the UN and OAS.

Ecuador

REPUBLICA DEL ECUADOR

Capital: Quito. Area (govt. est.): 116,270 sq. mi. **Population** (UN est. 1967): 5,508,000. **Monetary unit:** Sucre (18.18 official rate per U. S. \$1).

On the northwestern coast of South America, Ecuador (Sp. for Equator) straddles the world's midsection, extending 100 mi. into the Northern Hemisphere, 400 into the Southern. It is bounded by Colombia, Peru and the Pacific. Two ranges of the Andes run N and S, splitting the country into 3 zones—hot, humid lowlands on the coast; temperate highlands between the ranges, and rainy, tropical lowlands to the E. There are 22 peaks over 14,000 ft.; highest is Chimborazo, 20,561 ft.; many are snowcapped; some volcanoes have erupted in recent years. It is larger than Arizona.

The Galapagos Islands, 600 mi. to the W, are the home of huge tortoises and other unusual animals. Charles Darwin visited the islands aboard the Beagle in 1835; his studies of wildlife there provided most of the facts for his theory of evolution.

Ecuador has claimed an est. 100,000 sq. mi. of Amazon valley land awarded to Peru in a 1942 treaty.

Guayaquil, Ecuador's largest city, is the chief seaport and, together with Quito, is served by major airlines. Rail lines link Quito with Guayaquil and San Lorenzo on the coast. Quito is famed for its 17th Century churches.

Resources and Industries. The country is rich in undeveloped minerals. Silver ore is found at Pillzhum in Cañar. Petroleum output is increasing. Large deposits of copper, iron, lead, coal and sul-

phur are known to exist. Modern farm methods have speeded agricultural growth and made Ecuador the world's largest exporter of bananas. Other agricultural products are rice, cereals, potatoes, fruits, cocoa, coffee, kapok, rubber, man-grove bark.

Industry now contributes 20% to the national income, with large production increases in cement, edible oils, textiles, sugar, chemicals. The U. S. is Ecuador's principal customer.

The so-called Panama hats, made of Toquilla straw, are hand-woven in Ecuador. It is also the chief source of extremely light but strong balsa wood. Ecuador was the original home of the Cinchona tree, source of quinine.

History and Government. Spain conquered the region, which was the northern Inca empire, in the 16th Century. Liberation forces defeated the Spanish May 24, 1822, near Quito. Ecuador became part of the Republic of Colombia but seceded, May 13, 1830, and became a republic. It has had a history of numerous coups and military rule.

Under the republic's constitution of 1967 the President is elected directly by the people for a 4-year term and is eligible for re-election after a 4-year interval. Congress consists of a Senate and a Chamber of Representatives.

A military junta seeking reforms ousted and exiled Pres. Carlos J. Arosemena Monroy July 11, 1963, and outlawed the Communist party. Anti-government demonstrations in July 1965 brought appointment of a new coalition Cabinet by the junta. More demonstrations brought ouster of the junta, Mar. 29, 1966, by military leaders and agreement by major political parties to name Clemente Yerovi Indaburu Provisional President. Yerovi convened a National Constitutional Assembly and elections were held Oct. 1966. The Assembly met Nov. 18, 1966 and elected Dr. Otto Arosemena Gomez Interim President.

In June 1968 elections, Dr. Jose Maria Velasco Barra, who had been elected Pres. 4 times but had been ousted 3 times by coups, was again chosen by the voters.

Ecuador's 17th Constitution was adopted May 25, 1967. It is a UN and OAS member.

Education and Religion. Roman Catholicism is the chief religion. Primary education is compulsory. The language is Spanish. The population is over one-third Indian and one-third mixed; whites are in the minority but American, British, Italian and Spanish immigrants are encouraged.

Defense. Military service is compulsory. The U. S. has a military assistance advisory agreement with Ecuador.

EGYPT

See Index for United Arab Republic

El Salvador

REPUBLICA de EL SALVADOR

Capital: San Salvador. Area: 8,260 sq. mi. **Population** (UN est. 1967): 3,151,000. **Monetary unit:** Colon (2.5 per U. S. \$1).

El Salvador, smallest of the six Central American or Middle American republics and the only one without an Atlantic seacoast, is bounded by Guatemala, Honduras, the Gulf of Fonseca and a Pacific coastline of about 160 mi. A country of mountains, including many volcanoes, and upland plains, it is entirely within the tropics, but tropic heat is modified by the elevation. It is about the size of Massachusetts.

La Libertad, Acajutla and La Union (Cutuco) are the principal seaports.

The three racial types are white, 10%; mixed white and Indian descent, 85%; Indian, 5%.

Resources and Industries. Mountain slope plantations make El Salvador the world's 7th largest producer and 4th largest exporter of coffee. Cotton production has made large strides; coffee represents 52% of the value of exports, cotton 21%. Primarily agricultural, the country is becoming industrialized; it produces cement, refined sugar and textiles.

In July 1968 U. S. President Johnson visited El Salvador and announced new financial aid to the 5 members of the Central American Common Market: El Salvador, Costa Rica, Honduras, Guatemala and Nicaragua.

History and Government. El Salvador became independent of Spain in 1821; member of the Central American Federation until 1839. The consti-

tution provides for a unicameral legislative system, the National Assembly of Deputies, elected by popular vote. Voting is compulsory for all over 18 years of age. Executive power is vested in the President who is elected for a 5-year term by direct, popular vote and is ineligible for immediate reelection. The President is assisted by a Council of Ministers who are named by him.

Education and Religion. Education is free and compulsory, but illiteracy rate is 50%. The language is Spanish. The dominant religion is Roman Catholicism.

Defense. There is military instruction between the ages of 18 and 40. The Army is organized in five divisions. There is one aviation corps, one marine corps, and a national guard. El Salvador is a member of the UN and OAS.

ESTONIA

See Index for Estonian SSR

Ethiopia

YE ITIOPIA NEGUSE NEGUEST MENGUST
(Abyssinia)

Capital: Addis Ababa. Area: 398,350 sq. mi., including Eritrea. Population (UN est. 1967): 23,457,000. Monetary unit: Ethiopian dollar (2.5 per U. S. \$1).

Ethiopia is a ruggedly mountainous, independent empire in NE Africa. It faces on the Red Sea, but its main rivers are important tributaries of the Nile; the Abbaï or Blue Nile, one of the two main branches of that mighty river, has its source in Ethiopia's Lake Tana. The country is as large as Texas and New Mexico combined.

Resources and Industries. Economy is some 70% agricultural but industrial resources are potentially great, including vast hydroelectric power, surveys of which are under way with aid of the International Bank. Modern industrial enterprises are conducted by American and other firms.

Fertile soil and abundant rainfall produce two crops annually. Coffee, wheat, barley, millet, tobacco, and sugar are principal crops. Coffee of extremely high quality from Kaffa, in SW Ethiopia, reputed birthplace of the coffee plant, accounts for half of the country's foreign exchange. Over 1,600,000 bags were produced in 1965.

An unfavorable balance of trade continued in 1967. Exports declined from \$112,000,000 to \$102,000,000. Imports dropped from \$163,000,000 to \$144,000,000.

Cattle, sheep, mules and goats are raised, cattle numbering an est. 25,325,000. Hides and skins, oils and pulses also are exported. Mineral resources include platinum, gold, silver, manganese, tin, copper, asbestos, potash, sulphur, mica, cement and salt. There are known deposits of coal and iron; tests are in progress for petroleum.

Ethiopia has used large credits from the World Bank and International Development Assn. for road building (it now has 3,200 mi. of all-weather roads). Aid and investment funds are received from the U. S. and other western nations and from Communist countries. Ethiopia is a member of the UN and Addis Ababa is hq. for the Organization of African Unity.

History and Government. Ethiopia is a constitutional monarchy derived from a number of earlier kingdoms, descendants of ancient Hamite and Semite tribes. Italy invaded the country in 1880 and acquired a sphere of influence and later organized its colony of Eritrea. In 1936 Italy invaded Ethiopia without declaring war. Emperor Haile Selassie fought until forced to withdraw. The League of Nations applied sanctions against Italy, which proved ineffective. Mussolini added Ethiopia to Italy with Victor Emmanuel III emperor. British forces freed Ethiopia 1941.

In 1964, armed clashes featured a border dispute with Somalia. A truce was arranged by the Org. of African Unity and foreign ministers of the two nations met in Khartoum, Sudan, and agreed to withdraw troops from the border. In 1965 Ethiopia set up camps for 70,000 refugees who crossed the border from former British Somaliland with 250,000 cattle, saying the Somali Government was discriminating against them.

The present Emperor, Haile Selassie I, 225th consecutive Solomonic ruler, was born July 23, 1892, crowned Nov. 2, 1930. He voluntarily established a parliament and judiciary system, 1931, and promulgated a new constitution 1955, incorporating a liberal bill of rights, and granting the franchise to all over 21. The Senate (Upper

House) of 105 is appointed for 6-year terms; Chamber of Deputies, approx. 250, is elected for 4 years. In April 1966, the Emperor made further moves toward democracy, including empowering the Premier to appoint his own Cabinet, a power formerly reserved by the Emperor.

Education and Religion. Ethiopian culture has been influenced by Greece and Egypt. Christianity is the predominant religion, embraced in 330 A.D.; the Coptic, Monophysite branch is practiced. Until 1952 the Egyptian Coptic Patriarch was the head of the Church, but the Emperor now appoints the Ethiopian Archbishop. The population is largely composed of a mixture of Hamites, Semites and Negroes. The largest number are Coptic Christians; next are Moslems; others practice tribal religions. There are two universities and a number of colleges. The official language is Amharic; English is widely taught.

Eritrea, which had been an Italian colony since 1890, was administered after World War II by Great Britain; the UN General Assembly voted to return it to Ethiopia and the action became effective Sept. 11, 1952.

Finland

SUOMEN TASAVALTA—REPUBLICEN FINLAND

Capital: Helsinki. Area: 130,119 sq. mi. Population (Govt. est. 1967): 4,678,000. Monetary unit: Mark (4.2 per U. S. \$1).

Finland is a republic in northern Europe, with Sweden, Norway and the USSR for neighbors. South and central Finland are mostly flat areas with low hills; there are mountainous areas, 3,000-4,000 ft., in the N. It is half the size of Texas.

About 70% of the land is forested. Lakes and canal waterways are navigable for 3,000 mi. Rail and air transport is well developed.

Aland Islands, constituting the autonomous department of Aland, is a group of small islands, 572 sq. mi., in the Gulf of Bothnia, 25 mi. from Sweden, 15 mi. from Finland. They are demilitarized. Mariehamn is the principal port.

Resources and Industries. Rapid industrialization has taken place, especially since World War II, but agriculture is still a vital factor. Principal crops are oats, barley, wheat, rye, potatoes, hay. Woodworking and paper and pulp products account for about 60% of total exports. Expansion is expected to increase pulp production to 5,430,000 metric tons annually. Other chief industries are shipbuilding, metals, machinery, food and beverages, textiles, leather, chemicals.

In 1967, 1,100,000 tourists visited Finland.

The merchant marine, Feb. 29, 1968, comprised 522 vessels totaling 1,099,919 gross tons.

The cooperative system is carried on in Finland with marked success.

Foreign trade (in thousands of U. S. dollars):

	Imports	Exports
1966	\$1,726,000	\$1,506,000
1967	\$1,694,000	\$1,531,000

History and Government. The original Finns lived thousands of years ago, probably in the Ural area, and were part of a larger Finno-Ugric (Hungarians etc.), group of peoples. The Finns migrated in a northerly direction, first to the Baltic area and then, at about the beginning of the Christian era, to what is today Finland. Swedish settlers brought the country into the kingdom of Sweden, 1154 to 1809, when Finland became an autonomous grand duchy of the Russian Empire. Russian exactions created a strong national spirit; on Dec. 6, 1917, Finland declared its independence and on July 17, 1919, became a republic. On Nov. 30, 1939, the Soviet Union invaded Finland, and although the Finns took heavy toll, they surrendered after 3 mos. and in March, 1940, were forced to cede 16,173 sq. mi., including the Karelian isthmus, Viipuri, and an area on Lake Ladoga. When Germany attacked the USSR June 22, 1941, Finland went to war to take back its lands. An armistice was signed Sept. 19, 1944, and the USSR exacted the former cessions, plus Petsamo in the North and a lease for 50 years on Porkkala, near Helsinki, for a military base. The treaty of Feb. 10, 1947, also exacted \$300,000,000 in goods in term payments. In April, 1948, Finland signed a 10-year treaty of mutual assistance and friendship with USSR, extended in 1956 until 1975, after the USSR agreed to return Porkkala, which it did Jan. 26, 1956.

The President is chosen for a term of six years by an Electoral College of 300 named by direct

vote: he appoints the Cabinet. The President is Dr. Urho Kekkonen, elected Feb. 15, 1956; re-elected 1962, 1968.

There is a single legislative chamber, the Eduskunta, numbering 200, elected to 4-year terms. The voting system is designed for proportional representation. In general elections Mar. 21-22, 1966, the Social Democrats, a moderate Socialist party, displaced the Center party as the largest single party. Seats won: Social Democrats 55, Center party 50, Communists 41, Conservatives 26, Swedish National 12, Liberals 8, Social Dem. Unionists 7, Small Farmers' party 1. A coalition Cabinet, headed by Dr. Mauno Koivisto, Social Democrat, took office Mar. 22, 1968.

Education and Religion. The Evangelical Lutheran Church is the leading religion, but there is freedom of worship. The nation is considered completely free from illiteracy. The Finnish language belongs to the Finno-Ugric group, which also includes Magyar and Estonian. Swedish is the 2nd national language. There are 6 major universities (the oldest founded 1640) and six colleges of university level.

Defense. Universal military service prevails from 17 years to 60. Males reaching 19 are called up for training. There are an Air Force and a naval force. Finland's effective force is limited by its World War II peace treaty to 41,900.

Finland is a member of the UN and the Nordic Council, and an associate member of EFTA.

France

LA REPUBLIQUE FRANCAISE

Capital: Paris. Area: 212,918 sq. mi. Population (Govt. est., Jan. 1, 1968): 50,662,000. Monetary unit: Franc (U. S. 20.2¢).

France has coastlines on the Atlantic and Mediterranean and is about four-fifths the size of Texas. It shares borders with Belgium, Luxembourg, Germany, Switzerland, Italy, Andorra and Spain. It is separated from England by the English Channel and the Strait of Dover. The Rhine River is on the German boundary, the Jura Mts. form the Swiss boundary and the Pyrenees Mts. rise along the borders of Andorra and Spain.

Mont Blanc, on the Franco-Italian border, is the tallest mtn. W of the Caucasus, 15,771 ft. The world's longest highway tunnel, 7.25 mi. under Mont Blanc, was opened July 16, 1965, linking France and Italy.

The island of Corsica, which lies in the Mediterranean W of Italy and N of Sardinia, forms an integral part of France. It has an area of 3,367 sq. mi. and a population of about 280,000. The capital is Ajaccio, birthplace of Napoleon.

There are four important rivers, the Seine, the Loire, the Garonne and the Rhône. France controls the left bank of the Rhine from Basel, Switzerland, to Lauterbourg, France. There are some 4,750 mi. of navigable rivers and canals. Major riverports are Bordeaux, Lyons, Paris, Rouen and Strasbourg.

Resources and Industries. Agriculturally, France is a country of small diversified farms occupying 45,800,000 acres and 18% of the employed, making France the biggest food producer in Western Europe. Agricultural exports are valued at more than \$1.7 billion annually. Leading crops are wheat, barley, corn, oats, rice, and a wide variety of fruits and vegetables. Cattle, poultry, forestry and fishing are large-scale. France is the world's 4th ranking producer of beef. Approx. 1,500,000 farmers belong to cooperative unions, including farm machinery and marketing cooperatives.

The country is rich in minerals, and the basins of Pas de Calais and Lorraine are noted for their huge coal deposits. Iron ore, bauxite, pyrites, mineral oils, auriferous ore, asphalt, rock salt and potash salts. The iron ore deposits in eastern France and the bauxite deposits in central France are among the richest in the world. Power stations produced about 114 billion kwh in 1967.

Southwest France became an important oil area with the discovery of the Lacq and Parentis fields. The Lacq gas field in Aquitaine has large reserves of natural gas and sulphur. Parentis field, near Bordeaux, yields approx. 1,374,000 metric tons of petroleum annually and the Sahara fields in Africa supply an est. 33,860,000 metric tons. In 1965, France and Algeria agreed on joint exploitation of oil and gas fields in the Sahara.

Some of the basic principles of atomic energy were discovered by French scientists. France is the foremost uranium producer in Western Europe, with output about 1,500 metric tons per year. Since

February, 1960, France has exploded 5 atomic devices in the Sahara, 4 above ground and one underground. On July 2, 1966, France exploded a small A-bomb over Mururoa, a tiny atoll 750 mi. SE of Tahiti; it was the 1st in a series of 6 explosions. In June 1967 and July 1968 new series of tests were started at Mururoa. France was not a signatory to the 1963 treaty banning such tests.

Manufacturers stress chemicals, silk and cotton textiles, perfumes, automobiles, aircraft, ships, instruments, electronic equipment. Index of industrial production (1963=100) was 120 in 1967.

France is the most important vinery in the world and its wines, of which it produces about 1.6 billion gallons a year, are of high value for export. Names of French provinces and regions, such as Bordeaux, Champagne, Burgundy, identify wines highly esteemed.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$11,843,000	\$10,889,000
1967	\$12,352,000	\$11,377,000

History and Government. The monarchical system was overthrown by the French Revolution (1789-1793) and succeeded by the First Republic; thereafter successively followed by the First Empire under Napoleon (1804-1814), a monarchy (1814-1848), the Second Republic (1848-1852), the Second Empire (1852-1870), the Third Republic (1871-1946), the Fourth Republic (1946-1958), Fifth Republic and French Community (1958). For list of rulers consult Index.

France suffered severe losses in manpower and wealth in the first World War, 1914-1918, when it was invaded by the German Empire. With Britain and the U. S. as its principal allies it threw back the Germans and by the Treaty of Versailles exacted return of Alsace and Lorraine. French provinces seized by Germany in 1871. As Allied controls on Germany were reduced Adolf Hitler and the Nazi party gained power, Germany invaded France in May, 1940, occupied Paris June 14, 1940, and signed an armistice with a government that made its hq. in Vichy, in unoccupied France. Marshal Philippe Petain became chief of state, but underground forces (Resistance) operated as guerrillas while Gen. Charles de Gaulle formed an army in Africa. After France was liberated by the Allies Sept., 1944, Gen. De Gaulle became Premier of the provisional government, serving from Nov. 1944 to Jan. 1946.

Gen. De Gaulle again became Premier June 1, 1958. His proposed constitution for the Fifth Republic and new French Community was approved by the voters by an overwhelming margin, Sept. 28, 1958, with the exception of the West African territory of Guinea which voted for immediate independence outside the Community, becoming a republic Oct. 2, 1958.

Gen. De Gaulle was elected first President of the Fifth Republic Dec. 21, 1958; inaugurated Jan. 8, 1959.

Pres. De Gaulle ran for reelection Dec. 5, 1965; he failed to win a majority of the votes, getting about 44% compared to 32% for Francois Mitterand, left wing candidate. In a runoff election Dec. 19, Pres. De Gaulle won with about 55%; Mr. Mitterand got 45%.

The constitution provides for a strong executive branch headed by the President, a legislature composed of a National Assembly and a Senate.

A constitutional amendment adopted by referendum Oct. 28, 1962, provided that future Presidents be elected by popular vote rather than by an electoral college. The President, elected for 7 years, appoints the Premier (formerly invested by the Assembly), and may dissolve the Assembly and call for new elections; he may call for referendums on specific issues and may assume full powers in a national emergency. An absolute majority vote of the Assembly is required to overthrow a government. The President is assisted by an Executive Council comprising the Premier, heads of states and certain Cabinet members.

Women, who had less than equal rights under provisions of the 1804 Code Napoleon, won the right to take jobs, open checking accounts and own their own businesses by a 1966 law.

In May 1968 rebellious students at the Sorbonne and elsewhere rioted, battled police and were joined by some 10,000,000 workers who launched nationwide strikes and took over many factories. The nation was almost completely paralyzed. On May 22 the Gaullist government narrowly defeated a censure motion in the National Assembly. The government awarded 35% minimum pay increases

to the strikers May 26; on May 30 Pres. De Gaulle dissolved the Assembly. A threat of civil war was eased as Army tank units, loyal to the government, maneuvered in Paris outskirts, and Pres. De Gaulle warned of a Communist dictatorship threat. By early June, normalcy was returned.

In elections June 23 and 30, 1968, Pres. De Gaulle's regime won its greatest victory; 291 Gaullists and 64 allied Independent Republicans were elected to the 487-seat Assembly; the Communists won 33 seats, a loss of 40 from their previous holding.

Education and Religion. Primary, secondary and higher education are free and instruction is compulsory between the ages of 6 and 16. There are 23 universities.

The country is predominantly Roman Catholic, only about 800,000 being Protestants. The state recognizes no religion and tolerates all.

Both employers and employees contribute to the old-age pension fund. There is provision for family allowances and compulsory social insurance for illness, maternity, disability and death. A profit-sharing agreement was signed Jan. 7, 1959.

Defense. Compulsory service for 20-year-olds was reduced from 24 to 18 months May 1, 1963. Compulsory military training has existed since 1798. The armed forces in 1966 numbered approx. 578,000 including 338,000 Army, 111,000 Air Force, 68,000 Navy, 61,000 Gendarmery. Gradual reduction of the forces was planned for 1965-1970, with emphasis on nuclear devices.

France is a member of the UN, NATO, SEATO, EEC and French Community.

Pres. De Gaulle announced Mar. 9, 1966, France would withdraw all its troops from the integrated military command of NATO and that NATO hq. and bases would have to be removed from France. But he said France would still be a member of the Atlantic Alliance.

The French Community (See Index). As provided in the 1958 Constitution and later amendments, the Community includes the French Republic and:

Six of 12 African republics which won complete independence in 1960: Central African Rep., Chad, Congo (Brazzaville), Gabon, Malagasy (Madagascar), Senegal. (See Index for individual articles.)

Four Overseas Departments, seven Overseas Territories and one Condominium (New Hebrides). (See descriptions below.)

Not members of the Community are former French possessions or trust territories such as Cambodia, Laos and Vietnam (former parts of French Indo-China), Tunisia, Algeria; also 9 African republics which won independence and decided to remain outside the Community but to retain certain economic and cultural ties with France—Cameroon, Dahomey, Guinea, Ivory Coast, Mali, Mauritania, Niger, Togo, Upper Volta. (See Index for individual articles.)

AFARS & ISSAS TERRITORY (Formerly French Somaliland)

The French Territory of the Afars and the Issas lies between Ethiopia and Somalia and is separated by the Straits of Bab-el-Mandeb from South Arabia.

The area is 8,880 sq. mi. and population (est. 1963): 86,000; the capital is Djibouti. France took control of the area in gradual steps, beginning in 1839.

The Territory has few industries, except fishing and livestock. Salt is its most valuable product. Half of Ethiopia's foreign commerce passes along the rail line from Addis Ababa and through the port of Djibouti.

In a referendum Mar. 19, 1967, the Territory elected to remain French and by a decree signed by the High Commissioner French Somaliland changed its name to the French Territory of the Afars and the Issas. It sends a Deputy and a Senator to the French Parliament.

COMORO ISLANDS

Comore Islands, an Overseas Territory, is an archipelago of small islands off SE Africa in Mozambique Channel NW of Madagascar. Chief islands are Grande Comore, Anjouan, Mayotte, Moheli. Total area, about 863 sq. mi.; population (est. 1964): 207,000. Capital: Moroni. Chief products are vanilla, coconuts and essential oils. It elects two Deputies, one Senator to the French Parliament.

REUNION

Reunion, Overseas Department is an island in the Indian Ocean, about 420 miles east of Madagascar, and has belonged to France since 1643. The

area is 969 sq. mi.; the population (est. 1964), 382,000 is 30% of French extraction. Capital: Saint-Denis. The chief products are sugar, rum, corn, perfume essences, vanilla and spices. It elects 3 Deputies, two Senators to the French Parliament.

GUADELOUPE

Guadeloupe, Overseas Department in the West Indies' Leeward Islands, consists of two large islands, Basse-Terre and Grande-Terre, separated by the Salt River, plus Marie Galante and the Saintes group to the S and, to the N, Desirade, Bathelemy and almost half of St. Martin (the Netherlands portion is St. Maarten). A French possession since 1634, the department is represented in the French Parliament by two Senators and 3 Deputies; administration consists of a Prefect (governor) and an elected General Council.

Area of the islands is 687 sq. mi.; pop. over 306,000 mainly descendants of slaves; capital is Basse-Terre on Basse-Terre Is. The land is fertile; sugar, rum and bananas are exported; tourism is an important industry.

MARTINIQUE

Martinique, one of the Windward Islands, in the West Indies, has been a possession since 1635, and a Department since March, 1946. It is represented in the French Parliament by two Senators and three Deputies. In Martinique is located the famous volcano, Mt. Pelee which erupted on May 8, 1902, destroyed the city of St. Pierre with more than 30,000 inhabitants. The island is the birthplace of the Empress Josephine.

Martinique has an area of 425 sq. mi. and a population of over 303,000 mostly descendants of slaves. The capital is Fort-de-France. It is a popular tourist stop.

The chief exports are sugar, rum, bananas, pineapples and cacao beans. Trade is mainly with France and the United States.

ST. PIERRE AND MIQUELON

St. Pierre and Miquelon, an Overseas Territory, are two groups of rocky barren islands close to the southwestern coast of Newfoundland, inhabited by fishermen. An administrator, assisted by a Council rules the islands. The exports are chiefly cod, dried and fresh, and other fish products. Imports consist of textiles, salt, wines, foodstuffs and meat. A regular boat service is maintained with North Sydney and Halifax. A telegraph cable connects St. Pierre with Europe and the American continent.

The St. Pierre group has an area of 10 sq. mi.; Miquelon, 83 sq. mi. Total pop. (est. 1963), 5,025. The capital is St. Pierre. A Deputy and a Senator are elected to the French Parliament.

FRENCH GUIANA

French Guiana, an Overseas Department, is on the NE coast of South America with Surinam (Netherlands Guinea) on the W and Brazil on the E and S. Its area is 35,135 sq. mi.; population (est. 1966) is 37,000. Guiana sends one Senator and one Deputy to the French Parliament. Guiana has a Prefect and a Council General of 15 elected members; capital is Cayenne.

In 1944 France closed the famous penal colony, Devil's Island, and repatriated 2,800 inmates.

Immense forests of rich timber cover 90% of the land. Very little of the land is cultivated. The principal crops are rice, corn, manioc, cacao, bananas, and sugar cane. Placer gold mining is the most important industry. Exports comprise cacao, bananas, various woods, gold, fish glue, rum, rosewood essence, lumber and hides.

FRENCH POLYNESIA

French Polynesia, Overseas Territory, comprises 130 islands widely scattered among 5 archipelagos in the South Pacific; administered by a Governor, Territorial Assembly and a Council with headquarters at Papeete, Tahiti, one of the Society Islands. A Deputy and a Senator are elected to the French Parliament.

Other groups are the Marquesas Islands, the Tuamotu Archipelago, the Gambier Islands, and the Austral Islands.

Total area of the islands administered from Tahiti is 1,544 sq. mi.; pop. (est. 1966) 90,000, more than half on Tahiti. Tahiti is picturesque and mountainous with a productive coastline bearing coconut, bananas and orange trees, sugar cane and vanilla.

Tahiti was visited by Capt. James Cook in 1769 and by Capt. Bligh in the Bounty, 1788-89. The beauty of its women and the landscape impressed Herman Melville, Paul Gauguin, Charles Darwin

and Robert Louis Stevenson who called Tahitians "God's sweetest works."

NEW CALEDONIA

New Caledonia and its dependencies, an Overseas Territory, are a group of islands in the Pacific Ocean about 1,115 mi. E of Australia and approx. the same distance NW of New Zealand. Dependencies are the Loyalty Islands, the Isle of Pines, Huon Islands, and the Chesterfield Islands.

New Caledonia, the largest, has 6,530 sq. mi. Total area of the Territory is 7,335 sq. mi.; population (est. 1966) 86,500. The group was acquired by France in 1854. A penal colony was maintained on Nou Island until 1896.

The Territory is administered by a Commissioner and government council. There is a popularly elected Territorial Assembly. A Deputy and a Senator are elected to the French Parliament. Capital: Noumea.

Mining is the chief industry. New Caledonia has the world's largest deposits of nickel. Other minerals found are chrome, cobalt, manganese, antimony, mercury, cinnebar, silver, gold, lead and copper. Agricultural products include coffee, copra, cotton, manioc (cassava), corn, tobacco, bananas and pineapples.

WALLIS AND FUTUNA ISLANDS

Wallis and Futuna Islands, two archipelagos raised to status of Overseas Territory July 29, 1961, are situated in the SW Pacific south of the Equator between Fiji and Samoa. The islands have a total area of 106 sq. mi. and population (est. 1963) of 11,000. Aloa, attached to Futuna, is uninhabited. Capital: Mata-Utu. Chief products are copra, yams, taro roots, bananas.

FRENCH ANTARCTICA

French Antarctica and Southern Lands, Overseas Terr., comprises Adelle Land, on Antarctica, and 4 island groups in the Indian Ocean. Adelle, discov. 1840, has 2 research bases, a coastline of 185 mi. and tapers 1,240 mi. inland to the South Pole. Heights rise to 8,200 ft. There are two huge glaciers, Ninnis, 22 mi. wide, 99 mi. long, and Mentz, 11 mi. wide, 140 mi. long. Climate varies from -36° F. to 40° F.

Kerguelen Archipelago, discov. 1772, has 300 islands. The chief is 87 mi. long, 74 mi. wide, and has Mt. Ross, 6,429 ft. tall. Principal research station is Port-aux-Francais. Seals often weigh 2 tons; there are blue whales, coal, peat, semi-precious stones. Crozet Archipelago (discov. 1772), covers 125 sq. mi. Eastern Indian rises to 6,560 ft. Saint Paul, in southern Indian Ocean, has warm springs and tropical climate, with earth at places heating to 120° to 390° F. New Amsterdam, nearby, has temperate climate, produces cod and rock lobster.

NEW HEBRIDES

New Hebrides, a condominium administered since 1906 by France and Great Britain, is a group of 11 main islands and about 69 islets 250 mi. northeast of New Caledonia and 500 mi. west of Fiji. It has an est. 5,700 sq. mi. and population (est. 1963) of 70,000, mostly Melanesian. It has two administrations—French and British. Chief products are copra, cotton, cacao and coffee.

Gabon Republic

LA REPUBLIQUE GABONAISE

Capital: Libreville. Area: 102,089 sq. mi. Population (UN est. 1967): 473,000. Monetary unit: CFA franc (246.85 per U. S. \$1).

A former French Overseas Territory, Gabon is on the west coast of Equatorial Africa, straddling the Equator and bounded by Cameroon and Continental Guinea (Sp.). The Republic of Congo—Brazzaville, and the Atlantic. Heavily forested, the country consists of coastal lowlands, plateaus in N, E and S, mountains in N, SE and center. It is about the size of Colorado.

Gabon's economy is thriving, with exports exceeding imports by about 30%. Forest products—timber, plywood and veneers, chiefly Okoume wood—were the chief export until 1965 when exports of manganese, valued at \$35,000,000, equalled the forestry exports. There are large iron ore and uranium deposits and oil production is increasing.

Agriculture, roads, port facilities and hydro-electric power are being extensively developed. Main crops are cocoa, coffee, rice, peanuts, palm products, cassava, bananas.

Gabon proclaimed complete independence Aug. 17, 1960, and has been a UN member since Sept. 20, 1960. President: Leon M'Ba, elected Feb. 12, 1961. In Feb. 1964 French troops, airlifted into the country, restored Pres. M'Ba after an attempted coup. In April backers of Pres. M'Ba won 27 of the 47 seats in the National Assembly. Gabon is a member of the French Community.

Dr. Albert Schweitzer, Nobel Peace Prize winner, physician, philosopher, musicologist and theologian, founded a hospital for lepers and others in 1913 at Lambarene. He died Sept. 4, 1965, at the age of 90 and was buried at the hospital.

The Gambia

Capital: Bathurst. Area: 4,005 sq. mi. Population (UN est. 1967): 343,000. Monetary unit: Pound (.4167 per U. S. \$1).

Gambia, Africa's smallest country in both size and population, is a former British Colony and Protectorate in western Africa. It includes the island of St. Mary at the mouth of the Gambia River and a 10-mile wide strip of territory on each side of the river. Except for its Atlantic coastline, Gambia is surrounded by Senegal.

Gambia attained internal self-government Oct. 4, 1963. Its legislature comprises a speaker and 32 elected members. Britain agreed, July 30, 1964, to grant complete independence to the colony, which became effective Feb. 18, 1965. Gambia is a member of the Commonwealth and became a UN member Sept. 21, 1965.

In May 1966 Prime Minister Sir Dawda K. Jawara's People's Progressive party won 24 of the 32 legislative seats in the first general election since independence.

Peanuts are the main crop, along with rice and palm kernels. Gambia is receiving over \$1,000,000 annually in subsidies from Britain.

In 1968 Gambia joined 8 neighboring nations in forming the West African Regional Group, to promote mutual economic betterment.

Germany

DEUTSCHLAND

Area: 137,596 sq. mi. Population (UN est. 1967): 76,954,000. Now comprises two units: Federal Republic of Germany (West Germany), German Democratic Republic (East Germany). A large area of the former empire, east of the Oder-Neisse line 43,900 sq. mi., is occupied by Poland and USSR.

Germany is a central European nation composed of numerous states which had a common language and traditions but which did not become unified in one country until 1871; since World War II it has been split in two parts, West and East.

The climate and terrain are varied. West Germany includes large parts of the Rhine basin, with hilly sections adjoining both banks of the Rhine river filling center of the country. North of Bonn are the plains of the lower Rhine and lowlands of Cologne. East Germany is composed largely of the region of the Elbe river and its tributaries and part of the Oder basin. Most of the territory is level, except for the hilly Erzgebirge and Riesengebirge. Its climate is cooler than that of West Germany with long, cold winters and short summers.

Resources and Industries. Some of more important crops are wheat, rye, barley, oats, potatoes, sugar beets and hay. Other commercial products are fruit, tobacco, hops, nuts.

Principal minerals are coal, lignite, iron, zinc, lead, copper, salt, potash and petroleum. Bulk of mining is in North Rhine-Westphalia, Upper Silesia, Central Germany, the Harz, and Westerwald. Oil comes chiefly from Emsland near Netherlands border, and Lower Saxony. Iron and steel production is greatest in the Ruhr and Saar.

History and Government. Germanic tribes were defeated by Julius Caesar, 55 and 53 B. C. but Roman expansion north of the Rhine was stopped with the wiping out of 3 legions under Varus in 9 A.D. Charlemagne, ruler of the Franks, consolidated Saxon, Bavarian, Rhenish, Frankish and other lands; after him the eastern part became the German Empire. Consult *Rulers of Middle Europe*. The Thirty Years' War, 1618-1648, split Germany into small principalities and kingdoms. After Napoleon, Austria contended with Prussia for dominance, but lost the Seven Weeks' War to Prussia, 1866. Otto von Bismarck, Prussian chancellor, formed the North German Confederation, 1867.

In 1870 Bismarck maneuvered Napoleon III into declaring war. After the quick defeat of France Bismarck formed the German Empire (Deutsches Reich) and on Jan. 18, 1871, in Versailles, proclaimed King Wilhelm I of Prussia German Emperor (Deutscher Kaiser).

The German Empire reached its peak before World War I in 1914. At that time the homeland comprised 208,780 sq. mi., plus a colonial empire. After that war Germany ceded Alsace-Lorraine to France; Eupen and Malmédy to Belgium; parts of Silesia to Poland and Czechoslovakia; part of Schleswig to Denmark; lost all of its colonies as well as the ports of Memel and Dansig. *Consult World War I.*

Republic of Germany, 1919-1933. adopted the Weimar constitution, met reparation payments and elected Frederick Ebert and Gen. Paul von Hindenburg presidents.

Third Reich, 1933-1945. Adolf Hitler, born in Braunau, Austria, 1889, led the National Socialist German Workers' (Nazi) party after World War I. In 1923 with the help of Gen. Erich Ludendorff he attempted to unseat the Bavarian government in the "Beer Hall putsch," and was imprisoned. He wrote *Mein Kampf* while in prison. President von Hindenburg named Hitler chancellor Jan. 30, 1933; on Aug. 3, 1934, the day after Hindenburg's death, the cabinet joined the offices of President and Chancellor and made Hitler Fuehrer (Leader). Hitler abolished freedom of speech and assembly, and began a long series of persecutions climaxed by the mass extermination of Jews and opponents. Hitler repudiated the Versailles treaty and reparations agreements. He remilitarized the Rhineland 1936 and annexed Austria (Anschluss, 1938). At Munich he made an agreement with Neville Chamberlain, British Prime Minister, enabling him to annex Czechoslovakia's Sudetenland. He signed a non-aggression treaty with the Soviet Union, 1939. He declared war on Poland Sept. 1, 1939, precipitating World War II.

With total defeat near, Hitler committed suicide in Berlin Apr. 29, 1945. The victorious Allies voided all acts and annexations of Hitler's Reich.

Postwar Changes.—The zones of occupation administered by the Allied Powers and later relinquished gave the Soviet Union Saxony, Saxony-Anhalt, Thuringia, and Mecklenburg, and the former Prussian provinces of Saxony and Brandenburg. The United States administered territory bounded on the East by the Russian zone and Czechoslovakia, on the North by the British zone, on the West by the French zone, and on the South by Austria, including Bavaria (except Lindau district), Wurttemberg (northern), Baden (northern), most of Hesse and Hesse-Nassau, and the city state of Bremen.

The territory east of the Oder-Neisse line within 1937 boundaries comprising the provinces of Silesia, Pomerania, West Prussia and the southern part of East Prussia, totaling about 41,220 square miles, population (1939) 9,600,000, is under Polish administration; northern East Prussia is under Soviet domination. The United States has not recognized these changes nor the East German regime.

The Western Allies ended the state of war with Germany in 1951. The USSR did so in 1955.

There was also created the area of Greater Berlin, within but not part of the Soviet zone, administered by the four occupying powers under the Allied Command. In 1948 the Soviet Union withdrew and established its single command in East Berlin. The Communists cut off supplies, whereupon the Allies utilized a gigantic airlift to bring food to West Berlin during 1948-1949. In Aug. 1961 the East Germans built a wall dividing Berlin.

In June 1968 East Germany imposed restrictions on travel from West Germany to West Berlin, including transit visas and fees, and transport taxes on trucks, buses and barges. The U. S., Britain and France denounced the action and, with approval of their NATO partners, imposed a ban on travel by East German political figures and journalists to NATO countries and a \$5 tax on other East German travelers. West Germany barred a group of 700 East Germans from visiting Munich.

West Germany BUNDESREPUBLIK DEUTSCHLAND FEDERAL REPUBLIC OF GERMANY

Capital: Bonn. Area (including West Berlin): 95,937 sq. mi. Population (UN est. 1967): 59,872,000. Monetary unit: Deutsche Mark (U. S. \$1).

The Federal Republic of Germany was pro-

claimed May 23, 1949 (effective Sept. 1, 1949), in Bonn, after a constitution had been drawn up by a consultative assembly formed by representatives of the 11 Laender (states) in the French, British and American zones. Later reorganized into 9 units, the Laender number 10 with the addition of the Saar Jan. 1, 1957; Schleswig-Holstein, Hamburg, Lower Saxony, Bremen, North Rhine-Westphalia, Hesse, Rhineland-Palatinate, Baden-Wuerttemberg, Bavaria, Saarland. Berlin also was granted Land (state) status, but the 1945 occupation agreements render it inoperative.

The occupying powers, the United States, Britain and France, restored the civil status, Sept. 21, 1949. The U. S. resumed diplomatic relations July 2, 1951. The powers lifted controls and the republic became fully independent May 5, 1955.

Parliament has two chambers, serving 4-yr. terms. The Bundestag, lower house, is elected. It has 496 voting members from the republic and 22 non-voting observers from West Berlin. The Bundesrat, upper house, represents the states; it has 41 delegates from the Laender and 4 nonvoting members from West Berlin. The Bundesrat President serves one year and acts as deputy to the federal President.

The federal President is elected for a 5-yr. term by the Federal Assembly, convened for this purpose only and made up of deputies of the Bundestag and an equal number of delegates from the Land parliaments. Re-election is possible only once. The President concludes treaties with foreign states, and signs laws, which must be countersigned by the Chancellor and the minister in charge. On proposal of the President the Chancellor is elected by majority vote of the Bundestag. Ministers are named by the President at the instance of the Chancellor. The President appoints and dismisses judges, civil servants and officers and non-com. officers of the armed forces and exercises power of pardon.

Theodor Heuss, Free Democrat, was chosen first President Sept. 12, 1949, re-elected July 17, 1954. Succeeded by Heinrich Lübke, elected July 1, 1959, reelected July 1, 1964.

Dr. Konrad Adenauer, Christian Democrat, was made Chancellor Sept. 15, 1949, reelected 1953, 1957, 1961. Dr. Ludwig Erhard, Christian Democrat, was elected 1963, 1965. Kurt Georg Kiesinger was elected Chancellor Dec. 1, 1966, heading a coalition government of Christian Democrats and Social Democrats.

West Germany is a member of NATO, EEC, European Coal and Steel Community and Council of Europe. It also has been admitted to UNESCO, International Monetary Fund, and EURATOM.

The Western Allies have sought unification of Germany by free elections. The USSR has blocked action, demanding direct negotiation between East and West Germany, which would imply recognition of the East German puppet state and troop withdrawal.

Resources and Industries. West Germany has experienced tremendous economic growth since 1950. Gross national product rose from \$23.1 billion in 1950 to \$120 billion in 1967. The index of industrial production (1963=100) was 114 in 1967.

West Germany leads Western Europe as a steel producer. Shipyards annually produce more than 1,000,000 gross registered tons of shipping, more than half of it for export. The oil industry has a refining capacity of more than 10,500,000 tons annually.

Germany lost most of its merchant marine during World War II. However, the merchant fleet recovered rapidly and on Jan. 1, 1964 comprised 2,626 vessels aggregating 5,500,000 gross tons.

The total foreign debt on Jan. 1, 1968, was \$125,000,000, reduced from \$3.05 billion of prewar and postwar liabilities determined by the London Agreement of 1953.

Frankfurt Rhine-Main airport, 3rd largest in Europe, handles annually 4,850,000 passengers and is 2nd largest in freight shipments.

Foreign trade (in thousands of U. S. dollars):

	Imports	Exports
1966	\$18,023,000	\$20,135,000
1967	\$17,352,000	\$21,737,000

Education and Religion. The Federal Republic and West Berlin have 22 universities 9 technical universities and 91 musical, theological and other institutions of higher education. School attendance is compulsory, ages 6 to 14.

Complete religious freedom is guaranteed by the constitution. The country is 51% Protestant, 45% Roman Catholic. The Evangelical Church in Ger-

many (EKD) was formed by the Lutheran, United and Reformed churches after World War II, supplanting an earlier group.

Defense. The German Armed Forces (Bundeswehr) are civilian-controlled. Conscription of 18-year-olds for 12-month terms began in Jan. 1957; raised to 18-month terms in 1962. Volunteers are enlisted for 3 or more years. Most Air Force and Navy personnel are volunteers. Strength of the Bundeswehr in 1968 was 460,000 including 317,000 Army, 97,000 Air Force, 33,000 Navy, plus Territorial Defense Forces.

The Army has 12 Divisions—7 infantry, 3 armored, one airborne, one mountain. It has U. S. Honest John and Sergeant ground-to-ground rockets.

The Air Force (Luftwaffe) has 20 squadrons of F-104-G jet Starfighters and other craft, ground-to-air Nike and Hawk rockets and Pershing missiles.

The Navy has 10 destroyers, 11 submarines, 6 frigates, 45 torpedo boats and other craft. The naval air arm has Starfighters, anti-submarine planes and helicopters.

Helgoland, an island of 130 acres in the North Sea, was taken from Denmark by a British Naval Force in 1807 and later ceded to Germany to become a part of Schleswig-Holstein province in return for rights in East Africa. The heavily fortified island was surrendered to Great Britain, May 23, 1945, demilitarized in 1947 and returned to West Germany, Mar. 1, 1952. It is a free port.

The Saar (Fr. Sarre), 10th Land (state) of the Federal Republic, is an industrial and mining area north of Lorraine, originally 738 sq. mi., now extended to about 991 and population (est. 1967) of 1,132,800, mostly German. Capital: Saarbrücken. It was separated from Germany after World War I and administered by the League of Nations through a commission. The Saar was returned to the Reich by the League of Nations, Mar. 1, 1935.

After World War II, the Saar came under French administration and following an election, Oct. 5, 1947, was attached economically to France. It had semi-autonomy from Jan. 3, 1948, until West Germany and France signed the Luxembourg Agreement, June 4, 1956, providing that the Saar should be united politically with the Federal Republic Jan. 1, 1957, and economically Jan. 1, 1960.

East Germany

GERMAN DEMOCRATIC REPUBLIC Deutsche Demokratische Republik

Capital: East Berlin (Soviet Sector). **Area:** 41,659 sq. mi. **Population** (UN est. 1967): 17,082,000. **Monetary unit:** Ostmark (2.22 official rate per U. S. \$1).

The German Democratic Republic was proclaimed in the Soviet sector of Berlin Oct. 7, 1949. Wilhelm Pieck was named President, reelected Oct. 7, 1953, and Oct. 7, 1957 (died Sept. 7, 1960); Willi Stoph, Minister-President, or prime minister; Walter Ulbricht, Communist party secretary; deputy prime minister. A ministry of state security, the SSD, and a militarized People's Police were organized.

The Soviet Union proclaimed East Germany a sovereign republic Mar. 26, 1954, but kept Soviet troops there on grounds of security and the four-power Potsdam agreement.

Parliament approved a constitutional amendment Sept. 12, 1960, that abolished the Presidency, replacing it with a new Council of State designated as East Germany's highest governing body, with Walter Ulbricht as Chairman.

Ulbricht negotiated a treaty with Poland placing Poland's boundary at the line formed by the Oder and Neisse Rivers. The United States registered its disapproval, declaring that it violated the Potsdam agreement and that no boundaries could be settled "unilaterally or bilaterally" outside a peace treaty. The Republic also ratified an agreement with Czechoslovakia, accepting the expulsion of over 2,000,000 Germans from Sudetenland as "permanent and just." Its industry was integrated with that of the Soviet Union.

Parliament abolished, 1952, the five traditional provinces of East Germany as administrative units in favor of 14 districts of 217 counties. Brandenburg, Mecklenburg, Saxony and Thuringia were divided into three districts each, Saxony-Anhalt into two.

Coinciding with the entrance of the Federal Republic into the European Defense Community, May 27, 1952, the East German Government decreed a

prohibited zone three miles deep along its 600-mile border with West Germany, separated Berlin's telephone system into two sections and cut many of its lines to the West. Berlin was further divided, 1953-1961, by reduction of crossing points and erection of a fortified wall, but the exodus of refugees from East Germany into Western sectors continued though on a much smaller scale.

In elections to the Volkskammer, 1965, the single list of National Front candidates received 99.89% of the eligible vote.

The regime signed a 20-year treaty of friendship and cooperation with the USSR June 12, 1964. The treaty stated that it did not constitute a formal peace treaty.

East Germany suffered severe economic problems until the mid-1960s. A "new economic system" was introduced, easing the former central planning controls and allowing factories to make "profits" provided they were reinvested in operations or distributed to workers as bonuses. By 1967, East German figures showed the gross national product had risen to \$52 billion from \$35 billion in 1960. But living standards were still far below those of West Germany.

On Apr. 8, 1968, a new constitution, announced as approved by 94.49% of voters, went into effect. It reaffirmed Communist one-party rule and close ties with the USSR and declared German reunification could "take place only on the basis of Socialism."

In East Germany the school system has been reorganized on a Communist basis, with centralized control over education. Religious instruction no longer is part of the public school curriculum, but is imparted by the churches.

Creation of a National People's Army was authorized by Parliament, Jan. 18, 1956. Service is compulsory. Armed strength of the People's Army reached 195,000 in 1965, organized in two corps and equipped with Soviet tanks, jet planes and artillery. Another 320,000 militiamen are organized in combat groups. Navy and Air Force have about 10,000 each and there is a police force numbering 42,500.

An est. 20 Soviet divisions totaling approx. 400,000 also are stationed in East Germany.

The Navy includes 5 destroyers, 5 frigates, 8 corvettes and numerous minesweepers, patrol vessels and other craft.

Ghana

FORMER GOLD COAST STATE

Capital: Accra (Ghana). **Area:** 91,843 sq. mi. **Population** (UN est. 1967): 8,143,000. **Monetary unit:** New Cedi (1.0204 per U. S. \$1).

The Republic of Ghana, a member of the UN and the Commonwealth, is composed of the former British Gold Coast colony with its territories of Ashanti and Northern Territories, and British Togoland, former UN trusteeship. Slightly smaller than Oregon, it faces on the Gulf of Guinea in Western Africa, bounded N by Republic of Upper Volta, E by Togo Republic and W by the Ivory Coast Republic.

Resources and Industries. Ghana is rich in mineral wealth. Ghana ranks 5th in the world in production of diamonds (mostly industrial type), 7th in manganese, 6th in gold, 18th in bauxite.

Ghana is the world's leading cocoa producer; it exports over 400,000 tons annually, about 40% of world output. Timber is 2nd in value, including mahogany and rare woods.

The huge Akosombo hydroelectric project on the Volta River, partly financed by U. S., was completed in 1965 and began serving Ghana's 1st giant industry, an aluminum reduction plant near the port of Tema, built and owned by U. S. companies. The dam was to create the world's largest artificial lake, covering 3,275 sq. mi.

History and Government. Named after an earlier African state along the Niger River, 800-1076 A.D., Ghana has long been settled by the Adansi, Akwamu, Ga and other tribes, and was ruled by Great Britain for 113 years. Its independence was gained by rapid steps after 1951 when Britain granted the colony a new constitution and its chief spokesman, Kwame Nkrumah, was elected Prime Minister. The UN General Assembly on Dec. 13, 1956, approved termination of the British Togoland trusteeship and merger of the territory with the new state following a 1956 plebiscite.

Full independence within the Commonwealth, with a British Governor-General, was effective Mar. 6, 1957. It became a republic, July 1, 1960, but remained within the Commonwealth. Kwame

Nkrumah became Pres.

In May 1961 Pres. Nkrumah announced he had taken "absolute control" of his Convention Peoples party. On Sept. 7, 1962, Parliament voted to make him Pres. for life. In Jan. 1964 the government announced the result of a nationwide vote to give him dictatorial powers and make Ghana a one-party Socialist state was 99.9% "yes."

Pres. Nkrumah built hospitals and schools, raised the literacy rate, created a state-owned airline and ship line, but ran the country into debt, jailed hundreds of political dissenters and was accused of corruption.

On Feb. 24, 1966, a National Liberation Council of Army and police officers took over the government, freed over 400 political prisoners and jailed many Nkrumah regime officials. Lt. Gen. Joseph Ankrah, Council chairman, promised elections and a popularly approved Constitution within 18 mos. The Council expelled Communist Chinese and East German teachers and technicians. It promised a "balanced neutrality" and slashed expenditures. Ex-Pres. Nkrumah, on a trip to North Vietnam and Peking at the time of the coup, found asylum in Guinea.

In 1967 and 1968, civilians were added to the Cabinet, outnumbering the military and police members.

Defense: The army, navy and air force have undergone large-scale expansion since 1961.

Greece

VASILEION TIS ELLADOS— KINGDOM OF HELLAS

Capital: Athens. Area: 50,944 sq. mi. Population (UN est. 1967): 8,716,000. Monetary unit: Drachma (30 per U. S. \$1).

Greece occupies the southern part of the Balkan peninsula, reaching into the Mediterranean Sea with the Ionian Sea on the W and the Aegean Sea on the E. Its neighbors are Albania, Yugoslavia, Bulgaria and Turkey. The Pindus Mtns. run through the country N to S. Total length of the heavily indented coastline is 9,385 mi. Hundreds of islands account for 8,918 sq. mi. of the total land area, which is approx. that of Alabama; 166 islands are inhabited, among them Crete, Rhodes, Milos, Kerkira (Corfu), Chios, Lesbos, Samos. Principal seaport is Piraeus, near Athens.

Resources and Industries. Greece proper is chiefly agricultural. Only one-fourth of the total area is arable; 13,350,000 of the total of 16,074,000 acres are covered by mountains, lakes and rivers. Four-fifths of the forests are state-owned. Chief agricultural products are wheat, rye, barley, oats, corn, rice, cotton, tobacco, olives, citrus fruits, raisins and figs. Sheep are the most important livestock.

Heavily damaged in World War II, Greece's industrial and agricultural output has far surpassed pre-war levels thanks to economic development programs helped in part by U. S. aid. Hydroelectric development is remedying the lack of coal. Principal industries are textiles, food-processing, wine, cement, chemicals.

Greek-owned merchant marine tonnage totals 19,250,000 tons, actually third in the world, but most of it is registered under other flags.

Exports are mainly agricultural—tobacco, cotton, citrus fruits, raisins, vegetables. Ores, esp. bauxite, are also important. Aiding the economy is the tourist industry, with 1,000,000 visitors spending \$100,000,000 yearly.

Foreign trade, in thousands of U. S. dollars:

	Imports	Exports
1966	\$1,223,000	\$406,000
1967	\$1,186,000	\$495,000

History and Government. The achievements of Ancient Greece in art, architecture, science, mathematics, philosophy, drama, literature and democracy became legacies for succeeding ages. Greece reached the height of its glory and power, particularly in the Athenian city-state, in the 5th Century B.C.

Greece fell under Roman domination in the 2nd and 1st Centuries B. C. In the 4th Century A. D. it became part of the Eastern Byzantine Empire and, after the fall of Constantinople to the Turks in 1453, part of the Ottoman Empire.

Greece won its war of independence from Turkey 1821-1829, and became a kingdom under guarantee of Britain, France and Russia, 1830. A republic was established 1925; the monarchy was restored, 1935, and George II, King of the Hellenes, resumed the throne. In Oct., 1940, Greece rejected an ultima-

tum from Italy and when attacked Greece drove the Italians back into Albania. Nazi support resulted in the defeat and occupation of Greece by Germans, Italians and Bulgarians. By the end of 1944 the invaders withdrew. Armed Communists attempted to seize the country but were thwarted by British liberation troops.

A plebiscite recalled King George II. He died Apr. 1, 1947, and was succeeded by his brother, Paul I. King Paul died Mar. 6, 1964, succeeded by his son, Crown Prince Constantine, born June 2, 1940. The King married Princess Anne-Marie of Denmark Sept. 18, 1964. A daughter, Princess Alexia, was born July 10, 1965, and is heir to the throne.

Communists waged guerrilla war 1947-49 against the government but were defeated with the aid of the U. S. (acting under the Truman Doctrine). Communists kidnaped thousands of Greek children to neighboring Communist countries; after Yugoslavia broke with Moscow some were repatriated.

Greece is governed under a constitution effective Jan. 1, 1952. Women were granted suffrage, 1952.

In Feb. 16, 1964, elections the coalition Center Union led by George Papandreou won 174 of 300 seats in the Chamber of Deputies. A prolonged government crisis was precipitated July 15, 1965, when Premier Papandreou resigned; at issue was a Papandreou plan to purge the Army of right-wing officers. King Constantine opposed the purge saying it would expose the armed forces to Communist influence. Leftists and backers of Papandreou staged riots in Athens as the King sought a new Premier who could win a Parliamentary majority over the opposition of the Papandreou bloc and the extreme leftists. He finally won with Stephanos Stephanopoulos, who was sworn in Sept. 17, 1965.

Continuing political crises ended in a pre-election coup d'etat Apr. 21, 1967, by rightist Army officers under Col. George Papadopoulos. They jailed hundreds of monarchists, Communists and political leaders. King Constantine on Dec. 13 sought to oust the junta but failed to rally military support and fled with his family to exile in Rome. Dec. 14, Papadopoulos was named Premier and a general was appointed "viceroy." In 1968 the Papadopoulos government freed some political prisoners but tightened its hold, replacing many officials including judges. It also ordered curbs on teenagers' clothes and conduct and banned the sale of records by Melina Mercouri, a critic of the regime.

Education and Religion. Greek Orthodox is the official church. Nine years of education is compulsory. There are 6 schools of university rank in Athens, and others in Thessaloniki, Patras and Ioannina.

The rocky promontory of Mount Athos (121 sq. mi.) is occupied by 20 monasteries of the Greek Orthodox Church, forming an almost completely self-governing community of about 3,000 monks. No females may enter the territory.

Defense. Military service is compulsory between the ages of 21 and 50. There is an Air Force and a Navy of light craft.

Greece is a member of the UN and NATO and an associate member of EEC.

DODECANESE AND CRETE

The Dodecanese are a group of 13 islands in the southeastern Aegean Sea. They were occupied by Italy during the Balkan War of 1912 with Turkey and though claimed by Greece were retained by Italy. Rhodes is the capital.

After World War II the islands were ceded to Greece at the Paris Conference of Foreign Ministers, June 27, 1946, and annexed Mar. 7, 1948.

Crete, largest Greek island and 4th largest in Mediterranean, original site of Minoan civilization, lies south of the Peloponnese peninsula and is 160 mi. long, 35 mi. wide, with area of 3,324 sq. mi. and 482,021 population. Principal towns: Heraklion (Candia) and Khania (Canea).

Guatemala

REPUBLICA DE GUATEMALA

Capital: Guatemala City. Area: 42,042 sq. mi. Population (UN est. 1967): 4,717,000. Monetary unit: Quetzal (1 per U. S. \$1).

Guatemala is the most northerly country of Central America and about the size of Ohio. It faces on both the Caribbean and the Pacific. There are numerous volcanoes in the south, more than a half dozen over 11,000 ft.

More than 50% of the population is pure Indian

and most of the remainder is of mixed Spanish and Indian descent.

There are famous Mayan ruins in Uaxatun and Tikal, in Petén, northern Guatemala. Other Mayan ruins of temples and monoliths are at Zaculeu in the west and at Quirigua, about 140 mi. from Guatemala City.

Puerto Barrios, main port on the Atlantic, is connected by railroad with Guatemala City in the highlands and ports on the Pacific.

Resources and Industries. Agriculture is the most important industry, the Guatemalan soil being exceedingly fertile. Coffee accounts for bulk of the exports. Other important export crops are bananas, cotton, chicle gum. Sugar, maize, rice are domestic crops. Rare woods and cattle are important. Silver, gold, copper, iron, lead, zinc, and chrome are found. A search for oil is being pressed in the north, where natural gas has been found.

History and Government. The old Mayan Indian empire flourished in what is today Guatemala during the first 1,000 years of the Christian era.

Guatemala was a Spanish colony 1524-1821; briefly a part of Mexico and then of the U. S. of Central America; the republic was established in 1839.

Since 1945 when a labor government was elected to replace the long-term dictatorship of Jorge Ubico, the country has seen a swing toward Communism, an allegedly U. S.-sponsored revolt, renewed attempts at social reform and a military coup. Communist-led guerrillas have terrorized parts of the nation and kidnapped officials.

Col. Enrique Peralta Azurdia, who became Pres. in the 1963 coup, sponsored free elections in March 1966. Prof. Julio Cesar Mendez Montenegro, a left-of-center reformist, won and was inaugurated Pres. July 1. He launched agrarian reforms.

Two U. S. Embassy military attaches were shot to death Jan. 16, 1968 in what was called a leftist terrorist raid. In the same week, rightist terrorists slew a lawyer and Miss Guatemala of 1950, accused of leftist leanings. A state of siege was declared after the Archbishop of Guatemala was kidnapped by right-wingers Mar. 16 (he was freed). The emergency ended June 20 after terrorism eased.

Education and Religion. Roman Catholicism is the dominant religion. Education is compulsory. The University of Guatemala is in Guatemala City, with divisions in Quetzaltenango. The language is Spanish.

Defense. Military service is compulsory between the ages of 18 and 50. The strength of the Army is approximately 7,000 plus a 3,000-man police force and a small Air Force. Guatemala is a member of the UN and OAS.

Guinea

REPUBLIC OF GUINEA

Capital: Conakry. Area 94,925 sq. mi. **Population** (UN est. 1967): 3,702,000. **Monetary unit:** Guinea franc (246.85 per U. S. \$1).

Guinea, a former French Overseas Territory, is in western Africa with the Atlantic on the W; Portuguese Guinea, Senegal and Mali on the N; Ivory Coast on the E and Liberia and Sierra Leone on the S. Chief tribes are the Fullah, Malinké and Soussou. Guinea is about the size of Oregon.

Guinea has a variety of climates, from the humid coastal tropics (Conakry, the capital has an average annual rainfall of 169") to cooler plateaus and uplands. Wildlife is varied and abundant, including elephant, hippopotamus, buffalo, antelope, lion, leopard, chimpanzee.

Resources and Industries. Although Guinea is still primarily an agricultural country, the importance of minerals to its economy is growing. Bauxite, iron and diamonds (both gem and industrial) are the principal minerals. Harvey Aluminum, Inc., of the U. S., and the Guinean Government are engaged in a joint \$200,000,000 exploitation of one of the world's richest bauxite deposits, at Boké.

Guinea's second economic plan (1964-1971) is being aided by large grants from both Communist and non-Communist countries. Acceleration of agricultural output is a Government goal. Chief agricultural exports are bananas (to France, West Germany and the USSR), and pineapples. Production of rice, the staple food of the population, has been expanded. Other crops include corn, palm nuts, coffee and honey.

History and Government. Under provisions of the 1958 constitution of the Fifth Republic of France, Guinea voted Sept. 28, 1958, to secede from the French Community and proclaimed itself

an independent republic Oct. 2. Premier Sekou Touré became first President. The nation's first constitution was adopted Nov. 12, 1958. It provided for rule by a President with a term of 7 years and a National Assembly elected by universal suffrage. The Political Bureau of the single legal party, the Parti Democratique de Guinée, exercises great power in making governmental decisions. Guinea is a member of the UN.

It has agreements with Czechoslovakia, East Germany, Poland, USSR and Communist China, and criticized U. S. "colonial" attitudes in Africa, but continues to avow a neutral course.

Kwame Nkrumah, deposed President of Ghana, was given asylum in Guinea, Mar. 2, 1966.

Guinea signed an agreement with France, May 22, 1963, providing for French technical assistance and development of cultural relations. It also receives U. S. aid. French is the official language.

On Apr. 24, 1968, Guinea and 8 other nations formed the West African Regional Group to promote economic cooperation.

Guyana

(FORMER BRITISH GUIANA)

Capital: Georgetown. Area: 83,000 sq. mi. **Population** (UN est. 1967): 680,000. **Monetary unit:** Guyana Dollar (2 per U. S. \$1).

A British colony for 152 years, Guyana became independent May 26, 1966, the first South American country to do so since Venezuela in 1830.

Fronting on the Atlantic in NE South America, Guyana borders on Venezuela, Brazil and Dutch Guiana. The nation is about the size of Kansas. The population is about 50% of East Indian (from India) descent, 31.5% of African descent, 12% of mixed descent, 4.6% American Indian descent, and small numbers of Chinese or European descent.

Dense tropical forests cover much of the land, although a flat coastal area about 50 mi. wide, where 90% of the population lives, provides space for agriculture.

The country is basically agricultural but only about 6.5% of the land is cultivated. Sugar and rice are the main cash crops and account for about half of the total exports. Other products are: coconuts, coffee, cocoa, citrus fruits, timber and livestock.

The main industry is the mining of bauxite ore; Guyana is the 4th largest producer of the mineral, supplying about one-tenth of the world's needs. Also exported are manganese, gold and diamonds. Deposits of a wide range of other minerals have been found but not yet exploited.

Manufacturing has shown an average 5% annual growth, products include cigarettes, rum, clothing, furniture, drugs and insecticides.

Guyana was discovered in 1499 by Spanish sailors. The country became a British possession in 1814. African slaves and indentured servants from India were brought in to work on plantations. The Indians soon outnumbered the Negro population and still do today. Racial tension is a major problem for the nation.

Guyana is a parliamentary democracy, with universal adult suffrage, a Governor General representing the British Queen, a Prime Minister and Cabinet. Guyana is a member of the UN and Commonwealth.

Haiti

REPUBLIQUE D'HAÏTI

Capital: Port-au-Prince. Area: 10,714 sq. mi. **Population** (UN est. 1967): 4,581,000. **Monetary unit:** Gourde (5 per U. S. \$1).

Haiti, only French-speaking republic in the Americas, occupies the western third of the island known as Hispaniola, the second largest of the Greater Antilles, lying between Cuba on the W and Puerto Rico on the E. The boundary which separates Haiti from the Dominican Republic to the E is 241 mi. long. Haiti is a little larger in area than Maryland.

Negroes form the majority of the population, the remainder being mulattoes descended from former French settlers and slaves.

Resources and Industries. Major mineral exports are bauxite (to U. S.) and copper (to Japan). Other minerals, largely undeveloped, are gold, silver and cement.

Coffee is the chief product, along with sisal, cotton, raw sugar, bananas, cocoa, tobacco and rice. Molasses and rum are produced; valuable woods are exported.

Haiti encourages tourism and is served by several major airlines, with an international jet airport at Port-au-Prince. However, tourist spending and private foreign investment in Haiti have dwindled under the regime of Pres. Francois Duvalier.

History and Government. Haiti, discovered by Columbus, 1492, and a French colony from 1677, attained its independence, 1804, following the rebellion begun by Toussaint L'Ouverture and has been a republic since 1820. Following a period of political violence, 1910-1915, the United States occupied the country and restored order. The occupation terminated Aug. 14, 1934.

Five regimes failed between 1950-1957. On Sept. 22, 1957, Dr. Duvalier was elected President for a 6-year term.

During widespread Haitian opposition to Duvalier's repressive regime in 1963, Haitian police broke into the Dominican Republic Embassy in Port-au-Prince and seized 22 Haitian political refugees there. Dominican armed reprisals were threatened; Haiti withdrew its police and released the refugees. Haiti severed diplomatic relations with the Dominican Republic. They were not resumed until July 22, 1966.

A new constitution, making Dr. Duvalier President for life, was approved by referendum June 14, 1964. Haiti is a member of the UN and OAS.

A reported invasion attempt May 20, 1968, resulted in the arrest of 10 Haitians by the Duvalier government.

Education and Religion. Roman Catholicism is the main religion and the clergy are largely French and Canadian. Education is compulsory, but illiteracy rate is high. French is the official language of the country, but French Creole, a dialect, is spoken by the majority. The teaching of English in the schools is obligatory.

Honduras

REPUBLICA DE HONDURAS

Capital: Tegucigalpa. **Area** (Govt. est.): 43,277 sq. mi. **Population** (UN est. 1967): 2,445,000. **Monetary unit:** Lempira (2 per U. S. \$1).

Honduras is a republic in Central or Middle America, bounded on the N by the Caribbean; E and S by Nicaragua; S by Pacific Ocean and El Salvador; W by Guatemala. It is about the size of Pennsylvania.

The coast line on the Caribbean is 500 mi. long. On the Pacific side it has a coast line of 40 mi. on the Gulf of Fonseca. There are ports on both coasts. The country is mountainous, very fertile, though mostly uncultivated, and covered with rich forests. The inhabitants are of Spanish and Indian extraction.

At Copan, near the western border, are the imposing remains of a large Mayan city which flourished from the 4th Century A.D.; there are numerous statues, stelae, pyramids, temples, etc.; the city had a pop. of about 150,000; it had declined by the time of its discovery by Spaniards in 1576.

Resources and Industries. Mineral resources are abundant but undeveloped, and include gold, silver, copper, lead, zinc, iron, antimony and coal. The chief export (65%) is bananas, grown on the Caribbean coast. Coffee, timber, cotton, maize, tobacco and cattle raising are important. The mountainous terrain has hindered development but membership in the Central American Common Market has boosted foreign trade considerably.

Honduras was one of the Central American nations visited and promised additional aid in July 1968 by U. S. President Johnson.

History and Government. Honduras became independent after freeing itself from Spain, Sept. 15, 1821, and from the Federation of Central America, 1838. The country is divided into 18 departments containing 31 districts.

Pres. Ramon Villeda Morales, elected Nov. 15, 1957, was overthrown in a military coup Oct. 3, 1963, and replaced by a regime headed by Col. Oswaldo Lopez Arellano.

The country returned to constitutional government and Lopez Arellano was inaugurated President June 6, 1965, after elections for a new Constituent Assembly.

Municipal elections Mar. 31, 1968, resulted in overwhelming approval of candidates of the President's National party and charges of fraud were made by the Liberal party.

Honduras is a member of the UN and OAS.

Education and Religion. Education is compul-

sory, secular and free. National University is located in Tegucigalpa. Roman Catholicism is the prevailing religion. The language is Spanish.

Hungary

MAGYAR NEPKOZTARSASAG HUNGARIAN PEOPLE'S REPUBLIC

Capitol: Budapest. **Area:** 35,918 sq. mi. **Population** (UN est. 1967): 10,212,000. **Monetary unit:** Forint (11.73 official rate per U. S. \$1).

Hungary, a Communist republic in Central Europe, is bounded by Czechoslovakia, the USSR, Romania, Yugoslavia and Austria. It is about the size of Indiana.

The Danube forms the Czech border in the NW, then swings S to bisect the country. The eastern half of Hungary is mainly a great fertile plain, the Alföld; the west and north are hilly.

Resources and Industries. Before World War II, Hungary was primarily agricultural, but industry is becoming increasingly important. Its share in national income rose to 66% in 1966 compared to 49.9% in 1949.

Major economic reforms were launched early in 1968, switching from a central planning system to one where market forces and a profit principle control much of production. The change boosted farm incomes 20% and industrial wages 6% by mid-1968.

About 64% of foreign trade is with Eastern bloc countries. Value of imports rose from \$1.6 billion in 1966 to \$1.8 billion in 1967. Exports rose from \$1.6 billion to \$1.7 billion.

In addition to a wide range of grains and vegetable crops, fruit production has been expanded. Near Tokay, in the northeast, the most famous Hungarian wines are vinted.

Hungary's bauxite deposits are very large. About three-quarters of its oil comes from the southwest corner. Industries include iron and steel, machines, machine tools, chemicals, vehicles, railways and communications equipment, milling and distilling. Hungary has become an important supplier of industrial products to Communist-bloc countries.

History and Government. Earliest settlers, chiefly Slav and Germanic, were overrun by Huns and Magyars from the east. Stephen I (997-1038) was made King by Pope Sylvester II in 1001 A.D. The country suffered repeated Turkish invasions in the 15th-17th centuries. After the defeats of the Turks, 1686-1697, Austria dominated, but Hungary obtained concessions until it regained full independence in 1867, with the Emperor of Austria as King of Hungary in a dual monarchy with a single diplomatic service. Defeated with the Central Powers in 1918, Hungary lost Transylvania to Romania, Croatia and Backa to Yugoslavia, Slovakia and Carpatho-Ruthenia to Czechoslovakia. A republic under Michael Karoly and a bolshevist revolt under Bela Kun were followed by a vote for a monarchy in 1920 with Admiral Nicholas Horthy as regent.

Hungary joined Germany in World War II; Horthy was removed and Nazi supporters put in power, 1944. Russian troops captured most of the country, 1945. By terms of an armistice with the Allied powers Hungary agreed to give up territory acquired by the 1938 dismemberment of Czechoslovakia and to return to its borders of 1937.

Hungary declared for a republic Feb. 1, 1946, and elected Zoltan Tildy President. In 1947 the Communists forced Tildy out.

A Soviet-type constitution was adopted Aug. 18, 1949, which vests power in Parliament and a Presidium. Parliament since 1953 consists of a group of deputies numbering one to every 32,000 population, elected for 4-year terms. Hungary is a member of the UN and Warsaw Pact.

Since Communism gained control, all industries have been nationalized and an intensive campaign has been conducted to establish cooperatives, and increase farm production. Since 1962 the regime has encouraged privately owned farm plots which produce 63% of total farm production as essential to the country's well-being.

Premier Imre Nagy, in office since mid-1953, was ousted for his moderate policy of favoring agriculture and consumer production, April 18, 1955; succeeded by Andras Hegedus.

In 1956, popular demands for the ousting of Erno Gero, Hungarian Communist party secretary, and for formation of a new government by Imre Nagy, resulted in the latter's appointment Oct. 23, but demonstrations against Communist rule in Buda-

pest developed into open revolt when the security police fired on the people. Gero called in Soviet armed forces to crush the rioting as Revolutionary Councils spread through the country. The insurrection appeared halted by Oct. 28 when Premier Nagy announced the Soviet Union had agreed to withdraw its troops from Hungary. However, by Nov. 1 Soviet forces again surrounded Budapest and, despite Nagy's protests to the USSR and the UN, launched a massive surprise attack against the city Nov. 4 with an estimated 200,000 troops, 2,500 tanks and armored cars.

The bid for free government was crushed. Estimates of casualties varied from 6,500 to 32,000 dead. Many rebels were reported executed and thousands deported. Between 170,000 and 196,000 persons fled the country. The U. S. received 38,248 under a refugee emergency program. In the spring of 1963 the regime freed many anti-Communists and captives from the revolution in a sweeping amnesty.

Premier Nagy was removed in November, 1956, and Janos Kadar installed as the Soviet-sponsored Premier. Kadar also became first secretary of the Patriotic People's Front (Communist party) in 1957. He stepped out of the Premier's post in June 1965 and was succeeded by Deputy Premier Gyula Kallai but remained party leader. In April 1967 Kallai became Pres. of Parliament and Jeno Fock became Prime Minister.

Education and Religion. There is no state religion and all are tolerated, but under the Communist regime the church has been restricted. A law effective April 6, 1959, requires government approval of direct Papal appointments. About two-thirds of the population are Roman Catholics; most of the remainder are Calvinists.

Public school education is compulsory and free for 8 years. Church schools were nationalized in 1948. There are 91 institutes of higher learning. The language, Hungarian (Magyar), is one of the Finno-Ugric group.

Defense. Since 1963 all males at age 18 are liable for military service.

Iceland

LYDVELDID ISLAND

Capital: Reykjavik. **Area:** 39,768 sq. mi. **Population (Govt. est. 1968):** 200,000. **Monetary unit:** Krona (57 per U. S. \$1).

The Republic of Iceland is an island of volcanic origin, close to the Arctic Circle in the North Atlantic. There are geysers and hot springs and the climate is modified by the Gulf Stream. Iceland is about the size of Virginia.

Natural hot water from many of Iceland's volcanic springs is piped into towns and provides heat for office buildings, homes and hot houses. Keflavik is an important airport.

Resources and Industries. Agriculture engages about 13.5% of the population; industry and services 70%; fishing 10%. About six-sevenths of the land is unproductive and only about 65,000 acres are under cultivation, producing potatoes, turnips and hay. The fishing industry is most important and has led Iceland to extend its exclusive fishery limits to 12 mi. The catch, of which herring comprises about 50%, also includes cod and haddock. Fish products, in salted, smoked, canned or frozen form, account for 95% of exports.

Iceland's largest industrial plants include an ammonium nitrate factory and a cement factory.

History and Government. Iceland was an independent republic, 930-1262; then it joined with Norway. The two came under Danish rule in 1380. When Norway separated from Denmark, 1814, Iceland remained under Denmark. Denmark acknowledged Iceland as a sovereign state, 1918, united with Denmark only in that the Danish King Christian X, was also King of Iceland. In 1941 the Althing (Parliament) voted to dissolve all ties with Denmark, elect a regent and adopt the constitution of a republic. This was endorsed by popular vote, and the republic proclaimed June 17, 1944.

Iceland celebrated the 1,000th anniversary of the Althing, the oldest parliamentary assembly in the world, June 23-28, 1930. Under a constitutional amendment of 1959, the Althing increased from 52 to 60 members. The Prime Minister and his cabinet are responsible to the Althing. There is universal suffrage for men and women over 21.

On May 26, 1968 the country switched to driving on the right side of the road.

Education and Religion. The Icelandic language has maintained its purity, as in Eddas and Sagas,

for 1,000 years. Danish and English also are taught. Eight years of elementary education is compulsory. There is no illiteracy. There are 3 colleges and a university. The national church is Evangelical Lutheran, but there is complete religious freedom.

Defense: Iceland has no Army, Navy, Air Force or forts. It is a charter member of NATO which maintains an air-radar base in Keflavik. It is also a member of the UN, Council of Europe and Nordic Council.

India

BHARAT

Capital: New Delhi. **Area:** 1,261,597 sq. mi. **Population (UN est. 1967):** 511,115,000. **Monetary unit:** Rupee (7.579 per U. S. \$1).

India, an independent republic since 1950 and a member of the Commonwealth, occupies the larger part of the subcontinent of India. It is one-third the size of the U. S.

India's climate varies from tropical heat in the south to the nearly Arctic cold of the Himalayas. Approximately 22.3% of the area is forested.

Main communities, 1961 census, are: Hindus, 366,162,693; Moslems, 46,911,731; Christians, 10,498,077; Sikhs, 7,846,074. Of the population 82.2% is rural and 17.8% urban. The annual rate of increase of 2½% continued to harass economic planners with food and housing shortages.

A severe 2-year drought in Bihar and other northern areas threatened mass starvation and brought large shipments of grain from the U. S.; in July, 1967, plentiful rains gave promise of better harvests. In 1968 there was a bumper wheat crop.

Also in 1967 the Government supplemented its birth control programs with monetary inducements to men to volunteer for sterilization. In 1968 the government reported 3,500,000 persons had undergone sterilization operations.

Sikkim, Indian state bordered by Tibet, Bhutan, Nepal and India, formerly British protected, became a protectorate of India in 1950. **Area,** 2,744 sq. mi.; **population** 1967, of 179,700. The ruler is Chogyal (Maharaja) Palden Thondup Namgyal; in 1963, with Crown Prince, he married Hope Cooke, a New York debutante. He became ruler in 1964 but was not coronated until April 4, 1965, a date chosen as auspicious by court astrologers. **Capital,** Gangtok. **Buddhism** is the state religion.

Kashmir, a predominantly Moslem region in the northwest, has been in dispute between India and Pakistan since 1947 when British rule was ending and Indian and Pakistani troops entered the area. A cease-fire was negotiated by the UN, effective Jan. 1, 1949; it gave Pakistan control of one-third of the area, in the west and northwest, and India the remaining two-thirds, the Indian state of Jammu and Kashmir. In late Aug. 1965, clashes broke out along the line and soon involved the armed forces of the two nations in a spreading war. Pakistan later claimed its forces killed 7,000 Indian troops. India said its troops killed 5,000 Pakistani soldiers. Several hundred civilian deaths were also reported.

On Sept. 20, 1965, the UN Security Council demanded a cease-fire and both sides agreed Sept. 22, to stop the fighting, but did not comply with a call for them to withdraw their forces across the old cease-fire line.

USSR Premier Alexsei N. Kosygin invited Indian Prime Minister Lal Bahadur Shastri and Pakistan Pres. Ayub Khan to a conference at Tashkent, USSR, and on Jan. 10, 1966, the two signed the "Tashkent Declaration," pledging to withdraw their armed forces in Kashmir to behind the cease-fire line by Feb. 28.

Prime Minister Shastri died of a heart attack in Tashkent a few hours after signing the agreement.

The U. S. announced it would resume both economic and "nonlethal" military aid, suspended when the war broke out, to both India and Pakistan.

There were also clashes in April 1965 along the Assam-East Pakistan border and in the Rann (swamp) of Cutch area along the West Pakistan-Gujarat border near the Arabian Sea.

An international arbitration commission on Feb. 19, 1968, awarded 90% of the Rann to India, 10% to Pakistan.

France, 1952-54, peacefully yielded to India its 5 colonies on the Bay of Bengal, former French India, comprising Pondicherry, Karaikal, Mahe, Yanam and Chandernagor, totaling 196 sq. mi. and 346,000 pop.

Goa, 1,426 sq. mi., pop., 1962, 626,978, which had been administered by Portugal as a colony since 1505 A.D., was taken by India by military action Dec. 18, 1961, together with two other Portuguese enclaves, Damão and Diu, located about 250 mi. S of Bombay. The World Court, Apr. 12, 1960, had rejected Portugal's claim to sovereignty by a 1979 treaty over Dadrā and Nagar Haveli, subsidiaries of Damão. India's Parliament, Mar. 14, 1962, incorporated Goa, Damão and Diu in the Indian Union. Following elections for an assembly Dec. 9, 1963, Goa became internally self-governing.

India is a union of 16 federated states and 8 centrally administered union territories:

State	Capital	Sq. mi.	Pop. 1960
Andhra Pradesh.	Hyderabad....	106,052	39,602,400
Assam.....	Shillong.....	84,899	14,076,500
Bihar.....	Patna.....	67,198	52,063,500
Gujarat.....	Ahmedabad....	72,226	23,618,700
Jammu-Kashmir.	Srinagar.....	86,024	3,815,700
Kerala.....	Trivandrum....	15,005	19,136,800
Madhya Pradesh	Bhopal.....	171,210	36,623,800
Madras.....	Madras City....	50,132	36,640,100
Maharashtra.	Bombay.....	118,741	44,931,300
Mysore.....	Bangalore.....	74,191	26,463,400
Nagaland.....	Kohima.....	6,366	401,300
Orissa.....	Bhubaneswar....	60,162	19,586,906
Punjab.....	Chandigarh....	47,084	23,646,800
Rajasthan....	Jaipur.....	132,150	23,257,000
Uttar Pradesh.	Lucknow.....	113,454	82,364,100
West Bengal.	Calcutta.....	33,928	39,945,000
Territories			
Andaman and			
Nicobar.....	Port Blair.....	3,215	77,900
Dadra & Nagar			
Haveli.....	Dadra.....	160	65,400
Delhi.....	Delhi City.....	9,573	3,407,700
Goa.....	Panjim.....	1,426	659,300
Himachal Pradesh	Simla.....	10,879	1,517,600
Laccadive and			
Amindivi.....	Kozhikode....	11	25,900
Manipur.....	Imphal.....	8,628	940,900
Pondicherry....	Pondicherry....	186	408,900
Tripura.....	Agartala.....	4,036	1,325,800

Resources and Industries. Agriculture occupies 70% of the people and is being helped by government planning to reach eventual self-sufficiency. Cooperative farms societies have been formed with state support, as well as a committee to supervise development and marketing of rice. The government is supporting the cooperative cotton, silk and woolen handloom industry with appropriations to the states for providing capital, supplies and housing for weavers, and sales depots.

Principal food products are rice, corn, millet, wheat, barley, coffee, sugar cane, spices, tea, cashew nuts. Other important products include cotton, copra, coir, jute, linseed, rubber, lumber.

India's 4th 5-year plan, launched Apr. 1, 1966, was to spur agriculture and industry toward self-sufficiency.

Chief industries are textiles, with a wide variety of woolen, cotton and silk products; steel and cement. The Tata Iron & Steel works in Jamshedpur is the largest in Asia, with capacity of 800,000 tons a year and expanding.

Also manufactured were rayon yarn, plywood, ammonium sulphate, soda ash, caustic soda, sheet glass, ball bearings, transformers, sewing machines, bicycles.

The 1967 index of industrial production (1963=100) was 118.

Industrial production, distribution and prices are regulated by law. Practically all utilities are state-owned, including railroads and airlines.

India is a leading producer of iron ore, mica and manganese; also important are salt, coal, bauxite and gypsum.

Exports include tea, sugar, raw and processed jute, cotton fabrics and other textiles, tanned hides and skins, manganese ore, pepper, tobacco. Imports: mineral oils, machinery, millwork, food grains, raw cotton, metals. Largest trade is with the U. S., which purchases tea, spices, burlap, wool, psyllium seed, gum, nuts, and hides.

Foreign trade, in thousands of U. S. dollars:

	Imports	Exports
1966	\$2,730,000	\$1,577,000
1967	\$2,718,000	\$1,614,000

History and Government. India has one of the oldest civilizations in the world. Excavations trace the Indus Valley civilization back for at least 5,000 years. Beautiful paintings in the mountain caves of Ajanta in South India, richly carved temples, the Taj Mahal in Agra, and the Kutab Minar in Delhi are among relics of the glorious past.

Vasco da Gama established Portuguese trading posts 1498-99, 1502-03. The Dutch followed. The English East India Co. sent Capt. Wm. Hawkins, 1609, to get concessions from the Mogul emperor for spices and textiles. The English founded Madras and Calcutta and acquired Bombay from Portugal. Operating as the East India Company the British gained control of all of India. Warren Hastings, first Governor-General (1774-1785), set up civil government, later India Civil Service. The British Parliament assumed political direction. Under Lord Bentinck, 1828-35, misrule by rajahs was abolished, infanticide stopped, suttee—suicide of a widow on her husband's funeral pyre—made illegal.

Liberal policies were set back when the Sepoy troops mutinied, 1857-58. Thereafter the British supported the native rulers. During the Boer War India supplied an ambulance corps. During World War I India provided 800,000 troops; 24,000 were killed, 70,000 wounded. The National Congress of India refused to support the Allies in World War II, but about 2,000,000 men served in the Indian Army, chiefly against Japanese in Burma.

Indian nationalism grew rapidly after World War I. The National Congress and the Moslem League demanded constitutional reform. A leader emerged in Mohandas K. Gandhi (called Mahatma, or Great Soul), born Oct. 2, 1869, assassinated Jan. 30, 1948. A Hindu, trained in law in England, he first championed rights of Indians in South Africa. In 1919 in India he began advocating self-rule, non-violence, pursuit of native handicrafts, removal of untouchability (which forced millions of poor to remain menials by heredity). In 1930 he launched "civil disobedience," including boycott of British goods and rejection of taxes without representation. Gandhi and about 60,000 were jailed.

In 1935 Britain gave India a constitution providing a bicameral federal congress, with a council of states and an assembly. Suffrage was granted about 30,000,000 in separate electorates. The Moslems objected that Hindu dominance injured their culture and freedom. Mohammed Ali Jinnah, head of the Moslem League, sought creation of a Moslem nation, Pakistan.

Following more than 40 years' active struggle for freedom by both Hindus and Moslems, the British government announced Feb. 20, 1947, its intention to partition India into two dominions and set June, 1948, for British withdrawal from India. Aug. 15, 1947, was designated Indian Independence Day. India became a self-governing member of the Commonwealth and assumed charter membership British India had held in the UN. The dominion became a sovereign democratic republic under a constitution adopted Nov. 26, 1949, effective Jan. 26, 1950, but elected to remain a member of the Commonwealth. (See *Pakistan*.)

It has been estimated that more than 11,000,000 refugees (Hindus and Moslems) crossed the India-Pakistan borders in a mass transferral of some of the two peoples during 1947.

The constitution provides for a President, elected for a five-year term by an electoral college consisting of members of both houses of Parliament (Council of States and House of the People), and elected members of the lower houses of the federating states. A Vice President elected by members of both houses presides over the Council of States. A Council of Ministers (cabinet), headed by a Prime Minister, aids and advises the President. The federating states have governors, appointed by the President, at the head of state organizations similar to the federal system.

The Council of States is a permanent body, not subject to dissolution, but one-third of its members retire at the end of every second year. The House of the People may be dissolved by the President and new elections called.

The Congress party has been in power since India's first general election, 1951-52. In general elections Feb., 1967, for the lower house (Lok Sabha), the Congress party won 278 seats; opposition parties won 234.

Prime Minister Mrs. Indira Gandhi, named Jan. 19, 1966, succeeded Lal Bahadur Shastri, who on June 2, 1964, succeeded India's first Prime Minister, Jawaharlal Nehru. Shastri died Jan. 11, 1966, hours after signing the "Tashkent Declaration" on Kashmir. Mrs. Gandhi, Nehru's daughter, was no relation to Mahatma Gandhi. Nehru, Prime Minister from the beginning of India's independence in 1947, died May 24, 1964.

President Dr. Zakir Husain, a Moslem, was elected May 9, 1967.

Education and Religion. The constitution pro-

vides for free, compulsory education through age 14. There are now 62 universities, 1,946 colleges, and 27 research institutes.

There are 14 main languages, 12 originating from Sanskrit, with several hundred varied dialects. Hindi is spoken by nearly 50%, with Urdu, the principal Moslem language, spoken by 10%. Hindi became the official language in Jan. 1965 with English the associate official language. Much official government work and instruction at universities continues to be done in English.

The religion of more than 85% of the people is Hinduism. The constitution guarantees freedom of worship. Moslems are the largest minority, est. at 50,000,000 in 1965; there are about 10,000,000 Christians, 8,000,000 Sikhs, 100,000 Parsis (chiefly around Bombay) and 30,000 Jews.

Defense. All recruitment for India's armed forces is voluntary. Army, navy and air force are headed by chiefs of staff under the Defense Minister. The navy consists of one aircraft carrier, 2 cruisers, 3 destroyers, 5 anti-submarine frigates, 3 anti-aircraft frigates, 7 frigates, 12 minesweepers and other vessels.

Indonesia

REPUBLIK INDONESIA
(Former Netherlands Indies)

Capital: Jakarta (Djakarta). **Area:** 735,865 sq. mi. **Population** (UN est. 1967): 116,100,000. **Monetary unit:** Rupiah (10 per U. S. \$1 official rate, open market rate 340 per \$1).

Indonesia, world's largest archipelago, formerly the Netherlands East Indies, lies along the Equator SE of Asia, N and NW of Australia. Indonesia comprises about 3,000 islands, the 5 largest being Java (one of the most densely populated areas in the world with 1,000 persons to the sq. mi.), Sumatra, Kalimantan (most of Borneo), Sulawesi (Celebes) and West Irian (west half of New Guinea). Among others are Bangka, Billiton, Madura, Bali, Lombok, Sumbawa, part of Timor. The land area is 6 times that of New Mexico.

Many races are included, the principal ones being Achinese, Bataks, Menangkabaus, Javanese, Sundanese, Madurese, Balinese, Sasaks, Menadonese, Buginese, Dayaks, and Papuans.

Areas and population of the principal divisions:

	Sq. mi.	Pop. 1962
Kallimantan (West Borneo)...	208,286	4,101,475
Sumatra	182,859	15,739,363
Java and Madura	51,032	63,059,575
Sulawesi (Celebes)	72,986	7,079,349
Bali and Nusa Tenggara	35,000	5,557,656
Moluccas and West Irian	182,308	1,547,930

The capital, called Batavia by the Dutch, is Jakarta (Djakarta), on the island of Java.

Indonesia's national airways system covers 17,000 mi., linking 30 cities plus international service.

Resources and Industries. Indonesia is one of the richest countries in natural resources. There are vast supplies of tin, oil and coal, and sizable deposits of bauxite, manganese, copper, nickel, gold and silver.

Agriculture occupies 80% of the population. Products include rice, maize, casava, ground nuts, soya beans, tobacco, coffee, rubber, cinchona, pepper, kapok, coconuts, palm oil, tea, sugar and indigo.

Inflation and the cost of living spiraled during the Suharto regime. High prices continued to plague the new government in 1968.

History and Government. Until March, 1942, Indonesia was a Netherlands overseas territory. Following Japanese military occupation, 1942-1945, Nationalists, led by Dr. Sukarno and Dr. Hatta, proclaimed a republic Aug. 17, 1945. Four years of intermittent warfare between Netherlands and Indonesian forces ended with agreements signed Nov. 2, 1949, transferring sovereignty over all Indonesia, except Netherlands New Guinea (Irian) to a new interim government effective Dec. 27, 1949. Dr. Sukarno was elected President, Dec. 16, 1949. On July 20, 1950, the member states agreed to form a strongly centralized government; a unitarian state with an amended constitution was proclaimed Aug. 15 and its name formally changed to Republic of Indonesia. It joined the UN 1950.

After the UN, Nov. 29, 1957, rejected a proposal for new negotiations over West New Guinea, Indonesia's government stepped up the seizure of Dutch plantations, shipping, banks, railways, electrical

facilities and mercantile concerns. A U. S. mediator's plan was adopted in 1962, providing that West Irian be turned over temporarily to the UN, then to Indonesia. Under the agreement Indonesia pledged to hold a plebiscite by the end of 1969 allowing the people of West Irian the choice of staying with Indonesia or separating from it. The UN turned the area over to Indonesia May 1, 1963. In April 1965 Pres. Sukarno announced no plebiscite would be held.

Pres. Sukarno suspended the original elected 257-member Parliament Mar. 5, 1960, and announced a new 261-member appointed group, Mar. 27, and swept aside anti-Leftist criticism. He was named President for life May 18, 1963.

The USSR announced June 25, 1964, plans to step up its already large contributions of modern arms to Indonesia to aid in attempting to "crush" the new nation, Malaysia, formation of which Indonesia opposed. In 1964 and 1965 Indonesia staged numerous guerrilla raids into Malaysia.

Indonesia withdrew from the UN in Jan. 1965 and from the World Bank in Aug. Many anti-American demonstrations were staged at U. S. consulates, including stonings, during the year. In Aug. Pres. Sukarno announced plans for an Indonesian-Red Chinese axis aimed at driving the U. S. and Britain out of southwest Asia.

Indonesia's large, pro-Peking Communist party tried to seize complete control Sept. 30, 1965, taking strategic points and murdering 6 high generals. The army smashed the coup and later intimidated that Pres. Sukarno had played a role in it. Following the abortive putsch, anti-Communist rioters set fire to Communist hq. and a Red Chinese university and ransacked the Peking embassy in Jakarta. In Central and East Java, Reds seized control of several districts and fighting continued. It was later estimated that up to 400,000 Communists were executed.

Gen. Suharto was named head of the Army; on Mar. 12, 1966, Pres. Sukarno turned over all government powers to him but continued as Pres., apparently in name only. In 1967 Sukarno was reportedly stripped of all titles. Gen. Suharto was officially named President for a 5-year term by the Consultative Assembly Mar. 27, 1968.

On Aug. 11, 1966, Indonesia and Malaysia signed an agreement ending the Sukarno policy of hostility to Malaysia. On Sept. 28 Indonesia resumed membership in the UN. The U. S. resumed economic aid.

Under Sukarno, Indonesia in April 1965 announced seizure of control of all foreign-owned enterprises in the country. In Oct. 1967 the Suharto government returned a seized rubber plantation to the Goodyear Tire & Rubber Co.

Education and Religion. 90% of the inhabitants are Moslems, the remainder Christians, Hindus and Buddhists. There is compulsory primary education for children 6 to 12, plus optional secondary training and higher education. Major institutions of higher education are Univ. of Indonesia (Jakarta and Bandung), Gadjah Mada Univ., National Academy, Islam Univ., Pantja-sila Univ. Many languages are spoken; official language is Bahasa Indonesia, derived from Malay. Dutch and English are taught.

Iran

KESHVARE SHAHANSHAHIYE IRAN
(Persia)

Capital: Tehran. **Area:** 636,293 sq. mi. **Population** (UN est. 1967): 26,284,000. **Monetary unit:** Rial (75.75 per U. S. \$1).

The Kingdom of Iran is a mountainous land, much of it a high plateau region, in southwestern Asia. Slightly larger than Alaska, it has coastlines on the Caspian Sea, Persian Gulf and Gulf of Oman. For neighbors it has the USSR, Afghanistan, Pakistan, Iraq and Turkey. Large salt deserts comprise 25% of the land but there are many beautiful oases.

Tehran, Isfahan, Shiraz and Abadan have jet airports. Important ports are Bandar Shahpur, Bandar Pahlavi, Khurramshahr and Bandar Shah. Shiraz is noted for ancient ruins of Persepolis.

Resources and Industries. Iran is the world's 4th largest oil producer; petroleum provides most of its foreign exchange and government income. A \$92,000,000 oil loading terminal was opened in 1966 at Kharg Island in the Persian Gulf.

Other mineral wealth includes chromite, copper, iron, lead, manganese, zinc, barite, sulphur and coal. Also mined are emeralds and turquoise.

The first Iranian steel mill is planned near Isfahan, to be built by the Soviet Union and paid for by natural gas piped to the USSR. Iran has contracted with the French for development of a petrochemical industry.

Agriculture is a prime industry, wheat, barley, corn, rice, fruits, gums, wool, tobacco, raw silk, sugar beets and cotton being the chief products. Some wines are famous. Persian carpets, all made on hand looms, are produced in Kerman, Qum, Tabriz, Arak, Meshed, Isfahan and Kashan. Sturgeon fishing in Caspian Sea is important, especially for caviar. Three new major dams provide hydroelectric power and aid irrigation—Karadj (1961), in Tehran; Sefidrud (1962), north of Tehran; and Dez (1963), in Khuzestan.

Under Shah Mohammed Reza Pahlavi's leadership, Iran has undergone an economic and social revolution to become a vigorous modern state. His improvements included major land reform, introduction of industry to towns, the spread of literacy and drastic gains in women's rights.

On Nov. 29, 1967, the U. S. and Iran celebrated the end of American economic aid, begun in 1951; it had totaled \$605,000,000 plus other aid. Both countries agreed it was no longer necessary in view of Iran's growing prosperity.

History and Government. Iran, derived from Aryan, is the correct name of the country long referred to as Persia. The Iranians, who came from the East during the 2nd millennium B.C., were Aryans, an Indo-European people related to the Aryans of India, and included Medes, Persians and other groups. Use of the name Iran became widespread in the 1920s and 1930s.

In 549 B.C. Cyrus the Great united the Medes and Persians in the Persian Empire, conquered Babylonia, 538 B.C.; restored Jerusalem to the Jews.

Darius I began the invasion of Greece; crossed the Hellespont (Bosphorus), was defeated at Marathon, 490 B.C. Xerxes I crossed the Hellespont, fought Spartans at Thermopylae, was defeated at Salamis, 480 B.C. and Plataea, 479 B.C. Alexander of Macedon (the Great) invaded Persia, defeated Darius III at Issus, 333 B.C.

Subsequently Persia was ruled by the Seleucids; the Parthians beginning c. 250 B.C.; the Sassanians, c. 226 A.D.

Arabs brought Islam to Persia in the 7th Century and for over 600 years the religious-political Caliphate ruled the land. Omar Khayyam (c. 1050-c. 1123) wrote his famous Rubaiyat and created a calendar renowned for its accuracy.

Mongols invaded the country in 1250 and again under Tamerlane c. 1370. After the downfall of the Mongols in 1502 Persia became a monarchy under a Shah.

In 1906 a constitution was enacted. It provides for an executive with power vested in a cabinet and government officials who act in the name of the Shah. The legislature has a national assembly (Majlis) elected for 4 years and a senate of 60, 30 elected and 30 nominated by the Shah. Laws require the Shah's signature and he may dissolve the legislature. Women voted and were elected to the legislature for the first time in 1963.

The Shah is Mohammed Reza Pahlavi (born Oct. 26, 1919), ascended in 1941. He married Princess Fawzia, eldest sister of Farouk I of Egypt, March 15, 1939; divorced Nov. 19, 1942. A daughter, Princess Shahnaz, was born in 1940. The Shah married his 2nd wife, Soraya Esfandiary, Feb. 12, 1951, divorced Mar. 14, 1958. Both wives had failed to produce a male heir. The Shah married Farah Diba Dec. 21, 1959. Crown Prince Reza Pahlavi was born Oct. 31, 1960.

A two-year observance of Iran's 2,500th birthday culminated in October, 1967, with the coronation of the Shah. (No Shah can be crowned until a male succession is assured.)

British and Russian forces entered Iran Aug. 25, 1941, withdrawing later. Britain and the USSR signed an agreement Jan. 29, 1942, to respect Iran integrity and give economic aid. In 1946 a Soviet attempt to take over the Azerbaijan region in northeast Iran was defeated when a puppet regime was ousted by force.

In March, 1951, radicals in the Majlis voted nationalization of the oil industry. This led to closing of the Abadan refinery of the Anglo-Iranian Oil Co., a diplomatic break with Britain and wide unemployment. After a brief uprising, Aug. 1953, the royalists regained control and Dr. Mohammed Mossadegh, appointed Premier Apr. 29, was given 3 years in prison for treason. The oil dispute was

settled Aug. 8, 1954, by the signing of a contract with a consortium of British, American, Dutch and French companies for 25 years, plus 15 optional, to produce, refine and market Iran's oil, with 50% of the earnings going to Iran.

An increase in direct taxation on hitherto privileged landholders and people of high incomes is being developed to insure mass welfare. A Pahlavi Estates distribution program has operated since 1949. A new land reform law, passed Jan. 15, 1962, further increased opportunities for landless peasants to become owners, enhanced by the Shah's distribution of land from his own estates.

Education and Religion. The Shia branch of Islam predominates. Education is nominally compulsory. Higher education is available at the Universities of Tehran, Shiraz, Isfahan, Tabriz, Meshed, National Univ., and Ahwaz. A Literacy Corps is composed of high school and college graduates who teach in rural areas in lieu of military service. A Health Corps of graduate doctors and other graduates is patterned after the Literacy Corps. The language is Farsi (Persian), written in Arabic script.

Defense. Two years' service is compulsory. Iran is a member of the UN and CENTO.

Iraq

AL JAMHOURIYAH AL IRAQIYA (MESOPOTAMIA)

Capital: Baghdad. Area: 173,259 sq. mi. Population (UN est. 1967): 8,440,000. Monetary unit: Dinar (.3571 per U. S. \$1).

Iraq is the modern name for Mesopotamia, the area around the Euphrates and Tigris Rivers, about twice the size of Utah. It is bounded by Turkey, Iran, the Persian (also called Arabian) Gulf, Kuwait, Saudi Arabia, Jordan and Syria.

The country is mostly alluvial plain. The temperature varies widely: 120°F in the shade is common, contrasted with severe frosts in the winter.

The soil is of extraordinary fertility, but since destruction of an intricate system of canals during invasions, 700-1258, the Tigris and Euphrates have caused recurring damage. Modern irrigation systems are under construction.

Baghdad and Basra have jet airports.

Resources and Industries. Wheat, barley, rice, millet and cotton are the chief crops, with tobacco in the Kurdish hills. Dates are grown in the tidal stretches of the Shatt el Arab and beyond. Large flocks of sheep are raised in the north and wool and skins are exported.

Iraq is one of the leading oil-producing countries of the world. Native companies, and American and other interests comprising the Iraq Petroleum Co. operating the rich Kirkuk field, produced 400,000,000 bbl. in 1967, a drop of 100,000,000 bbl. from 1966. Iraq charged that the Western-controlled company had sabotaged one of its own pipelines in Dec. 1967. In the same month Iraq announced signing of an agreement with the USSR to develop rich new fields in southern Iraq; the step was regarded as an important breakthrough for the USSR in obtaining Middle East oil.

History and Government. The Tigris-Euphrates valley was the site of the ancient cities of Eridu, Ur, Nineveh and Babylon. The Sumerian culture of 3000 B.C. influenced Crete, Egypt and Greece.

Iraq, then known as Mesopotamia, was taken from Turkey in World War I. The League of Nations gave a mandate to Britain, which ended 1932 when Iraq was recognized as a sovereign state and member of the League of Nations.

Emir Faisal, then King of the Hejaz, was chosen ruler by a referendum in 1921. A constitutional monarchy was created in 1924. On his death, Sept. 1933, he was succeeded by his son, Ghazi Ibn Faisal. King Ghazi was killed in an automobile accident April 4, 1939, and was succeeded by his son, King Faisal II (born May 2, 1935).

King Faisal was assassinated July 14, 1958, when the Free Officers, led by Brig. Gen. Abdul Karim Kassem revolted and proclaimed Iraq "part of the Arab nation." Gen. Kassem became premier of a republic which would follow the policies of the United Arab Republic but honor its international obligations. The United States recognized the government Aug. 2 and Kassem's representatives took the seat of Iraq in the UN Security Council. Iraq received Soviet arms aid, withdrew from the Baghdad pact and 3 U. S. arms agreements.

1. Premier Kassem was deposed Feb. 8, 1963, by

military elements supporting UAR pan-Arab policies and executed Feb. 9.

A provisional constitution, announced May 3, 1964, provided for a 3-year transition period and strong ties with the UAR. Dr. Abdul Rahman al-Bazzaz became premier Sept. 21, 1965, after his predecessor Brig. Arif Abdel Razzak, had fled Iraq following an abortive coup. Bazzaz announced June 29, 1966, settlement of the 5-yr. guerrilla war with Kurdish rebels, who were to be granted local autonomy. Bazzaz resigned Aug. 6 and was succeeded by Najib Talib.

Lt. Gen. Abdel Rahman Arif was sworn in as President and Premier May 10, 1967.

On June 7, 1967, Iraq broke diplomatic relations with the U.S. following UAR charges that America was aiding Israel in the 6-day, 1967 war.

On July 17, 1968, Pres. Arif was ousted in a military coup by a group headed by Maj. Gen. Ahmed Hassan al-Bakr. He was a member of the right wing of the international Baath Socialist party, the leftist wing of which controlled Syria.

Education and Religion. Elementary and secondary education is free and compulsory. Arabic is the language of the majority. The people are predominantly Moslems, divided between the Sunni and Shia sects. Christians number 150,000.

Defense. Military service is compulsory between the ages of 18 and 25. The Iraq Army comprises 3 infantry divisions, an armored division and special troops, organized along modern lines. There is a small Air Force and a river flotilla.

Ireland

EIRE

POBLACHT NA hEIREANN

Capital: Dublin. **Area** 27,136 sq. mi. **Population** (UN est. 1967): 2,899,000. **Monetary unit:** Irish pound (.4195 per U. S. \$1).

Ireland, an island in the Atlantic near the European mainland, is a sovereign democratic republic about the size of W. Va. It is separated from Great Britain on the E by the Irish Sea and the North Channel and on the SE by St. George's Channel.

Ireland, the Emerald Isle, consists mainly of a central plateau surrounded by isolated groups of hills and mountains. Ireland's coastline is much indented by the sea, affording many inlets and coves. The mean annual temperature ranges from 48°F. in the N to 52°F. in the S. Dublin has an average temperature of 39 in the coldest month and 60 in the warmest. There are numerous lakes (called loughs); the best known are those of Killybegs. The most important river is the Shannon, about 250 mi. long. Tallest mountains are in SW; Carruntuohill, 3,414 ft., and Mangerton, 2,756 ft., are in Kerry; Brandon Hill on the coast, 3,127 ft.; Boggeragh, in County Cork, 2,118 ft.

Wildlife is scarce, and snakes are considered non-existent.

The famous Blarney stone is located in an old castle in the village of Blarney, 4 mi. NW of Cork. A legend says it confers oratorical powers on those who kiss it.

Emigration had been high and for years the population steadily declined. Since 1961, however, it has annually increased.

Resources and Industries. More than a third of the population works on farms. The nearness of the Gulf Stream causes considerable rainfall; lush pastures support valuable horse and cattle industries. Important crops are potatoes, wheat, oats, barley, rye, turnips, sugar beets, cabbage and flax.

A land rehabilitation project has reclaimed 1,410,000 acres in recent years. A Peat Board supervises drainage of bogs to recover peat and increase acreage. An Agricultural Institute was established in 1958 to coordinate and promote research.

Major industries are tobacco, food processing, vehicle assembly, metals, textiles, chemicals and brewing. Marked gains have been recorded in electrical and non-electrical machinery, fertilizers and metals.

A mining boom, following discovery of zinc, lead and silver deposits, brought new strength to the economy in the mid-1960s. The index numbers of industrial production (1963=100) showed that the mining index jumped from 105 in 1965 to 206 in 1967. The index for general industrial production rose to 129 in 1967.

Tourism, growing annually, provided Ireland

with earnings of \$232,000,000 in 1966.

Foreign trade, in thousands of U. S. dollars:

	Imports	Exports
1966	\$1,046,000	\$683,000
1967	\$1,081,000	\$785,000

A switch to the decimal coinage system is planned for 1971.

History and Government. Celtic tribes invaded the islands about the 4th Century B.C.; their Gaelic culture and literature flourished and spread to Scotland and elsewhere in the 5th Century A.D., the same century in which St. Patrick converted the Irish to Christianity. Invasions by Norsemen began in the 8th Century, but were ended by defeat of the Danes by the Irish King Brian Boru in 1014. English invasions started in the 12th Century; for over 700 years the Anglo-Irish struggle continued with bitter rebellions and savage repressions.

The Easter Monday Rebellion (1916) failed but was followed by guerrilla warfare and harsh reprisals by British troops, the "Black and Tans." The Dail Eireann, or Irish parliament in Dublin, reaffirmed independence in Jan., 1919. The British offered dominion status to Ulster (6 counties) and southern Ireland (26 counties), Dec., 1921, which Northern Ireland accepted. The constitution of the Irish Free State, a British dominion, was adopted Dec. 11, 1922. By treaty with Great Britain Northern Ireland could vote itself out, which it did, Dec. 12, 1922.

A new constitution adopted by plebiscite came into operation Dec. 29, 1937. It declared the name of the state Eire in the Irish language and Ireland in the English and declared in a sovereign democratic state.

On Dec. 21, 1948, an Irish law declared the country a republic rather than a dominion and withdrew it from the Commonwealth. In 1949 the British Parliament recognized both actions, but re-asserted its claim to incorporate the six north-eastern counties (Antrim, Armagh, Derry, Down, Fermanagh and Tyrone) in the United Kingdom. This claim has not been recognized by Ireland. See *United Kingdom—Northern Ireland*.

William T. Cosgrave was chosen President of the Executive Council, Dec. 1922. He was in office until Mar., 1932, when Eamon de Valera became President of the Executive Council and Minister for External Affairs, holding both offices until 1938. Leaders since 1938 have been:

Presidents: (7-year terms): Douglas Hyde, 1938-1945. Sean T. O'Kelly, first term, 1945-1952; re-elected 1952-1959. Eamon de Valera, 1959-1966; re-elected 1966.

Prime Ministers: Eamon de Valera, 1938-1948; John A. Costello, 1948-1951; Eamon de Valera, 1951-1954; John A. Costello, 1954-1957; Eamon de Valera, 1957-1959; Sean Lemass, 1959-66; John M. Lynch, chosen Nov. 10, 1966.

The parliament is composed of a house, Dail Eireann, of 144 elected members, and a senate, Seanad Eireann, of 60, 11 of them nominated by the prime minister, 6 by the universities and the rest elected from 5 panels of candidates representing public interests. The president, on nomination of the Dail, appoints the prime minister and on nomination of the latter with Dail approval names the other ministers.

Following the general election, April 7, 1965, seats were distributed as follows, compared with the previous Parliament:

	1965	1961
Fianna Fail	72	70
Fianna Gael	47	47
Labor	32	16
Clann na Poblachta	1	1
Independents	2	6
Nat'l Progressive Dem.	0	2
Clann na Taimhan	0	2

Education and Religion. Roman Catholicism is the prevailing religion, claiming more than 90% of the population.

Elementary education is free and compulsory, and the Irish language is a required study in all national schools. Institutions of higher learning include the National University, founded 1908, comprising the Constituent Colleges of Dublin, Cork, Galway and St. Patrick's, Maynooth; Trinity College, Dublin, founded 1591; the Dublin Institute for Advanced Studies; the Royal Irish Academy.

Defense. Recruitment is voluntary. Permanent force of the Army, Navy, and Air Force is set at 13,000; first and second line reserves number 25,000. The Navy consists of small vessels.

It is a member of the UN and Council of Europe.

Israel

MEDINAT ISRAEL STATE OF ISRAEL

Capital: Jerusalem. **Area:** 7,993 sq. mi. **Population** (UN est. 1967): 2,669,000. **Monetary unit:** Israeli pound (3.5 per U. S. \$1).

The nation of Israel was reestablished, as a republic, in 1948. It occupies part of the ancient land first called Canaan, then Israel, then Palestine. About the size of New Jersey, it faces the Mediterranean to the W, Lebanon to the N, Syria and Jordan to the E, and the United Arab Republic to the SE.

The coastal plain on the W is 120 mi. long, 15 wide, fertile and well watered. In the center is the plateau of Judea. A triangular-shaped semi-desert region, the Negev, extends from south of Beersheba to an apex at the head of the Gulf of Aqaba. The eastern border drops sharply into the depressed valley of the River Jordan and the Dead Sea, 46 mi. long, with an average width of 8 mi., 1,296 ft. below sea level, lowest point on the earth's surface.

Israel's area, as defined by armistices with the Arab nations, includes all the land assigned to it under the 1947 partition resolution of the UN General Assembly, as well as Western Galilee and a corridor to Jerusalem. By the terms of the armistice with Syria, July 20, 1949, last of the Arab states to end military action after the creation of modern Israel, demilitarized zones were set up on the eastern edge of Lake Huleh and the south-eastern shore of the Sea of Galilee, site of Israel's Ein Gev settlement.

After the Israeli-Arab war of June 1967 in which Israel occupied the Sinai Peninsula, the west bank of the Jordan and a small area of Syria, Israel indicated it would not consider returning these areas unless the Arab states negotiated peace treaties directly with Israel and unless the U.A.R. agreed Israel would have the same shipping rights as other nations in the Suez Canal.

Non-Jewish population: Moslem, 220,000; Christian, 59,000; Druse, 31,000.

The chief ports of Israel are Haifa, Tel Aviv-Jaffa, and Elath (on Red Sea). A new port, Ashdod, was constructed S of Tel Aviv and opened 1965.

Resources and Industries. Citrus fruit is the most valuable agricultural product. Other principal crops include wheat, barley, durra, olives, melons, grapes, figs, tomatoes, bananas, cotton. Since 1955 total cultivated area has been increased from 412,500 to more than 1,000,000 acres, of which 380,000 acres are under irrigation. Wine making is an extensive industry.

Israel has abundant deposits of some minerals including limestone, sandstone, gypsum, copper, iron, phosphates, magnesium, manganese, ceramic clays. The valley of Jordan and the Dead Sea yield rock salt, sulphur and potash.

Israel's over-all economy has grown rapidly since 1954 and industrialization is proceeding. Foreign investment rose from \$105,000,000 in 1960 to \$180,700,000 in 1965. Its economy has been aided by German reparations payments, U. S. aid, international loans and contributions. West Germany completed payment of \$860,000,000 in reparations (cash and goods) in 1965. The two countries also set up full diplomatic relations.

Gross national product in 1966 was \$3.9 billion compared with \$2.8 billion in 1964.

The Negev region in the South is Israel's primary development area, receiving nearly half of the immigrants. It has huge phosphate deposits, copper, oil, natural gas and potash.

A 150-mi. pipeline, major link in Israel's national water plan, was completed in June, 1964 and began carrying water from Lake Kinneret (Sea of Galilee) to the Negev. The project was opposed by neighboring Arab nations. Other water resources being explored include various desalination processes.

The Dead Sea gas pipeline, opened 1961, carries methane from the fields of Rosh Zohar and Kodod to the potash and bromine works on the shores of the sea.

In 1968 Israel began construction of a 160-mi., 42-inch, oil pipeline from Elath on the Gulf of Aqaba to Ascalon on the Mediterranean. Scheduled for completion in July 1969, it would provide an alternative to the Suez Canal.

Israel's first atomic reactor at Nahal Rubin began operations in July, 1960. The nation launched its first successful solid-fuel rocket 50

mi. into the atmosphere July 5, 1961, for meteorological study.

Israel's main exports are citrus fruits, polished diamonds, autos, textiles and fashion goods, building materials, tires and pharmaceutical products.

Tourism is second only to citrus products in earnings.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$812,000	\$477,000
1967	\$734,000	\$522,000

History and Government. The Jewish people lived in Israel from about 1200 B.C.; many were driven from the land by some of its various conquerors. The Judaic moral and ethical code and the Bible originated here. The modern Zionist movement for a homeland in Palestine, led by Dr. Chaim Weizmann (born in Motole, Russia, Nov. 27, 1874) caused the cabinet of Great Britain to give its support in the Balfour Declaration, Nov. 2, 1917. Under the Palestine Mandate, about four-fifths of historic Palestine was detached in 1922 to form Trans-Jordan, now the Kingdom of Jordan. When the Nazi persecutions began in Germany great numbers of Jews set out for Palestine. The UN General Assembly voted Nov. 29, 1947, to partition Palestine into two independent states by Oct. 1, 1948. The Arab state would have 4,500 sq. mi. A separate enclave of Jerusalem, area 289 sq. mi., was to be administered by a governor appointed by the UN. British troops were to be withdrawn and separate governments elected. Great Britain gave up its mandate May 15, 1948.

A new Zionist state, the Republic of Israel, was proclaimed May 14-15, 1948. Israel took charge of the New City in Jerusalem and Jordan held the Old City. The UN adopted a resolution to internationalize Jerusalem, but was unable to get support from the two states. Israel was elected to the UN May 11, 1949.

The Arab League opposed the creation of modern Israel and May 15, 1948, a few hours after Israel proclaimed its independence, the armies of Egypt, Jordan, Syria, Lebanon and Iraq, with Saudi Arabian contingents, crossed its frontiers at several points.

Separate armistices with the Arab nations were signed in 1949, but no general peace settlement was obtained. The Arab nations continued policies of economic boycott, blockade in the Suez Canal, political warfare and local incitement.

Most of the territory designated for the proposed Arab state was annexed by Egypt and Jordan and the future home of more than 1,000,000 displaced and nomadic Arabs remains uncertain. They receive UN aid.

An uneasy truce between Israel and the Arab countries, supervised by a United Nations Emergency Force, prevailed until May 19, 1967, when the UN force withdrew at the demand of Egypt's President Gamal Abdel Nasser. Egyptian forces rapidly reoccupied the Gaza Strip and closed the Gulf of Aqaba to Israeli shipping. In a full-scale 6-day war that started June 5, the Israelis took the Gaza Strip, occupied the Sinai Peninsula to the Suez Canal, and captured Old Jerusalem and other Jordanian and Syrian territory. The fighting was halted June 10 by UN-arranged cease-fire agreements.

Following the war, Arab guerrillas from Jordan continued raids into Israel and shooting incidents occurred repeatedly across the Jordan border and the Suez Canal. A reprisal raid by Israelis into Jordan brought a UN Security Council resolution condemning Israel and deploring all violence whether by Arabs or Israelis.

A UN mission, headed by Dr. Gunnar V. Jarling of Sweden, sought to get both sides to agree to a peace formula during 1968. The USSR and the Communist bloc, with the exception of Romania, supported the Arabs. In July 1968 UAR Pres. Nasser and Soviet Union leaders held talks and announced they had agreed on "further joint steps" in the Middle East.

Israel is a parliamentary democracy. The first constituent assembly (Knesset), was formed Feb. 14, 1949, with 120 members, including eight Arabs. The assembly elected Dr. Chaim Weizmann, who had been provisional President from the start, first President of Israel Feb. 17, 1949. His successor was Izhak Ben-Zvi, President from 1952 until his death April 24, 1963. President: Shneur Zalman Shazar, elected by Parliament May 21, 1963.

The Knesset (Parliament) members are elected by universal suffrage for 4-year terms by all citizens over 18, under proportional representation.

In general elections Aug. 15, 1961, Premier David Ben-Gurion's Mapai party was returned to power. He resigned June 16, 1963, and was succeeded by Levi Eshkol whose coalition was kept in power by elections Nov. 2, 1965.

Israel maintains formal diplomatic relations with 90 nations. About 800 specialists in many fields share their knowledge with those in less developed nations in Africa and elsewhere.

Education. Israel has compulsory education from ages 5 to 14, 1 year of kindergarten and 8 of elementary school, with high schools mostly private. Institutes of higher education are Hebrew, Tel Aviv and Bar-Ilan Univs. Elementary enrollment increased from 100,000 in 1948 to 650,000 in 1963. In 1963, 98% of Jewish children and 90% of Arab boys were in school. After elementary school, vocational training is provided. In 1961-62 about 10,000 boys and girls were studying carpentry, tool & die making, electronics, home economics, dress making, secretarial work. Agricultural training is given and 15,000 pupils are transported every week to work on farms. There is an apprenticeship program for 10 trades. In 1960-61, 6,100 were enrolled in 10 government teachers' colleges, including one for Arabs in Jaffa. Engineers, technicians and architects study at Technion (Israel Inst. of Technology, Haifa), staff 488, regular students, 3,317, extension courses 5,000. About 5,000 adults take vocational training annually; popular adult education reaches 50,000. The general labor federation, Histadrut, trains Arab apprentices. Israel has 296 schools for Arabs, with 1,615 teachers and 40,768 pupils; also 29 private schools, some Christian, with 10,830 pupils. Construction of new schools is continuing. The official languages are Hebrew and Arabic.

Defense. There is compulsory 26-month service for men 18 to 26 and 20 months for unmarried women 18 to 26. The Navy includes destroyers, frigates, submarines, minesweepers and others. The Air Force uses modern military aircraft, mainly of French types.

Italy

REPUBBLICA ITALIANA

Capital: Rome. **Area:** 116,303 sq. mi. **Population** (Govt. est. 1968): 53,648,000. **Monetary unit:** Lira, pt. lire (623.30 per U. S. \$1).

The Republic of Italy occupies a long peninsula shaped like a boot, extending SE from the Alps into the Mediterranean, with the island of Sicily separated from the mainland by the 2-mi. Strait of Messina at the toe of the boot. The country is about 760 mi. long and not over 220 mi. wide. Its area is about the same as Arizona's. Lying directly W of mid-Italy is the major island of Sardinia, slightly smaller than Sicily.

Sicily, 9,927 sq. mi., pop (1965), 4,721,000, is a triangular island 180 by 120 mi., seat of a Region that embraces the island of Pantelleria, 32 sq. mi., and the Lipari group, 44 sq. mi., pop. 14,000, including two with active volcanoes: Vulcano, 1,637 ft. and Stromboli, 3,038 ft. From prehistoric times Sicily has been settled by Mediterranean peoples; a strong Greek state had its capital at Syracuse, on Ortigia Is., off Catania, where Dionysius "the Tyrant" ruled Rome took Sicily from Carthage 215 B.C.

Mt. Etna, 10,705 ft. active volcano, is tallest peak. Sicily leads in citrus fruits, also produces wheat, grapes, wine, sulphur, salt, olives. Cattle, sheep, hogs and mules are raised.

Sardinia, 9,283 sq. mi., pop. (1965), 1,419,362, lies in the Mediterranean, 115 mi. W of Italy and 7½ mi. S of Corsica. Like Sicily, it is under a regional administration. It is 160 mi. long, 68 mi. wide, mountainous, with mining of coal, zinc, lead, copper; it raises grapes, olives, tobacco, also cattle and sheep. In 1720 Sardinia was added to the possessions of the Dukes of Savoy in Piedmont and Savoy to form the Kingdom of Sardinia. They fought in the Crimean War and the House of Savoy gave Italy its kings, 1861-1946. Giuseppe Garibaldi is buried on the nearby Isle of Capriera. **Capital:** Cagliari.

Elba, 87 sq. mi., pop. 30,000, 6 mi. west of Tuscany. Industries include fishing, iron mining, wine making. Napoleon I lived here in exile, 1814-1815.

Capri, 4 sq. mi., pop. c. 9,000, 20 mi. SW of Naples, is famous for its beauty and equable climate.

Italy's largest seaports are Genoa, Naples, Venice, Trieste, Ancona, Bari, Brindisi and Palermo.

The allure of historical monuments, great museums of painting and sculpture, imposing churches, as well as good living, brought 27,500,000 tourists in 1967. Florence, with its galleries; Rome with its religious associations and ancient relics, Venice, and the resorts of the Riviera are the principal objectives.

The 3.4-mi. Great St. Bernard tunnel, between Italy and Switzerland, first auto tunnel in the Alps, was opened Mar. 19, 1964. The longest highway tunnel in the world, the Mont Blanc tunnel, 7.25 mi., linking Italy and France, was opened July 16, 1965.

Resources and Industries. Chief farm crops are wheat, sugar beets, potatoes, corn, grapes and tomatoes.

Italy is adapting production of fruits, vegetables and other garden products to the needs of the European Common Market. Grapes lead but olives, oranges, lemons, apples, pears are produced in large quantities. Rice is grown in Piedmont and Lombardy. Cattle constitute the largest livestock item, followed by sheep, horses, mules and goats.

The wines of Italy have great variety. Chianti from Tuscany is popular, as are Asti Spumante, Orvieto, Capri.

White marble is quarried at Carrara, Volterra and Pisa; colored marble at Verona, Siena, Vicenza and Genoa. Alabaster comes chiefly from Volterra.

Natural gas is found in the valley of the Po, the Marches, Abruzzi, Apulia, Basilicata and Sicily. In Sicily oil is carried by pipeline to the port of Augusta on the Gulf of Catania. In 1966 crude oil production was 1,812,000 metric tons.

In 1966 Italy had more than 2,300 hydroelectric and 750 thermoelectric stations which produced a total of 87.4 billion kwh. High-tension cables distribute electrical energy from the Alps to Sicily, crossing the Straits of Messina on overhead cables. In 1964 Italy had two nuclear power plants completed and a third under construction. The electrical industry was nationalized in 1962.

Steel production was 16,300,000 metric tons in 1967, up 13%. Italy is a heavy producer of industrial and electrical machinery, automobiles, steel products, typewriters, shoes, textiles, synthetic fabrics, machine tools. Its chemical industry is expanding.

There are state monopolies in tobacco, salt and quinine. Tobacco returns the largest income with cigarettes about 85% of the total. Salt is produced from sea water.

Italy's merchant marine ranks high. On Dec. 31, 1965, it had 632 ships over 1,000 gross tons totaling 5,395,000 gross tons.

Tourism is important, bringing a record \$1.5 billion in 1966. The U. S. takes 5.9% of Italy's exports.

Foreign trade, in thousands of U. S. dollars:

	Imports	Exports
1966	\$8,571,000	\$8,031,000
1967	\$9,696,000	\$8,702,000

History and Government. Divided and dismembered for centuries, modern Italy began to develop after the war of 1859 when Lombardy came under the crown of King Victor Emmanuel II of Sardinia of the house of Savoy. By plebiscite in 1860, Parma, Modena, Romagna and Tuscany joined, followed by Sicily and Naples, and by the Marches and Umbria. The first Italian Parliament declared Victor Emmanuel King of Italy Mar. 17, 1861. Mantua and Venetia were added in 1866 as an outcome of the Austro-Prussian war. The Papal States were taken by Italian troops, Sept. 20, 1870, with the withdrawal of the French garrison after Napoleon III surrendered Sept. 2, 1870. The states were annexed to the kingdom by plebiscite. The King entered Rome July 2, 1871. Italy recognized the State of Vatican City as independent Feb. 11, 1929.

Fascism appeared in Italy Mar. 23, 1919 when the original Fascisti organized an association against Communism and Socialism under the guidance of Benito Mussolini. They took over the government at the invitation of the King Oct. 28, 1922. Mussolini acquired dictatorial powers and was called Duce (Leader). He made war on Ethiopia and proclaimed Victor Emmanuel III emperor; defied the sanctions of the League of Nations; joined the Berlin-Tokyo axis; sent troops to fight for Franco against the Republic of Spain; joined Germany in World War II with defeat of France. After Fascism was overthrown in 1943, Italy declared war on Germany and Japan and

contributed to the Allied victory. It surrendered conquered lands and lost colonies. Part of Venezia Giulia went to Yugoslavia and Trieste was made a free territory. Mussolini was put to death by a firing squad of Partisans near the village of Dongo on Lake Como, Apr. 28, 1945.

King Victor Emmanuel III abdicated May 9, 1946; his son, Humbert II, was king until June 10, when Italy became a republic after a referendum, June 2-3, in which the people voted 12,718,641 for a republic, 10,718,502 for a monarchy. King Humbert departed and Premier Alcide de Gaspari became head of the government. Victor Emmanuel went to Egypt where he died Dec. 28, 1947.

The Constituent Assembly elected Enrico de Nicola provisional Head of State. He was succeeded by Luigi Einaudi, first President of the Republic, 1948-1955.

The Senate has one member for each 160,000 pop. (currently 315), elected for 5-year terms, excepting 5 whom the President may appoint for life. Ex-Presidents are eligible for life membership. The Chamber of Deputies has one deputy for each 80,000 (currently 630), elected for 5 years. Titles of nobility are no longer recognized. Reorganization of the Fascist party is forbidden.

In May 1968 elections, the dominant, church-supported Christian Democratic party increased its seats in the Chamber of Deputies from 260 to 266. The Communist party also increased its seats from 166 to 177. The United Socialist party, which normally joins the Christian Democrats in coalition governments, lost 3 of its 94 seats. Other losers were several right-wing parties.

Trieste, part of which is now claimed as an Italian Department bounded E and S by Yugoslavia, was organized as a Free Territory by the Big Four in the peace treaty with Italy, Feb. 10, 1947, placed under jurisdiction of the UN Security Council, garrisoned by troops of the United States and Great Britain in the northern section (Zone A), and by Yugoslavia in the south (Zone B). It had about 320 sq. mi. Following prolonged negotiations an agreement was signed Oct. 5, 1954, by Italy and Yugoslavia which gave Italy provisional administration over the northern section and the seaport of Trieste, with 90 sq. mi. and about 300,000 pop., and Yugoslavia the Istrian peninsula it had occupied, 200 sq. mi. and 73,500 pop., and provision for emergency access to the port. The two areas are treated as parts of Italy and Yugoslavia.

Italy is a member of NATO, EEC and Council of Europe; admitted to the UN Dec. 14, 1955.

Education and Religion. Roman Catholicism is the state religion.

Italy has 29 state universities, including Bologna (founded 1088); Genoa (1243); Naples (1224); Padua (1222); Pisa (1338); Rome (1303); and Turin (1404). Education is compulsory between 6 and 14.

Defense. The Allied nations have largely rescinded the restriction placed on Italy's military establishment by the World War II peace treaty.

The Army has built an efficient training organization and constituted modern units, a large proportion of which is committed to NATO. The army has 2 armored divisions, 5 infantry divisions, 5 Alpine brigades, 5 infantry brigades, 1 paratroop brigade, 1 legion special force, 1 cavalry brigade and 1 missile brigade.

The Italian Navy cooperates with defense plans of NATO and pursues a long-term program of construction including 3 heavy missile cruisers, 2 light missile cruisers, 4 large missile carrier destroyers, 18 modern anti-submarine frigates, 6 submarines and other vessels; much of this program was completed in 1967.

The Air Force has been extensively built up in recent years. New air fields have been built and existing ones adapted for use of jets. It also has air defense squadrons with missiles of the Nike type.

Ivory Coast

COTE D'IVOIRE

Capital: Abidjan. **Area:** 127,520 sq. mi. **Population** (UN est. 1967): 4,010,000. **Monetary unit:** CFA franc (246.85 per U. S. \$1).

The Republic of the Ivory Coast, a former French Overseas Territory in West Africa, is located on the northern coast of the Gulf of Guinea. Roughly square in shape and about the size of New Mexico, it is bounded by Liberia, Guinea, Mali, Upper Volta and Ghana. It has 340 mi. of

coastline on the Atlantic. Abidjan, the capital, is the chief port.

In accordance with provisions of the 1958 French constitution, Ivory Coast became fully independent Aug. 7, 1960; it became a member of the UN Sept. 20. Its present constitution was adopted Oct. 31, 1960. It elected to remain outside the French Community proper, but signed a bilateral agreement Apr. 24, 1961, retaining close ties with France. Ivory Coast is a member of a regional alliance called the Council of the Entente formed May 29, 1959, other members of which are Dahomey, Niger, Togo and Upper Volta.

Agriculture, forestry, stock raising and fishing occupy 90% of the population. Chief export crops are coffee, cocoa, tropical woods and bananas; cotton, rice, oil palms also are raised. Electric power, lumbering and industrialization are being promoted.

The Ivory Coast has been the most prosperous of West African nations. Exports in 1967 were valued at \$325,000,000, compared to \$310,000,000 in 1966. With imports valued at \$258,000,000 in 1967 and slightly less in 1966, the nation had a favorable balance of trade.

About 18% of the people are Catholics or Protestants; 20% are Moslems and the rest animists.

Jamaica

Capital: Kingston. **Area:** 4,411 sq. mi. **Population** (UN est. 1967): 1,876,000. **Monetary unit:** Pound (.4167 per U. S. \$1).

Jamaica is a mountainous island in the Caribbean Sea, 90 mi. south of Cuba. Its area is 12% less than that of Connecticut.

Temperatures range from 80 to 86 on the coast and down to 40 in the Blue Mtns. Montego Bay and Ocho Rios are among popular resort areas; most of 345,000 annual tourists are American.

Jamaica was discovered by Columbus, 1494, and ruled by Spanish (under whom native Arawak Indians died out) until captured by the English, 1655. The island figures largely in the history of the buccaneers of the West Indies before and during the time of Sir Henry Morgan, once its governor. Port Royal, old haunt of the pirate, at the entrance to Kingston harbor, was largely destroyed by earthquake, 1692.

Jamaica became independent within the Commonwealth Aug. 6, 1962, and joined the UN. Prime Min. is Hugh Lawson Shearer; Gov. Gen., Sir Clifford Campbell, representing Queen Elizabeth II; legislature is bicameral.

Principal exports are bauxite (world's largest production) and alumina. A 175,000,000 plant to be built by 7 U. S. companies will double alumina production (792,000 long tons in 1966). Other products include sugar cane, coffee, bananas, rum, coconuts, ginger, cocoa, pimento, citrus fruits and cigars. Gross national product, 1966, was \$945,-840,000.

Imports in 1967 (in U. S. dollars) totaled \$347,-000,000, compared to \$321,000,000 in 1966. Exports in 1967 were valued at \$232,000,000; in 1966, \$229,-000,000.

Japan

NIPPON—LAND OF THE RISING SUN

Capital: Tokyo. **Area:** 142,726 sq. mi. **Population** (Govt. est. 1967): 100,000,000. **Monetary unit:** Yen (362 per U. S. \$1).

Japan consists of four main islands: Honshu ("mainland"), 88,952 sq. mi.; Hokkaido, 30,304; Kyushu, 16,191; and Shikoku, 7,240. Total area is about twice that of Missouri. The islands lie in the North Pacific separated from the Soviet Union and Korea by the Sea of Japan and from China by the East China Sea.

By the terms ending World War II, Japan was forced to surrender captured lands, including Manchuria (Manchukuo), the southern half of Sakhalin Is., the Kurils, Korea, Taiwan, and the mandated islands in the Pacific, the Marshalls, the Carolines and the Marianas. (See Index for these; also for Okinawa and the Ryukyu Islands.)

The Japanese coast is deeply indented, measuring 16,654 mi. The northern islands are a continuation of the Sakhalin mountain chain running through Hokkaido and the main island. The continuation of the Kunlun mountain range of China appears in the southern islands, the ranges meeting in the Japanese Alps. In the vast transverse fissure crossing the main island from the Sea of Japan to the Pacific rises a group of volcanoes, mostly extinct or dormant, with Fuji-

San (Fujiyama), 60 mi. SW of Tokyo, lifting its white cone 12,388 ft.

Most important ports are Yokohama, Kobe, Nagoya, and Osaka. Tokyo, the capital, is one of the three largest cities of the world. It has a modern business section centering about the Ginza, a major avenue. The Imperial Palace, surrounded by a moat on a 250-acre site and the white-marble Diet building, erected in 1936, are also in Tokyo. Its International Airport is Asia's busiest.

Tokyo Tower is a 1,089-ft. steel structure built for radio-TV broadcasting and sightseeing.

At Kamakura, 30 mi. SW of Tokyo is the Great Buddha or Daibutsu, a bronze figure 42 ft. 6 in. tall with base, cast in 1252. The Hakone hot spring area is noted for the reflection in Lake Hakone of Fuji-San. Also famous is the Toshogu Shrine at Nikko, where a national park of 347,000 acres preserves the natural beauty of Japanese flora. Kyoto, for 1,000 years a capital city, with massive temples and colorful shrines, is a cultural center.

The 2.34-mi. Kanmon undersea highway tunnel connecting Shimonoseki, Honshu, and Miji, Kyushu, is the world's first double-deck tunnel, with one level for vehicles and one for pedestrians. Other projects to link the islands are under study.

Resources and Industries. More than half the arable land is used for growing rice, the chief food. Wheat, barley, sweet and white potatoes, tobacco, tea, beans, peaches, pears, apples, grapes, persimmons and mandarins are also produced. Minerals include gold, silver, copper, lead, zinc, chromite, white arsenic, coal, sulphur, salt and petroleum.

The principal industries are iron and steel products, transportation equipment, machinery, electronics, shipbuilding, precision instruments, chemicals, fertilizers, textiles (cotton, wool, silks, synthetics), ceramics, wood products, fisheries.

Japan has become the world's 2nd largest auto producer; 285,000 were exported in 1967.

The index of industrial production (1963=100) zoomed to 162 by 1967.

Japan's shipyards lead the world, especially in construction of super tankers and bulk carriers of over 300,000 tons. The yards can deliver more than 2,380,000 gross tons annually. Japan's own merchant fleet included over 1,400 ships of 1,000 or more gross tons, totaling over 13,400,000 gross tons.

Electric power capacity is est. at 154 billion kwh and annual consumption at 114.5 billion kwh, about half from hydroelectric plants. An atomic power station at Tokai, near Tokyo, began commercial distribution of electricity July 27, 1966.

Major exports are steel and related products, clothing, chemicals, motor vehicles, optical goods, ships, radio receivers, toys.

Tourism is an increasingly important source of foreign exchange—in 1967 476,753 visitors spent about \$100,000,000. A World's Fair will be held 1970 in Osaka.

The U. S. is Japan's biggest customer, taking 26-30% of all its exports.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$ 9,524,000	\$ 9,777,000
1967	\$11,663,000	\$10,442,000

History and Government. According to Japanese legend, the empire was founded by Emperor Jimmu 660 B.C. Temporal power was exercised by successive families of Shoguns (military dictators), 1192-1867, until recovered by the Emperor Meiji in 1868. The Portuguese and Dutch had minor trade with Japan in the 16th and 17th Centuries. Commodore Matthew C. Perry, USN, opened it to U. S. trade in a treaty ratified 1854. Japan acquired a constitution in 1889. It fought China, 1894-95, gaining Formosa. In war with Russia, 1904-05, both nations lost heavily at Mukden; Russia's fleet was wiped out at Tsushima; Russia ceded S half of Sakhalin and gave concessions in China. Japan annexed Korea, 1910. In first World War Japan ousted Germany from Shantung, took over German Pacific islands as mandates from the League of Nations. Japan took Manchuria, 1931, started war with China 1932, taking Peiping and Shanghai and bombing Nanking, Canton, Tientsin. Japan, frustrated in efforts to have a free hand in the East, started a war against the U. S. by attack on Pearl Harbor, Dec. 7, 1941. Japan surrendered Aug. 14, 1945, and Gen. Douglas MacArthur headed occupation of Japan as Supreme Commander for the Allied Powers.

In a new constitution adopted May 3, 1947, the Japanese people renounced the right to wage

war; the Emperor was acknowledged as hereditary symbol of the nation, but gave up claims to divinity; the Diet became the sole law-making authority. The House of Councilors has 250 members elected for 6 yr. terms and the House of Representatives 486 members, elected for 4 yrs., both by popular vote. The constitution separates church and state. Japan has granted suffrage to women, lowered the voting age to 20.

The Emperor is Hirohito, the 124th of his line, born April 29, 1901, succeeded to the throne Dec. 25, 1926; married Jan. 26, 1924, to Princess Nagako Kuni. The Crown Prince is Akihito Tsugu no Miya, born Dec. 23, 1933; married, Apr. 10, 1959, Michiko Shoda. (Issue: Prince Naruhito Hironomiya, born Feb. 23, 1960.) Other children are Princess Shigeko, born Dec. 6, 1925, died July 23, 1961; Princess Kazuko, born Sept. 30, 1929; Princess Atsuko, born Mar. 7, 1931; Prince Masahito, born Nov. 26, 1935; Princess Takako, born Mar. 2, 1939.

Japan was elected 80th member of the UN Dec. 19, 1956. It is a member of UNESCO, World Court, Econ. Comm. for Asia and the Far East, Colombo Plan, International Monetary Fund and GATT.

The United States and 48 other non-Communist nations signed a peace treaty and the U. S. a bilateral defense agreement with Japan, in San Francisco, Sept. 8, 1951; ratified by the Senate, March 20; signed by President Truman, April 15, restoring Japan's sovereignty April 28, 1952. The Senate, in approving the treaty, Feb. 5, advised repudiation of the section of the Yalta agreement that gave to the USSR South Sakhalin, the Kuril Islands and Habomai and Shikotan Islands. Under the treaty, Japan was reduced territorially to the four main islands, but it was to have an opportunity eventually to regain the Ryukyus and Bonin Islands. Japan signed separate treaties with Nationalist China, April 27, 1952; India, June 9, 1952; a declaration with USSR ending a technical state of war, Oct. 19, 1956; in Dec. 1965 Japan and South Korea agreed to resume diplomatic relations.

On June 26, 1968, the U. S. returned to Japanese control the Bonin Islands, the Volcano Islands (including Iwo Jima) and Marcus Island. It was agreed the U. S. would continue using Loran navigational stations on Iwo Jima and Marcus.

The Diet, following elections to the House of Councilors July 7, 1968, and to the House of Representatives, Jan. 29, 1967, comprised:

	Representatives	Councillors
Liberal-Democrats	277	137
Socialists	140	65
Democratic Socialists	30	10
Communists	5	7
Komei Party	25	24
Independents	9	2

Eisaku Sato became Premier Nov. 9, 1964.

Education and Religion. The principal forms of religion are Buddhism, with 12 sects, and Shintoism with 13. There are more than 100,000 Shinto shrines, 106,634 Buddhist temples and several thousand Christian churches. Roman Catholics have an archbishop and 3 suffragan bishops.

Nine years of education is compulsory, consisting of six years of elementary and three years of lower secondary education. There were 317 colleges and universities, including the seven main national universities, and 369 junior colleges in 1965. English is the language of commerce and required study in the high schools.

Defense. Legislation effective July 1, 1954, established a new national army, navy and air force.

The Ground Self-Defense Force has an authorized strength of 171,500 uniformed personnel and 24,000 reserves. It is divided into 5 armies with 13 divisions. The GSDF has 276 aircraft including 136 helicopters.

The Maritime Self-Defense Force has one fleet, 5 regional districts, a training squadron and an air training command. It has 35,941 uniformed personnel; 214 vessels including destroyers, escorts, subs, torpedo vessels and minesweepers; 194 anti-sub patrol aircraft and 46 helicopters.

The Air Self-Defense Force has 40,703 uniformed personnel and 1,104 aircraft, two-thirds of which are jets, including Lockheed F-104J Super Starfighters; the remaining third are transports and helicopters.

A mutual assistance pact with the U. S. was signed Mar. 8, 1954. A revised mutual security treaty signed Jan. 19, 1960, and ratified by Japan June 19 was designed to develop close cooperation for defense within the framework of the two nations' respective constitutions.

Jordan

AL-MAMLAKAH AL URDINIYAH AL HASHIMIYAH HASHEMITE KINGDOM OF JORDAN

Capitals: Amman, Jerusalem. **Area:** 34,820 sq. mi. **Population** (UN est. 1967): 2,145,000. **Monetary unit:** Dinar (.3571 per U. S. \$1).

Jordan is a constitutional monarchy in southwest Asia, formerly under the Palestine Mandate. The country's former name, Transjordan, was dropped Apr. 26, 1949, in favor of the constitutional name, Hashemite Kingdom of Jordan. Hashemite is a family name and honors the loyalty of the original holder, disciple of Mohammed and the Guardian of Mecca.

Two areas comprise the country: Western Jordan, fairly fertile; and Eastern Jordan (Amirate), part fertile, part arid steppe. In the extreme south is its only port, Aqaba, on the Gulf of Aqaba. It shares the Dead Sea (1,296 ft. below sea level) with Israel. Jordan is slightly larger than Indiana.

In 1961 there were 630,725 registered Arab Palestinian refugees.

Resources and Industries. The country is largely desert, but the fertile western portion has a high agricultural potential. Principal crops are tomatoes, vegetables, wheat, barley, olives, grapes, citrus fruits and bananas.

Construction was started May 1966 on the Mokebha Dam on the Yarmuk River, a tributary of the Jordan, to provide electric power and irrigation for 18,000 acres.

Industries include tobacco, flour milling, distilling, building materials, olive oil, soap, mother-of-pearl, textiles, plastics, cement, steel, batteries, leather. Airlines include Royal Jordan (ALYA).

Potash from the Dead Sea and phosphate rock are the main minerals. Phosphate is 30% of value of exports.

History and Government. Jordan was part of the Ottoman Empire from the 16th Century until World War I. It was set up within the Palestine Mandate Sept. 1, 1922, and gained its independence in 1946. Abdullah Ibn Al Hussein, born 1882, was proclaimed King, May 25, 1946; he was assassinated by an Arab extremist July 20, 1951. His eldest son was proclaimed King Talal I, Sept. 5, 1951.

Parliament removed King Talal on medical advice, installing his son King Hussein I (born Nov. 14, 1935), May 11, 1952. His first marriage to Sherifa Deena (a daughter, Princess Alya, was born 1956) was dissolved 1958. He married (May 25, 1961) Antoinette Avril Gardiner, of England, entitled Princess Muna. They have two sons. Prince Abdullah, b. 1962. Prince Faisal, b. 1964, and twin daughters, Zein and Aisha, born 1968, but in 1965 King Hussein designated one of his younger brothers, Hassan, to be Crown Prince and heir to the throne.

Legislature comprises a Senate of 30 nominated by the King and a lower house of 60 elected by manhood suffrage. Wasfi El-Tall became Prime Minister Feb. 13, 1965. Jordan is a member of the UN and Arab League.

A decision of the UN to partition former Palestine resulted in guerrilla warfare between Arabs and Jews. After May 15, 1948, Jordan and other members of the Arab League joined in military operations against Israel. Under the truce agreement with Israel, Jordan controlled the old city of Jerusalem.

During 1958 pro-Nasser and Communist groups attempted to undermine Hussein's authority. After King Faisal was killed in the Iraq revolt July 14, King Hussein called on Great Britain for help and British paratroopers were landed, coincident with the landing of United States Marines in Lebanon.

In the 6-day Israeli-Arab war in June 1967 Israel took control of the old city of Jerusalem and Jordanian territory west of the Jordan River.

Arab guerrillas based in Jordan continued raids on Israel during late 1967 and 1968. In Feb. 1968 King Hussein condemned the guerrillas for using Jordan as a base. In March, Israeli Army units attacked a terrorist base in Jordan. This brought a UN Security Council condemnation of Israel and a statement from King Hussein indicating he would not seek to restrain the guerrillas. In April the King ousted two officials who had opposed use of Jordan by terrorist raiders.

The U. S. gave Patton tanks to Jordan in 1965; in Feb. 1968 the U. S. announced resumption of arms shipments to Jordan.

Education and Religion. The population is chiefly Arab, of whom the majority are Arab Moslems, 180,000 Arab Christians, and 10,000 Moslem Circassians. The language is Arabic. Public school education is growing, with English and Arabic taught. The Jordanian Univ. was established in 1962 and offers 4-yr. courses in arts and sciences.

Kenya

Capital: Nairobi. **Area:** 224,960 sq. mi. **Population** (UN est. 1967): 9,948,000. **Monetary unit,** E. African shilling (7.143 per U. S. \$1).

Kenya, former British Colony and Protectorate which became independent in 1963, extends from its Indian Ocean coast NE to Somalia, N to Ethiopia, W to Uganda, and S to Tanzania. It has twice the area of New Mexico.

The northern three-fifths is arid. Most economic production is centered in the south, a low coastal area and a plateau varying from 3,000 to 10,000 ft. The main products are coffee, tea, cereals, cotton, sisal, dairy products, hides and skins, bark extract, timber and minerals. Kenya is the largest producer of tea in Africa.

In 1953 Kenya became the scene of terroristic activities of the Mau Mau, an oath-bound unit of some of the Kikuyu, Meru, Embu and other tribes which killed Africans and whites during an 8-year rebellion. More than 60,000 Africans were jailed during the rebellion.

Kenya won independence as a dominion within the Commonwealth Dec. 12, 1963, and joined the UN Dec. 16. Jomo Kenyatta, once imprisoned as a Mau Mau leader, became its first Prime Minister. It became a republic within the Commonwealth Dec. 12, 1964, and Kenyatta became its first Pres.

Since independence, Kenya's economy has continued to grow, including both agricultural and manufacturing. Tourism has boomed. Schools and health centers have increased.

On Dec. 1, 1967, Kenya, Uganda and Tanzania set up a 3-nation bloc as a move toward a common market. In Jan. 1968 Kenya and Somalia resumed diplomatic relations as efforts were made to end 4 years of skirmishes caused by "invasions" of nomadic Somali herders seeking grass and water.

In 1968, thousands of Indians, losing their jobs to Africans, emigrated from Kenya to Great Britain.

Republic of Korea

DAEHAN-MINKUK

Capital: Seoul. **Area** (South Korea): 38,004 sq. mi. **Population** (UN est. 1967): 29,784,000. **Monetary unit:** Won (274 per U. S. \$1).

Korea, Land of the Morning Calm, occupies a mountainous peninsula in northeast Asia separating the Yellow Sea from the Sea of Japan. South Korea is about the size of Indiana.

Resources and Industries. Chiefly an agricultural country, South Korea has a cultivated area of about 5,095,655 acres. The main crops are rice, barley, wheat, tobacco and beans, but the mountainous terrain, poor soil and cold winters limit agricultural potential.

Division of Korea in 1945 left the South with only light industry and about 10% of the power generating capacity. Large infusions of foreign aid have since helped to build an industrial base especially in mining of tungsten (supplies 13% of world's needs), coal, iron ore, bismuth, fluor spar, graphite and cement. Gold, silver, copper, zinc and petroleum are also present. The fishing, timber, rubber, glass, shipbuilding, electronics and silk industries are expanding rapidly.

The former UN Korean Reconstruction Agency helped develop textiles, steel, straw pulp, rayon, wire, dyes, and automotive equipment.

U. S. support in South Korea has been military, financial, technical and educational. Since 1954 it has totaled more than \$2.2 billion. Index of industrial production (1963=100) was 181 for 1967.

Foreign trade in U. S. dollars:

	Imports	Exports
1966	\$716,000,000	\$250,000,000
1967	\$999,000,000	\$320,000,000

History and Government. Korea, formerly the Hermit Kingdom, has a recorded history since the 1st Century B.C. and was united in a kingdom under the Silla Dynasty, 668 A.D. It was at times

associated with the Chinese empire and the treaty that concluded the Sino-Japanese war of 1894-95 recognized Korea's complete independence. After Russia obtained a lease-hold on Port Arthur and developed its big port in Vladivostok, conflicting interests helped bring on the Russo-Japanese war of 1904-1905. Japan occupied Korea; Russia recognized Japan's paramount interest there. In 1910 Japan forcibly annexed Korea as Chosun (Chosen).

At the Cairo conference, Nov. 1943, it was agreed that Korea should be "free and independent." At the Potsdam conference, July, 1945, the 38th parallel was designated as the line dividing the Soviet and the American occupation. Russian troops entered Korea Aug. 10, 1945. U. S. troops entered Sept. 8, 1945. The Soviet military organized Socialists and Communists and blocked efforts to let the Koreans unite their country. Although the Soviet Union, at a foreign ministers' conference in Moscow, Dec., 1945, agreed to a joint trusteeship for Korea, it thwarted efforts to put this into effect. A commission appointed by the UN to supervise elections in Korea in 1948 was denied admission to North Korea. (See *Index for Korean War*.)

The South Koreans formed the Republic of Korea in May, 1948, with Seoul as the capital. Dr. Syngman Rhee was chosen President July 20 and the republic was formally proclaimed Aug. 15, 1948. By June 29, 1949, the U. S. had withdrawn its troops, leaving behind a Korean constabulary. President Rhee was reelected to a third term May 15, 1956 and reelected for a fourth term, Mar. 15, 1960, when 85 years old. A national movement spearheaded by college students forced his resignation, Apr. 19, amid charges of corruption in his government and fraudulent elections. Huh Chung, Foreign Minister, became Acting Premier, Dr. Rhee died July 19, 1965, in exile in Hawaii.

A constitutional amendment passed June 15, 1960, replaced an autocratic presidential system with a cabinet system modeled on that of Britain. In stormy elections, July 29, 1960, the former regime's opposition, Dr. John M. Chang's Democratic party, won control of the National Assembly and House of Councillors.

Unrest stemming from failure of Premier Chang's government to oust corruption and stabilize the economy led to an army coup which seized control May 16, 1961. Premier Chang resigned. Gen. Chung Hee Park became chairman of the ruling junta and later acting President. He was formally elected President Oct. 15, 1963 and re-elected May 1967. A 175-seat National Assembly was elected June 4, 1967 and the fourth republic was inaugurated July 1, 1967.

In 1968, North Korean troops repeatedly staged raids into South Korea, attacking both U. S. and South Korean troops.

South Korea has sent about 50,000 troops to fight alongside the U. S. in South Vietnam.

Education and Religion. Christianity, Confucianism, Buddhism and Chondogyo are the principal religions. Christian missionaries established seminaries and institutions of higher learning.

Primary education is compulsory. Many new schools have been built since 1945. In 1965 there were 5,125 primary schools, 1,208 junior high schools, 701 high schools, 131 universities and colleges including 61 junior colleges.

Korea's 24-letter alphabet, a hybrid comprised of ancient Chinese with Tibetan consonants of Sanskrit derivation, is a practical phonetic system.

Defense. The South Korea Army numbers about 600,000, and it has a small Navy and Air Force. The U. S. Eighth Army has two combat divisions in Korea with 11,500 men in each. Its commander also is commander of the UN forces there.

North Korea

PEOPLE'S DEMOCRATIC REPUBLIC OF KOREA
CHOSON MINCHU-CHUI INMIN
KONGHWA-GUK

Capital: Pyongyang. **Area:** 46,540 sq. mi. **Population** (UN est. 1967): 12,700,000. **Monetary unit:** Won (1.2 per U. S. \$1).

The People's Democratic Republic of Korea was formed May 1, 1948. The U. S. did not recognize it.

North Korea has good mineral resources that are fairly well developed. The country ranks among the first 5 in the world in the output of tungsten, graphite and magnesite. Other products of significance include lead, zinc, pyrite, cement, iron ore, copper, gold, phosphate, salt and fluor spar. A well developed hydroelectric system and sizeable

reserves of coal provide power needs for industry. Mineral output was valued at \$440,000,000 in 1964.

North Korea is slightly larger than N. Y. State. The import and export trade is largely with Communist countries, particularly China and Russia.

The USSR signed a 10-year military aid treaty with North Korea July 6, 1961, pledging defense protection and financial help. A similar treaty was signed with Communist China. (See *Index for Korean War*.)

Soviet prestige declined in the early 1960s as North Korea sided with the Chinese in the Sino-Soviet dispute. In 1966 Pyongyang showed signs of trying to disengage from the dispute and maintain a more independent stand.

In March, 1967, North Korea and the Soviet Union signed a new defense agreement which was viewed as a further move to isolate the Chinese Communists.

North Korean patrol boats seized the U. S. Navy intelligence ship Pueblo on Jan. 23, 1968, charged it had entered North Korean territorial waters and held its crew captive. (See *Pueblo in Index*.)

Kuwait

AL-KUWAIT

Capital: Kuwait City. **Area:** 6,178 sq. mi. **Population** (1965 Census): 467,789. **Monetary unit:** Kuwaiti Dinar (.3571 per U. S. \$1).

Kuwait, a small Arab state formerly under British protection, became fully independent June 19, 1961. It extends along the northwest coast of the Persian (also called Arabian) Gulf; bordered by Iraq, Saudi Arabia and a Kuwaiti-Saudi neutral zone. Kuwait City is a principal Gulf port. In area it is slightly larger than Connecticut.

Resources and Industries. Petroleum, discovered in 1938 and first exported in 1946, is Kuwait's economic mainstay and the nation now is the world's 2nd largest exporter and 5th largest producer of crude oil. Reserves are estimated at more than 70 billion bbls., one-fourth of the free world's total. Crude oil production in 1967 was 824,000,000 bbls. Annual payments to the Kuwait government in royalties and taxes exceed \$560,000,000, some 98% of its income. Per capita income is estimated at over \$3,000, probably the world's highest.

Revenues from oil from the Kuwaiti-Saudi neutral zone are split 50-50 with Saudi Arabia.

History and Government. Kuwait traditionally is governed by members of the Al-Sabah dynasty founded in 1756. Under a treaty of 1899 Great Britain administered its foreign relations and guaranteed its territorial integrity until it became fully independent June 19, 1961, by mutual agreement. It joined the Arab League 1961, the UN 1963. The nation's first constitution was proclaimed in January, 1963, and the first general elections for a 50-member National Assembly were held.

The Emir Sabah Al-Salim Al-Sabah became ruler Nov. 27, 1965, after the death of his older brother, the Emir Abdulla Al-Salim Al-Sabah. Jaber Al-Ahmed became the new prime minister and crown prince.

Education and Religion. The government has utilized its enormous national income from petroleum to create a welfare state that guarantees free medical care, education and social security for all. A 200,000,000 dinar fund aids other Arab nations. There are no taxes except customs duties. Educational facilities are being rapidly expanded. There were, in 1966, 176 schools of all types, with 91,788 students and 5,936 teachers. The University of Kuwait was opened in Oct. 1966. Islam is the official religion, about three-fourths Sunni, the remainder Shia.

Defense: Kuwait's Army numbers approx. 2,400.

Laos

Capitals: Vientiane, Luang Prabang. **Area:** 91,429 sq. mi. **Population** (UN est. 1967): 2,770,000. **Monetary unit:** Kip (240 per U. S. \$1).

Laos is a constitutional monarchy of Thai origin in southeast Asia, one of the three former French Indo-Chinese states. It is bounded by Communist China, North and South Vietnam, Cambodia, Thailand and Burma. It is landlocked, smaller than Oregon, largely rugged jungle and mountains, with no railroads and only 3,540 mi. of roads.

Laos became a French protectorate in 1893 and a member of the Indo-Chinese Union in 1899. As in

Vietnam and Cambodia, nationalism aims grew in the 1940s, and the King promulgated a constitution May 11, 1947, providing for a constitutional monarchy under the Luang Prabang dynasty, and a parliamentary government.

Laos became an independent sovereign state by a treaty with France, July 19, 1949. The regime was recognized by the Communist forces in Indo-China in the cease-fire agreements with France, signed in Geneva, July 21, 1954, and by the U. S. and most members of the UN. It joined UN December, 1955.

The King is Sri Savang Vatthana, acceded Oct. 30, 1959, on the death of his father, King Sisavang Vong.

The National Assembly, elected for 5 years, may be dissolved by the King.

Conflicts among neutralist, Communist and anti-Communist factions created a chaotic political situation despite 1954 agreements. Although Laos was intended to be neutral, rivalry between the Communist Pathet Lao movement in the northern third of the country, led by Prince Souphanouvong, and right-wing and neutralist factions prevented integration of the Pathet Lao into the royalist army and government. Armed conflict has increased since 1960 with the arrival of Soviet arms and North Vietnamese technicians and troops. Western and neutral big power proposals have been rebuffed by the Communist bloc which threatened direct intervention.

The 3 Princes heading the 3 factions formed a coalition government in June 1962, with neutralist Prince Souvanna Phouma as Premier. The 14-nation conference that had begun in Geneva May 15, 1961, signed agreements July 23, 1962, guaranteeing neutrality and independence of Laos.

Cease-fire orders were issued several times between May, 1961, and mid-1963, but fighting between the Pathet Lao and neutralist forces intensified during 1963-66.

Early in 1965 there was an unsuccessful rightist coup. Both Laos and U. S. planes bombed Pathet Lao positions along the Ho Chi Minh trail, supply line from North Vietnam to Communist forces in north Laos and South Vietnam, with increasing frequency, 1965-67. A branch of the trail, crossing Laos from Cambodia and called the Sihandur Trail, was also under attack.

Chief products are tin, rice, maize, tobacco, cotton, opium, citrus fruits, benzoin, shellac, teakwood and coffee. The population comprises peoples of Thai-Indonesian and Chinese origin, mostly Buddhist. French and English are the most important languages. Buddhism is the state religion.

LATVIA

See Index for Latvian SSR

Lebanon

AL-JUMHOURIYA AL-LUBNANIYA

Capital: Beirut. Area: 4,015 sq. mi. Population (UN est. 1967): 2,520,000. Monetary unit: Lebanese pound (3.16 per U. S. \$1).

The Republic of Lebanon, in southwest Asia, occupies a strip along the Mediterranean coast about 120 mi. long and 30 to 35 mi. wide, extending from the Israeli frontier on the S to Syria on the E and N. It is smaller than Connecticut. There is a narrow coastal strip and two main mountain ranges running N and S with fertile land between. Beirut, with one-third of the country's population, is the chief seaport and has a jet airport.

Resources and Industries. Trade provides two-thirds of national income, agriculture 15%, industry 12%. Agriculture employs half the workers; chief crops are apples, citrus fruit, olives, tobacco, vegetables, cereals. Manufacturing is growing rapidly; important are food products, textiles, leather goods, cement, oil refining. Tripoli and Sidon are terminals of oil pipelines from Iraq and Saudi Arabia. Large hydroelectric and irrigation projects are being developed.

Lebanon has a free enterprise economy and banking secrecy laws. Fugitive capital from Arab Socialist states has poured into the country. Tourism is also a source of wealth. In 1966 many government officials were replaced in an "efficiency shakeup" aimed at spurring the nation's 5-year development program.

Principal exports are apples, citrus fruits, cereals, textiles, cement.

History and Government. Lebanon was formed from the five former Turkish Empire Sanjaks (districts) of North Lebanon, Mount Lebanon, South Lebanon, Beirut and Bekaa, and became, with

Syria, an independent state Sept. 1, 1920, administered under French Mandate 1920-1941. In 1944 France yielded its powers to the Syrian and Lebanese governments. Foreign troops were withdrawn in 1946.

Attempts by several factions to undermine the pro-western administration of Lebanon led to open revolt in May, 1958. Lebanon became the center of international controversy when the United States sent Marines in reply to President Chamoun's call for help and Great Britain supported the American position. The revolt dwindled and American forces were withdrawn in Oct., 1958.

The republic's constitution instituted a democratic parliamentary regime. There is a unicameral legislature (Chamber of Deputies) of 99, elected every four years.

The President normally is elected for a six-year term. The President must be a Christian, the Premier a Moslem. Lebanon is a member of the UN and Arab League.

Education and Religion. Christians number about half the population, Moslems of various sects most of the remainder. There are 8 universities and institutions of higher learning in Beirut: American, French, Lebanese, and the private Academy of Arts. Arabic is the official language.

Lesotho

(FORMER BRITISH BASUTOLAND)

Capital: Maseru. Area: 11,716 sq. mi. Population (UN est. 1967): 885,000. Monetary unit: South African Rand (.7143 per U. S. \$1).

The former British dependency, Basutoland, became independent as Lesotho Oct. 4, 1966. An African state without white settlers or landowners, it is about the size of Maryland and completely surrounded by the Republic of South Africa. It was admitted to the UN Oct. 17, 1966.

The land is arid and mountainous, altitudes ranging from 5,000 to 11,000 ft. One railroad connects the capital with South Africa; virtually no paved roads exist. Heavy erosion has hindered agriculture although maize, sorghum, barley, beans and peas are grown. The main industry is livestock raising which produces wool and mohair, the chief exports. The country suffered a severe drought in the early 1960s. About 40% of the men work in South Africa, many in the mines, earning about \$2,800,000 a year.

In 1868, Lesotho became a British protectorate upon the request of Moshesh, the Paramount Chieftain, who sought protection against the Boers of South Africa. The British granted a constitution for the area in 1959 providing for a universally elected Legislative Council. The government is headed by a King. There is also a Parliament of 60 elected members, a Cabinet and a Prime Minister.

Liberia

Capital: Monrovia. Area: 43,000 sq. mi. Population (UN est. 1967): 1,110,000. Monetary unit: U. S. dollar; also Liberian silver and copper coinage.

The independent Republic of Liberia lies on the southern side of the west African bulge adjacent to Sierra Leone, Guinea and the Ivory Coast and has an Atlantic coastline of about 350 mi. Much of the country is forest with valuable timber and mineral resources. It is slightly larger than Ohio.

Liberia has no natural harbors. The Free Port of Monrovia, built 1945-48 with U. S. funds, was turned over to the Liberian Government in 1964, with payments to be concluded by 1999. The country is served by several international airlines.

Resources and Industries. Iron ore and rubber are the main products; ore production boomed 1964-66.

Lower prices for exported iron ore and rubber, plus increasingly high payments on debts incurred during boom years, depressed the economy in 1967-68; an austerity program was launched.

With U. S. aid and investment by U. S., Sweden, Canada, West Germany, iron and rubber production increased in 1966. Monrovia got the country's first telephone system in 1965. A U. S. loan financed the 30,000-kw Mt. Coffee hydroelectric plant, completed in 1966.

Diamonds and gold are also mined; other products are fibers, palm kernels, rice, cassava, coffee, cocoa and sugar. U. S. aid is promoting schools, hospitals, and food production.

History and Government. The population is entirely of African descent. Liberia was founded in 1822 when a settlement was made at Monrovia by Negro freedmen from the U. S. with the assistance of American colonization societies. It was declared a republic July 26, 1847. Its constitution is modeled on that of the U. S. Only persons of African descent may acquire citizenship and only citizens may own real estate.

There is a President elected for one 8-year term (thereafter for 4-year terms); a Senate of 10 elected for 6 years and a House of Representatives of 39, elected for 4 years. The President is William V. S. Tubman, elected for 8 years, May 4, 1943, reelected to 4-year terms, May 1951, 1955, 1959, 1963. Liberia is a charter member of UN.

Education and Religion. Christianity predominates. There are nearly 4,000 schools, one university and two colleges. English is the official language.

Defense. All citizens between the ages of 16 and 45 are liable for service.

Libya

AL MAMLAKA AL LIBIYYA

Capital: Tripoli and Benghazi. **Area:** 679,358 sq. mi. **Population (UN est. 1967):** 1,738,000. **Monetary unit:** Libyan pound, 100 piastres (.3571 per U. S. \$1).

Libya, first country to receive independence fully under United Nations auspices, is a constitutional monarchy comprising 10 provinces in the former states of Tripolitania, Cyrenaica and Fezzan. Larger than Alaska, it is on the north African coast, bounded by the Mediterranean, UAR, Sudan, Chad, Niger, Algeria and Tunisia.

Resources and Industries. Discovery of major oil fields in the northern part of the country beginning in 1957 brought prosperity and an improved standard of living to the country.

Government revenues from taxes on oil companies were increased in 1967. It was estimated that in 1968 the country would be exporting 2,500,000 bbl. a day.

During 1964-66, several hundred schools were built, boosting enrollment from 40,000 to over 250,000. Homes, hospitals, roads and power stations were constructed. Per capita income rose from \$40 in 1951 to \$425 in 1965. Education and health services are provided free.

Libya is basically agricultural, producing dates, olives, lemons, almonds, figs, grapes and tobacco. Carpets, leather goods and embroidered fabrics are also produced.

The Government planned in 1966 to construct 100,000 homes in the next 5 years.

History and Government. Libya's strategic position has caused it to come under the domination successively of Carthage, Rome, the Vandals, the Ottoman Empire and Italy. After World War II Tripoli and Cyrenaica were placed under British administration, the Fezzan under French.

Emir Mohammed Idris El Senussi (born 1890), spiritual and temporal ruler of the Senussi tribesmen, was recognized by Great Britain as Emir of Cyrenaica, June, 1949. He promulgated a constitution and set up an interim government over internal affairs, Sept. 18, 1949. Libya, as a sovereign state, was approved by the UN, 1949, effective Jan. 2, 1952. A pre-independence constituent assembly chose the constitutional monarchy form of government and named the Emir as King of Libya, Dec. 3, 1950. A hereditary monarchy was proclaimed by King Idris I in Benghazi, Dec. 24, 1951.

Parliament consists of a senate of 42 members with 8-year terms, appointed by the King; and a House of 91, elected for 4-year terms.

Libya is a UN and Arab League member.

Education and Religion. Libya's population is mostly Arab Moslems; minority groups include Italians, Jews and others. About 40% are illiterate. There are public elementary and secondary schools, and private Koranic, Greek, Italian and Jewish schools. There are two universities.

Defense. Status quo agreements with Britain and the United States allow each to maintain military forces in Libya, including a large U. S. Air Force base at Wheelus, near Tripoli, but both plan to withdraw. In 1968 Libya launched an extensive renovation of its defense forces.

Liechtenstein

FURSTENTUM LIECHTENSTEIN

Capital: Vaduz. **Area:** 62 sq. mi. **Population (Govt. est. 1966):** 19,917. **Monetary unit:** Swiss franc (4.296 per U. S. \$1).

Liechtenstein is a principality on the Upper Rhine between Austria and Switzerland. It is slightly smaller than the District of Columbia. It received nominal independence in 1866 when the German Confederation dissolved but became practically a dependency of Austria until the Diet declared its complete independence, Nov. 7, 1918. By treaty with Switzerland (1920-23) that country administers its posts and telegraphs, customs and foreign interests. There is no army, only a police force of 26 with 24 auxiliaries.

Resources and Industries. The country is highly industrialized. Chief industries are machines and tools, cotton spinning and weaving, false teeth, ceramics and canned food. Finely engraved postage stamps are sold to philatelists around the world. Forty factories exported \$35,000,000 in goods in 1965. Thousands of foreign workers are employed in Liechtenstein and constitute about 30% of the resident population.

History and Government. Liechtenstein is an hereditary monarchy. Under the constitution, granted in 1921, legislative powers rest in a Diet of 15 members, elected for four years by direct vote, on a basis of male suffrage and proportional representation. The reigning prince is Franz Joseph II. He succeeded his uncle, Prince Franz I, on the latter's abdication March 30, 1938. The Head of Government is Gerald Batliner. Taxes are very low and consequently many international corporations have made their headquarters there.

It is a member of EFTA and the International Court of Justice.

Education and Religion. The country is predominantly Catholic. German is the language.

LITHUANIA

See Index for Lithuanian SSR

Luxembourg

GRAND-DUCHE DE LUXEMBOURG

Capital: Luxembourg. **Area:** 999 sq. mi. **Population (UN est. 1967):** 335,000. **Monetary unit:** Luxembourg franc (49.82 per U. S. \$1).

Luxembourg is a European Grand Duchy, bounded by Germany, Belgium and France. It measures only 55 mi. long by 34 mi. wide, smaller than R. I.

Resources and Industries. About 9,500 farmers cultivate 336,000 acres. The principal crops are oats, wheat, rye, barley and potatoes.

Luxembourg's iron ore deposits, in the south, are the basis for an important steel industry, using imported coke. It employs more than half the labor force, and accounts for 70% of total industrial production, 90% of value of exports. The country also produces chemicals, beer, tires, tobacco and metal products, cement, roses and dairy products.

History and Government. Luxembourg, founded about 963, passed under the domination of Burgundy, Spain, Austria and France from 1443 to 1815; regained autonomy under the Treaty of Vienna, 1815. It left the Germanic Confederation in 1866, its integrity and neutrality guaranteed by the Treaty of London, May 1, 1867. Overrun by Germany in two World Wars, Luxembourg abolished its unarmored neutrality in 1948. Customs union with Netherlands and Belgium was adopted Jan. 1, 1948, expanded to the Benelux Economic Union, Feb. 3, 1958. Luxembourg is a member of the UN, NATO, OECD, Council of Europe, European Coal & Steel Community, Western European Union, and in 1957 signed agreements establishing Euratom and European Common Market.

As a Grand Duchy, Luxembourg is a constitutional monarchy, governed under the Constitution of 1868, with modifications. Legislative power rests with a Council of State of 21, chosen for life, and a Chamber of Deputies, 56 in number, elected by universal suffrage with executive power delegated to a Minister of State and a Cabinet of at least 10 Ministers. The country is headed by Grand Duke Jean (b. Jan. 5, 1921) who became Chief of State Nov. 12, 1964, when his mother, Grand Duchess Charlotte, abdicated in his favor after a 45-year reign. On April 9, 1953, he married Princess Josephine-Charlotte of Belgium. They have 3 sons and 2 daughters; Prince Henri (b. April 16, 1955) is hereditary Grand Duke.

The population is almost entirely Roman Catholic. Education is compulsory. Official languages are French and German; national language is Letzeburgesch.

Malagasy Republic

REPOBLIKA MALAGASY

MADAGASCAR

Capital: Tananarive. Area: 228,000 sq. mi. Population (Govt. est. 1967): 6,350,000. Monetary unit: Malagasy franc (246.85 per U. S. \$1).

Formerly the French Overseas Territory of Madagascar, the Malagasy Republic is a large island off the SE coast of Africa, from which it is separated by the 240-mi. wide Mozambique Channel. It is about 980 mi. long and 360 mi. wide at its greatest breadth. It is a little smaller than Texas. There is a humid coastal strip on the E, fertile valleys in the mountainous center plateau region, and a wider coastal strip on the W.

The nation is officially called either Madagascar or the Malagasy Republic.

The population consists of many ethnic groups from succeeding waves of immigration, including peoples of SE Asian, Arab and African descent. They speak a language of Malayan origin. About 3,000,000 are animists; 2,000,000 are Christians, about equally divided between Catholics and Protestants.

Madagascar came under a French protectorate, 1885, and was declared a French colony in 1896. It proclaimed itself an autonomous republic Oct. 14, 1958, and was granted full sovereignty effective June 26, 1960. It is a member of the UN and French Community.

About 90% of the population is engaged in agriculture; the chief crops being vanilla (it produces half the world's supply), rice, manioc, beans, maize, sweet potatoes, corn, coffee, cloves, tobacco, sugar cane and cocoa.

The forests are rich in cabinet wood and tanning bark, raffia, resins, gums and beeswax. Water power is abundant. Minerals found include graphite, mica, precious and industrial stones, coal, nickel ore, phosphate, gold, bauxite, uranium and thorium. There are 10,000 head of cattle, most of them the humped Zebu type.

In 1966, the U. S. loaned Madagascar \$2,700,000 for the improvement of railroad service. In 1966-67 the government's "belly policy" improved agricultural production and thereby cut imports of rice.

Malawi

(FORMER NYASALAND)

Capital: Zomba. Area: 36,100 sq. mi. Population (UN est. 1967): 4,130,000. Monetary unit: Malawi pound (.4167 per U. S. \$1).

Malawi stretches more than 500 mi. north and south along the western and southern shores of Lake Nyasa (Lake Malawi) in southwest Africa. High mountains, dense forests and broad plains make it a scenic though landlocked country. It is about the size of N. Y. State.

Visited by Dr. David Livingstone in 1859, it became a British Protectorate in 1891. From 1953 to 1963 it was a member of the Federation of Rhodesia and Nyasaland. On Feb. 1, 1963, it became internally self-governing and, on July 6, 1964, achieved full independence from Britain. It became a republic within the Commonwealth July 6, 1966. It is a member of the UN. The President is Dr. H. Kamuzu Banda.

Malawi is almost entirely an agricultural country with only a few light industries. Four crops—tea, tobacco, peanuts and cotton—account for 90% of the exports. Other important products are sugar, rubber, soybeans and coffee. Farming improvements are being pressed in hopes of building exports. Illiteracy is high, but a program for universal primary education is underway; colleges are planned and the U. S. has promised \$1,000,000 to help build a technical college.

In 1967-68, factories were built for textiles, shoes, sugar, farm implements, and other products formerly imported. The Republic of South Africa, in May 1968, provided loans to build a rail line into Mozambique and to help construct a new capital for Malawi at Lilongwe.

Population is mostly African; there are about 12,000 Indians and 8,000 of European descent.

Malaysia

FEDERATION OF MALAYSIA

Capital: Kuala Lumpur, Selangor. Area: 128,430 sq. mi. Population (UN est. 1967): 10,071,000. Monetary unit: Malayan dollar (3.67 per U. S. \$1).

Occupying the southern part of the Malay Pen-

insula in SE Asia and the northern part of the island of Borneo, the Federation of Malaysia is the world's largest producer of rubber and tin. Total area is larger than Arizona.

The Federation was formed Sept. 16, 1963. It included the old Federation of Malaya (11 Malayan states which had become an independent constitutional monarchy and member of the Commonwealth Aug. 31, 1957), plus the formerly-British Singapore (an island and city off the southern tip of the Malay Peninsula), Sabah (former British North Borneo) and Sarawak (former British colony in NW Borneo). The British-protected Sultanate of Brunei in north Borneo did not join.

Indonesia harassed the new nation with guerrilla action 1963-65. After Indonesian Pres. Sukarno lost power, 1965-66, Malaysia and Indonesia agreed Aug. 11, 1966, to restore normal relations; full relations were restored Aug. 31, 1967.

On Aug. 9, 1965, the separation of Singapore from the Federation was announced under an agreement by Malaysia and Singapore officials that this was the best way to end tensions between the ethnic Chinese, largest group in Singapore and in the Federation as a whole, and the Malays, 2nd largest group, who were in control of the Federation government. (See *Index for Singapore*.)

Malaysia's population, before Singapore's separation, was composed of: Malays and closely related groups, 40%; Chinese, 42%; Indians and Pakistanis 10%; others, 8%. With Singapore's departure, the Malays became the numerical majority in Malaysia, with ethnic Chinese totaling over a third of the population.

The 11 Malay states and their capitals are: Johore (Johore Bahru), Kedah (Alor Star), Kelantan (Kota Bharu), Malacca (Malacca), Negri Sembilan (Seremban), Pahang (Kuantan), Penang (George Town), Perak (Ipoh), Perlis (Kangar), Selangor (Kuala Lumpur), Trengganu (Kuala Trengganu). Largest in area is Pahang, 13,820 sq. mi.; largest in population is Perak, 1,488,754 (1963).

With the exception of Malacca, Penang, Sabah and Sarawak, each of the states has a hereditary ruler; the above exceptions have governors, as did Singapore. Each state has its own flag, constitution and legislative assembly.

In 1966 the Government announced that Sabah and Sarawak would be known as East Malaysia and the 11 states as West Malaysia.

The monarch, known as the Yang di-Pertuan Agong (Paramount Ruler, ceremonial chief of state who has no political power) is elected by a council of hereditary rulers of the Malayan states.

Resources and Industries. Rubber, tin, iron ore, palm oil and copra are the main products. Rubber, much of it produced by new high-yield trees, accounts for 41% of exports; tin, of which Malaysia produces 33% of the world output, amounts to 13% of her exports.

Other agricultural products are rice, coconuts, tapioca, sugar, pepper, camphor. Rubber trees were originally introduced from Brazil. Small-scale industry includes rubber goods, pottery, cement, pewterware, furniture, bricks, tiles, soap.

A \$17,300,000 jet airport was opened at Kuala Lumpur in Aug. 1965.

Religion and Language. The Malays and some others are Moslems; other religions are Buddhist, Christian and Hindu. Malay is the national language; Malay and English are official languages.

Defense: Malaysia expanded its small Army, Navy and Air Force in 1963 in anticipation of the formation of the Federation of Malaysia and Britain agreed to extend its defense and mutual assistance treaty with the new nation. Malaysia also receives military aid from Australia. In 1966, after the peace agreement with Indonesia, it was announced British troops would leave Sabah and Sarawak.

SABAH

(Former British North Borneo)

Sabah, formerly North Borneo, occupies the northern part of Borneo, third largest island in the world, 400 mi. east of Malaya in the Pacific Ocean. It has an area of 29,388 sq. mi. and a population (1963) of 498,031, including 80,000 Chinese and a few Europeans. Included is the island of Labuan, area 35 sq. mi., which was united with North Borneo, July 15, 1946. Exports are mainly rubber, copra, timber, tobacco, firewood, cutch, fish and hemp. Capital: Jesselton. The Philippines also claims title to Sabah.

SARAWAK

Sarawak lies along the northwest coast of Borneo, between the mountains and the China

Sea. Its coast line is 450 mi. long and its area 48,250 sq. mi. Its population (1963) was 809,737. The capital is Kuching. The chief exports are sago, pepper, gold, plantation rubber. It refines petroleum from the Seria field in Brunei. Sarawak was freed from the Sultanate of Brunei in 1840 by James Brooke, an Englishman who was named Rajah in 1841. In 1946, after Japanese occupation, the 3rd Rajah ceded the country to Britain.

Maldive Islands

Capital: Malé. Area: 112 sq. mi. Population (1967 Census): 103,801. Monetary unit: Rupee (5.952 per U. S. \$1).

The Maldive Islands are a group of 19 atolls containing 1,087 islands, 210 of which are inhabited. Totalling about twice the area of the District of Columbia, they are in the Indian Ocean 300 mi. SW of the southern tip of India. The country obtained full independence from Great Britain on July 26, 1965, in an agreement under which Britain retained its RAF base on Gan Is. in Addu Atoll in the southern Maldives. The Maldives became a member of the UN Sept. 21, 1965.

The islands had been a British-protected state since 1887. The country became a republic in 1953 but returned to the status of a Sultanate by decision of its Assembly, Feb. 22, 1954. The Assembly elected Al Amir Mohammed Farid Didi as Sultan; Ibrahim Nasir is Prime Minister. Until the 1965 agreement, Britain was responsible for the islands' defense and foreign relations.

The people are Moslems and seafarers. Coconuts, fruit and millet are grown; the chief occupation is fishing. Production of processed fish, to be marketed in Ceylon, is the main industry. Also exported is coir, a coconut fiber.

Mali

REPUBLIC OF MALI

Capital: Bamako. Area: 464,000 sq. mi. Population (UN est. 1967): 4,745,000. Monetary unit: Franc (246.85 per U. S. \$1).

The Republic of Mali, formerly the Sudanese Republic (1959-60) and a one-time French Overseas Territory in West Africa, is a landlocked nation which is larger than Texas but smaller than Alaska.

Mali is mostly a vast plain in the upper basins of the Senegal and Niger Rivers, extending N into the Sahara.

From the 11th to 15th Centuries the area was part of the great Mali Empire which stretched from the western Sudan to the Atlantic; Timbuktu was a renowned center of Islamic learning.

Under provisions of the 1958 French constitution French Sudan became the Sudanese Republic, an autonomous republic within the French Community and formed with neighboring Senegal Jan. 17, 1959, the Mali Federation. Complete independence was proclaimed June 20, 1960. Senegal withdrew from the federation Aug. 20, 1960, and Sudan took the name of Republic of Mali Sept. 22. It became a UN member Sept. 28, 1960. Mali remained outside the French Community, but signed economic and cultural agreements with France. It joined Ghana and Guinea Apr. 29, 1961, in a Union of African States which did not become effective. On June 8, 1963, Mali and Senegal ended their differences with customs, trade and railway traffic agreements, and use of Senegalese harbors by Mali.

In 1968 Mali joined 8 other nations in forming the West African Regional Group, aimed at promoting joint economic benefits.

The President and ministers are responsible to the National Assembly, members of which are elected to five-year terms.

The country is mainly agricultural and pastoral. Millet, rice and peanuts are the chief crops. Cotton, rubber and river fishing are also important. Livestock raising is a major prop of the economy. Trade is primarily with neighboring countries.

Malta

Capital: Valletta. Area: 122 sq. mi. Population (1967 Census): 319,000. Monetary unit: Pound (4.167 per U. S. \$1).

Malta lies in the Mediterranean 58 mi. S of Sicily and 180 mi. from Africa. The island of Malta itself is 95 sq. mi.; the other two islands in the group are Gozo, 28 sq. mi., and Comino, one sq. mi. Total is twice the size of the District of Columbia.

For 35 centuries Malta was under successive rule

by Phoenicians, Carthaginians, Romans, Arabs, Normans, the Knights of Malta, France and Britain (which annexed Malta in 1814). It achieved limited self-government in 1887; home rule on Oct. 24, 1961. On Sept. 21, 1964, it became independent, with the British monarch as head of state, represented by a governor general, and agreed to permit British forces to maintain a base for 10 years. It is a member of the Commonwealth, Council of Europe and UN. A House of Representatives with 50 members is elected by universal suffrage; the Prime Minister and Cabinet are chosen from members of the House.

Once a vital British stronghold, it withstood Axis air attacks for 3 years during World War II, but is now used only as a supply base for the British Navy, with consequent loss of employment for Maltese. Population density in 1965 was 2,578 per sq. mi.; there is continuous migration, much of it to Australia, the United Kingdom and Canada.

The protection of NATO was extended to Malta in 1965.

A 5-year development program, started in 1964, offers attractions to new industries and encourages tourism through building of modern hotels.

Leading industries are ship repairing, food and beverages, textiles and tourism. Gross national product rose from \$142,500,000 in 1965 to \$156,500,000 in 1966. Visiting tourists rose from 23,000 in 1962 to 100,000 in 1967. Historic sites, a casino and village fetes are among the attractions.

Mauritania

ISLAMIC REPUBLIC OF MAURITANIA

Capital: Nouakchott. Area: 419,231 sq. mi. Population (UN est. 1967): 1,100,000. Monetary unit: CFA franc (246.85 per U. S. \$1).

The Islamic Republic of Mauritania, former French Overseas Territory in West Africa, is bounded by the Atlantic Ocean, the Rio de Oro (Spanish), Algeria, Mali and Senegal. Population is largely Moorish. Mauritania is about four-fifths the size of Alaska.

The economy has been agricultural and pastoral. Products include dates, grain, tobacco, fish. There are large herds of cattle, camels, sheep and goats and large deposits of iron and copper.

But a large new iron mine was opened in 1968 to add to the nation's annual production of 8,000,000 tons of iron ore; fishing, which produced 200,000 tons of fish in 1967, was being expanded; a copper mine was under construction; a new cattle slaughterhouse and freezing plant was opened, also in 1968.

In accordance with the provisions of the 1958 French constitution, Mauritania became an autonomous state Nov. 28, 1958, and became fully independent Nov. 28, 1960. It elected to remain outside the framework of the French Community, but has expressed its desire to retain close ties with France. Prime Minister Mokhtar Ould Daddah, appointed June 26, 1959, became President by popular vote in August, 1962. It is a member of the UN.

During the Israeli-Arab war of June, 1967, Mauritania was one of 7 Arab countries that severed diplomatic relations with the U. S.

Mauritius

Capital: Port Louis. Area: 720 sq. mi. Population (UN est. 1967): 774,000. Monetary unit: Rupee (11.1 per U. S. \$1).

Mauritius, an island in the Indian Ocean 550 mi. E of Malagasy (Madagascar), became an independent nation within the Commonwealth on Mar. 12, 1968, after 158 years of British rule. The Hindu majority favored independence, whereas Moslems, Creoles and whites, fearing oppression by the Hindu majority and loss of close economic ties with Britain, opposed it. The country became the 124th member of the UN Apr. 24, 1968.

Mauritius has one of the world's most complex racial, religious and political mixtures as well as one of the world's highest population densities. The people belong to five main groups: About 380,000 Hindus; 210,000 Creoles, Christians of mixed European and African descent; 125,000 Moslems; 25,000 Chinese and 25,000 whites. Although the official language is English, French is spoken by most of the educated and the whites; Creole, a French patois, is the lingua franca. Chinese and the Indian languages Hindi, Tamil and Telegu are also spoken.

The country has a nearly one-crop economy, sugar. Population has boomed in recent years and

unemployment runs about 25%. Commonwealth subsidies support sugar prices and aid the economy.

Mauritius was uninhabited until 1638 when the Dutch settled there and gave the island its present name in honor of Prince Maurice of Nassau. The French took over in 1721 and introduced sugar cane and African slaves. The British, who seized the island in 1810, brought Hindus and Moslems from India to work the sugar plantations.

Mauritius was the home of the famed dodo, a heavy, flightless bird which became extinct in the 17th Century.

Mexico

ESTADOS UNIDOS MEXICANOS

Capital: Mexico City. Area: 763,259 sq. mi. Population (Govt. est. 1967): 45,671,000. Monetary unit: Peso (12.49 per U. S. \$1).

Second most populous nation in Latin America and third largest in area, Mexico compiled an enviable record for orderly progress, social improvement and fiscal responsibility in the middle decades of the 20th Century.

With housing, health, farm and industrial programs, the nation has lifted itself and its people into the mainstream of the modern world; life expectancy, for example, has been raised from 39 years in 1940 to 67 years in 1968.

Ever-growing streams of foreign visitors (958,000 in 1962; 1,656,000 in 1967) find spectacular scenery, striking art and architecture, cosmopolitan and colonial cities and luxurious resorts. The mountainous topography provides a variety of climates, from temperate to tropical.

The Sierra Madre Occidental Mtns. run NW-SE near the west coast. The Sierra Madre Oriental Mtns., a continuation of the Rockies, run near the Gulf of Mexico coast nearly as far S as Veracruz.

Between the two ranges lies the central plateau of Mexico, altitude from 5,000 to 8,000 ft. with a delightful climate and with the vegetation and products of the temperate zone varying with the altitude. The lowlands along the coast are tropical, rising to subtropical in the foothills, with a heavy rainfall on the Gulf side. Along the Pacific slope and in the interior irrigation is needed. Mexico is nearly 3 times the size of Texas.

Tampico and Veracruz, on the Gulf, are the busiest of Mexico's 49 ocean ports.

Mexico's population is composed of descendants of the Toltecs, Aztecs, Mayas and the Spaniards who conquered and colonized the country. Archeological remains of the early Indian civilizations are important tourist attractions.

The Summer Olympic Games were held at Mexico City in Oct. 1968.

Resources and Industries. Mexico is rich in minerals and timber. It is the second largest producer of silver; also important are gold, copper, lead, zinc, antimony, mercury, arsenic, amorphous graphite, molybdenum, sulphur, coal and opal. Petroleum production is large, reaching 140,000,000 bbl. in 1966. The industry is nationalized. Natural gas is supplied to the U. S. Electric power generated in 1966 was 18.5 billion kwh.

Farming, stock raising and fishing are important. The land is rich, but the rugged topography and lack of sufficient rainfall are major obstacles. Crops and farm prices are controlled, as are export and import. Large estates have been expropriated; since 1915 the government has distributed over 135,000,000 acres to small farmers through land-holding communities (ejidos). Major irrigation projects in Sonora and Sinaloa have increased production of cotton and wheat.

In 1966 the Lerma Plan, an attempt to improve production and living conditions among 8,000,000 people in western rural areas, was launched with the aid of a \$150,000,000 Bank for Inter-American Development loan.

Principal export crops are cotton, coffee, cane sugar, tomatoes, cattle, fresh and frozen meats.

Coffee is valued at more than \$100,000,000 annually; other major crops are corn, rice, tobacco, garbanzos, cocoa, sisal, bananas. About 50% of the world supply of sisal comes from Yucatan, in the S.

Mexican industry is producing products formerly imported, especially in iron and steel, chemicals, electric goods. Other products are cotton, wool and synthetic textiles, flour, beverages, soap, cigarettes and cigars, rubber, paper, rubber products, cement, shoes, glass, furniture and tiles. Mexico is famous for industrial and native handicraft in silver, pottery, leather, wood, fibers and textiles. The U. S. buys a large portion of Mexico's exports.

Index of industrial production (1963=100) was 119 in 1965, 142 in 1967. The estimated gross na-

tional product (in U. S. dollars) was \$21.7 billion for 1966, \$24.7 billion (est.) for 1968.

Tourism is an important revenue source. Gross earnings in 1967 totaled \$960,000,000.

Foreign trade, in thousands of U. S. dollars:

	Imports	Exports
1966	\$1,605,000	\$1,229,000
1967	\$1,748,000	\$1,191,000

History and Government. Mexico was the site of advanced Indian civilizations before the Spanish conquest. The Mayas, an agricultural people, moved up from Yucatan and built immense stone pyramids and invented a calendar. The Toltecs were overcome by the Aztecs, who founded Tenochtitlan 1325 A.D., now Mexico City. Hernando Cortes, Spanish conquistador, destroyed the Aztec empire, 1519-1521.

After 3 centuries of misrule the people rose, under Fr. Miguel Hidalgo y Costilla (a priest), 1810, Fr. Morelos y Paven (another priest), 1812, and Gen. Agustín Iturbide, who made independence effectual Sept. 27, 1821, but made himself emperor as Agustín I. A republic was chosen in 1823; Iturbide was executed 1824.

Mexican authority extended into the present American Southwest and California until Texas revolted and established a republic in 1836; the Mexican legislature refused recognition but was unable to enforce its authority there. After numerous clashes, the U.S.-Mexican War, 1846-48, resulted in the loss by Mexico of the lands north of the Rio Grande, about half its total area.

French arms supported an Austrian archduke on the throne of Mexico as Maximilian I, 1864-67, but pressure from the U. S. forced France to withdraw troops, and led to his defeat by Mexican patriots under Benito Juárez, and subsequent execution. A dictatorial rule by Porfirio Díaz, president 1877-80, 1884-1911, led to demands for economic amelioration and fighting by rival forces until the new constitution of Feb. 5, 1917, provided social reform. Since then Mexico has developed large-scale programs of social security, labor protection and school improvement. A constitutional provision requiring management to share profits with labor became effective Dec. 12, 1963.

Mexico is a federal democratic republic of 29 states, with President, legislature and judiciary elected by universal suffrage; two territories with governors appointed by the President, and a federal district containing Mexico City. The President is elected for 6 years and thereafter ineligible; 60 senators for 6 years and deputies for 3 years, ineligible for reelection until one term has intervened. The deputies are one to every 200,000 pop.

In 1967 congressional elections, the long-dominant Institutional Revolutionary party won 87% of the vote and all 178 contested seats in the Chamber of Deputies.

Education and Religion. Education is secular, with primary education free and compulsory up to 15 years of age. Vocational instruction particularly in agriculture is promoted and there are many technical schools. The National University of Mexico continues an educational foundation of 1551 A.D. Spanish is the language.

Most of the people are Roman Catholics. All church real estate is vested in the nation, but care of church buildings is the responsibility of the clergy.

Defense. Military training is compulsory; draft-ees serve one year, then form part of the reserves. The regular army is comprised of about 50 infantry battalions and other units. In addition Mexico has a conscript Army of approx. 250,000 organized into national service divisions, plus a small Navy and an Air Force. Mexico is a member of the UN and OAS.

Monaco

PRINCEPAUTE DE MONACO

Capital: Monaco. Area: 370 acres. Population (Govt. est. 1961): 22,297. Monetary unit: French franc (U. S. \$0.20¢).

Monaco is a small principality on the Mediterranean surrounded on all but the sea side by France. It is noted for an exceptionally mild climate and magnificent scenery.

There is a local police force of 200.

Resources and Industries. Monaco's fame as a tourist resort and international conference city is widespread. Its revenues derive from indirect taxation, a tobacco monopoly, postage and the gambling tables of the Monte Carlo Casino.

About a dozen subsidiaries of large drug manufacturers were established in Monaco and their drugs entered France free of duty. In October, 1962, when the customs union with France ex-

pired, France put up customs barriers pending imposition of taxes and ended domestic mail rates. By a 1963 agreement the customs barriers were eliminated in April and domestic mail rates restored. French citizens living in Monaco less than 5 years must pay income taxes to France. Drug laboratories became subject to French controls; this applied also to their products sold in France.

Monaco endeavored to cover possible revenue losses by enacting a profits tax on Monaco companies that do 25% of their business outside Monaco. The company tax rate is now 35%.

History and Government. An independent principality for over 300 years, Monaco has belonged to the House of Grimaldi except during the French Revolution. It was placed under the protectorate of Sardinia in 1815 (Treaty of Vienna), and under that of France, 1861. The Prince of Monaco was an absolute ruler until a constitution was promulgated in 1911.

A new constitution, proclaimed Dec. 17, 1962, provided for female suffrage and abolition of capital punishment, and established a supreme tribunal to guarantee fundamental liberties. The legislature (National Council) consists of 18 members elected for 5 years.

The ruler of Monaco is Prince Rainier III who succeeded his grandfather, Prince Louis II, who died May 9, 1949. He married Grace Kelly, American motion picture actress, Apr. 18, 1956. A daughter, Princess Caroline Louise Marguerite, was born Jan. 23, 1957. The heir apparent, Prince Albert Alexander Louis Pierre, was born Mar. 14, 1958. Princess Stephanie Marie Elizabeth was born Feb. 1, 1965.

During 1965 a feud developed between Prince Rainier and Aristotle S. Onassis, shipping magnate who owned 52% of the Societe des Bains de Mer, which owns the Casino, several hotels and night clubs. The Prince pressed a development plan to attract more middle-class vacationers. Onassis opposed the plan.

In March, 1967, the government bought out Onassis' holdings for \$8,000,000.

Mongolia

BUGHUT NAIKRAMDAKH MONGOL ARAT ULUS MONGOLIAN PEOPLE'S REPUBLIC

Capital: Ulan Bator (Urga). Area, 592,664 sq. mi. Population (UN est. 1967): 1,170,000. Monetary unit: Tugrik (4 official rate per U. S. \$1).

The Mongolian People's Republic comprises Outer Mongolia in northeastern Asia. It is bounded on the N by the Siberian provinces of USSR, and on 3 other sides by Communist China. It is larger than Alaska.

NW Mongolia is an elevated plateau, well watered by lakes and rivers; SE and Mongolia include part of the Gobi Desert. Travel and communication and building methods are being modernized, but the population remains nomadic.

Resources and Industries. Livestock raising is the principal industry, including cattle, sheep, camels and oxen. Other activities under the planned economy include food processing, wool-cleaning, tanning, shoe-making, and production of building materials. Mongolia mines fluor spar, gold, coal, tungsten, marble, and some uranium. Oil has been found.

History and Government. One of the world's oldest countries, Mongolia reached the zenith of its power in the 13th Century when Genghis Khan and his successors conquered all of China and extended their influence as far W as Hungary and Poland. In later centuries, the empire dissolved and Mongolia came under the suzerainty of China.

With the advent of the 1911 Chinese revolution, Mongolia, with Russian backing, declared its independence. The Mongolian People's Republic was proclaimed Mar. 13, 1921. China, however, continued to claim the country until 1945 when recognition of independence was given.

A Constitution of 1940, since amended, vested power in the Great People's Khural from which is drawn a 7-member Presidium.

Mongolia has sided with the Russians in the Sino-Soviet dispute and has received large amounts of Soviet aid for the development of mines and industry. A Mongolian-Soviet mutual assistance pact was signed Jan. 15, 1966.

In 1963, Great Britain became the first Western country to extend diplomatic relations to Mongolia.

Parts of Ulan Bator, the capital, were inundated by a severe flood July, 1966, causing loss of life and property. Mongolia is a UN member.

Education and Religion. There are primary, secondary and technical schools, and a university in Ulan Bator. An Academy of Sciences was

founded in 1953. Buddhist Lamaism is the leading religion.

Morocco

AL-MAHLAKA AL-MAGHREBIA

Capital: Rabat. Area: 172,834 sq. mi. Population (UN est. 1967): 14,140,000. Monetary unit: Dirham (5.06 per U. S. \$1).

The monarchy of Morocco lies on the NW tip of Africa separated from Europe by the 8-mile-wide Strait of Gibraltar. It is bounded by Algeria, Spanish Sahara, the Mediterranean and the Atlantic. Until 1956 it was a protectorate of France and Spain.

It consists of 5 natural regions: A series of mountain ranges (Rif, facing Gibraltar; Middle Atlas, extending NW of Marrakesh; Upper Atlas, and Anti-Atlas); a series of rich plains in the W; the alluvial plains of Haouz in the SW; the "meseta," a well-cultivated series of plateaus in the center; a pre-Saharan zone extending from S to E.

The inhabitants largely are a mixture of Arabs and the original Berbers.

Tangier, a seaport with pop. 1965 of 164,232, and surrounding territory in extreme NW corner on the Atlantic was internationalized during the French and Spanish protectorate. The Tangier Zone comprised 225 sq. mi. A provisional agreement in July 1956, provided for Tangier's incorporation into Morocco as a new province. International rule officially ended Oct. 29, 1956. Certain free zone provisions were restored in 1962.

Ifni, Spanish coastal enclave, comprises 740 sq. mi. and 49,889 population, mostly of the Alt Ba Amar tribe, which demands return of the enclave to Morocco.

Resources and Industries. Morocco is primarily agricultural and pastoral. Cereals rank 1st among agricultural products, including barley, wheat and corn. Fruit and vineyards are abundant and dates a regular crop. Carpets, leather goods, fezzes, woolen and silk stuffs are among the manufactures.

Morocco ranks 2nd to U. S. in production of phosphate rock and is 1st in phosphate exports. It produces 10% of the world's cobalt and 2% of manganese ore. Other minerals are antimony, zinc, lead ore, oil and anthracite.

Wheat is normally one of Morocco's food exports, but droughts have forced the country to import it in some years; in 1967 the U. S. gave Morocco 140,000 tons. In 1967 and 1968 construction was started on two river dams for irrigation projects.

Modern industrialization has expanded a number of industries. Casablanca handles heavy annual tonnages. Its 11,480-ft. jetty shelters 2½ mi. of piers.

Tourism attracts 500,000 visitors annually to see Morocco's casbahs, Roman ruins, old fortresses and oases.

History and Government. Morocco is a remnant of the Shereefan Empire founded by the Arabs at the close of the 7th Century which encompassed all NW Africa and most of the Iberian Peninsula.

It came under French influence because of its proximity to Algeria. A general uprising of tribes in 1910 culminated in the dispatch of a French expeditionary force that occupied Fez in 1911. Frequent uprisings continued for two decades until the exile of Abd-el-Krim in 1926 and the surrender of Sidi Ali Hociene in 1933.

The French section encompassed the whole of Morocco except for the Spanish-controlled Ifni enclave, the Cape Juby area in the SW, and the international Tangier area.

France ended its protectorate over Morocco by a joint declaration and protocols between the two countries, Mar. 2, 1956 which recognized Morocco's independence and suspended the protectorate treaty (Treaty of Fez, 1912). Spain signed similar agreements, Apr. 7, 1956, recognizing Morocco's independence. Spain agreed to relinquish its Southern Morocco Protectorate effective Apr. 10, 1958. French forces completed their withdrawal in Sept. 1961. The U. S. built 3 large Air Force bases but evacuated them under a 1957 agreement, keeping only a Navy air transport base at Kenitra on the Atlantic.

Sidi Mohammed Ben Youssef, third son of Moulay Youssef (reigned 1912-1927), was proclaimed Nov. 18, 1927, as Mohammed V. His eldest son, Moulay Hassan, was invested as Crown Prince and heir apparent July 9, 1957. On Aug. 11, 1957, the ruler's title of King (Melek) was ordered used instead of Sultan.

Mohammed V died Feb. 26, 1961, and the Crown Prince ascended the throne as King Hassan II.

Under a constitution approved by referendum Dec. 7, 1962, Morocco became a constitutional

monarchy. The first 144-seat Parliament was elected by universal vote May 17, 1963.

Morocco accepted U. S. and USSR military and economic aid on a basis of non-interference in its internal affairs. It has agreements with France on economic, technical and cultural cooperation. It is a member of the UN and Arab League.

Education and Religion. The native population is largely illiterate, but trade schools and agricultural training centers have been considerably developed. There are Koranic, Franco-Moslem and French schools. The most notable Islamic school is Kairoween University in Fez. Arabic is the official language. The population is Sunni Moslem.

Defense. Morocco's volunteer Army numbers approx. 40,000.

Muscat and Oman

SULTANAT MASQAT WA OMAN

Capital: Muscat. **Area:** 82,000 sq. mi. **Population** (est. 1964): 750,000. **Monetary unit:** Indian Rupee (7.579 per U. S. \$1).

The Sultanate of Muscat and Oman is an independent, absolute monarchy occupying the E corner of the Arabian Peninsula and including the tip of a nearby peninsula, Ruus-al-Jebel, to the N. The Sultanate has a coastline of 1,000 mi. along the Gulf of Oman to the NE and the Arabian Sea to the SE. Climate is generally hot and dry.

There is a narrow coastal plain up to 10 mi. wide, a range of barren mountains with Jebel Akhbar, the highest, reaching c. 9,900 ft., and a wide, stony, mostly warless plateau averaging 1,000 ft. altitude. The Sultanate is the size of Utah.

Exports are mainly dates and some dried fish, limes and pomegranates. Cultivated areas also produce bananas, grapes, wheat, vegetables, coconuts and frankincense.

Oil was discovered in 1964, giving promise of a boost to the sparse economy.

The people are predominantly Arab, but there are also Indians, Baluchi, Negroes and others. The language is Arabic, but Hindi, Urdu, Baluchi and others are also spoken. The religion is mainly the Ibadhi branch of the Moslem faith.

The area's history is a long one. Early Semitic tribes were conquered by the Persians about 550 B.C.; later conquerors were the Parthians, the Caliphs of Baghdad, Turks, Portuguese and Persians again. The present al-bu-Said dynasty threw off the last of Persian rule 1744.

The armed forces include two regiments, a small Air Force and other troops and a gendarmery regiment.

Nauru

Capital: Nauru. **Area:** 8 sq. mi. **Population** (UN est. 1966): 6,056. **Monetary unit:** Australian dollar (.9010 per U. S. \$1).

Nauru, one of the world's smallest nations, became independent Jan. 31, 1968, after 80 years of foreign rule. In the southwest Pacific about 30 mi. S of the Equator and 1,300 mi. NE of Australia, Nauru is comfortably affluent because of its high-grade phosphate deposits.

The native population of 3,100 (about 3,000 foreign residents work in the phosphate industry) receive about £1,700 (U. S. \$4,000) per capita a year in royalties from sale of phosphates, and with independence royalties were expected to increase. However, this bright economic picture is not without flaws; the deposits are expected to become depleted around 1990.

The island was discovered in 1798 by the British but was formally annexed to the German Empire in 1888. After World War I, Nauru became a League of Nations mandate administered by Australia. During World War II the Japanese occupied the island and shipped 1,200 Nauruans to the fortress island of Truk as slave laborers, including the nation's present Head Chief Hammer De Roburt.

In 1947 Nauru was made a UN trust territory, administered by Australia on behalf of the three trust powers—Australia, Great Britain and New Zealand. Because of its small size Nauru has not sought membership in the UN.

Nepal

Capital: Katmandu. **Area:** 54,362 sq. mi. **Population** (UN est. 1967): 10,500,000. **Monetary unit:** Nepalese rupee (10.125 per U. S. \$1).

Nepal is a constitutional monarchy in the Himalayas, bounded on the N by China (Tibet) and E, S and W by India. It is about the size of Arkansas.

There are many fertile valleys lying in the slopes of the lofty mountains, including Mt. Everest, on the Tibet border. The capital is in the fertile val-

ley of Katmandu, 15 mi. long and 20 wide, which supports 450,000 inhabitants and is noted for its many, lavishly decorated shrines.

Virtually closed to the outside world for centuries, Nepal is now linked to India and Pakistan by modern roads and air service.

A northern section called Mustang, at a mean altitude of 15,000 ft. and bordered on 3 sides by Tibet, is actually a district of Nepal although it has its own Rajah and a measure of internal autonomy.

Nepal has established a 500 sq. mi. game preserve for elephants, tigers, rhinoceroses, leopards, bears, crocodiles and over 500 species of birds.

Resources and Industries. Nepal has rich forests and quartz deposits. The country exports jute, rice, grain, cattle, hides, wheat and drugs, and imports textiles, sugar, salt, hardware, etc.

U. S. technical aid has made possible settlement of the fertile but once inaccessible Rapti Valley with a 53-mi., \$500,000 highway. Nepal also receives financial aid from India, Australia, Communist China and USSR. Its 2nd 5-year plan stresses hydroelectric power and roads.

History and Government. Nepal was originally divided into petty principalities, the inhabitants of one of which—the Gurkhas—became dominant about 1769. Maharajadhiraja Tribhubana Bir Bikram (born June 30, 1906), member of the Shah family, returned from exile, ended the system of rule by hereditary premiers of the Ranas family, Hindu Rajputs, 1848-1951, who kept the Kings virtual prisoners. He established a popular government Feb. 18, 1951.

King Tribhubana died Mar. 13, 1955, and was succeeded by his son, Mahendra Bir Bikram Shah Deva, officially crowned May 2, 1956.

King Mahendra promulgated a new constitution, Dec. 16, 1962, providing for a four-tier governmental system culminating in a National Assembly (Panchayat) of 125 elected members. There are no political parties.

Education and Religion. There are more than 2,400 English schools in addition to Sanskrit and Nepali schools and other institutions of learning. Buddha was born at Lumbini in South-Central Nepal. Hinduism and Buddhism are the main religions. Polygamy, child marriage and the caste system were abolished in 1963.

Defense. The Army consists of about 25,000 regular infantrymen. Nepal is a UN member.

Netherlands

KONINKRIJK DER NEDERLANDEN

Capital: Amsterdam. **Area** (land): 15,800 sq. mi. **Population** (UN est. 1967): 12,597,000. **Monetary unit:** Guilder (3.615 per U. S. \$1).

The Kingdom of the Netherlands, a constitutional monarchy in northwestern Europe, is bounded by Germany, Belgium, and the North Sea. Its surface is flat, with an average height above sea level of 37 ft., with much land below sea level, reclaimed and protected by dikes, of which there are 1,500 mi. The country is about the size of Vermont and Massachusetts combined.

Since the end of World War II the government has been draining the IJsselmeer, formerly Zuider Zee, and converting the reclaimed land into farms. The total will add over 550,000 acres. By 1968, 305,000 acres had been reclaimed.

The Hague is the seat of government, but Amsterdam is the sole capital of the kingdom and the inaugurations of sovereigns are held there.

Rotterdam, located along the principal mouth of the Rhine, handles the most cargo of any ocean port in the world. The heart of the city, destroyed by a Nazi air attack in 1940, has been completely restored. A subway line was opened in 1968.

A 3.125-mi. causeway bridge for autos, longest in Europe, was opened Dec. 15, 1965, in South Holland.

Resources and Industries. Forty percent of the land is given to pasture, farming takes 30%, forest 7%, horticulture 3%. Of the land 90% is in holdings of fewer than 50 acres and more than 50% of fewer than 10 acres. Cereals, potatoes, sugar beets and other crops are raised. Agriculture and fishing engage approx. 12% of the workers. Dairy products are an important industry; the cheese products are famous and the cattle high grade. Tulips and other flowering bulbs and roots are grown. The Dutch bulb is not indigenous to Holland but originated in Persia, whence it was taken to Holland several hundred years ago.

The most important industries are shipbuilding, the manufacture of machinery, textiles (including rayon), and chemical products; also brewing and distilling and flour milling. Amsterdam is famous

for diamond cutting; Delft for pottery, Eindhoven has electrical and radio factories. Coal, oil and salt are found. Natural gas reserves are large. Index of industrial production (1963=100) was 129 for 1967.

Canals, of which there are 4,203 mi., are important in transportation. The Rhine, Meuse and Schelde reach the sea through the Netherlands and carry enormous traffic.

Royal Dutch Airlines (KLM) is one of the world's largest international airlines, reaching 120 cities in 75 countries.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$8,018,000	\$6,750,000
1967	\$8,338,000	\$7,288,000

History and Government. After the empire of Charlemagne (d.814) fell apart, the Netherlands—Holland, Belgium, Flanders—split among counts, dukes and bishops, passed to Burgundy and thence to Charles V of Spain. His son, Philip II, sent the Duke of Alba as governor to check the Dutch drive toward political freedom and Protestantism (1568-1573). William the Silent, prince of Orange, led a confederation of the northern provinces, called Estates, in the Union of Utrecht, 1579. The Estates retained individual sovereignty, but were represented jointly in the States-General, a body that had control of foreign affairs and defense. In 1581 they repudiated allegiance to Spain. The rise of the Dutch republic to naval, economic and artistic eminence came in the 17th Century.

The United Dutch Republic ended 1795 when the French formed the Batavian Republic, ended 1798. Napoleon made his brother Louis King of Holland, 1806; Louis abdicated 1810 when Napoleon annexed Holland. In 1813 the French were expelled. In 1815 the Congress of Vienna formed a kingdom of the Netherlands, including Belgium, under William I, with Brussels and The Hague as alternative capitals. In August, 1830, the Belgians revolted and formed a separate kingdom, which was recognized by the European powers in November, 1831; later by Holland.

The constitution, promulgated 1814, and subsequently revised, assures a hereditary constitutional monarchy. Executive power rests exclusively in the Crown (the Queen and ministers). Legislative powers are exercised jointly by the Crown and Parliament (States-General) of two Chambers: First Chamber, 75 members, elected for six years (one half every third year) by the provincial legislatures, and the Second Chamber, 150 Deputies, elected for four years directly. Universal suffrage for citizens of both sexes over 23 years of age and proportional representation are in force. The sovereign exercises the executive authority through a Council of Ministers, the President thereof corresponding to a Prime Minister. There is a State Council named by the sovereign, of which she is president, to be consulted on all legislative and some executive matters.

The reigning sovereign is Queen Juliana Louise Emma Marie Wilhelmina, born April 30, 1909, only daughter of former Queen Wilhelmina. She succeeded to the throne, Sept. 6, 1948, on the abdication of her mother. Queen Juliana on Jan. 7, 1937, married Prince Bernhard of Lippe-Biesterfeld, born June 29, 1911, known as the Prince of the Netherlands since the accession of Juliana. They have 4 daughters, Princess Beatrix Wilhelmina Armgard, born Jan. 31, 1938, her presumptive, married Claus von Amsberg, West German diplomat, Mar. 10, 1966; Princess Irene Emma Elizabeth, born Aug. 5, 1939, married Prince Carlos Hugo, Bourbon-Parma, Apr. 29, 1964; Princess Margriet Francisca, born Jan. 19, 1943, in Ottawa, Canada, married Pieter van Vollenhoven, Jan. 10, 1967, and Princess Maria-Christine, born Feb. 18, 1947.

On Apr. 27, 1967, Princess Beatrix gave birth to a son, Willem-Alexander, Prince of Orange, first male heir to the throne in three generations.

Education and Religion. There is complete liberty of worship. The royal family belongs to the Netherlands Reformed Church (Prot.). The population is 38% Protestant; 40% Roman Catholic; others, including non-church members, 22%.

Education is obligatory from ages 6 to 15. Instruction is free or subject to a small fee, in both public and denominational schools and teachers are paid by the state. There are universities in Amsterdam (two), Utrecht, Leyden, Delft (Engineering), Groningen, Wageningen (Agriculture), Rotterdam (Commerce), Nijmegen, Eindhoven (Engineering) and Tilburg.

Defense. Army service is compulsory between the ages of 20 and 40. The Navy consists of one carrier,

two cruisers, 12 destroyers, 24 frigates, 6 submarines and minor miscellaneous craft. The Netherlands modern Air Force contributes to NATO's tactical air force.

The Netherlands is a member of the UN, NATO, EEC, Council of Europe and Benelux.

Sovereignty over the Netherlands East Indies was transferred to the Republic of Indonesia, excepting Netherlands New Guinea, Dec. 27, 1949. The latter was transferred to the UN, 1962, and then to Indonesia, 1963.

SURINAM AND NETHERLANDS ANTILLES

A revision of the Netherlands charter, promulgated Dec. 15, 1954, raised Surinam and the Netherlands Antilles to equality with the Netherlands homeland in the Kingdom of the Netherlands, with complete internal autonomy and a voice in government of the kingdom. The kingdom is represented in each by the governor who also is head of government for his respective county. Local governments comprise the governor, council, ministers, and representative bodies (Staten), the latter elected by universal suffrage.

Surinam, also known as Dutch Guiana, is on the N coast of South America, between French Guiana on the E and British Guiana on the W; forests and savannahs on the S stretch to the Tumuc Humac Mountains. The area is approximately 55,400 sq. mi. The population (est. 1964) is 325,000. Capital: Paramaribo.

The country is rich in minerals and hydroelectric power is being developed on a large scale. Oil was discovered, 1966. Exports include bauxite, alumina, lumber, sugar, rice, citrus, coffee, bananas and shrimp. The Surinam gulder (SFlorin) is 1.87 per U. S. \$1.

The Dutch by the Treaty of Breda, 1667, ceded New Netherland (New York) to England in exchange for Surinam.

The Netherlands Antilles consist of two groups of islands in the West Indies: Curacao, Aruba and Bonaire are near the South American coast; St. Eustatius, Saba and the southern part of St. Maarten are southeast of Puerto Rico. Northern two-thirds of St. Maarten belongs to French Guadeloupe; the French call the island St. Martin. Total area of the two groups is 393 sq. mi., including: Aruba 70, Bonaire 110, Curacao 180, St. Eustatius 12, Saba 5, St. Maarten (Dutch part) 16.

Tourism in recent years has been increasing, especially to the islands of Curacao and Aruba.

The Netherlands Antilles population (est. 1967) was 212,000. Willemstad is the capital. Chief products are corn, pulse, salt and phosphate; principal industry is the refining of oil. On Curacao the Royal Dutch Shell and on Aruba the Standard Oil Co. of New Jersey have large oil refineries, receiving crude oil from Venezuela.

New Zealand

Capital: Wellington. Area: 103,736 sq. mi. Population (UN est. 1967): 2,726,000. Monetary unit: New Zealand dollar (.8946 per U. S. \$1).

The main islands of New Zealand lie in the South Pacific about 1,200 mi. E of Australia. The total area is about that of Colorado. Including remote islands to the N and the Ross Dependency to the S, the reach of New Zealand is from the tropics to Antarctica.

Snow-topped mountains, smoking volcanoes, deep fjords, boiling geysers, golden beaches and the glow-worm caves of Waitomo are among the scenic attractions.

New Zealand comprises North Island, 44,281 sq. mi.; South Island, 58,093 sq. mi.; Stewart Island, 670 sq. mi.; Chatham Islands, 372 sq. mi. Both the North and South Islands slightly exceed 500 mi. in length. Cook Strait, separating the two islands, is only 16 mi. wide at its narrowest.

Included within the administrative boundaries of New Zealand are Campbell Island, Solander Island, the Three Kings, Kermadec Islands, Auckland, Antipodes, Bounty and Snare Islands, a total area of 320 sq. mi. Annexed to New Zealand are Niue Island, and Tokelau Islands in the Pacific totaling 104 sq. mi. with a population of 7,018 (1965). In 1965, the Cook Islands (pop. 1965 20,519, area 83 sq. mi.) became self-governing although New Zealand retains responsibility for defense and foreign affairs.

Wellington and Auckland, on North Is., are the chief ports. South Is. has the picturesque Southern Alps and Tasman, Fox and Franz Josef Glaciers. There are 15 named peaks over 10,000 ft., the highest being Mt. Cook, 12,349 ft. Christchurch and Dunedin are the main cities of South Is.

Resources and Industries. New Zealand is largely dependent on agricultural products for export in-

come; wool, meat and dairy products account for 91% of the total.

Exports in 1966 totaled \$1.08 billion (in U. S. dollars), in 1967 \$9.99 billion; imports in 1966 were \$1.09 billion, in 1967 \$9.6 billion.

Agriculture engages 13.5% of the population, manufacturing industries 26%. Private enterprise is basic in the economy, but state ownership or regulation affects many industries. Railroads are largely state-owned and operated.

Food processing is the largest industry with value added amounting to over \$200,000,000; forest products account for more than \$162,000,000.

The pulp and paper industry on North Is. is partly powered by natural steam from volcanic areas. Construction of the first iron and steel plant started 1966. Natural gas was discovered at Kapuni, North Is., 1967, and was to be piped to several towns. A large hydroelectric plant was under construction at Lake Manapouri, South Is., to provide power for a proposed aluminum smelter.

About 100,000 tourists visit New Zealand annually, about 17,000 of them from the U. S.

New Zealand changed its currency from pounds to dollars July 10, 1967; the old currency was also to continue in use until late 1968.

History and Government. New Zealand was discovered in 1642 by Abel Janszoon Tasman, a Dutch navigator, and its coasts were explored by Capt. James Cook, 1769-1770. British sovereignty was proclaimed in 1840, with organized settlement commencing in the same year. Representative institutions were granted in 1853. The Colony became a Dominion in 1907 and an independent member of the Commonwealth in 1947.

The native Maoris are Polynesians. Early in the 19th Century they numbered an est. 200,000; violence and European diseases cut them to 40,000 by the end of the century. Recently they have increased at 4% annually, twice the rate of other New Zealanders, and totaled 206,054 in Dec. 1966.

Government consists of a governor general, representing the British Crown; a House of Representatives whose members are elected by universal suffrage for a 3-year term; a Prime Minister and Cabinet who are members of the House and accountable to it.

New Zealand is a member of the UN, Commonwealth, SEATO and Colombo Plan.

In national elections Nov. 26, 1966, the 80 seats in the House of Representatives were distributed: National party 44, Labor 35, Social Credit 1.

New Zealand's tax rates reach a maximum of 67½ cents per dollar at the \$10,080 income level. "Cradle-to-grave" social security includes maternity, school, medical, hospital, medicine, pension and other benefits.

Education and Religion. Education is free and compulsory between the ages of 7 and 15. There are universities in Dunedin, Christchurch, Wellington, Auckland, Hamilton, and Palmerston North. The Anglican and Presbyterian Churches have the largest followings.

Defense. There are regular army, navy and air forces, supplemented by a Territorial Army and a Naval Reserve. A proportion of youths become eligible for military training at age 20. New Zealand had a force of 360 men in Vietnam in 1967.

Ross Dependency, administered by New Zealand since 1923, comprises Antarctic territory between the 160th meridian E. Long. and 150th W. Long. south of the 60th parallel of S. Lat., including Edward VII Land and portions of Victoria Land with total est. area of 160,000 sq. mi.

Nicaragua

REPUBLICA DE NICARAGUA

Capital: Managua. **Area:** 53,938 sq. mi. **Population** (UN est. 1967): 1,783,000. **Monetary unit:** Cordoba (7.026 per U. S. \$1).

Nicaragua, largest of the Central or Middle American States, lies between the Caribbean and the Pacific with more than 200 mi. of coastline on each. The country is bordered by Honduras on the N and Costa Rica on the S. The Cordillera range of mountains, including many volcanic peaks, runs NW-SE through the middle of the country. Between this range and a range of volcanic peaks to the W lie Lake Managua, 38 mi. by 15, and Lake Nicaragua, 100 mi. by 45, of great importance to the transport system. The government-owned Pacific railroad, Corinto to Leon and Managua to Granada, 171 mi., is the principal rail line. There is daily air service to the U. S. and South America.

Resources and Industries. The nation has valuable forests, some gold is mined. It is essentially an agricultural country, but industrialization, in-

cluding oil refining, is growing. On the broad tropical plains of the east coast, bananas, cotton, fruit and yuca are cultivated. Products of the western half include coffee, sugar cane, corn, beans, cocoa, rice, tobacco and wheat.

Foreign trade, 1967, was: exports \$146,000,000, imports \$204,000,000, both up from 1966.

History and Government. After gaining independence from Spain, 1821, Nicaragua was united for a short period with Mexico, then with the United Provinces of Central America, finally becoming an independent republic, 1838.

The constitution, revised in 1960, provides for a Congress of two chambers, a House of Deputies of 45 members and a Senate of 18 members, all elected by popular vote for 4 years. Ex-presidents also serve in the Senate and are appointed for life. The President is elected for 4 years and may not succeed himself.

Pres. Rene Schick Gutierrez, elected Feb. 3, 1963, died Aug. 3, 1966, and Congress elected Dr. Lorenzo Guerrero, a vice president, to fill out the unexpired term. Anastasio Somoza Debayle was elected president Feb. 5, 1967.

Nicaragua was one of the Central American nations visited in July 1968 by U. S. President Johnson and promised increased aid.

Education and Religion. Roman Catholicism is the prevailing religion.

A Central University of Nicaragua was established in 1941. The University of Leon, since 1947 called National University of Nicaragua, was founded in 1814. Spanish is the official language.

Nicaragua is a member of the UN and OAS.

Niger

REPUBLIC OF THE NIGER

Capital: Niamey. **Area:** 489,189 sq. mi. **Population** (UN est. 1967): 3,546,000. **Monetary unit:** CFA franc (246.85 per U. S. \$1).

The Republic of the Niger, a former French Overseas Territory in the heart of West Africa, is bounded by Libya, the Algerian Saharan Department of Oases, Chad, Upper Volta, Dahomey, Federation of Nigeria, and Mali. Chief access to the country, a vast plateau, almost twice the size of Texas, is by air. The Niger River flows through the western corner.

Under provisions of the 1958 French constitution, Niger became fully independent Aug. 3, 1960, and joined the UN Sept. 20. It elected to remain outside the framework of the French Community proper, but signed a bilateral agreement Apr. 24, 1961, retaining close ties with France. It is a member of an economic alliance called the Council of the Entente formed May 29, 1959; other members are Dahomey, Ivory Coast, and Upper Volta.

Niger has limited resources and is an agricultural and pastoral land. Peanuts are the principal cash crop; livestock (cattle, sheep, camels, donkeys, goats) are second in importance. Cotton is being promoted.

In 1967 Niger signed an agreement with France for exploitation of large, high-grade uranium deposits in the north. Television is used to spread instruction to some village schools.

Nigeria

Capital: Lagos. **Area:** 356,669 sq. mi. **Population** (UN est. 1967): 61,450,000. **Monetary unit:** Pound (.3571 per U. S. \$1).

The Federation of Nigeria, Africa's most populous country, became independent in 1960. Larger than Texas and Oklahoma combined, it lies on the southern side of the West African bulge, between Dahomey and Cameroon, with Niger Republic to the N and Chad NE. It comprises nearly 250 tribal and linguistic groups, including the Hausas in the N, Ibos in the E, Yorubas in the W. Nigerians constitute almost one-fifth of the population of the African continent.

Nigeria was composed of four distinct autonomous regions each with its own administration: Northern, Western, Mid-Western and Eastern, plus the Federal Territory of Lagos. Included in Nigeria's territory is the northern portion of the former British Cameroons, a British UN trusteeship that ended in 1961.

Its rich natural resources include oil, coal, iron, limestone and natural gas. It produces 45% of the world's columbium ore (important in steel alloys).

Cocoa is the main crop. Production of oil has grown rapidly; in 1965 oil exports were valued at \$190,000,000, doubling the 1964 total and, for the 1st time, exceeding the value of cocoa exports. Other exports are tobacco, tin, palm oil, palm

kernels, cotton lint, hides and skins, lumber, rubber and peanuts.

Nigeria became a sovereign country Oct. 1, 1960, and a republic within the British Commonwealth Oct. 1, 1963. It is a member of the UN. Nigeria's first federal constitution guaranteed personal liberties and regional autonomy, and provided for a Parliament comprised of a 312-member House, directly elected, and a Senate, indirectly elected.

In 1966 there were two military coups and periods of interracial strife ending a long period of coalition governments of the majority Northern Region and other regions. On Jan. 15, junior Army officers seized control; Gen. Johnson Aguiyi-Ironsi, an easterner, made himself head of state, Prime Minister Abukabar Tafawa Balewa was assassinated. On Aug. 1, Col. Yakubu Gowon, a northerner, became head of state; Gen. Ironsi was assassinated.

On May 30, 1967 the Eastern Region seceded from Nigeria and proclaimed itself the Republic of Biafra. The move plunged the country into civil war.

The war went badly for the outnumbered 13-000,000 Ibos of Biafra. By mid-1968 at least 100,000 including women and children were reported facing starvation as supplies were blockaded by the Nigerian Government forces. Attempts by international groups to bring in aid were stymied, despite an urgent appeal, July 11, by U. S. President Johnson that food be allowed to reach the starving.

Islam is the principal religion of Northern Nigeria and among the Yorubas. English is the official language.

Norway

KONGERIKET NORGE

Capital: Oslo. Area: 125,181 sq. mi. Population (UN est. 1967): 3,784,000. Monetary unit: Krone, (N. kroner (7.15 per U. S. \$1)).

Norway occupies the W part of the Scandinavian Peninsula in NW Europe. It shares borders with Sweden, Finland and the USSR. The rocky W coast is cut deep by fjords of scenic grandeur. Norway is about the size of New Mexico.

The country's greatest length is 1,100 mi.; its width varies from 270 to only 4 mi. at the narrowest point. The coastline, including the fjords and largest of the 150,000 islands, is 12,500 mi. long. The climate is mild and moist on the W coast, but fairly cold and dry in the E.

The midnight sun is a phenomenon of the North Cape area. The sun does not set from the middle of May until the end of July, nor does it rise above the horizon from approximately Nov. 20 to Jan. 24. The Northern Lights are visible in winter.

Resources and Industries. More than 72% of the land is unproductive and only 4,300 sq. mi. are cultivated; rivers and lakes occupy 5,000; forests 29,455.

Forests supply a sizable wood-processing industry. Huge quantities of cod, herring, mackerel and salmon are caught. Mining is an important industry and the country yields copper, pyrites, nickel, iron, zinc, lead, aluminum.

Lacking oil or sufficient coal (only 442,000 tons of coal were produced in Spitsbergen in 1964), Norway has harnessed its waterfalls to provide power. Manufacturing, mainly processing of forest, fishing and mining products, consumes 65% of the hydroelectric output, which is over 48 billion kwh per year. Norway has the highest per capita consumption of electricity in the world.

Farm products include oats, rye, potatoes, dairy products and fruits.

Norway's merchant marine now ranks 3rd in the world, with 2,835 ships totalling 17,000,000 gross tons Jan. 1, 1967.

Unemployment is virtually non-existent.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$2,403,000	\$1,563,000
1967	\$2,746,000	\$1,736,000

History and Government. The first supreme ruler of Norway was Harald the Fairhaired who came to power in 872 A.D. Between 800 and 1000, the Vikings raided and occupied parts of Europe. Christianity was introduced 1030.

The country was united with Denmark 1381-1814, and with Sweden 1814-1905. The Swedish union was dissolved in 1905 and a Danish prince was named King Haakon VII of Norway. Nazi Germany attacked Norway Apr. 9, 1940 and held it until liberation May 8, 1945.

Norway is a constitutional monarchy.

The King of Norway is Olav V (born July 2,

(1903), son of Haakon VII. On the death of his father he became King Sept. 21, 1957. He married (Mar. 21, 1929) Princess Martha of Sweden (who died Apr. 5, 1954). The heir to the throne, Crown Prince Harald, was born Feb. 21, 1937. The King also has two daughters, Princess Ragnhild Alexandra (June 9, 1930) and Princess Astrid (Feb. 12, 1932). Both are married to commoners.

Legislative power is vested in the Storting, whose 150 members are elected for four years. The Labor party, dominant for 30 years, was swept from power by a coalition of non-Socialist parties Sept. 13-14, 1965.

Education and Religion. The Evangelical Lutheran religion is endowed by the state and its clergy are nominated by the King. All religions enjoy complete freedom of worship.

Since 1860, education has been free and compulsory from ages 7 to 14. The universities of Oslo (founded 1811) and Bergen are subsidized by the state, as are the Technological Institute (Trondheim) and the Agricultural College (Aas).

Defense. Military service is universal and compulsory. Conscripts are drafted at 20, serve 12-15 months. The Navy includes destroyers, frigates, submarines, etc. There is a small Air Force.

Norway is a member of UN, NATO, EFTA, Nordic Council and Council of Europe.

SPITSBERGEN

(Svalbard)

Spitsbergen is a group of mountainous islands in the Arctic Ocean, c. 23,957 sq. mi., pop. varying seasonally from 1,500 to 3,000. Incorporated in Norway as Svalbard. The largest, West Spitsbergen, c. 15,000 sq. mi., seat of the governor, is about 370 mi. N of Norway. Named Svalbard by Norse who discovered it in 1194, it was visited by Barents 1596 and became locale of whaling until 19th Century. By a treaty signed in Paris, February, 1920, major European powers recognized the sovereignty of Norway, which incorporated it 1925. Sealing, fishing are followed; rich coal deposits are worked by Norwegians and Russians. Mt. Newton (West Spitsbergen) is 5,633 ft. tall.

OTHER ISLAND POSSESSIONS

Jan Mayen, a desolate area of 147 sq. mi. in the Arctic Ocean between Greenland and Northern Norway used as a weather station.

Bouvet Island, area 22 sq. mi., is an uninhabited tract in the Southern Atlantic.

Peter I Island, with an area of 97 sq. mi., lies in the Antarctic and is uninhabited.

Norwegian Antarctic Dependency (Queen Maud Land), lying between the Falkland Islands dependency and the Australian Antarctic dependency, was placed under Norwegian sovereignty Jan. 14, 1939.

Pakistan

Capital: Islamabad. Area: 365,529 sq. mi. Population (UN est. 1967): 107,258,000. Monetary unit: Pakistan rupee (4.789 per U. S. \$1).

Pakistan became a sovereign nation Aug. 14, 1947, when what had been the British Empire of India achieved independence and was partitioned into two countries, Pakistan and India. At first a dominion, Pakistan declared itself a republic on Mar. 23, 1956. Its name means "Land of the Pure" in Urdu.

Pakistan is divided into two sections, West Pakistan and East Pakistan. The two areas lie nearly 1,000 mi. apart on opposite sides of India.

West Pakistan, larger than Texas, is 310,403 sq. mi. It adjoins Iran, Afghanistan, India and the Arabian Sea. To the NE lies the disputed Kashmir region.

East Pakistan, about the size of Arkansas, is 55,126 sq. mi. It is bordered by India, Burma and the Bay of Bengal.

West Pakistan is a land of rugged mountains and river valleys, where irrigation aids agriculture, the occupation of 80% of the people. The Indus flows for c. 1,000 mi. from the base of the Himalayas to the Arabian Sea and with its tributaries supplies reservoirs, canals and hydroelectric plants. In the W are the Hindu Kush Mts., with Tirich Mir 25,230 ft. In the N is Mt. K2 (Godwin Austen), 28,250 ft., 2nd highest in the world. The climate is mostly dry with little rainfall and summer temperatures up to 120° F.

East Pakistan has vast delta areas where the Ganges and the Brahmaputra-Jamuna reach the Bay of Bengal. It has a rainfall up to 100 in. in the monsoon season, July-September.

Islamabad, under construction for 6 years, became the official seat of government in 1967. Rawalpindi had been the interim capital since 1959 when it replaced Karachi as the capital. Ayub Nagar in East Pakistan serves as a 2nd capital.

Resources and Industries. Rice, wheat, cotton, olseeds, tea, tobacco, sugar, flour, wool, jute and fish are important products. Minerals include sulphur, gypsum, salt, chromite, cement, petroleum, gas, coal, asbestos, antimony, magnesite and silica. Pakistan has the world's largest jute production, 5-6,000,000 bales annually, constituting its largest export.

West Pakistan manufactures cotton textiles (its largest industry), wool, silk, rayon, cement, card and paper board, sugar, chemicals, dyes, synthetic fertilizers. East Pakistan manufactures burlap and other jute products, paper, fertilizers, cotton textiles and produces tea.

The Indus Basin irrigation project which Pakistan shares with India, a \$2 billion development aided by Western nations, is scheduled for completion in 1970. The multipurpose Karnafull Dam, largest U. S. aid-financed project in East Pakistan, was inaugurated in 1962.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$900,000	\$601,000
1967	\$1,101,000	\$604,000

History and Government. The land now called Pakistan shares the 5,000-year history of the India-Pakistan subcontinent. At the present day sites of Harappa and Mohenjo Daro, the Indus Valley Civilization, with large cities and elaborate irrigation systems, flourished c. 4000-2500 B.C.

Armies of Alexander the Great invaded regions which are now Pakistan c. 326 B.C.

A lasting influence on Pakistan was the arrival of Islam with the first Arab invasion of 711 A.D.

After World War I the Moslems of British India felt handicapped as a minority and began agitation for minority rights in elections and preservation of communal entities.

Mohammad Ali Jinnah (1876-1948) was the principal architect of the Pakistan state. A lawyer who studied in England, he was a leader of the Moslem League from 1916, and worked for constitutional reform and dominion status for India. Convinced Moslem-Hindu relations in government were irreconcilable, he first advocated a separate Moslem state in 1940.

When the British withdrew Aug. 14, 1947, the Islamic majority areas of India acquired self-government with dominion status in the Commonwealth and Jinnah became the first Governor General (1947-1948). He died in 1948.

After creation of a republic in 1956, President Iskander Mirza briefly took power with the aid of the army in Oct. 1958 but was supplanted that same month by Gen. Mohammad Ayub Khan.

A new 5-level political system was inaugurated June 13, 1959. As amended in 1967, it comprises a pyramidal series of councils called Basic Democracies. It puts Presidential elections in the hands of 120,000 representatives chosen by secret ballot in units of 700-800 voters each.

Gen. Ayub, who had become President in the 1958 coup, became the first elected President on Feb. 17, 1960, under the councils system.

Pakistan's 2nd constitution came into force June 8, 1962, providing for a stronger presidential government and a unicameral legislature, the National Assembly, comprised of 218 members including 8 reserved for women and 10 for "men of outstanding merit."

President Ayub was reelected Jan. 2, 1965. His sweeping land reform, started in 1959, abolished feudalism. Reforms in law and education were also launched.

(See article on India for disputes over Kashmir, Rann of Cutch, etc.)

Education and Religion. About 88% of the population are Moslem. Minorities include 10,000,000 Hindus, 700,000 Christians, and smaller groups of Parsees and Buddhists. Free and compulsory elementary education is a prime goal. There are 12 universities. Of the many languages spoken, Urdu and Bengali are national languages; English is official language.

Defense. Pakistan has an Army, Navy and Air Force, and civil defense units. Army service is voluntary.

Pakistan is a member of the UN, Commonwealth, SEATO and CENTO; has a regional defense agreement with Turkey (1954); mutual defense agreement with the U. S. (1954 and Mar. 5, 1959), and other agreements of trade, friendship, and cooperation with the U. S. By 1965, the U. S. had provided Pakistan with nearly \$4 billion in economic and military aid. Following border warfare between India and Communist China in 1962 and increase in U. S. aid to India, Pakistan made commercial and aid agreements with Communist China

and Indonesia. U. S. aid to both Pakistan and India was suspended during the 1966 war over Kashmir but both economic aid and "nonlethal" military aid were resumed in 1966.

PALESTINE

See Index for Israel, Jordan, United Arab Rep.

Panama

REPUBLICA DE PANAMA

Capital: Panama. Area: 29,298 sq. mi. Population (UN est. 1967): 1,329,000. Monetary unit: Balboa (1 per U. S. \$1).

The Republic of Panama occupies the isthmus of Panama, connecting Central and South America. It is smaller than South Carolina. It has a shoreline of 477 mi. on the Caribbean and a shoreline of 767 mi. on the Pacific. Its width varies from about 37 to 110 mi. It is bounded by Colombia and Costa Rica, and is bisected by the U. S. Canal Zone.

Resources and Industries. Panama has extensive forests, and exports mahogany. Only about half of the rich arable land is cultivated. Sufficient cement, clay and salt are produced for domestic needs. Bananas are the main export, rivaled by products of a large petroleum refinery (which imports crude oil). Also exported are pineapples, cocoa, coconuts, sugar, shrimp.

Due to easy shipping regulations and strictures in the U. S., merchant tonnage registered in Panama since World War II ranks high in size. Registered tonnage of ships 1,000 or more tons Jan. 1, 1967, was 4,574,000 gross tons.

History and Government. The coast of Panama was discovered by Rodrigo de Bastidas, sailing with Columbus for Spain in 1501, and was visited by Columbus in 1502. Vasco Nunez de Balboa crossed the isthmus and "discovered" the Pacific Ocean Sept. 13, 1513. Spanish colonies were ravaged by Francis Drake, 1572-95, and Henry Morgan, 1668-71. Morgan destroyed the old city of Panama which had been founded in 1519. Freed from Spain, Panama joined Colombia in 1821. Separatist forces in Panama sought to gain independence from Colombia several times.

Panama declared its independence from Colombia Nov. 3, 1903, with U. S. recognition. U. S. Naval forces discouraged action by Colombia. On Nov. 18, 1903, Panama granted use, occupation and control of the Canal Zone to the U. S. by treaty, ratified Feb. 26, 1904. (See also Canal Zone and Panama Canal.)

Panama adopted universal suffrage in 1945 and its third constitution in 1946. The National Assembly (one for every 15,000 pop.) is elected for four years. Panama is a member of UN and OAS.

Rioting began Jan. 9, 1964, in a dispute over the flying of the U. S. and Panamanian flags and terms of the 1903 treaty. A joint declaration by the two governments Apr. 3, 1964, called for action to pave the way for peaceful negotiations. The International Commission of Jurists in Geneva absolved the U. S. of violating human rights in the rioting which killed at least 21 Panamanians and three U. S. soldiers.

U. S. President Johnson proposed on Dec. 18, 1964, that the two nations negotiate new treaties. Panama President Marco Aurelio Robles hailed the proposal. In 1967 new treaties were negotiated under which the U. S. would give up sovereignty over the canal to a U. S.-Panamanian authority, the U. S. would provide military defense for the canal, and construction of an additional canal might be undertaken. In 1968 the treaties still awaited ratification by the two governments.

In a bitter election, May 12, 1968, Dr. Arnulfo Arias was elected President, defeating a candidate backed by President Robles. Both sides charged widespread fraud and the election results were not announced until May 30.

Education and Religion. The Roman Catholic religion prevails but other faiths have representation. Education is compulsory for all children between 7 and 15. The National and Santa Maria de Antigua Universities are in Panama City. Spanish is the official language and its use is compulsory.

Paraguay

REPUBLICA DEL PARAGUAY

Capital: Asuncion. Area: 157,047 sq. mi. Population (UN est. 1967): 2,161,000. Monetary unit: Guaraní (126 per U. S. \$1).

Paraguay, one of the two landlocked countries of South America, is bounded by Bolivia, Brazil, and Argentina. The extensive plains are excellent

for pasturage and agriculture, and the mountain slopes are covered with luxuriant forests. It is about the size of California and is one of the best watered countries in the world. The Paraguay River, the Republic's most important waterway, is 1,800 mi. long.

Resources and Industries. Timber resources are large. Iron, manganese, copper are largely unexploited. Most of the population is agricultural and pastoral, with cattle breeding the principal industry. Most important agricultural crops are corn, mandioca (starch), cotton, beans, peanuts, tobacco and citrus fruits.

Chief exports are beef and other food products: cotton, quebracho (hardwood), hides, tobacco, yerba mate (tea), vegetable oils.

Completion of roads in the western Chaco cattle country (1964) and to the Brazilian port of Paraguary (1965) helped boost exports, which rose from \$40,000,000 in 1963 to \$57,000,000 in 1965. Imports rose from \$33,000,000 in 1963 to \$48,000,000 in 1967.

History and Government. Visited by Sebastian Cabot, 1527; settled as a Spanish possession in 1535. Paraguay gained its independence from Spain in 1811, was governed by a dictator from 1815-1840. After fighting Brazil, Argentina and Uruguay (War of the Triple Alliance 1865-1870) it adopted in 1870 a democratic constitution.

A new constitution, adopted in Aug. 1967, provided for a President and a bicameral legislature, a Senate of 30 members and a House of Representatives of 60 members. The party polling the largest number of votes in Congressional elections receives two-thirds of the seats in the Senate and the House, the rest to be divided proportionately among other contending parties. There is a 3-man Supreme Court and lower courts.

In elections held Feb. 11, 1968, Gen. Alfredo Stroessner, who had ruled Paraguay since 1954, was reelected President.

Education and Religion. The Roman Catholic religion is established, but others are tolerated. Primary education is compulsory between the ages of 7 and 14. Spanish is the official language and Guarani, an ancient Indian tongue, is the national language.

Peru

REPUBLICA DEL PERU

Capital: Lima. **Area:** 496,222 sq. mi. **Population** (UN est. 1967): 12,385,000. **Monetary unit:** Sol (38.7 per U. S. \$1).

Peru, on the Pacific coast of South America, is bounded by Ecuador, Colombia, Brazil, Bolivia, Chile and the Pacific. It has a Pacific coastline of 1,410 mi. and an extreme width, from western coast to eastern jungle, of about 800 mi. It is about the size of Arizona, New Mexico and Texas combined.

Here the Andes reach 22,205 ft. (Mt. Huascarán); 7 peaks tower above 19,000 ft. The uplands of western slopes of the Andes are well watered as are the eastern slopes and lowlands reaching the Amazon basin, where the port of Iquitos loads ocean-going vessels for a 2,300 mi. trip down the Amazon through Peru and Brazil.

The coastal area on the west is almost rainless, but the soil is fertile and irrigation, using rivers pouring down from the Andes, has made the area highly productive.

Lima, the capital, is in the coastal region and is also the nation's commercial center. Callao, the chief seaport, is 7 mi. west of Lima.

Inca and earlier Chimu ruins make Peru a mecca for archeologists, notably at Cuzco, Chan Chan and the Andean city of Machu Picchu.

Resources and Industries. Agriculture and stock raising occupy 58% of the population and farm products comprise 47% of the value of exports.

The leading agricultural product is cotton. About 100,000 persons are engaged in the industry. Wool, hides, skins, sugar, coffee, rice, potatoes, beans, barley and tobacco also are produced. Corn, native to Peru, is a staple food among Indians, who also raise alfalfa. Peruvian bark is used for drugs.

Peru is the world's top fishing nation; of the 46,600,000 tons of fish caught by all nations in 1964, Peru took in 6,901,300 tons, mostly anchovies from the plankton-rich waters of the coastal Peru current. Most of the take is ground into fish meal for poultry and livestock feed. Guano, from birds which feed on offshore fish, is used for fertilizer.

The mountains are rich in minerals and many valuable mines, some dating back to the Incas, are being worked. The Toquepala copper mine

in the southern Andes, being worked by American companies, is one of the world's largest; another is at Cerro de Pasco. The steel industry is expanding. Petroleum production is growing; it reached over 23,000,000 bbl. in 1964.

Fishmeal is the largest export with copper 2nd. Other exports are cotton, sugar, iron ore, lead.

With its large fishing industry, Peru claims jurisdiction over Pacific waters 200 mi. offshore.

History and Government. The powerful Inca empire had its seat at Cuzco in the Andes (alt. 11,000 ft.) when Francisco Pizarro, Spanish conquistador, began raiding Peru for its wealth. In 1532 he had the ruling Inca, Atahualpa, fill a room with gold, then executed him and enslaved the natives. In 1535 he established Lima and in 1537 its port, Callao. War with Incas and rival Spaniards resulted in Pizarro's assassination, 1541, and the execution of his half-brother, Gonzalo, 1548.

Lima was the seat of Spanish viceroys until the Argentine liberator, Jose de San Martin, captured it in 1821; Spain was defeated by Simon Bolivar and Antonio J. de Sucre and recognized Peruvian independence, 1824. Chile defeated Peru and Bolivia, 1879-84, and took Tarapaca, Tacna and Arica; returned Tacna, 1929.

The constitution of 1933 provides for a president and two vice presidents, elected by direct suffrage for 6-yr. terms. Congress is composed of a chamber of deputies (members must be 25 or over) and a senate (members 35 or over), all native-born Peruvians, for 6-year terms.

Education and Religion. Religious liberty prevails but the Roman Catholic religion is protected.

About 47% of the population is Indian; most of the remainder are of Spanish descent, or mestizos (mixed), with small percentages of Negroes, Chinese and Japanese.

Education is free and compulsory between 7 and 14. The University of San Marcos (founded 1551) is one of the oldest in the western hemisphere. There are 8 other universities.

Spanish is the official language, but many Indians speak Quecha or Aymara.

Defense. Military service is compulsory with two years in the active army, 5 years in the first reserve, 5 in the second reserve and 20 years in the National Guard. Peru has a modern Navy and Air Force. It is a member of the UN and OAS.

Philippines

REPUBLIKA NG PILIPINAS

Capital: Quezon City (Luzon). **Area:** 115,707 sq. mi. **Population** (UN est. 1967): 34,656,000. **Monetary unit:** Peso (3.92 per U. S. \$1).

The Republic of the Philippines occupies an archipelago in the western Pacific, 500 mi. from the SE coast of Asia, 7,000 mi. from San Francisco. About 7,100 islands extend 1,150 mi. N to S, 682 E to W.

Eleven of the islands comprise the bulk of the area. Only 462 islands have areas of more than 1 sq. mi. The country is about the size of Arizona.

The archipelago has a coastline of 14,407 mi. Manila Bay, with an area of 770 sq. mi., and a circumference of 120 mi., is the finest harbor in the Far East.

There are 10 more or less active volcanoes. Mount Apo, 9,690 ft., in Mindanao, and Mayon Volcano, 7,943 ft. in Albay, are the best known.

Quezon City, near Manila, is the official capital, but pending completion many government offices remain in Manila.

Resources and Industries. Agriculture, livestock, mining, lumbering and fishing are the main activities. Forests, which cover 42% of the area, provide cabinet and construction lumber, also gums and resins, vegetable oils, rattan and bamboo, tan and dye barks, beeswax, charcoal, medicinal plants and orchids.

The islands are rich in mineral resources. Gold, silver, lead, zinc, nickel, copper, iron, coal, chromite, asbestos and manganese are mined, as well as clay, marble and salt.

The chief agricultural products are manila hemp from abaca, copra, sugar, rice, corn and tobacco.

Tourists numbered 116,000 in 1967.

In 1967 the nation scored significant growth in all fields, particularly in production of new "miracle" varieties of rice, achieving self-sufficiency in that staple for the first time in half a century.

History and Government. The archipelago was visited by Magellan 1521. The Spanish founded Manila 1571 and began their conquest. The islands, named for King Philip II of Spain, were ceded to

the U. S. by the Treaty of Paris (Dec. 10, 1898), following the Spanish-American War, the U. S. paying Spain \$20,000,000 for the territory.

Japan attacked the Philippines Dec. 8, 1941 (Far Eastern time). Gen. Douglas MacArthur was put in command of the U. S.-Filipino forces (15,000 Americans, 40,000 in Filipino army, 100,000 Filipino reservists). Japan conquered the islands in May, 1942, and was ousted by Sept. 1945.

On July 4, 1946, independence was proclaimed in accordance with the Tydings-McDuffie Act passed by the U. S. Congress in 1934, providing for Philippine independence in 1946.

The government is republican in form, founded on democratic principles. The constitution provides for a Congress consisting of a Senate of 24 members, elected at large to 6-year terms, and a House of Representatives apportioned among the 56 provinces according to population, with a maximum membership of 120, elected to 4-year terms.

The terms of the President and Vice President are 4 years, and the President may be re-elected only once.

All natural resources of the Philippines belong to the state and their exploitation is limited to citizens of the Philippines or corporations and associations of which 60% of the capital is owned by citizens. In 1946 the right to develop natural resources and to own and operate public utilities until 1974 was extended to U. S. citizens.

President Ferdinand E. Marcos visited the U. S. Sept. 1966; concluded pact reducing U. S. base leases from 99 to 25 years and was promised increased military and technical aid.

The Philippines maintains a contingent of troops, mostly engineers, in Vietnam.

Education and Religion. Primary and secondary education is free, instruction is in English. Institutions of higher education include the University of the Philippines, Far Eastern Univ., Univ. of Santo Tomas (founded 1611), and Silliman Univ.

The official national language is Filipino (Pilipino), based on Tagalog, a Malayan dialect. English and Spanish, also official, are commonly used in government and commerce.

About 83% of the inhabitants are Roman Catholics and about 10% belong to the Philippine Independent Church, organized by a Filipino priest, Fr. Gregorio Aglipay. Other Christians, Moslems, Buddhists are among minorities.

Defense. The Philippines and U. S. have treaties for U. S. military and naval bases and a 1951 Mutual Defense Treaty, pledging joint action against external attack. The Republic is a member of the UN and SEATO.

Poland

POLSKA RZECZPOSPOLITA LUDOWA

Capital: Warsaw. Area: 120,664 sq. mi. Population (UN est. 1967): 31,944,000. Monetary unit: Zloty (4 official rate per U. S. \$1).

Poland, Polish People's Republic, in Central Europe, is bounded by the Baltic Sea, USSR, Czechoslovakia and East Germany. It is about the size of New Mexico.

Its terrain consists largely of lowlands. Gdania, Gdansk (once Danzig), Szczecin, Swinoujscie and Kolobrzeg are the principal ports.

Resources and Industries. In 1966, 35.5% of the population engaged in agriculture. Chief crops are rye, wheat, barley, oats, potatoes, sugar beets, tobacco, flax. Coal mining, shipbuilding, textiles chemicals, woodworking and metal industries are important. New industries include automobiles, tractors, heavy machinery, aircraft. Key industries are nationalized and operate under a planned economy. Rate of industrial growth is estimated at 8% annually in recent years.

Poland possesses great mineral wealth. It produces 5% of world coal and zinc output. Other minerals are sulphur, cement, salt, calcium, iron, copper. Imported raw materials supply aluminum plants and oil refineries.

History and Government. Poland, whose history dates from 968, was a great power from the 14th to the 17th Centuries. In 3 partitions (1772, 1793, 1795) it was apportioned among Prussia, Russia and Austria, and in 1939 between Germany and the USSR. Overrun by the Austro-German armies in World War I, its independence, self-declared on Nov. 11, 1918, was recognized by the Treaty of Versailles, June 28, 1919, and the Treaty of Riga.

Nazi Germany and the Soviet Union invaded Poland Sept. 1-27, 1939, and divided the country. With Germany's defeat, a Polish government-in-exile in London was recognized by the U. S., but

the Soviet Union pressed the claims of a Lublin group, the Polish Committee of National Liberation, to which a few members of the London committee were admitted. The U. S. and Britain opposed it but compromised with Stalin when he agreed to free elections in Poland. However, he rejected international supervision and the election of 1947 was completely dominated by the Communists.

Before World War II, Poland's population was 34,775,698 and its area 150,470 sq. mi. In compensation for 69,860 sq. mi. ceded to the USSR, 1945, Poland received approx. 40,000 sq. mi. of German territory east of the Oder-Neisse line comprising Silesia, Pomerania, West Prussia and part of East Prussia. This has not been recognized by the West.

The 1952 constitution describes Poland as a people's republic with a Sejm (Parliament) elected for 4-year terms by direct ballot. The Sejm elects a Council of State and a Council of Ministers (cabinet). The office of president was abolished.

During 12 years of rule by Stalinist extremists large estates were abolished, industry was nationalized, schools secularized and some Roman Catholic prelates jailed. Farm production fell off. Harsh working conditions caused a riot by workmen in Poznan June 28-29, 1956, which was suppressed by troops with 44 dead, hundreds injured and 1,000 imprisoned.

A new Politburo, committed to development of Polish Communism independent of Russian control, was elected Oct. 1956, with Wladyslaw Gomulka as First Secretary of the Communist party.

Beginning in March 1968, following student unrest, a purge of many old-line party officials, including numerous Jews, was launched. It was believed led by a nationalist wing within the party. The "anti-Zionist" feature of the purge was denied; Gomulka sought to moderate the campaign.

Education and Religion. Education is free and compulsory. There are 74 institutions of higher learning. Leading universities are at Warsaw, Lodz, Torun, Poznan, Krakow, Lublin and Wroclaw (Breslau).

Roman Catholicism is the chief religion. A law promulgated Feb. 13, 1953, requires government consent to high church appointments. In October, 1956, Gomulka released Stefan Cardinal Wyszynski from prison and agreed to permit religion in the schools, religious liberty in public institutions and religious publications, provided the church kept out of politics. A large percentage of the people are said to attend services regularly.

In 1966 the Government celebrated 1,000 years of Polish nationhood and the Roman Catholic Church celebrated the 1,000th anniversary of the nation's conversion to Christianity. Cardinal Wyszynski led pilgrimages in several Polish cities, attended by hundreds of thousands of worshippers. The Government held rival demonstrations, also heavily attended. The Government staged a huge military review in Warsaw in July but barred a pilgrimage in the capital city in Aug. It also barred the Cardinal from visiting the Vatican, the U. S. and Canada.

Defense. Military age extends from 19 to 50. In 1950 the Army was reorganized along Soviet lines. Officers are required to learn Russian. Strength of the armed forces is estimated at 370,000. The Navy has one cruiser, 6 destroyers, 9 submarines and other craft. The Air Force has an est. 50,000 personnel and 1,000 aircraft.

Poland is a UN and Warsaw Pact member.

Portugal

REPUBLICA PORTUGUESA

Capital: Lisbon. Area: 35,510 sq. mi. Population (UN est. 1967): 9,440,000. Monetary unit: Escudo (28.84 per U. S. \$1).

Portugal occupies the W part of the Iberian Peninsula in SW Europe, and is bounded by Spain and the Atlantic. It is about the size of Indiana. The Azores Islands, in the Atlantic 740 mi. W of Portugal, have an area of 888 sq. mi. and population (1960) of 336,393. The Madeira Islands, 360 mi. off the NW coast of Africa, have an area of 308 sq. mi. and a population (1960) of 282,678. Other overseas areas in Africa, Asia and Oceania (see below) are provinces, having equal status with provinces of continental Portugal.

Portugal is mountainous. About two-thirds of the land is cultivated.

Resources and Industries. Wheat, corn, oats, barley, rye and rice are important crops. Wines, olive oil, sardines, anchovies, resins and fruits are major industries. Forests of pine, oak and chestnut cover 19% of the country, and the nation leads the world in cork production. Portugal

has lead, copper, tin, wolfram, kaolin, sulphur, iron, tungsten and cement. Textiles, pottery, chemical products, paper and glassware are principal manufactures.

The Salazar Bridge spanning the Tagus River in Lisbon, opened Aug. 5, 1966. The longest suspension bridge in Europe, it has a main span of 3,323 ft. and cost \$75,000,000.

History and Government. Portugal, an independent state since the 12th Century, was a kingdom until a revolution in 1910 drove out King Manoel II and a republic was proclaimed.

A new constitution adopted by a plebiscite in 1933 and several times amended, provides some features of a corporative state. Two assemblies of 120 members each were created—the first, the National Assembly, to exercise legislative powers, by direct election by heads of families regardless of sex for 4 years; the second, the Corporative Chamber, chosen through a system of guild or syndical representation. The Corporative Chamber deals with economic and social matters, and advises the National Assembly. The Assembly may override a Presidential veto by a two-thirds vote.

The President is elected for 7 years, the method of selection since 1959 being by an electoral college composed of members of the Assembly and Chamber and representatives from the various districts.

The government's National Union party has been in power since 1934. Antonio de Oliveira Salazar has been Premier since 1932.

The President is Rear Admiral Americo Rodrigues Thomaz, elected June 9, 1958, reelected June 25, 1965.

Education and Religion. The dominant religion is Roman Catholicism; there is freedom of worship. Primary education is compulsory. There are 5 universities, 3 university schools, 4 colleges of music, 43 lycées, a number of technical and art schools. Portugal went on year-long daylight saving time in 1966.

Defense. Military service is compulsory between the ages of 20 and 45. There is a small Navy, and an Air Force equipped with modern jet fighters. During World War II Portugal granted facilities in the Azores to U. S. and British Air Forces. A 1951 agreement gave the U. S. additional rights in the Azores for defense purposes and integrates the islands into the framework of NATO. Portugal is a member of NATO, UN and EFTA.

Faced with intermittent rebel attacks in its African provinces, Portugal has sought to convince Africans there that they enjoy greater economic progress than if independent, while developing school and health facilities.

The small Portuguese enclaves of Goa, Damão and Diu on the Indian sub-continent were seized by India Dec. 18, 1961.

PORTUGUESE OVERSEAS PROVINCES

Angola, Portuguese West Africa, has a 1,000 mi. coast line stretching S from the mouth of the Congo. It is governed by a Governor General and an elected Legislative Council. The Portuguese have owned it since 1575. Its area is 481,351 sq. mi., population (UN est. 1965), 5,154,000, including about 250,000 Europeans. The capital is Luanda.

In 1968 a pipeline was being laid to tap huge supplies of oil discovered in Angola's northern coastal area, Cabinda.

Chief products are coffee, fishmeal, corn, sisal, fish, sugar, cotton, coconuts, oilseeds, ivory, cattle, tobacco, rubber. There are deposits of diamonds, copper, iron, manganese, petroleum, mica, salt. Gold has been discovered. Manufacturing of alcohol, cotton goods, fish products, paper, footwear, soap, sugar, tobacco is growing. Metropolitan Portugal supplies nearly 50% of the imports. Lobito, an Atlantic seaport, is western terminal of a railroad reaching Beira in Mozambique.

Mozambique, Portuguese East Africa, faces the Indian Ocean and Mozambique Channel in SW Africa. More than 400 sq. mi. of former German E. Africa, the Klunga Triangle, was transferred to Mozambique in 1919.

Mozambique has 297,731 sq. mi., and a population (UN est. 1965) of 6,956,000. The capital is Lourenço Marques. Chief products are cement, flour, sugar, coconuts, cotton, copra, sisal, and beeswax. Minerals include tantalum, columbian, coal, copper, gold, asbestos.

The Cape Verde Islands in the North Atlantic, 280 mi. W of Dakar, Africa, are 15 in number. The total area is 1,557 sq. mi. and the population (UN est. 1964), 218,000. Chief products are coffee, medicinal products, hides, fruits and grain.

Portuguese Guinea, on the W coast of Africa between Senegal and Guinea, has an area of 13,948 sq. mi. and a population, 1962, of 549,000. Chief exports are wax, oils, ivory and hides.

The Islands of Sao Tome and Principe are about 125 mi. off the W coast of Africa on the Gulf of Guinea. The islands have an area of 372 sq. mi.; population 1960, 63,676. Chief products are cocoa, coffee, coconut, copra, palm oil and cinchona.

Macao, with an area of 6 sq. mi., is an enclave, a peninsula and two small islands, at the mouth of the Canton River in China. Population (UN est. 1965): 280,000.

Portuguese Timor occupies the E part of an island of that name N of Australia in the Timor Sea. Indonesia owns the W part. The area is 7,330 sq. mi. and the population, 1967, 870,000. Exports are coffee, sandalwood, sandal root, copra and wax. Capital, Dili.

Romania

REPUBLICA SOCIALISTA ROMANIA

Capital: Bucharest. **Area:** 91,699 sq. mi. **Population (Census 1968):** 19,540,000. **Monetary unit:** Leu (pl. lei) (6, official rate, per U. S. \$1).

Romania, a Balkan state in SE Europe, is almost the size of Oregon. It is bounded by the USSR, the Black Sea, Bulgaria, Yugoslavia and Hungary. The Danube flows along the southern border and through eastern Romania into the Black Sea. The Carpathian Mts. enclose the north-central Transylvanian plateau. There are wide plains S and E of the mountains.

Resources and Industries. Romania has become heavily industrialized, industry accounting for 51.3% of the total national product in 1967. Average annual growth of industrial output, 1951-1967, was 13.2%.

Main industries are iron-steel, other metallurgy, machinery, oil and chemicals, building materials, timber, textiles, footwear, food processing.

There is considerable mineral wealth: oil, natural gas, coal, salt, bauxite, manganese, lead, zinc, gold, silver. Annual production (1967) was 13,206,000 tons of crude oil, 15,019,000 tons of coal, 4,088,000 tons of steel.

Farm and forests contributed 29% of the national product, 1967. State farms and cooperatives own 96.4% of arable land. Romania is the world's 6th largest corn producer; also important are wheat, sugar beets, grapes and fruits.

In Jan. 1968 Romania had 14,300,000 sheep, 5,739,000 hogs and 5,331,000 cattle.

Exports in 1967 were valued at \$1.4 billion, imports at \$1.5 billion.

History and Government. Romania's earliest known people were merged with invading Proto-Thracians, preceding by centuries the Dacians. The Dacian kingdom was occupied by Rome 101 A.D.-271 A.D.; the people and language were Romanized. The principalities of Wallachia and Moldavia, dominated by Turkey, were united in 1859; became Romania in 1861. In 1866 the house of Hohenzollern-Sigmaringen placed a prince in control. In 1877 Romania proclaimed independence from Turkey, became an independent state by the Treaty of Berlin, 1870, and kingdom, 1881, under Carol I. In 1886 Romania became a constitutional monarchy with a bicameral legislature.

Romania's location on the border of warring states made it a frequent victim of strife. It helped Russia against Turkey, 1877-78. It was defeated by Germany and Austria-Hungary in World War I, 1914-15; later rejoined the Allies and won Bessarabia, Bukovina, Transylvania and Banat. In 1940 it ceded Bessarabia and Northern Bukovina to the USSR and part of Southern Dobruja to Bulgaria.

King Carol II made himself dictator in 1938, abdicated 1940 (died 1953). Michael I (born Oct. 25, 1921) became king 1940.

Marshal Ion Antonescu, leader of militarist movement, came to power and forced Romania to join Germany against the USSR in World War II in 1941. In 1944 Antonescu was overthrown by King Michael with Soviet help and Romania joined the Allies.

With occupation by Soviet troops the National Democratic Front, headed by the Communist party, displaced the National Peasant party. A People's Republic was proclaimed, Dec. 30, 1947, and Michael was forced to abdicate. Land owners were dispossessed and practically all banks, factories and transportation units were nationalized. A new constitution on the Soviet model was voted Sept. 24, 1952. A modification,

March 1961, replaced the Presidium with the State Council, elected by the Grand National Assembly from its own membership. The Assembly, supreme organ of state power, has 465 Deputies, elected for 4-year terms from one-list states.

On Aug. 22, 1965, a new Constitution proclaimed Romania a Socialist, rather than People's Republic. Since 1966, Romania has adopted an increasingly independent attitude toward the USSR and for greater control of their own armed forces within the Warsaw Pact.

Education and Religion. Education is compulsory for 10 years, all education is free. There are universities in Bucharest, Jassy, Cluj, Craiova and Timisoara.

The language has a Latin base, with traces of French, Greek, Slav and Turkish influences.

Romanian Orthodox clergy are paid by the state, other clergy receive subsidies but church and state are called separated. Roman Catholic orders have been abolished and the Greek Catholic Church has been absorbed by the Romanian Orthodox.

Defense. Military service is compulsory for 16 months. Romania has a small Navy and Air Force. It is a member of the UN and Warsaw Pact.

Rwanda

REPUBLIQUE RWANDAISE

Capital: Kigali. **Area:** 10,166 sq. mi. **Population** (Govt. est. 1967): 3,306,000. **Monetary unit:** Franc (100 per U. S. \$1).

The Republic of Rwanda, which became independent July 1, 1962, had been part of the former Belgian UN Trusteeship of Ruanda-Urundi. Rwanda lies in East Central Africa, bounded N by Uganda, E by Tanzania, W by the Democratic Republic of Congo and S by Burundi.

The source of the Nile River, long sought by explorers and geographers, has been located in the headwaters of the Kagera River, SW of Kigali; from there it is 4,145 mi. to where the Nile empties into the Mediterranean.

About the size of Maryland, Rwanda is the most densely populated country in Africa. The population includes the Bahutu (90% of population), the Batutsi (Watusi, 8%) and the Batwa (2%). For centuries the Batutsi (an extremely tall race) subjugated the Bahutu (average height) and the Batwa (pygmies). A civil war broke out in 1960 and Batutsi power was ended. See *Index for Burundi*.

A Legislative Council, organized in Oct. 1960, declared Rwanda a republic Jan. 28, 1961, and a referendum, Sept. 25, abolished the monarchic system. The new government was dominated by the Bahutu. President: Gregoire Kayibanda, elected Oct. 26, 1961. Rwanda is a member of the UN and OAU.

Coffee is the principal crop; cotton, tea, pyrethrum, tobacco, cattle and hides also are produced. Minerals include tin, gold, wolframite.

Kagera National Park, in the northeast, covers a tenth of the country; here the flora and fauna of East Central Africa are preserved intact. Lake Kivu, on the nation's western border with the Democratic Republic of Congo, is 4,788 ft. above sea level and considered one of Africa's most beautiful. Rwandans are noted for performances on massed drums, accompanied by singers and dancers.

San Marino

REPUBBLICA DI SAN MARINO

Area: 23.5 sq. mi. **Population** (est. 1966): 17,000.

San Marino, the world's smallest republic, lies on the slope of Mt. Titano in the Apennines near Rimini, in the heart of Italy. It is one-third the size of the District of Columbia.

Principal industries are printing postage stamps, tourism, woolen goods, paper, cement, industrial ceramics. There is no unemployment. Cradle-to-grave social security is provided. Italian and Vatican City money is used. A ceremonial army of 180 men is maintained.

History and Government. The Republic claims to be the oldest state in Europe and to have been founded in the 4th Century. It has had a treaty of friendship with Italy since 1862. It is a member of the International Court of Justice.

San Marino is governed by a Grand Council of 60 members elected by popular vote, two of whom are chosen to exercise executive power for a term of 6 months. Women were allowed to vote for the first time Sept. 13, 1964.

Saudi Arabia

AL-MAMLAKA AL-'ARABIYA AS-SA'UDIYA

Capital: Riyadh. **Area:** 870,000 sq. mi. **Population** (Govt. est. 1963): 8,000,000. **Monetary unit:** Riyal (4.5 per U. S. \$1).

Saudi Arabia occupies four-fifths of the Arabian Peninsula, with the Red Sea on most of its W coast and the Persian Gulf (also called Arabian Gulf) on the E. The highlands of the W, up to 9,000 ft., slope as an arid, barren desert to the Persian Gulf. Its neighbors are Jordan, Iraq, Kuwait, Muscat and Oman, Southern Yemen and Yemen. It is more than three times the size of Texas.

Saudi Arabia comprises four provinces: the former sultanate of Nejd, the kingdom of Hejaz, Asir and El Hasa (now known as the Eastern Province).

The Hejaz contains the holy cities of Islam—Medina where the Mosque of the Prophet enshrines the tomb of Mohammed, who died in the city June 7, 632, and Mecca, his birthplace, containing a great mosque sheltering the sacred shrine, the Kaaba, which holds the black stone given by Gabriel to Abraham. More than 300,000 Moslems visit Mecca annually.

Two major airports, Dhahran and Jidda, handle the bulk of international traffic. Jidda, on the Red Sea, is the main seaport. A 357-mi. railroad runs from Dammam on the Persian Gulf to Riyadh.

Resources and Industries. Saudi Arabia possesses one of the great oil reservoirs of the world second only to that of Kuwait in the Middle East. Production centers along the Persian Gulf at Ghawar, Abqaiq, Safaniya, Dammam, Qatif and Khursaniyah. Refineries and piers for tankers are at Ras Tanura, and a pipeline runs from Abqaiq to Saida on the Lebanese coast. Operations are in the hands of the Arabian American Oil Co. (Aramco), owned by several American companies; Getty Oil Co., and Arabian Oil Co., Ltd. (Japan). Production is valued at over \$1.1 billion a year and is about 7% of world output.

Income from oil royalties defrays many expenses of the state, the cost of internal improvements and free medical care for its citizens.

An agricultural country except for oil, and recently discovered gold, silver and rich iron ore, Saudi Arabia's products are dates, wheat, barley, fruit, hides, wool. Camels, horses, donkeys and sheep are raised. Some hides, wool and gum are exported. It receives UN technical assistance.

History and Government. Nejd, long an independent state and center of the Wahhabi sect, fell under Turkish rule in the 18th Century, but in 1913 Ibn Saud, founder of the Saudi dynasty, overthrew the Turks and captured the Turkish province of Hasa; took the Hejaz in 1925 and by 1926 most of Asir.

The form of government is a hereditary monarchy. King Saud Ibn Abdul Aziz (born 1902) who succeeded his father Nov. 9, 1953, was stripped of his powers after a family council, Mar. 28, 1964, but was allowed to retain his title. Crown Prince Faisal, the King's half-brother, assumed the title of Viceroy; on Nov. 2, he was named King in place of Saud.

Education and Religion. Elementary, secondary and higher education are free, but not compulsory.

Development of education is extensive, taking more than 10% of the government budget. The population is almost entirely Moslem.

Defense. Saudi Arabia's defense force consists of a regular Army and a military academy to train officers. It is a member of the UN and Arab League.

Saudi Arabia and the United Arab Republic opposed each other during 3 years of warfare in Yemen, with Saudi Arabia supplying arms and other aid to the royalists and Pres. Gamal Abdel Nasser providing troops to fight for the republicans. King Faisal and Pres. Nasser reached another in a series of cease-fire agreements Aug. 24, 1965, with negotiations continuing in 1966 and 1967. In 1968, King Faisal said he would resume aid to the royalists, charging Syria, Russia and Southern Yemen with intervention.

Senegal

Capital: Dakar. **Area:** 75,750 sq. mi. **Population** (UN est. 1967): 3,670,000. **Monetary unit:** CFA franc (246.85 per U. S. \$1).

A former French Overseas Territory on the Atlantic coast of western Africa, Senegal has for neighbors Mauritania, Mali, Guinea and Portuguese Guinea and it almost surrounds tiny Gambia on 3 sides. It is about as large as South Dakota.

Senegal became an autonomous state in 1958 and with the Sudanese Republic formed the Mali Federation Jan. 17 1959. The two members became completely independent June 20, 1960, but after political conflict arose Senegal withdrew from the federation Aug. 20, 1960. The Sudanese Republic assumed the name Mali. Senegal elected to remain within the French Community. It is a member of the UN.

About 85% of the population is engaged in agriculture and stock raising; peanuts are the mainstay of the economy. Dakar on Cape Verd, is an important seaport, handling 4,000 ships annually. There are important deposits of aluminum phosphate. Developing industries include food processing, chemicals, cement.

Efforts were pressed, 1967-68, to increase production of rice, the staple food, most of which had to be imported. A team of experts from Nationalist China was aiding the effort. Other crops were also being promoted.

Sierra Leone

Capital: Freetown. Area: 27,699 sq. mi. Population (UN est. 1967): 2,439,000. Monetary unit: Leone (.8333 per U. S. \$1).

Sierra Leone, former British Colony and Protectorate which became an independent state within the Commonwealth Apr. 27, 1961, is in the SE corner of the West African bulge. The coast line on the Atlantic is about 210 mi.; the country extends inland about 180 mi., between Guinea and Liberia. It is a bit smaller than South Carolina. Its name, meaning Mountain of the Lion, was applied by an early Portuguese mariner because of thunderstorms around its coastal peaks.

Freetown, the capital, was founded in 1787 by the British government as a home for destitute freed slaves. Their descendants, known as Creoles, number more than 50,000. The city has one of the finest seaports in West Africa.

Principal exports are industrial diamonds, iron ore, bauxite, cocoa, coffee, palm kernels, kola nuts, ginger, piasava (palm fiber). More than 80% are employed in agriculture.

Successive steps toward independence followed introduction of the first constitution in 1951. The Sierra Leone People's party was dominant until a military coup d'état Mar. 23, 1967.

The coup followed general elections in which the vote was almost equally divided between the People's party and the All People's Congress.

Col. A. T. Juxon-Smith, who led the coup, was himself ousted in another coup, Apr. 8, 1968, led by non-commissioned officers. The nation was returned to civilian rule with swearing-in of Siaka Stevens as Prime Minister, Apr. 26. Stevens, head of the All People's Congress party, had been Prime Minister for two hours at the time of the 1967 coup.

Sierra Leone is a member of the UN.

The Univ. College of Sierra Leone was founded in 1876 as Fourah Bay College. Njala Univ. was founded in 1964 with the aid of the Univ. of Illinois. English is the official language.

Singapore

MAJULAH SINGAPURA

Capital: Singapore. Area: 225 sq. mi. Population (Govt. est. 1967): 1,955,600. Monetary unit: Singapore dollar (3.07 per U. S. \$1).

Singapore is an independent island republic 27 mi. wide and 14 mi. long at the southern tip of the Malay Peninsula in SE Asia. About 3 times the size of the District of Columbia, the main island is linked to the mainland by a three-quarter mile-long causeway. The narrow Strait of Singapore separates it from several of its islets to the south.

Singapore, the capital, is the world's 4th largest port and the largest in SE Asia.

Founded in 1819 by Sir Thomas Stamford Raffles, Singapore was a British colony until 1959 when it became an internally autonomous state within the Commonwealth. On Sept. 16, 1963, it joined with Malaya, Sarawak and Sabah to form the Federation of Malaysia. The new state vested control in the Malays, although with Singapore, the Chinese formed the largest ethnic group in Malaysia's population. Racial and political tensions developed and both Singapore and Malaysian officials agreed that separation was the only way to solve the problem. Prime Minister Lee Kuan Yew, Aug. 9, 1965, in announcing the separation, stated that Singapore would continue its cooperation with Britain in defense matters but would

seek new understandings with Indonesia and Communist nations. Britain maintains its largest military base in the Far East at Singapore.

Singapore's population is 75% Chinese, 12% Malay and 13% Indians, Pakistanis, Ceylonese, Eurasians, etc. Industries include ship building, tin smelting, and food, rubber, copra and lumber processing.

Tourism is an important source of income; 204,852 visitors in 1967 (59% above 1966) spent an est. \$47,270,400 (U. S. dollars). Attractions include festivals, foods, Tiger Balm Gardens, some 500 Chinese temples, the harbor with its junks and sampans and Malay sea villages.

Primary education for 6 years is free but not compulsory. There are two main units: Singapore and Nanyang. A small army of 4 infantry battalions is maintained in addition to the police force of over 7,000. Singapore is a member of the Commonwealth and the UN.

Somalia

SOMALI REPUBLIC

Capital: Mogadishu. Area: 246,201 sq. mi. Population (UN est. 1967): 2,660,000. Monetary unit: Somali shilling (7.143 per U. S. \$1).

The Somali Republic is comprised of the former protectorate of British Somaliland and the former Italian UN trusteeship of Somalia in eastern Africa. It is bordered by the Gulf of Aden, Indian Ocean, Kenya, Ethiopia and French Somaliland. It is about the size of Texas. Chief ports are Berbera, Mogadishu, and Kismayu.

Resources and Industries. Somalia has a weak economy of its own and depends on outside aid, part of which is being received from the United States, Italy, Great Britain and the USSR. Principal occupations are livestock raising and agriculture. Products include incense, sugar, bananas, durra (sorghum), corn, gum, hides, kapok.

Its mineral resources, largely undeveloped, include iron, tin, gypsum, sandstone, bauxite, meerschau, titanium and others. In 1968 the Government announced discovery of large uranium deposits.

History and Government. Many of the Somali peoples are nomadic and include, in addition to those in French Somaliland, some 20,000 in Kenya and 1,500,000 in Ethiopia. The Italian UN Trusteeship of Somalia, 194,000 sq. mi., population (est.), 2,000,000, extended along the Indian Ocean from the Gulf of Aden to the Juba River. It was proclaimed a protectorate by Italy, 1889. The UN General Assembly, Nov. 21, 1949, approved creation of Somalia as a sovereign state and on April 1, 1950, Italy took over the trusteeship held by Great Britain during World War II.

Former British Somaliland Protectorate, with 68,000 sq. mi., and 640,000 population with Ethiopia to the S and W and Somalia to the E, was freed June 26, 1960, to enable it to unite with Somalia.

The Republic was proclaimed July 1, 1960. The National Assembly has 123 Deputies. The President must be a Moslem. Somalia is a member of the UN.

In 1965-66 tribesmen carried on sporadic strife on the Kenya and Ethiopia borders. A settlement of these disputes was reached in 1967-68.

Republic of South Africa

REPUBLIEK VAN SUID-AFRIKA

Capitals: Pretoria and Cape Town. Area: 472,359 sq. mi. Population (UN est. 1967): 18,735,000. Monetary unit: Rand (.719 per U. S. \$1).

The Republic of South Africa occupies the southern portion of the continent and includes the former colonies of the Cape of Good Hope, Natal, the Transvaal and the Orange Free State. It is about the size of Texas, Oklahoma and New Mexico.

Province	Sq. mi.	Pop., 1963	Capital
Transvaal	110,450	6,273,477	Pretoria
C. of Good Hope	278,465	5,362,853	Cape Town
Orange Fr. State	49,866	1,386,547	Bloemfontein
Natal	33,578	2,979,920	Pietermaritzburg

Population growth of government-designated racial groups, in terms of 1963 and 1967 estimates, was: Bantu, 11,007,000, 12,750,000; White, 3,106,000, 3,563,000; Colored (mixed) 1,522,000, 1,859,000; Asiatics, 487,000, 561,000.

Cape Town, seat of Parliament, is the legislative capital and Pretoria the administrative capital.

Largest cities are Johannesburg and Cape Town. Kruger National Park, an 8,000-sq. mi. wild game preserve; Cape Peninsula, and the Drakensberg Mtns., are among numerous tourist attractions.

Resources and Industries. Corn, cotton, wool, wheat, tobacco, sugar cane, citrus fruits, butter and cheese are major agricultural products.

With vast mineral resources, South Africa leads the world in production of gold, gem diamonds, platinum and antimony; is 2nd in chrome, vanadium, vermiculite; third in uranium, manganese and asbestos. Coal and iron resources are unlimited. Annual production of more than 50 minerals is est. at \$1.5 billion.

South Africa has enjoyed an industrial boom. Index numbers of industrial production (1963=100) were 138 in 1967 for manufacturing and 117 for mining.

Air service is provided by 19 international lines. Railroads are state-controlled.

Foreign trade (in thousands of U. S. dollars):

	Imports	Exports
1966	\$2,300,000	\$1,688,000
1967	\$2,687,000	\$1,908,000

History and Government. The Union was formed by act of the British Parliament, effective May 31, 1910, 8 years after the British defeated the independent republics of the Transvaal and the Orange Free State in the Boer War (1899-1902). The nation was settled by emigrants from Cape Colony, mostly of Dutch extraction in the Great Trek of 1831 and later. After gold was discovered in 1886 the Boers faced repeated difficulties from the Uitlanders (Outlanders) and the wildcat Jameson raid against the gold-bearing ridge, the Witwatersrand, at Johannesburg in 1896 increased the tension. The Boer War made a national hero of Paul Kruger ("Oom Paul"), Pres. of the Transvaal, who died in exile, 1904.

With the election victory of Daniel Malan's Nationalist party in 1948, white supremacy became official policy in the form of *apartheid*, which calls for separate development of the non-white population groups—Indians, the mixed group called Coloreds, and the Bantu.

In 1959 the Nationalists passed the Bantu Self-Government act which recognized the principle of separate residential areas and social development. In white South Africa, Bantus may be employed but have no civil rights.

The Union became a Republic May 31, 1961. Prime Minister Hendrik F. Verwoerd had withdrawn his application for South Africa's readmission to the Commonwealth in March, in the face of opposition of the other Commonwealth heads of government to his country's *apartheid* policy. South Africa is a member of the UN.

Under the Republic's constitution, there is a State President, chosen by an electoral college composed of members of the Senate and Assembly for a 7-year term and not ordinarily eligible for reelection. The Senate of 54 members and Assembly of 160 are elected for 5-year terms. An elective Provincial Council meets in each of the four provinces.

Education and Religion. There are 16 universities, including 11 for white students, average enrollment exceeding 45,000 students. Primary education is free to all citizens and compulsory for white children over 7 years of age. There are 5 universities for non-whites.

Dutch Protestant churches predominate, with Anglicans and Methodists next among whites. English and Afrikaans are official languages.

Defense. The defense system makes every white citizen between 17 and 60 eligible for military duty in time of war. Those between 17 and 25 are obligated to undergo training in the Active Citizen Force with its Army, Air Force and Naval components, or as a Rifle Commando over a period of 4 years.

The Navy includes destroyers, frigates, mine-sweepers, anti-submarine frigates, and coastal defense ships. The Air Force is modern.

SOUTH-WEST AFRICA NAMIBIA

South-West Africa, a sparsely populated land twice the size of California, became the object of international dispute in 1966. Made a German protectorate in 1884, it was surrendered to South Africa in 1915 and was administered by that country under an old League of Nations mandate. South Africa refused to accept UN authority over

the mandate as other nations did with their mandates.

Other African nations charged South Africa imposed *apartheid*, built military bases and exploited S-W Africa; Ethiopia and Liberia lost, on a technicality, a suit against South Africa in the International Court of Justice; 36 African states called on the UN to take over the mandate.

The UN General Assembly in May 1968 created an 11-nation council to take over administration of South-West Africa and lead it to independence. In April 1968 the council charged that South Africa had blocked its effort to visit South-West Africa.

On June 12, 1968, the UN General Assembly by 96 to 2 vote urgently called on the Security Council to secure the area's independence. The resolution also gave South-West Africa the name Namibia.

Most of S-W Africa is a plateau, 3,600 ft. high, with plains in the N, Kalahari Desert to the E, Orange River on the S, the Atlantic on the W. Area is 317,887 sq. mi.; population (UN est. 1967) 594,000, including over 75,000 of European descent; capital, Windhoek. There is a South African administrator; voters choose 18 members of a Legislative Assembly and send 6 members to the South African Assembly; 4 are appointed to the South African Senate.

Products include cattle, sheep, diamonds, lead, zinc, vanadium, fish. People include Namas (Hottentots), Ovambos (Bantus), Bushmen and others.

Southern Yemen

Capital: Medina as-Shaab. **Area:** 112,000 sq. mi. **Population** (Govt. est. 1967): 1,500,000. **Monetary unit:** Dinar (.4195 per U. S. \$1).

Southern Yemen became independent Nov. 30, 1967, after more than a century of British rule. It consists of the port city of Aden, 17 states of the former South Arabian Federation, 3 small sheikdoms, 3 larger sultanates, Quaiti, Kathiri and Mahri, which made up the Eastern Aden Protectorate, and Socotra, the largest island in the Arabian Sea.

One of the cities mentioned in the Bible, Aden has been a port for the trade in incense, spices and silk between the East and West for two millennia. British rule began in 1839 when the British East India Co. seized control to put an end to the piracy threatening trade with India. Aden provided Britain with a controlling position at the southern entrance to the Red Sea and became a strategic outpost of the Empire in the East.

With only 1% of the land fertile and few mineral deposits, the Port of Aden has been Southern Yemen's most valuable natural resource. The port is 10 mi. across, well-sheltered and deep. In 1966 more than 6,000 ships put in at Aden for refueling, servicing and transshipment of goods, bringing over 227,000 visitors and \$22,000,000.

But, since the closing of the Suez Canal as a result of the Israeli-Arab War in June 1967, the port has been paralyzed and the economy depressed.

Loss of spending by the British military forces, which withdrew in 1967, amounted to \$50,000,000 a year. Joblessness in Aden was est. at 35,000 in 1968.

Southern Yemen is a member of the UN. The struggle for independence began in earnest in Dec. 1963, when two nationalist groups, the National Liberation Front (NLF) and the UAR-supported Front for the Liberation of Occupied South Yemen (FLOSY), waged a guerrilla war against the British and local dynastic rulers. The two groups vied with each other for political control. The NLF succeeded in naming the first President, Qahtan al-Shaabi.

Spain

ESTADO ESPANOL

Capital: Madrid. **Area:** 194,883 sq. mi. **Population** (UN est. 1967): 32,140,000. **Monetary unit:** Peseta (69.8 per U. S. \$1).

Spain, a nominal monarchy, occupies the entire Iberian peninsula in Western Europe, except for Portugal. It is separated from France by the Pyrenees.

The interior is a high arid plateau traversed E and W by mountain ranges. Spain is twice the size of Wyoming.

The Balearic Islands in the western Mediterranean, 1,935 sq. mi., pop. (1961), 443,327, are a

province of Spain; they include Majorca (Mallorca), with the capital, Palma; Minorca, Cabrera, Ibiza and Formentera. The Canary Islands, 2,807 sq. mi., in the Atlantic W of Morocco, pop. (1961), 944,448, also are provinces and include the islands of Tenerife, Palma, Gomera, Hierro, Grand Canary, Fuerteventura and Lanzarote with Las Palmas and Santa Cruz thriving ports. Ceuta, in Africa opposite Gibraltar, and Melilla, on the Riff coast, are part of Metropolitan Spain.

Resources and Industries. Only about 40% of the land is cultivable, the remainder is arid or mountainous. Farm mechanization and irrigation are increasing.

The principal agricultural products are wheat, barley, oats, rye, olives, grapes, lemons, oranges and other fruit, onions, almonds, esparto, flax, hemp, pulse and cork. Tobacco, cotton, and rice are also grown. Wine-making is a large and ancient industry. Spain possesses an abundance of minerals, including lead, iron, copper, zinc, coal, cobalt, mercury, silver, sulphur and phosphates.

Manufacturing includes cotton and woolen goods, paper, automobiles, cork and cement. Sardines, tuna fish and cod are most important fish catches. Coal production is more than 15,000,000 tons annually.

The index of general industrial production showed a large rise from 100 in 1963 to 144 in 1967. Electric power output rose from 37.7 billion kwh in 1966 to 41 billion in 1967; steel production from 3,800,000 tons to 4,400,000 tons; motor vehicles from 257,910 units to 290,000.

More than 18,000,000 tourists spend \$1.3 billion a year in Spain.

History and Government. Since Roman times Spain has had a major part in the political, religious and cultural fortunes of Europe. It was settled by Iberians, Basques and Celts, partly overrun by Carthaginian armies, conquered by Rome under Scipio Africanus c. 200 B.C. The Germanic Visigoths, in power by the 5th Century A.D., adopted Christianity but by 711 A.D. lost to the Islamic invasion from Africa. The Christian reconquest from the N led to a Spanish nationalist movement. Foremost Christian leader was the Cid Campeador (Lord Champion), d. 1099 A.D. In 1469 the kingdoms of Aragon and Castile were united by the marriage of Ferdinand II and Isabella I, and the last Moorish power broken by the fall of the kingdom of Granada, 1492. Spain became a bulwark of Roman Catholicism and the Inquisition, under which non-believers were slain, converted or exiled, came into power.

Spain obtained a great colonial empire with the discovery of America by Columbus, 1492, the conquest of Mexico by Cortes and Peru by Pizarro. It also controlled the Netherlands and parts of Italy and Germany. Charles I (Charles V, Holy Roman emperor), 1519-1556, attempted to halt Luther's Reformation and reestablish religious unity. Philip II, 1556-1598, tried to uproot heresy. The Spanish Armada failed to subdue England, 1588. Napoleon seized control of Portugal and Spain, 1808, made his brother Joseph King of Spain and precipitated the Peninsular War. Spain lost Mexico, Peru and other American colonies in the 1820s. It lost Cuba, the Philippines and Puerto Rico during the Spanish-American War, 1898. It gained concessions in Morocco by 1912, where it had to suppress a Moorish uprising led by Abd-el-Krim.

Primo de Rivera became dictator in 1923. King Alfonso XIII revoked the dictatorship, 1930, but was forced to leave the country Apr. 14, 1931. A republic was proclaimed which disestablished the church, curtailed its privileges and secularized education. A conservative reaction to these measures occurred 1933 but was followed by a Popular Front (1936-1939) composed of socialists, communists, republicans, and anarchists.

Army officers in Morocco headed a revolt against the government July 18, 1936, under Francisco Franco (b. Dec. 14, 1892). They established a provisional gov. at Burgos. In a destructive 3-yr. war, in which 1,000,000 are said to have died, Franco received help from Italy and Germany, while the Soviet Union, France and Mexico were active on behalf of the republic. About 600 Americans served in the Abraham Lincoln brigade for the republic. War ended when Madrid fell to Franco Mar. 28, 1939.

Franco was named caudillo, or leader of the nation, Chief of State, Commander in Chief, Prime Minister and head of the Falange party. The Cortes was reestablished July 1942, with elected, appointed and ex-officio members.

Spain was neutral in World War II but its relations with fascist countries and support for repressive measures caused its exclusion from UN in 1946. It was admitted in 1955.

Dec. 14, 1966, a new constitution, called the "Organic Law," was approved by the people in a plebiscite. The new law implied a liberalization of government policy in the areas of religion, the press, trade unions and other social and political aspects of Spanish life.

Education and Religion. Franco reestablished Catholicism as the state religion. The clergy are paid by the state. Primary education is compulsory and free. There are 13 universities. More than two-thirds speak Castilian; Basque is spoken in the N; Galician in the NW, and Catalan in the NE.

Defense. Service in the Army is compulsory for two years. Under a 10-year defense agreement with the U. S. signed Sept. 26, 1953, renewed 1963 for 5 years, Spain receives military and economic aid; in turn it permits use of air and naval bases on Spanish soil.

SPANISH OVERSEAS PROVINCES

Aside from Ceuta and Melilla on the North African Coast, which are considered parts of the motherland and the Canary Islands, which are provinces, Spain has several provinces in Western Africa:

EQUATORIAL GUINEA

(Spanish Guinea)

Equatorial Guinea was a Spanish province which was promised independence during 1968.

It is composed of the island of **Fernando Po** and smaller islands in the **Gulf of Guinea**, known as **Insular Guinea**, and **Rio Muni**, called **Continental Guinea**, a larger area on the nearby mainland coast.

Products include cocoa, gold, coffee, wood and wool. Capital: Santa Isabel (on Fernando Po). Area: 10,852 sq. mi. Population (est. 1963): 250,000.

Spanish Sahara, Africa, extending from Cape Blanco to a line south of Cape Ifni, includes the zones of **Rio de Oro**, 73,362 sq. mi., and **Sequia el Hamra**, 33,047 sq. mi. Population (est.): 23,700.

Ifni, an enclave on Morocco's Atlantic coast, comprises 44 sq. mi. with pop. (est. 1960) of 49,889, claimed as a perpetual possession under an 1860 agreement.

Sudan

JAMHURIYAT EL-SUDAN REPUBLIC OF THE SUDAN

Capital: Khartoum. Area: 967,500 sq. mi. Population (UN est. 1967): 14,355,000. Monetary unit: Sudanese pound (.3482 per U. S. \$1).

Sudan, a former Anglo-Egyptian condominium in Africa, proclaimed itself a republic Jan. 1, 1956. It is bounded by the United Arab Republic, the Red Sea, Ethiopia, Uganda, Kenya, the Democratic Republic of the Congo, the Central African Republic, Chad and Libya. It is about the size of Texas, Alaska and New Mexico combined.

The northern zone consists of the Libyan Desert, on the W, and the mountainous Nubian Desert, extending to the Red Sea on the E, separated by the narrow valley of the Nile; the central zone contains large fertile areas, including the rainlands of Kassala and Tokar, the Gezira plain and the pastures and gum forests of Kordofan; and the southern equatorial belt where the soil is richest and watered by tropical rains.

The White Nile flows N through the center of the country; the Blue Nile, rising in the mountains of Ethiopia, joins the White at Khartoum; the combined river flows N in a huge S curve to enter the UAR north of Wadi Halfa.

Resources and Industries. The Sudan is the world's principal source of gum arabic. Chief grain crop is durra (sorghum), the country's staple food. Cotton is the principal export; American and extra-long staple cottons are grown in the fertile Gezira, between the White and Blue Niles. Other important products are sesame, senna, peanuts, rice, coffee, sugar cane, tobacco, dates, hides, mahogany, beans, corn, mother of pearl, shea nuts, salt, ivory.

The Sudan has small scale production of gold, iron ore, gypsum, chromite, cement.

History and Government. In the 1820s Egypt took over the Sudan, defeating the last of earlier empires, including the Fung. In the 1880s a revolution was led by Mohammed Ahmed who called himself the Mahdi (leader of the faithful) and

his followers, the dervishes. British Gen. Charles Gordon (called Chinese Gordon for his exploits in China), who had earlier put down the slave trade in the Sudan, was sent by Egypt to evacuate its troops; he was besieged and finally slain at Khartoum Jan. 26, 1885.

In 1898 Horatio Kitchener (later titled Lord Kitchener of Khartoum) led an Anglo-Egyptian force which crushed the successors of the Mahdi at Omdurman Sept. 2.

In October, 1951, the Egyptian Parliament abrogated its 1899 and 1936 treaties with Great Britain, and amended the constitution, Oct. 16, to provide for a separate Sudanese constitution.

Sudan voted for complete independence effective Jan. 1, 1956. A five-member Supreme Commission (Council of State) and a Cabinet were sworn in.

On Nov. 17, 1958, Gen. Ibrahim Abboud ousted Premier Abdullah Khalil of the Umma party, head of a coalition government. Abboud resigned under pressure Nov. 15, 1964; a new Constituent Assembly was elected April 21-May 8, 1965, and approved a coalition government headed by Premier Mohammed Ahmed Mahgoub. Only 5 northern provinces took part in the election; the 3 southern provinces did not. A large part of the southern provinces, a pagan and Christian Negro area, was swept by guerrilla warfare, 1963-68, against the forces of the predominantly Arab-Muslim north, which controls the government.

During the Israeli-Arab war of June, 1967, Sudan broke off diplomatic relations with the U. S. in response to charges that U. S. warplanes were assisting the Israelis.

Sudan is a member of the UN and Arab League.

Education and Religion. Sudanese inhabitants are Arabs, Negroes and Nubians of mixed Arab and Negro blood; the Arabs and Nubians are Mohammedans. The educational system in the South, formerly largely administered by Christian missions, now also is in hands of the government. Higher education is available at Khartoum Univ. (formerly Gordon College). Arabic is the national language.

Swaziland

Capital: Mbabane. **Area:** 6,704 sq. mi. **Population** (UN est. 1967): 385,000. **Monetary unit:** Rand (7.190 per U. S. \$1).

Swaziland is in SE Africa, almost completely surrounded by the Republic of South Africa except for part of the E border which adjoins Mozambique (Portuguese East Africa). The Swazis came under British rule in the late 18th Century as a means of gaining protection from their traditional enemies, the warlike Zulus.

The example of neighboring former British territories Bechuanaland and Basutoland, which became the independent nations of Botswana and Lesotho in 1966, encouraged the drive for Swazi independence; Swaziland was economically the most healthy of the 3. On Apr. 25, 1967, it achieved full internal self-government under a constitution and on Sept. 6, 1968, it became completely independent and the 28th member of the Commonwealth, leaving rebel Rhodesia as Britain's last colonial "possession" in Africa.

The constitution provided for an elected Parliament, and the former Paramount Chief, Sobhuza II, became King Sobhuza, a constitutional head of state. The Royal house of Swaziland traces back 400 years, and remains one of Africa's last ruling dynasties. The King was reputed to have 90 wives, but to avoid dissension, none of them was named queen. Instead, an aged aunt was named the official Queen Mother Regent. To avoid a succession conflict among the many princes, the next king was to be chosen by a royal advisory body.

Polygamy has been the common marital status. Women have the right to vote. Many Swazi women dye their hair bright orange or soak it with soap and pile it up like a beehive.

About 97% of the residents are Swazi, a group that broke off from the Bantu tribe about 1750. South African whites constitute a small but powerful minority. English is the official language but Swazi is spoken by the vast majority of people.

The country is rich in mineral resources, including one of the world's 5 largest asbestos mines, the Havelock Mine, and iron ore resources estimated at some 47,000,000 tons in the Ngwenya Mines. In addition, there are gold, tin, silver, mica and other minerals.

In recent years Swaziland developed a multi-million-dollar timber and pulp industry, a railway link out of the landlocked country to ports in

Mozambique, hydro-electric power and tarred roads. Exports rose from \$16,800,000 in 1965 to over \$45,000,000 by 1968. The first quarter of 1968 saw Swaziland's exports to Britain alone mount to more than the entire budget figure of Lesotho. The major export items are asbestos, iron ore, citrus fruits and sugar.

The land is fertile and has abundant water, producing such other crops as corn, cotton, rice, pineapples and cattle.

About 10,000 Swazis hold jobs in South Africa and the currency is the South African rand. Most of the population, however, is agricultural, living in grass huts and maintaining old tribal customs.

Sweden

KONUNGARIKET SVERIGE

Capital: Stockholm. **Area:** 173,378 sq. mi. **Population** (Govt. est. 1967): 7,847,395. **Monetary unit:** Krona; pl. kronor (5.168 per U. S. \$1).

Sweden occupies the eastern and largest part of the Scandinavian peninsula in NW Europe. Its greatest N-S length is 977 mi.; greatest width 311 mi. The country is larger than Calif. but smaller than Texas. Sweden is separated from Norway on the W by the Kölen (or Kjölen) mountain range, and from Finland on the E by the Baltic Sea except in the N where the two meet along the Tornea River.

Stockholm and Goteborg are the largest ports.

Resources and Industries. Although the topography is mountainous, Sweden contains much productive land, well watered, on which the Swedes have attained high efficiency in agriculture. Of Sweden's total land area, 8% is cultivated, 2.5% pasture, and 55% forests. About one-third is unclaimable. Chief agricultural products are cheese, butter, beef, pork, wheat, rye, potatoes, sugar beets and vegetable oils.

Many industries flourish in Sweden, whose main natural resources are forests, iron ore and water power. Coal and oil have to be imported; oil constitutes 10% of all imports. Industry employs 45% of the work population, agriculture 8%. Swedish steel is of special value for tool making. Other metals produced are: lead, copper, zinc, gold and silver. In 1966, 51 billion kwh. were produced. The Stornorrforsen hydroelectric plant on the Ume River is the largest in Western Europe.

Although over 95% of the economy is in private hands, the government holds a large interest in water power production and the railroads are operated by a public agency.

Consumer cooperatives are in extensive operation, with 250,000 members served by about 5,000 stores. Cooperatives also are important in agriculture and housing.

Shipping is privately operated and not subsidized. The merchant marine totaled approx. 4,470,000 gross-tons on Dec. 31, 1966. Swedish shipbuilders account for about 10% of the world's output of commercial tonnage. In 1966 their shipyards launched 65 ships totaling 1,160,000 gross tons.

Sweden is one of the leading exporters of iron ore and cellulose. About one-fourth of the exports come from pulp, lumber, paper and other forestry products. Other important products are steel, automobiles, ships, airplanes, ball bearings, textiles, electrical goods, petrochemicals.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$4,576,000	\$4,264,000
1967	\$4,705,000	\$4,534,000

History and Government. Sweden is a parliamentary democracy with a King as head of state and a prime minister as political chief executive. The Riksdag (Parliament) has two chambers, the first of 151 members elected for 8 years, and the second of 233 members, elected for 4. All over 20 are entitled to vote.

The first peaceful consolidation of Sweden with other Scandinavian countries was the union of Kalmar, 1397. Sweden revolted 1434-1523. Reformation was introduced 1527; Lutheranism dominated from about 1600.

The King is Gustav VI Adolf (born Nov. 11, 1882), who succeeded on the death of his father, Gustav V, Oct. 29, 1950 (reigned since Dec. 8, 1907). The King married (June 15, 1905) Princess Margaret (died May 1, 1920). He has three living sons, two of them commoners through marriage, and one daughter, Queen Ingrid of Denmark. One son, Gustaf Adolf, was killed in an airplane accident Jan. 26, 1947 and his son, Prince Carl Gustaf (born 1946), became heir apparent. The

King's second wife (married Nov. 3, 1923) was Lady Louise Mountbatten, who died Mar. 7, 1965.

About 14% of the national income is redistributed through the social welfare system which includes compulsory health insurance. Unemployment during 1966 was about 1%.

Sweden is a member with Denmark, Norway and Iceland of the Nordic Council, estab. Feb., 1953, and of the UN, EFTA and GATT.

Education and Religion. The population is very homogenous, being of the Scandinavian branch of the Germanic family, except about 30,000 Finns and 10,000 Lapps. Approx. 95% of the people are Lutheran, which is the state religion. Education is compulsory and illiteracy is non-existent. There are state universities at Uppsala (founded 1477), Lund, Stockholm, Göteborg and Umea.

Defense. Service in the Army is compulsory between 19 and 47. A first 10-month training period is followed by 5 refresher of 25 days each. There is an Army of approximately 600,000, plus a voluntary Home Guard of 125,000. The Air Force has 15 wings of about 45 combat squadrons totaling 600 planes, mostly Swedish-built jets. The Navy has one cruiser, 8 destroyers, 8 frigates, 20 submarines, 38 motor torpedo boats and 35 minesweepers and other units.

The coast artillery is largely dug into atom-bomb-proof rock shelters along nearly 700 mi. of coastline.

Switzerland

SCHWEIZ—SUISSE—SVIZZERA

Capital: Berne. **Area:** 15,941 sq. mi. **Population** (Govt. est. 1967): 6,071,000. **Monetary unit:** Franc (3.82 per U. S. \$1).

Switzerland, a federal republic in Central Europe, is bounded by France, Germany, Austria, Liechtenstein and Italy. It is twice the size of New Jersey.

Switzerland is the most mountainous of all European countries. The Alps cover 61% of land area, the Jura 12%; running between them, NE to SW, are the midlands, about 27%. Highest peak is Monte Rosa, 15,203 ft.; the Matterhorn is 14,690 ft.; more than 70 are over 10,000 ft. Lakes famous for their beauty include Maggiore, Lucerne, Geneva, Neuchatel, Constance, Thun, Brienz. The Rhine, Rhone and feeders of the Danube and Po originate in Switzerland.

Resources and Industries. Switzerland's abundant water power is exploited by 431 major hydroelectric plants. Salt is the principal mineral. Watches (50% of world's watch trade), machinery, and precision instruments are important manufactures; also silk, wool and cotton articles; iron and steel and electrical products; industrial chemicals, clothing, perfumes, and pharmaceuticals. Dairy products, especially cheese, lead agriculture, followed by cattle, pigs, fruit, poultry, tobacco, wheat, rye, oats, potatoes and wine. Machine making employs 26% of all factory workers and accounts for 28% of exports. Included are textile machinery, machine tools, dynamo-electric plants, transformers and diesels.

Switzerland is one of the world's greatest banking centers. Stability of its currency brings funds there from many quarters. Tourism is a vital part of the economy. Nearly 6,000,000 foreign tourists visited Switzerland in 1967.

History and Government. Switzerland, the Helvetia of ancient times, is a confederation of 22 cantons, three of which once (1291) were members of a defensive league and later were joined by other districts. In 1648 the Swiss Confederation obtained its independence from the Holy Roman Empire. The cantons were joined under a Federal Constitution in 1848, with large powers of local control retained by each canton. Legislative authority vests in a parliament of two chambers, a Ständerat or State Council to which each canton sends two members; and a lower house, Nationalrat or National Council, with 200 members.

Executive power is vested in the Bundesrat (Federal Council) of 7 members.

The President is selected from membership of the Federal Council, serves for one year and customarily is succeeded by the Vice President.

Switzerland enters into no military alliance and is not a member of UN or NATO. It is however a member of various international agencies of the UN, such as the International Labor Org., World Health Org., UNESCO, FAO and others. It also is a member of EFTA.

Geneva is the seat of a number of UN organiza-

tions, International Committee of the Red Cross, League of Red Cross Societies and Int'l Union for Telecommunications. The Universal Postal Union is in Berne.

Education and Religion. Primary education has been free and compulsory since 1874. There are 7 universities; the oldest is Basel, founded in 1460. Swiss German dialects are spoken by a majority of the people in 16 of the cantons; other languages are French, Italian, and Romansch.

There is complete freedom of worship. Of the population 52.7% are Reformed Protestant, 45.4% Roman Catholics.

Defense. Service in the national militia is compulsory; liability extends from 20 to 50 years. Its 12 easily mobilized divisions comprise more than 700,000 men.

Syria

SOURIYA

SYRIAN ARAB REPUBLIC

Capital: Damascus. **Area:** 72,234 sq. mi. **Population** (Govt. est. 1967): 5,761,349. **Monetary unit:** Syrian pound (4.2 per U. S. \$1).

A land of Middle East contrasts, the Syrian Arab Republic has a short coastline on the Mediterranean, then stretches east and south with fertile valleys and plains alternating with mountainous and desert areas. The main rivers are the Euphrates and Orontes. Chief seaport is Latakia. The nation is about the size of South Dakota.

Resources and Industries. Mineral wealth is small except for oil deposits. Actual oil production is limited, but the Iraq Petroleum Co. pays for oil pipelines transit and terminal rights. Agriculture and stock raising are chief occupations. Main crops are cotton, wheat, barley, tobacco, citrus fruits, olives, grapes and sorghum. Industries include flour, oils, soap, textiles, cement, tanning, tobacco, knitwear, glassware, sugar, hosiery, footwear and brassware. Raw cotton and textiles followed by tobacco are the principal exports.

Syria's gross national product rose from \$935,656,000 for 1963 to \$1.04 billion for 1964. Receipts from tourism increased from \$10,418,000 for 1963 to \$13,080,000 for 1966.

History and Government. One of the world's ancient inhabited lands, the state (later republic) of Syria was formed from former Turkish Empire Sanjaks (districts). Syria was made a separate entity by the Treaty of Sevres, Aug. 10, 1920, and divided into the states of Syria and Greater Lebanon Sept. 1, 1920. Both were administered under a French mandate 1920-1941.

Syria was proclaimed a republic by the occupying French authorities Sept. 16, 1941, and exercised full power effective Jan. 1, 1944. French troops left by April 17, 1946.

Syria joined with Egypt in Feb. 1958 in the United Arab Republic but seceded Sept. 30, 1961. The Socialist Baath party and military leaders seized power in March 1963, led by Lt. Gen. Amin el-Hafez. The Baath, an international Arab organization, became the only legal party.

The Baath regime in 1965 nationalized most industries.

Over the years there had been intermittent border clashes with Israel and in the Israeli-Arab war of June, 1967, Israel occupied heights 12 mi. inside Syria from which Israeli border settlements in northern Galilee had been shelled for years.

Syria severed diplomatic relations with the U. S. as a result of the war. It is a member of the UN.

Education and Religion. The population is composed mainly of Sunni Moslems but there are many Christians, Arabic is the official language. Syria has universities in Damascus and Aleppo.

Tanzania

(Formerly Tanganyika and Zanzibar)

Capital: Dar es Salaam. **Area:** 363,708 sq. mi. **Population** (Govt. est. 1967): 12,231,342. **Monetary unit:** Tanzanian shilling (7.143 per U. S. \$1).

The republic of Tanganyika in E Africa and the republic of Zanzibar, a large island in the Indian Ocean off the coast of Tanganyika, joined in a single republic Apr. 26, 1964. The new central government at Dar es Salaam (Haven of Peace), an important port and capital of Tanganyika, was given jurisdiction over defense, foreign affairs and public services.

Julius K. Nyerere, Tanganyika's President, became President of the new nation; Abeid Amani Karume, Zanzibar's President, became Vice President.

At first the combined nation was called the United Republic of Tanganyika and Zanzibar. In Oct. 1964 the name was changed to Tanzania.

A member of the UN and the Commonwealth, Tanganyika has received aid from Communist China, the USSR, the U. S. and Canada.

In 1967 the government nationalized all banks, including some in which U. S. banks held a part interest, and many industries; some of the latter were taken over completely, in others the government took a part interest. The government also ordered that Swahili, not English, be used in all official business.

TANGANYIKA

Tanganyika stretches from the Indian Ocean on the E to 3 of Africa's Great Lakes; Victoria, Tanganyika and Nyasa (now also called Malawi). Its area is 362,688 sq. mi., larger than Texas and Oklahoma combined; pop. (Govt. est. 1965) 10,178,100. Most of the people are Bantus and speak Swahili.

Snow-capped Mt. Kilimanjaro, tallest in Africa, rises majestically in the N. Nearby are the famed Serengeti Plains, teeming with vast herds of wild animals, protected in one of Tanzania's several large national park game preserves. Safaris, sport fishing and mountain climbing are among attractions. In Olduvai Gorge, prehistoric manlike remains, over a million years old, were discovered by Dr. and Mrs. Louis Leakey.

Principal products are sisal, cotton, coffee, tea, tobacco and hides. Both gem and industrial diamonds are mined, as are gold, salt, tin and mica. Diamonds account for 77% of the mineral income, gold for 12%.

Arab colonization began in the 8th Century A.D.; Portuguese sailors explored the coast by about 1500. Other Europeans followed and it was under a mango tree at Ujiji on Lake Tanganyika that Henry M. Stanley found David Livingstone Nov. 10, 1871.

In 1885 Germany established German East Africa of which Tanganyika formed the bulk. After World War I it was taken and administered by Britain as a League of Nations mandate and since 1946 as a UN trust territory.

Constitutional changes gave it internal autonomy in Sept. 1960. It became fully independent Dec. 9, 1961, and was proclaimed a republic within the Commonwealth a year later.

ZANZIBAR

Zanzibar, the Isle of Cloves, lies 23 mi. off the coast of Tanganyika; its area is 640 sq. mi. The island of Pemba, 25 mi. to the NW, area 380 sq. mi., is included in the administration. The population is chiefly Moslem. The total area of the two islands is about the size of Rhode Island; population (Govt. est. 1967): 354,360.

Attractions include numerous public gardens and ancient palaces.

Chief industry is the production of cloves and clove oil of which Zanzibar and Pemba produce the bulk of the world's supply. Coconuts and copra also are exported. Pottery, coir fiber, rope, soap, oil, jewelry and mats are manufactured.

Portugal ruled Zanzibar for two centuries until ousted by Arabs around 1700. Zanzibar became an independent Sultanate in 1856 and a British Protectorate in 1890 by agreement with Germany and France.

Independence within the Commonwealth was attained Dec. 10, 1963. Rebel forces overthrew Sultan Seyyid Jamshid bin Abdullah bin Khalifa Jan. 12, 1964. The revolutionary government ousted American and British diplomats and newsmen and nationalized farms. Union with Tanganyika followed, 1964.

Thailand (Siam)

PRADES THAI; MUANG-THAI

Capital: Bangkok. Area: 200,148 sq. mi. Population (UN est. 1967): 23,680,000. Monetary unit: Baht (20.75 per U. S. \$1).

Thailand is a constitutional monarchy in SE Asia bordered by Burma, Laos, Cambodia, the Gulf of Thailand (or Siam) and Malaysia. It is a country of rolling hills, about twice the size of Colorado with large areas under irrigation.

Bangkok, the capital, is a modern city. Its Don Muang airfield is one of the largest and most modern in Southeast Asia, served by 24 international airlines. An important port, Bangkok is 25 mi. in from the sea in the Menam delta. There is an extensive inland waterway system and network of modern roads.

Resources and Industries. There are many large forests, teakwood being an important article of export. Agriculture occupies 91% of the population.

Thailand is the world's 3rd largest producer of tin ore; other minerals are coal, iron, manganese, tungsten, antimony and fluor spar.

The chief crop is rice, the staple food of the people and heavily exported, accounting for a third of foreign exchange earnings. Other important exports are tin, rubber, teak and tungsten. Coconuts, tobacco, pepper, tapioca flour, corn, peanuts, beans and cotton are produced in quantity.

Foreign investment in industry is encouraged—auto assembly plants, pharmaceuticals, textiles, electrical goods.

History and Government. Thailand, an ancient monarchy, noted for picturesque architecture and pageantry, is the only country in SE Asia never taken over by a colonial power, thanks to King Mongkut and his son King Chulalongkorn who ruled from 1851 to 1910, modernized the country and signed trade treaties with both Britain and France.

Thailand underwent a bloodless revolution in 1932. King Prajadhipok, a liberal, signed a new constitution, establishing a limited monarchy, but he refused to sign a measure abdicating the royal power of life and death and resigned. He was succeeded by his nephew, Prince Ananda, who was found dead of a bullet wound, June 9, 1946, and the legislature named his brother, Prince Phumiphon Aduldet (Bhumibol Adulyadej) (born 1927), to succeed him. King Phumiphon formally took the throne May 5, 1950, as Rama IX.

Since World War II there have been several military coups and changes in government. On June 21, 1968, a new constitution was promulgated, providing for an elected Assembly which would have limited powers.

There was sporadic Communist terrorism in the NE and far S in 1968 and earlier.

About 40,000 U. S. servicemen, two thirds of them Air Force, were stationed in Thailand in 1967. Air strikes against North Vietnam and the Ho Chi Minh trail in Laos were conducted from air bases constructed by the U. S. in Thailand. About 2,000 Thai combat troops served with South Vietnam in the latter country.

Education and Religion. Education is compulsory between 8 and 15. There are 7 universities, 31 training colleges and many vocational schools. The language is Thai, derived from Pali and Sanskrit. There is much official use of English. About 93% of the people are Buddhists; others are Moslems, Christians, etc.

Defense. Of Thailand's total armed forces of 85,000, the militarized police force comprises 40,000; army about 30,000; air force 4,000. The Navy has five frigates and many small craft, with 18,000 personnel. Thailand is a member of the UN and SEATO.

Togo

REPUBLIQUE TOGOLAISE

Capital Lomé. Area: 20,400 sq. mi. Population (UN est. 1967): 1,724,000. Monetary unit: CFA franc (246.85 per U. S. \$1).

The republic of Togo (Togoland) which became independent April 27, 1960, is comprised of part of the one-time German colony of Togoland, surrendered in 1914, and administered by France as a UN trusteeship, 1946-1960.

Togo is a thin sliver of land, about twice the size of Vermont, facing the Atlantic on the southern edge of the West African bulge. It is bounded by Upper Volta, Dahomey, the Atlantic and Ghana.

In 1958 France received UN approval to end its trusteeship and the republic was proclaimed Apr. 27, 1960. It chose to remain outside the French Community. It is a member of the UN.

A draft constitution on the U. S. model was published Mar. 20, 1961. It provided for a President and a 46-member unicameral Parliament. First President, Sylvanus Olympio, elected Apr. 9, 1961, was assassinated by a military junta Jan. 13, 1963. His successor was Nicolas Grunitzky,

elected May 5, 1963. Grunitzky resigned Jan. 13, 1967, and was replaced by Etienne Eyadema, head of the armed forces.

A friendship and commercial treaty with the U. S. was agreed on in 1968.

Principal products: coffee, cocoa, palm kernels, copra, cotton, kapok, manioc and peanuts.

Trinidad and Tobago

Capital: Port of Spain. Area: 1,979 sq. mi. Population (UN est. 1967): 1,016,000. Monetary unit: Trinidad and Tobago Dollar (2 per U. S. \$1).

Trinidad, area 1,864 sq. mi., is the most southerly of the West Indies lying off the NE coast of South America approx. 7 mi. from Venezuela. It was discovered by Columbus in 1498. Tobago, 116 sq. mi. lies 20 mi to the NE of Trinidad.

Second largest of the old British West Indies and a British possession since 1802, Trinidad and Tobago won independence Aug. 31, 1962. A Governor General represents the British Sovereign. Parliament consists of a 24-member Senate appointed by the Gov. Gen. and a 36-member House of Representatives elected by universal suffrage. The country is a member of the UN, the Commonwealth and the OAS.

Chaguaramas, a promontory near Port of Spain, was an important U. S. naval air base and a link in the anti-submarine defense of the Caribbean. The base was acquired by the U. S. under a lease at start of World War II, but June 9, 1967, was formally returned by the U. S., 73 years ahead of schedule.

Import trade is heaviest with England, export trade with the U. S. Exports are mostly petroleum, sugar, asphalt, rum, cocoa, coffee, citrus, bananas, cement, bitters. Pitch Lake, 114 acres, is world's largest supply of asphalt.

The economic picture in the nation, one of the most prosperous in the West Indies, improved during 1967. The total national product rose 4%; exports were increased and imports decreased sufficiently to give the country a favorable balance of trade; the Government's family planning program cut the birth rate from 3.1% to 2.4%; the unemployment rate, still high, was cut from 20% to 15%.

Trinidad claims to have originated the steel band (instrument fashioned from oil drums), calypso songs and the limbo dance. Tourism is an important source of revenue.

The population is mixed: Negro 44%, East Indian (descended from immigrants from India) 36%, Lebanese, Syrian, white and Chinese comprise the rest. Religions include Roman Catholic 36%, Protestant 34%, Hindu 23%, Moslem 6%.

Public primary and secondary education is free to age 18. Some units of Univ. of West Indies are in Trinidad, some in Jamaica. There are two technical institutes.

Tunisia

AL-JOUMHOURIA ATTUNUSIA

Capital: Tunis. Area: 58,000 sq. mi. Population (UN est. 1967): 4,560,000. Monetary Unit: Dinar (.525 per U. S. \$1).

Tunisia is a former French protectorate which was proclaimed a republic in 1957. It is on the Mediterranean coast of Africa wedged between Algeria and Libya. It is about the size of Florida. The people are mostly Arabs and Berbers.

Resources and Industries. The chief industry is agriculture and the fertile soil produces an abundance of wheat, barley, oats, dates, olives, apricots, almonds, figs, peaches, vegetables, alfalfa grass. Livestock is extensively raised. Phosphates, iron, lead and zinc are leading minerals.

Industries include canning, fertilizers, carpets, blankets, shoes, and building materials. Principal exports are olive oil, wine, iron ore, lead, phosphates and grains. A 10-year economic development program was begun in 1962.

Oil was discovered in 1965 at El Borma in the S in sufficient quantity to meet domestic needs.

Tourism is growing and attractions include numerous well-preserved Roman ruins, excellent beaches, and resorts on Djerba Is., reputed home of the Lotus Eaters of the Odyssey.

The tourist industry earned \$26,000,000 in 1967. Irrigation has aided agriculture. Fish and textile industries have boosted exports. Other new industries include steel and auto-assembly plants, a paper mill and sugar refinery.

History and Government. A former Barbary state under the suzerainty of Turkey, Tunisia became a protectorate of France under a treaty signed May 12, 1881, after France sent a military force to combat the raiding Khroumer tribes. After receiving increasing measures of self-government since 1947, a constituent assembly, elected Mar. 25, 1956, chose a government headed by Habib Bourguiba, of the dominant Neo-Destour party, named Premier Apr. 10. The basic law, adopted by the assembly, Apr. 13, vested sovereignty in the people, ignoring the titular ruler, Mohammed el Amim, Bey of Tunis. The assembly unanimously voted July 25, 1957, to end the monarchy. It deposed the Bey and proclaimed a republic, electing Premier Bourguiba interim President.

Under a U. S.-style constitution adopted June 1, 1959, the President is elected for 5 years, limited to 3 consecutive terms. The National Assembly of 90 also is elected for 5-year terms. In national elections Nov. 8, 1959, the National Front won all the seats. Women have equal rights, but in 1966 miniskirts were banned by the government.

President: Habib Bourguiba, elected 1959, 1964.

A law passed May 11, 1964, nationalized all farmland still owned by foreigners, providing for compensation in return. A system of cooperative farms was started.

Tunisia is a member of the UN and Arab League but in April 1965 Pres. Bourguiba proposed negotiations to reach settlement of the Arab-Israel dispute. He was denounced by other Arab League countries. In May he did not attend an Arab-League heads-of-state meeting and assailed UAR Pres. Nasser for trying to force Tunisia to take an anti-U. S. stand. On Oct. 3, 1966, he broke diplomatic relations with the UAR, which were not resumed until after the outbreak of the Israeli-Arab war June 5, 1967. In Aug. he urged Arab nations to end their state of belligerency with Israel.

Education and Religion. The majority of the population is Moslem. Europeans number about 120,000, Jews 65,000. Fifty percent are under age 20; estimated birth rate: 40 per 1,000; death rate, 15 per 1,000. Arabic is the national and official language. In 1966 Pres. Bourguiba said that in 10 years Tunisia had raised the number of primary school students from 200,000 to 734,000, secondary from 15,500 to 80,000 and higher education from 1,350 to 5,000. The former Moslem University of Zitouna and the Institute of Advanced Studies are incorporated in the new University of Tunis, due for completion in 1968.

Defense. A National Army was created in 1956; it consists of about 20,000 officers and men. Nuclear of a Navy and an Air Force have been formed.

Turkey

TURKIYE CUMHURİYETİ

Capital: Ankara. Area: 296,500 sq. mi. Population (UN est. 1967): 32,710,000. Monetary unit: Lira (9.08 per U. S. \$1).

About 90% of Turkey's population lives in the Asian portion of the country on the Anatolian Peninsula—an area of 287,500 sq. mi. The remainder live in the European part which is bordered by Bulgaria and Greece. A republic since 1923, Turkey is a little larger than Texas and has extensive coastlines on the Black Sea, the Mediterranean and the Aegean. Its Asian neighbors are the USSR, Syria, Iraq and Iran.

Central Turkey is a great plateau, with hot dry summers and cold winters with snow remaining until May. High mountains ring the plateau on all but the W side. More than 20 peaks top 10,000 ft.

Izmir (ancient Smyrna) is the principal export outlet.

Resources and Industries. Approx. 75% of the labor force is engaged in agriculture, the products including tobacco (more than 250,000,000 lbs. annually), cereal, cotton, olive oil, wool, silk, figs, nuts, fruits, sugar, opium for medicinal purposes, and gums. About 20,000,000 acres are in forests.

There are large deposits of antimony, borate, copper, and chrome (of which Turkey is the world's largest producer). Other minerals include manganese, lead, zinc, coal, iron, oil, silver, mercury, sulphur, molybdenum, magnesite and asbestos.

Turkey manufactures silk, cotton and woolen yarn and cloth, steel, foundry products, sugar, footwear, office furniture, cement, paper, glass-

ware and appliances. The country has the largest arms industry in the Middle East. About 23% of trade is with the U. S.

Foreign trade, in thousands of U.S. dollars:

	Imports	Exports
1966	\$725,000	\$491,000
1967	\$691,000	\$522,000

History and Government. Up to World War I, Turkey, or the Ottoman Empire, included European Turkey, Anatolia, Syria, Lebanon, Iraq, Jordan, Palestine, Arabia, Yemen and islands in the Aegean Sea.

Turkey joined Germany and Austria in World War I and its defeat resulted in loss of much territory and fall of the sultanate. A republic was declared Oct. 29, 1923, with Mustafa Kemal Ataturk first President. The Caliphate (spiritual leadership of Islam) was renounced 1924. Turkey was permitted (1936) to refortify the Dardanelles and Bosphorus, to close them if threatened, but to permit free passage of merchant vessels in peace or war. The USSR has proposed joint control of the straits but Turkey has refused.

But in 1968 Turkey and the USSR agreed on a \$200,000,000 loan from the Soviet to build factories in Turkey which would be paid for in Turkish products.

The present constitution, adopted July 9, 1961, provides for a civilian parliamentary government, protection of human rights, guards against abuses of executive power, and provides for a bicameral legislature composed of a Senate of 185 and a National Assembly of 450 deputies. The President is elected by Parliament to a 7-year term and is ineligible for reelection.

Turkey is a member of the UN, CENTO, NATO, Council of Europe. Communism is outlawed.

For years Turkey and Greece have been involved in a controversy over Cyprus (see Cyprus).

Education and Religion. Church and State are separated. About 98% of the Turkish population is Moslem.

Education is compulsory, free and secular between the ages of 7 and 12, and optional, but free, through the university. There are universities in Istanbul, Ankara, Izmir and Erzurum. Robert College, 1865, is oldest American college abroad.

Defense. Military service is compulsory. Turkey supplies a large ground force to NATO.

Turkey is a member, with Greece and Yugoslavia, of the Balkan defense group by a treaty signed in Ankara, Feb. 27, 1953, and a 20-year military aid pact, Aug. 9, 1954. It also concluded pacts with Pakistan in 1954, and has a defense pact with the U. S. signed Mar. 5, 1959.

Uganda

Capital: Kampala. **Area:** 91,134 sq. mi. **Population** (UN est. 1967): 7,934,000. **Monetary unit:** Uganda shilling (7.143 per U. S. \$1).

Uganda, a former British protectorate, is in central Africa with Kenya to the E, Lake Victoria and Tanzania to the S, Lakes Albert and Edward and Democratic Republic of Congo to the W, Sudan to the N. It is about the size of Minnesota.

Uganda is the largest coffee producer in the Commonwealth. Cotton, tea, maize, peanuts, sisal, oil seeds, tobacco, sugar, are also produced. Copper and tin are important mineral exports.

The nation has made steady economic progress.

In 1966-67 uninhabited areas in western Uganda which had been infested with tsetse flies, carriers of sleeping sickness, were transformed into cattle ranches, thanks to eradication of the tsetse with the aid of a U. S. loan.

Uganda became independent within the Commonwealth Oct. 9, 1962, a republic Oct. 9, 1963.

President is Milton Obote. Uganda is a member of the UN and the Commonwealth.

A long-standing political feud erupted Feb. 22, 1966, when Obote, then Prime Minister, seized full power and on Mar. 2 ousted President Edward Mutesa (who was also the Kabaka, or King, of Buganda). On May 24 army troops shelled and destroyed the king's palace but the king escaped the country.

Lake Victoria, 26,828 sq. mi., is Africa's largest lake. It is 3,720 ft. above sea level and over 200 mi. long. It was explored in 1875 by Henry M. Stanley.

It lies partly in Tanzania and Kenya and lake steamers connect their ports and Uganda. At Owen Falls on the Victoria Nile, outlet of Lake Victoria, a major dam and hydroelectric project has been constructed.

Further N on the Victoria Nile is Murchison Falls, 130 ft., in the heart of one of Uganda's national parks. On the W border with the Democratic Republic of the Congo, the Ruwenzori Range, identified with the legendary "Mountains of the Moon," rises over 16,000 ft. Pygmy tribes live in the nearby forests. In the SW there are several volcanoes over 11,000 ft. high; on their slopes is a gorilla sanctuary.

Union of Soviet Socialist Republics

SOYUZ SOVYETSKIKH
SOTSIALISTICHESKIKH RESPUBLIK
(Formerly Russian Empire)

Capital: Moscow. **Area:** 8,647,172 sq. mi. **Population** (Govt. est. 1968): 236,700,000. **Monetary unit:** Ruble (.90 official rate per U. S. \$1).

The Union of Soviet Socialist Republics—in area the largest country in the world—stretches across two continents from the North Pacific to the Baltic Sea. It occupies the northern part of Asia and the eastern half of Europe. Its western borders brush against Finland, the Baltic, Poland, Czechoslovakia, Hungary and Romania. On the S it is bounded by Romania, the Black Sea, Turkey, Iran, Afghanistan, China, Mongolian Peoples Republic and North Korea. In the far NE, Bering Strait separates it from Alaska.

The vast territory of the USSR, one-sixth of the earth's land surface, contains every phase of climate, except the distinctly tropical, and a varied topography. The European portion is a vast low plain with the Ural Mtns. on its eastern edge, the Caucasus Mtns. and others on the S. The Urals, separating the European from the Asiatic portions of the country, stretch N and S for 2,500 mi. The Asiatic portion also consists largely of an immense plain, with mountain ranges on its E and S.

There are some 150,000 rivers and 250,000 lakes. The larger European rivers include the Dnieper, flowing into the Black Sea, the Volga and the Ural into the Caspian Sea, the Don into the Sea of Azov, the Western Dvina into the Baltic and the Northern Dvina into the White Sea. The Asiatic section is drained by the Ob, the Yenisei and the Lena, each over 2,000 mi. long, which flow into the Arctic Ocean, and the Amur, which flows into the Pacific.

In the European section there is an 88,000-mi. inland waterway system in which canals link rivers (Moscow-Volga, 80 mi.; Dnieper-Bug, 58 mi.; Volga-Balt, 700 mi.; Volga-Don, 64 mi.), leading to 5 seas: Caspian, Azov, Black, Baltic and White.

The Caspian Sea, of which only the S end is in Iran, is the world's largest lake (143,560 sq. mi.). Other lakes are the Aral Sea (25,300 sq. mi.), Lake Baykal (11,780 sq. mi.), Lake Balkhash (6,720 sq. mi.), Lake Ladoga (6,835 sq. mi.).

In Moscow, the Kremlin, ancient citadel of the Czars, forms the nerve center of the federated republics. Leningrad (formerly St. Petersburg and Petrograd), in the delta of the Neva River, is the 2nd largest city. Kiev, the 1,000-year-old capital of the Ukrainian SSR, is the industrial center of the south. The Crimea and the eastern shore of the Black Sea, beneath the towering Caucasus Mtns., are a modern vacationland.

Beginning in 1939 the USSR by means of military action and negotiation overran contiguous territory and independent republics. Transfer of part of East Germany was approved at the Potsdam Conference. The Yalta Agreement conceded Soviet claims to Japanese territory in the Kurile islands and southern half of Sakhalin.

POLITICAL ORGANIZATION

The USSR is a federation consisting of 15 Union Republics, within certain of which are further subdivisions, such as Autonomous Soviet Socialist Republics, Autonomous Regions and National Districts. Four of the Union Republics contain 20 Autonomous Soviet Socialist Republics and 8 Autonomous Regions; the largest Union Republic, the Russian Soviet Federal Socialist Republic,

has also 10 National Districts. The Union Republics are:

Republic	Area sq. miles	Population (Est. 1968)
Russian RSFSR.....	6,593,391	127,911,000
Ukrainian SSR.....	232,046	46,381,000
Kazakh SSR.....	1,064,092	12,678,000
Uzbek SSR.....	158,069	11,266,000
Byelorussian SSR.....	80,154	8,820,000
Azerbaijan SSR.....	33,436	4,917,000
Georgian SSR.....	26,811	4,650,000
Moldavian SSR.....	13,012	3,484,000
Lithuanian SSR.....	26,173	3,064,000
Kirghiz SSR.....	76,642	2,836,000
Tadzhik SSR.....	54,019	2,736,000
Armenian SSR.....	11,306	2,306,000
Latvian SSR.....	24,695	2,298,000
Turkmen SSR.....	188,417	2,029,000
Estonian SSR.....	17,413	1,304,000

The 1959 census, first since 1939, reported 208,826,000 population, an increase of approx. 38,226,000 over the census of 1939, or about 19.5%. Sex ratio in 1959 was 45% male, 55% female. Marriage rate per year per 1,000 pop. is 12. In 1965 urban population was est. 54%; rural, 46%. Births (1965), 18.4 per 1,000; deaths 7.3 per 1,000; natural increase (excess of births over deaths), 11.1 per 1,000.

The Russian Soviet Federal Socialist Republic (Soviet Russia proper), contains over 50% of the population of the Soviet Union and includes 76% of its territory. Its territories stretch from the Estonian, Latvian and Finnish borders and the Byelorussian and Ukrainian lines on the W, to the shores of the Pacific, and from the Arctic on the N to the Black and Caspian Seas and the borders of Kazakh SSR, Mongolia and Manchuria on the S. Siberia (Sibir), divided into a number of administrative units, encompasses a large part of the RSFSR area. Capital: Moscow.

In 1966 the USSR incorporated the Karelo-Finnish Republic as an autonomous republic within the RSFSR, reducing the federation by one to 15. It comprises territory ceded by Finland after World War II. The capital, Petrozavodsk, was founded in the 18th century by Peter the Great. Forests cover two-thirds of the area and the underground wealth includes non-ferrous metal and mineral deposits.

Eastern and Western Siberia of the RSFSR have been transformed by steel mills, huge dams, oil and gas industries, electric railroads and new highways.

Ukrainian Soviet Socialist Republic is the most densely populated of the constituent republics. It borders on the Black Sea, with Poland, Czechoslovakia, Hungary and Romania on the W and SW. The population is 80% Ukrainian. Capital: Kiev. Northern Bukovina was added to the Ukrainian SSR from Romania in 1940. The Crimea was transferred to the Ukraine, 1954.

The Ukraine contains the arable black soil belt, the chief wheat-producing section of the Soviet Union. Sugar beets and oil seeds are important crops and livestock breeding is rapidly advancing.

The Donets Basin has a huge storage of coal iron and other metals. Here are produced 34% of the coal mined in the country, 50% of the pig iron, 40% of the steel and 35% of the manganese. There are chemical and dye industries and salt mines.

Byelorussian Soviet Socialist Republic (White Russia), situated on the western border of the USSR, suffered greatly under the Czars from periodical pogroms and from inter-racial struggles. Between 1914 and 1920 it was a field for military operations. Minsk is the capital.

Chief industries include machinery, tools, appliances, tractors, clocks, cameras, steel, cement, textiles, paper, leather, glass. Main crops are grain, flax, potatoes.

Azerbaijan SSR boasts near Baku, the capital, oil fields which produced 9% of the national total in 1965. Its natural wealth includes deposits of iron ore, barite, fossil copal, zinc, silver, gold, copper, tin, vanadium and molybdenum. Irrigation has boosted cotton production. A high-yield winter wheat also is grown. It produces iron, steel, cement, fertilizers, synthetic rubber, electrical and chemical equipment.

Georgian SSR, which lies in the western part of Transcaucasia, contains the largest manganese mines in the world. There are rich timber resources. Large coal deposits have been discovered. Basic industries are food, textiles, iron, steel. Grain, tea, tobacco, grapes are grown. The capital is Tbilisi (Tiflis).

Armenian SSR is mountainous, sub-tropical,

extensively irrigated with a wide range of crops. Copper, iron, marble are mined. Capital is Erevan.

Uzbek Soviet Socialist Republic, most important economically of the Central Asia republics, produced in 1966 68% of USSR cotton, 50% of silk. 34% of astrakhan, 85% of hemp. Industries include iron, steel, cars, tractors, TV and radio sets, textiles, food. Mineral wealth includes coal, sulphur, copper and oil. Capital: Tashkent, shaken by more than 600 earthquakes in 1966.

Turkmen SSR in Central Asia, produces cotton, grain, carpets, Turkoman horses. Mineral wealth includes oil, coal, sulphur, barite, lime, gypsum. The Kara Kum desert occupies four-fifths of the territory. Capital: Ashkhabad.

Tadzhik SSR (Tadzhikistan), formed from the former regions of Bokhara and Turkestan, was admitted as a constituent republic on Dec. 5, 1929. Three-quarters of the population are Tadzhiks, mostly Sunnis, speaking an Iranian dialect. Chief occupations are farming and cattle breeding. Cotton, grain, rice and a variety of fruits are grown. Heavy industry, based on rich mineral deposits, coal and hydroelectric power, has replaced handicrafts. Dushanbe is the capital.

Kazakh Soviet Socialist Republic extends from the lower reaches of the Volga in Europe to the Altai Mtns. on the Chinese border. It has vast deposits of coal, oil, iron, tin, copper, etc., and large quantities of non-ferrous metals. Fish for its canning industry are caught in Lake Balkhash and the Caspian and Aral Seas. The capital, Alma-Ata, produces movies. Karaganda Temir-Tau, Tselinograd, Balkhash, Aktyubinsk, Pavlodar, Semipalatinsk and Chirchik are large new centers.

Kirghiz Soviet Socialist Republic is in the eastern part of Soviet Central Asia, on the frontier of Sinkiang (Western China). The people, once nomadic, breed cattle and horses and grow tobacco, cotton, rice, sugar beets. New industries include machine and instrument making, chemistry. Capital: Frunze.

Moldavian Soviet Socialist Republic, in the SW part of the USSR, is a fertile black earth plain bordering Romania, and includes Bessarabia. It is an agricultural region that grows grains, fruits, vegetables and tobacco. Textiles, wine, food and electrical equipment industries have been developed. Capital: Kishinev.

Lithuanian Soviet Socialist Republic, on the Baltic, produces cattle, hogs, electric motors and appliances. The capital is Vilnius (Vilna).

The Latvian Soviet Socialist Republic on the Baltic and the Gulf of Riga, has timber and peat resources estimated at 3,000,000,000 tons. In addition to agricultural products it produces rubber goods, dyes, fertilizers, glassware, telephone apparatus, TV, and radio sets, railroad cars. The capital is Riga, on the Western Dvina River.

The Estonian Soviet Socialist Republic, also on the Baltic, has textiles, shipbuilding, road-making and mining equipment industries and its shale refining industry is large. Tallinn is the capital.

The 3 Baltic states were provinces of imperial Russia before World War I, were independent nations between World Wars I and II, and became SSRs, within the USSR, in 1940. They were occupied by Germany 1941-44. The U. S. has never formally recognized the incorporation of Lithuania, Latvia and Estonia into the USSR.

ECONOMICS AND PRODUCTION

The economic foundation of the USSR is the socialist ownership of the instruments and means of production. Socialist property exists in two forms: (1) State property; (2) Cooperative and collective farm property. State property includes the land, minerals, waters, forests, mills, factories, mines, rail, water and air transport, banks, communications, large agricultural enterprises, municipal enterprises and the bulk of dwellings.

The common enterprises of collective farms and cooperative organizations, their output and common buildings constitute their socialized property. Members may use small plots of land attached to their dwellings.

"Backyard" farms, from which farmers may sell produce and keep the profit, swelled in size and number in the 1960s.

Cultivated land in 1965 was est. at 496,320,000 acres. There were 37,100 collective farms and 12,196 state farms. In 1968 there were 97,100,000 cattle, 51,000,000 hogs and 138,300,000 sheep, all up from a year earlier.

In 1963-5-6 the USSR was forced to make huge purchases of wheat in Canada and other countries,

but a record surplus harvest was produced in 1966.

The USSR is incalculably rich in natural resources. It claims to possess 57% of the world's coal deposits, 58% of its oil, 41% of iron ore, 88% of manganese, 54% of potassium salts, 30% of phosphates, and 25% of all timber land. Gold production is est. at from 12,000,000 to 15,000,000 fine oz. annually, about half exported.

The USSR produces about 25% of world iron ore output, 19.5% of steel, 20% of coal.

The index of industrial production (1963=100) was 139 for 1967.

A new 5-year plan, prepared in 1966, set goals of a 40% rise in national income, 50% in industrial output, 25% in farm production. Premier Kosygin urged continued emphasis on consumer goods, adjustment of wholesale prices (last revised in 1955) to permit all enterprises to operate profitably without subsidies, wage incentives, and reduced central controls to stimulate production. Early in 1966 many major factories were put on an incentive profit-sharing system. In mid-1966 a system of bonuses to farms and farm works (called "Socialist competition") was introduced to spur food production.

The industrial output rose by 10% in 1967. Poor weather hurt agriculture.

ELECTRIC POWER

Electric power output under a 15-year plan is projected to reach 900-1,000 billion kwh by 1970.

Of many large hydroelectric developments, the world's largest is at Bratsk on the Angara River, capable of producing 22 billion kwh annually. Its dam rises 400 ft. above the river, forming a reservoir 350 mi. long containing 145,000,000 acre-ft. of water.

Atomic power stations have been built and others are under construction.

FOREIGN TRADE

Exports include petroleum and its products, iron and steel, rolled non-ferrous metals, industrial plant equipment, lumber, cotton, asbestos, gold, manganese and others. Most of its trade is with Socialist nations, but trade with others is increasing. East Germany presently is the Soviet Union's biggest customer.

Foreign trade, in thousands of U. S. dollars:

	Imports	Exports -
1966	\$7,913,000	\$8,841,000
1967	\$8,536,000	\$9,649,000

In the USSR budget for 1968, as announced by the Soviet government, the defense budget was increased by \$2.4 billion. Output of consumer goods was scheduled to rise by 8.6%, a greater rate than that for heavy industry, 7.9%.

(The defense budget for 1968 totaled \$18.7 billion, but Western experts said it actually might have been twice that figure, with some military spending concealed in other items.)

EARLY HISTORY

The first Russian state centered on Kiev in the 9th Century. In the 13th Century the Mongols overran the country. It recovered under the grand-dukes and princes of Muscovy, or Moscow, and by 1480 freed itself from the Mongols. Ivan IV, the Terrible, was the first to be formally proclaimed Czar (1547). Peter the Great (1682-1725), extended the domain and in 1721 founded the Russian empire.

REVOLUTION OF 1917

The abortive Revolution of 1905 demonstrated the insecurity of the czarist regime and led to mild concessions. The 1917 Revolution began in March with a series of sporadic strikes for higher wages by factory workers. A provisional democratic government under Prince Georgi Lvov was established but was quickly followed in May by the second provisional government, led by Alexander Kerensky. The Kerensky government was overthrown in a Communist coup led by Vladimir Ilyich (Nikolai) Lenin Nov. 7.

Lenin's death Jan. 21, 1924, resulted in an internal power struggle from which Joseph Stalin eventually emerged the absolute ruler of Russia. Stalin secured his position at first by exiling opponents such as Leon Trotsky. But in the 1930s he resorted to a series of "purge" trials in which virtually all opposition was directly eliminated.

RECENT EVENTS

After Premier Stalin died, Mar. 5, 1953, Nikita Khrushchev was elected First Secretary of the Central Committee for 5 years; reelected 1956, 1959, 1961. In 1956 he condemned Stalin and his

tyrannical methods before the Soviet Communist Party Congress in Moscow, said Stalin cultivated a "cult of personality" and subverted Communist aims. Khrushchev lifted some restrictions, extended barter and trade policies. The names of Stalin, Molotov, Malenkov and other supporters of Stalin were eliminated from regions, cities and other sites in 1961-62 after Stalin's body was removed from the Lenin-Stalin tomb in Moscow.

Khrushchev was elected Premier by the Supreme Soviet, Mar. 27, 1958, succeeding Marshal Bulganin. He was reelected Apr. 24, 1962.

Under Khrushchev the open antagonism of Poland and Hungary against domination by Moscow was brutally suppressed in 1956. He advocated peaceful co-existence with the capitalist countries, but continued arming the USSR with nuclear weapons, promised aid to all "suppressed peoples" and so-called wars of liberation, delayed a final peace treaty with all Germany. He warned the Western nations against intervention in Laos and Vietnam and aided the Cuban revolution under Fidel Castro but withdrew Soviet missiles from Cuba during confrontation by U. S. President Kennedy, Sept.-Oct. 1962.

The USSR, the U. S. and Great Britain initiated a joint treaty July 25, 1963, which would ban all except underground nuclear tests.

The policy of co-existence alienated the leaders of Albania and Communist China. The latter continued to preach world revolution and denounced the Khrushchev methods as deviating from true Communism.

Khrushchev was suddenly deposed, Oct. 14-15, 1964, and replaced as party First Secretary by Leonid I. Brezhnev, 57, and as Premier by Aleksei N. Kosygin, 60. An editorial in Pravda, Communist party newspaper, indicated Khrushchev had been accused of "hare-brained scheming, bragging and phrase-mongering." (Brezhnev's title was changed in 1966 to General Secretary, and Khrushchev's de-Stalinization policy was relaxed.)

Communist China's Premier Chou En-lai visited the new USSR chiefs in Nov. 1964 but the visit failed to heal the growing rift between the two Communist powers. In 1965-67 the public squabble between the two increased with the questions of aid to North Vietnam and the anti-USSR activity of Communist China's Red Guards the major issues.

There were several significant developments on the international scene in 1967 as President Johnson in March signed a consular treaty which was the first bilateral treaty with the Russians since the 1917 Revolution.

Soviet Premier Aleksei N. Kosygin and President Johnson met for the first time in Glassboro, N. J., in June after the Russian leader came to the U. S. to attend a meeting of the UN which was dealing with the Israeli-Arab crisis.

In April Svetlana Alliluyeva, only daughter and last surviving child of the late Soviet dictator Joseph Stalin, arrived in New York after defecting from the Soviet Union.

In July 1968 the U. S. and the USSR agreed to open talks on cutting both offensive nuclear weapons and defensive anti-missile systems. They also joined 59 other nations in signing a treaty to bar spread of nuclear weapons.

GOVERNMENT

The first Soviet constitution was adopted in 1918 for the RSFSR. The USSR was formed in Dec., 1922, and the first Union constitution adopted in 1923. The current constitution, adopted in 1936, provides for universal direct suffrage with secret ballot. It was modified, 1944, to give each of the constituent republics the right to have separate commissions for defense and foreign affairs. Voting age is 18; candidates for election must have reached 23. Each Union republic is organized similarly to the central gov't.

The highest legislative authority is the Supreme Soviet consisting of two chambers, the Soviet of the Union and the Soviet of Nationalities. The first house is elected on the basis of one deputy for every 300,000 population; the second on the basis of 25 deputies from each Union republic, 11 from each autonomous republic, 5 from each autonomous region, and one from each national district. The Supreme Soviet normally meets twice a year, serves for a four-year term. It elects a 33-member Presidium which serves between sessions.

Titular chief of state, Chairman of the Presidium (President) of the Supreme Soviet, is Nikolai V. Podgorny, chosen Dec. 9, 1965, succeeding the aging Anastas I. Mikoyan.

In general elections June 12, 1966, the single slate of approved candidates for the Soviet of the Union and Soviet of Nationalities was elected by 99.8% of the voters. Of 144,000,000 registered voters, 99.94% cast ballots. Fewer than 5% availed themselves of the right to vote against a candidate by striking out his name—the only choice offered voters.

On Aug. 2, 1966, the new Supreme Soviet convened and unanimously re-elected Aleksei N. Kosygin Premier.

The highest judicial organ is the Supreme Court, whose members are elected by the Supreme Soviet for five-year terms. Other courts are elected within the constituent republics. Since Feb. 1957, the Supreme Court has been restricted to appellate functions.

The highest executive and administrative organ of state power is the Council of Ministers (Premier and deputies) appointed by and theoretically responsible to the Supreme Soviet.

The Communist party of the USSR is the only legal party. Its highest organ is the Party Congress of about 1,500 elected representatives which normally meets once every 4 years. It elects a Central Committee, the party's directive body, and other committees. The Central Committee elects from its number a Politburo (until 1966 was called Presidium) which makes party policy between Central Committee meetings; and a Secretariat, the party's chief executive body.

The Communist party Politburo normally consists of 12 full members and 6 alternates. In 1967 full members were: Party General Secretary Leonid Brezhnev, Premier Aleksei Kosygin, G. I. Voronov, A. P. Kirilenko, Arvio J. Pelshe, N. V. Podgorny, D. S. Polyansky, Mikhail A. Suslov, A. N. Sholepin, K. T. Mazurov, P. E. Shelest.

Membership in the Communist party in 1966 was reported at over 12,000,000.

EDUCATION

Universal compulsory education was introduced in 1930; education is free. Under reforms introduced in 1959-60, the primary education of 7 years is being extended into an 8-year course that will embrace polytechnical training in industry or agriculture. Students may then go on to a 3-year secondary school to prepare for entrance to a technical institute, university or art school.

In 1966-67 there were 210,000 primary, secondary and technical schools with enrollment of 48,168,000, 3,969 technical colleges with 3,979,000 students; 23,893 schools providing a 10-year secondary education for 4,835,000 workers who already had begun to earn a living, and 767 universities and other places of higher learning with 4,123,000 students. The USSR annually graduates more than 432,000 from higher education establishments, including an est. 239,700 engineers and other scientists. Illiteracy has been reduced to 1.5%.

SOCIAL BENEFITS

All workers are entitled to free public health services, paid vacations, sickness insurance, pensions for men at 60 and women at 55 (extended to collective farm members 1965). There are lower pension requirements for those in hazardous or difficult occupations. State payments are made to mothers on the birth of the 3rd and successive children. Social benefits paid in 1966 totaled 40.5 billion rubles, up 6% from 1965.

RELIGION

Separation of church and state was effected in 1918. Nine branches of Christianity are represented, led by the Orthodox Church, which in 1956 had 22,000 congregations. Islam has the second largest following. Jewish and Buddhist faiths are also present.

Marriages must be registered and divorce is discouraged.

DEFENSE

In 1964 Western authorities believed Soviet forces to total approx. 3,300,000. The Army had 2,300,000 in about 150 first-line divisions, plus 40 (est.) artillery and anti-aircraft artillery divisions, comprising about 10,000 men apiece, and missile and specialized units. Approx. 100 divisions were stationed in Europe. Total manpower of the Communist bloc, including China, was est. at 7,500,000.

The Navy in 1964 was believed to include upward of 35 cruisers, 180 destroyers and escort vessels, 465 modern long-range submarines, 1,900 torpedo boats, and patrol vessels, minesweepers and auxiliaries. Navy personnel is estimated at 750,000.

In 1966 a squadron of nuclear-powered Soviet

missile submarines made a 6-week round-the-world voyage.

The Air Force was est. to have 20,000 first-line planes, including a possible 200-300 heavy bombers and 500 medium bombers, in addition to another 20,000 second-line, cargo and training aircraft. The bomber force was equipped with Myasischev 4-jet planes and Tupolev 4-turboprop and twin-jet bombers with intercontinental range. Other equipment includes several thousand Il-38 jet bombers, MIG jet fighters, Yak-25s, several new supersonic bombers and interceptors, and Sukhoi delta-wing and swept-wing fighters.

While the USSR was believed to possess only 270 intercontinental ballistic missiles in 1965, the U. S. Defense Dept. confirmed in 1968 that the Soviet was expected to catch up with the U. S. force of slightly over 1,000 ICBMs by mid-1969. Both nations were believed planning to produce missiles with multiple, separately aimable, warheads.

The USSR and the United States signed an agreement June 20, 1963, establishing an instantaneous teletype-and-radio communications system between Moscow and Washington, known as the "hot line," designed for emergency communications and as a safeguard against accidental war.

The USSR is a member of the UN and Warsaw Pact.

United Arab Republic

AL-JUMHURIA AL-ARABIA AL-MUTTAHIDA

Egypt (Misr)

Capital: Cairo. Area: 386,100 sq. mi. Population (UN est. 1967): 30,907,000. Monetary unit: Egyptian pound (.4348 official rate per U. S. \$1).

The United Arab Republic, a name adopted by Egypt and Syria during their brief union, Feb. 1, 1958, to Sept. 30, 1961, comprised only Egypt after Syria withdrew from the merger.

Egypt, itself a republic since 1953, occupies the NE corner of Africa on the Mediterranean. On the E lie Israel and 1,200 mi. of Red Sea separating Egypt from Saudi Arabia. Libya is to the W and Sudan to the S. Egypt's Sinai Peninsula extends into the Red Sea, with the Gulf of Aqaba on the E. The Gulf of Suez and the Suez Canal (connecting the Gulf with the Mediterranean) are in Egypt. Jurisdiction over a 23-mi. wide strip of Asia Minor west of Israel, including Gaza, was given Egypt by an armistice agreement, 1949, as a refuge for displaced Palestinian Arabs.

Alexandria, founded 332 B.C., is the chief port. Cairo, largest city, is rich in archeological treasures, cafes, bazaars. Tourist attractions include the pyramids, Sphinx, temple ruins at Karnak and Luxor, and other ancient monuments.

In 1966 removal of the Abu Simbel temples of Ramses II and his wife, Nefertari, from the path of rising waters behind the Aswan High Dam was completed. The U. S. gave over \$12,000,000 toward removal costs.

In July 1968 the UAR shipped a smaller monument, the 2,000-year-old Temple of Dendera, to the U. S. as a gift in gratitude for American aid to the Abu Simbel project. The temple was dismantled and its 661 huge stones, weighing some 800 tons, were to be reassembled outside the Metropolitan Museum of Art in N. Y.

Resources and Industries. Productive acreage lies in the Valley of the Nile and in its delta, or Lower Egypt, north of Cairo. The Nile flows through 960 mi. in Egypt and covers 2,850 sq. mi. with waters and marshes. About 13,000 sq. mi. are cultivated for cereals, vegetables, cotton and sugar cane, and 1,900 sq. mi. have canals and fruit plantations. The Nile rises in June and reaches its peak by August, regulated by dams and networks of canals. Fruit is plentiful and includes grapes, dates, figs, pomegranates, peaches, apricots, oranges, lemons, bananas and olives. Egypt is one of the world's top producers of cotton.

The dams conserving Nile waters are among the largest in the world. Aswan, at the First Cataract, is 176 ft. high, creating a reservoir 230 mi. long. Gabel Awila dam is over 3 mi. long. The Aswan High Dam project in southern Egypt, begun in 1960, was to add 2,000,000 acres of arable land. Deep artesian wells, drilled in the Western Desert, reclaimed 43,000 acres for cultivation, 1960-66.

A variety of minerals is found in Egypt; petroleum is most important, providing 90% of total mineral production value. Others are phosphate rock, salt, coal (found in Sinai in 1963), iron, manganese, cement, gold, gypsum, kaolin, titanium.

A series of decrees in July, 1961, nationalized about 90% of industry and reduced land holdings from 200 to 100 acres.

Egypt has textile plants, yarn factories, cement and fertilizer factories, and a film industry supplying the Middle East, Africa and Asia.

Principal exports are cotton, rice, mineral products, textiles, refrigerators, tires, cement, electrical instruments.

History and Government. Archeological records of ancient empires in Egypt go back to 4000 B.C. A high civilization of rulers and priests dominated the lowly serfs. Assyrians, Persians, Greeks (Alexander of Macedon), Romans, Saracens, Turks, French (Napoleon) and British invaded Egypt. Under Turkish sultans the khedive as hereditary viceroy had wide authority but repeated insolvency led to regulation by European powers. Britain, which supervised the administration after 1882, made Egypt a protectorate 1914-1922. Britain then recognized Egypt as a sovereign state but reserved defense, security of British communications, and the Sudan.

The sultan became King Fouad I in 1922 and a constitution was adopted in 1923. King Fouad I died in 1936 and was succeeded by his son, Farouk I. Farouk abdicated in 1952 and left the country. His son was named nominal ruler under a regency council, Aug. 5, 1952, but the crown was abolished when Egypt was declared a republic, June 18, 1953.

In 1936 an Anglo-Egyptian treaty of alliance revised the conditions of association. Britain agreed to a condominium over the Sudan, with British and Egyptian troops cooperating, and obtained the right to retain 10,000 soldiers and 400 airmen to defend the Suez Canal for 20 years until Egypt would take over, and also held naval bases in Alexandria and Port Said.

Egypt became a charter member of the UN and in 1944 led in organizing the Arab League. In 1947 Egypt brought before the UN Security Council a demand for unification of Egypt and Sudan and evacuation of all British troops from the Suez. In Oct. 1951 Egypt abrogated its 1936 treaty with Britain. The Sudan, with UN support, became independent in 1956.

Delays in reforms, corruption in public office and royal extravagance led to an uprising July 23, 1952, led by the Society of Free Officers which named Maj. Gen. Mohammed Naguib commander in chief and forced Farouk to abdicate. Naguib became Premier Sept. 7, 1952. When the republic was proclaimed June 18, 1953, Naguib became its first President and Premier. Lt. Col. Gamal Abdel Nasser, the principal influence behind the revolt, removed Naguib and succeeded him as Premier on Apr. 18, 1954.

On June 23, 1956, voters elected Col. Nasser President (99.9% of total votes) and adopted a constitution providing for freedom of worship, press, speech, assembly and private ownership, and election of a national assembly. The constitution proclaimed Egypt to be an Arab state under a republican and democratic form of government.

In July, 1956, the United States, Great Britain and the International Bank withdrew support from loans to start the Aswan High Dam. President Nasser nationalized the Suez Canal and seized control of the assets of the Canal company. Later he obtained credits and technicians from the USSR, which began to build the dam. First stage was opened May 14, 1964.

When the state of Israel was proclaimed in 1948, Egypt joined other Arab nations invading Israel and was defeated. No peace treaties were made and Egypt later denied Israeli shipping the use of the Suez Canal.

Border hostilities with Israel heightened and on Oct. 29, 1956, Israeli forces invaded Egypt's Sinai Peninsula. Egypt rejected a cease-fire demand by Britain and France; on Oct. 31 the two nations dropped bombs and on Nov. 5-6 landed forces. Egypt and Israel accepted a UN cease-fire,

followed by Britain and France; fighting ended Nov. 7.

A UN Emergency Force guarded the 117-mile long border between Egypt and Israel until May 19, 1967, when it was withdrawn at Nasser's demand. The Egyptians quickly reoccupied the Gaza Strip and the heights at Sharm el Sheikh and three days later closed the Strait of Tiran leading into the Gulf of Aqaba to all Israeli shipping. Full-scale war broke out June 5 and before it ended under a UN cease-fire five days later, Israel had captured Gaza and the Sinai Peninsula, controlled the east bank of the Suez Canal and reopened the gulf.

In 1962-65 the UAR supported a campaign to destroy royalist guerrilla forces in Yemen after the Imam's regime had been deposed in a military coup. Saudi Arabia had been supplying royalist supporters of the Imam. The latest in a number of cease-fire agreements was reached by Pres. Nasser and Saudi Arabia's King Faisal Aug. 31, 1967.

The UAR was accused in 1965-66 of inspiring guerrilla attacks from Yemen into Aden, which in 1967 became independent as Southern Yemen.

Education and Religion. Three distinct ethnic elements are represented: the Fellahin, basic Egyptian group; the Bedouin, nomadic Arabs; Nubians, a mixed group. Moslems form over 91% of the population and Christians about 7%.

Education is compulsory for all children beginning at age 7 and free through high school. There is a famous seat of Moslem learning in the University of Al-Azhar in Cairo, founded about 969 A.D. Four modern universities are Cairo, Alexandria, Ein-Shams and Assiut. Arabic is the official language. American schools, managed by Egyptians since 1956, include American University, Cairo; Cairo American College; American Mission, Heliopolis.

Defense. After the 1967 defeat by Israel, the UAR rapidly rebuilt its armed forces with equipment supplied by the USSR.

Cairo was the original site of the Arab League, formed in 1945 to foster the cause of the Arab nations.

THE SUEZ CANAL

The Suez Canal, 103 mi. long, links the Mediterranean and the Red Sea. Its minimum width is 196 ft., 10 in., and maximum draft for vessels 38 ft. It was begun April 25, 1859, by a French corporation under Ferdinand de Lesseps and opened Nov. 17, 1869. Benj. Disraeli, British prime minister, obtained control for Britain Nov. 24, 1875, by buying 176,752 shares from the Khedive Ismail of Egypt for £3,976,582 (nearly \$20,000,000). Prolonged agitation led to an agreement July 27, 1954, by which Britain agreed to withdraw all troops (est. 80,000) within 20 mos. after signing pact on Oct. 19, 1954. The 74-year British military occupation ended June 13, 1956. On July 26, Pres. Nasser proclaimed nationalization of the canal, seizing it from its French and British stockholders.

Egypt on Apr. 24, 1957, promised to abide by the Constantinople Convention of 1888, and to accept the jurisdiction of the International Court in differences arising from its interpretation. Citing Item 10 of the Convention, it has continued to bar Israeli shipping and cargoes destined for Israel. Item 10 provides that freedom of passage "shall not interfere with measures Egypt might find necessary to take to secure the defense of Egypt."

A final agreement between the UAR and the Universal Suez Canal Co., signed July 13, 1958, called for payments to stockholders of \$64,400,000. Final payments were made Jan. 1, 1963.

Since nationalization, the UAR has widened and deepened the canal. In the year before the seizure, the canal handled 14,666 ships, max. draft 35 ft., max. loaded capacity 30,000 tons, gross revenue \$75,000,000. For the year ended June 30, 1966, the figures were 20,285 ships, 38 ft., 60,000 tons, \$197,000,000.

The canal was closed to all shipping by Cairo at the height of the Israeli-Arab War June 6, 1967. A year later the canal was still closed, with 14 ships still trapped in it by sunken vessels.

The United Kingdom of Great Britain and Northern Ireland

Capital: London. Area: 94,209 sq. mi. Population (Govt. est. 1967): 55,068,000. Monetary unit: Pound (U. S. \$ 2.394).

The United Kingdom of Great Britain and Northern Ireland comprises England, Wales, Scotland and Northern Ireland.

The term British Isles is applied to these divisions and to the separately-governed island de-

pendencies, Isle of Man and the Channel Islands. The Isle of Man lies in the Irish Sea and the Channel Islands lie off the coast of France. The whole British Isles lie off the NW corner of Europe, with the North Atlantic on the N and W; separating England from the mainland are the North Sea on the E, the Strait of Dover on the SE and the English Channel on the S. The Thames,

BUDGETS OF GREAT BRITAIN

Fiscal year ends March 31

Year	Revenues 1,000 £	Expendit's 1,000 £	Year	Revenues 1,000 £	Expendit's 1,000 £	Year	Revenues 1,000 £	Expendit's 1,000 £
1930.....	814,970	829,493	1956.....	4,893,000	4,496,000	1984.....	6,890,000	6,817,000
1935.....	804,629	797,067	1957.....	5,343,009	4,920,000	1985.....	8,157,000	7,712,900
1940.....	1,025,162	1,032,217	1960.....	5,830,529	5,222,986	1986.....	9,145,000	8,456,000
1945.....	3,098,000	6,062,904	1961.....	5,934,000	5,787,000	1987.....	10,279,000	9,541,000
1950.....	3,924,031	3,356,569	1962.....	6,645,000	6,235,000	1988.....	11,177,000	10,878,000
1955.....	4,738,000	4,305,000	1963.....	6,794,000	6,441,000	1989 (est.)	12,875,000	11,489,000

210 mi. from its source to the North Sea, is England's longest river.

England has an area of 50,331 sq. mi. and a population of 45,680,870; Wales, 8,016 sq. mi., 2,709,930; Scotland, 30,411 sq. mi., 5,187,000; Northern Ireland, 5,451 sq. mi., 1,491,000. (All populations by Govt. est., mid-1967.)

The climate of the British Isles is equable, mild and somewhat warmer than that of the continent because of the Gulf Stream modifying the temperature, which has a mean of 48°. Rainfall averages 41 inches annually, and fogs are frequent.

On Apr. 1, 1965, new boundaries and a new government system for Greater London went into effect. The boundaries cut the size from 692 to 620 sq. mi. and the population from 8,176,810 (est. 1963) to 7,880,760 (est. 1967). A new Greater London Council administers most citywide services; local councils for 32 boroughs, formed from 100 former areas, conduct local services; the old City of London (675 acres), financial capital of the Commonwealth, retains independent status plus powers as a new borough and continues to provide the Lord Mayor of London.

QUEEN AND ROYAL FAMILY. The ruling sovereign is Elizabeth II of the House of Windsor, the former Princess Elizabeth Alexandra Mary, born April 21, 1926, eldest daughter of King George VI and Queen Elizabeth. She succeeded to the throne Feb. 6, 1952, and was crowned June 2, 1953. Her title in the United Kingdom and the Colonies is: "Elizabeth II, by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of her other realms and territories, Queen, Head of the Commonwealth, Defender of the Faith." The title varies in other countries of the Commonwealth. The Queen is a great-great-granddaughter of Queen Victoria.

The Queen, as Princess Elizabeth, was married Nov. 20, 1947 to Lt. Philip Mountbatten, born June 10, 1921, former Prince of Greece. He was created Duke of Edinburgh Nov. 19, 1947. H.R.H. Prince Philip Nov. 20, 1947, and given the title Prince of the United Kingdom Feb. 22, 1957. He is a son of late Prince Andrew of Greece and Princess Alice, sister of Earl Mountbatten (former Governor-General of India); his grandfather, Prince Louis of Battenberg, became admiral in Royal Navy and changed the family name to Mountbatten; the Duke is great-grandson of Christian IX of Denmark and great-great-grandson of Queen Victoria.

They have four children: (1) Prince Charles Philip Arthur George, born Nov. 14, 1948, named Prince of Wales, July 26, 1958, (2) Princess Anne Elizabeth Alice Louise, born Aug. 15, 1950, (3) Prince Andrew Albert Christian Edward, born Feb. 19, 1960; (4) Prince Edward Antony Richard Louis, born Mar. 10, 1964, third in line for the throne. Prince Charles is the heir apparent.

The Queen has one sister, Princess Margaret Rose, born Aug. 21, 1930; married Antony Armstrong-Jones, a commoner, May 6, 1960. He received an Earldom as the Earl of Snowdon Oct. 3, 1961. Issue: David Albert Charles, Viscount Linley, born Nov. 3, 1961, sixth in line for the throne, and a daughter, Sarah Frances Elizabeth (known as Lady Sarah Armstrong-Jones), born May 1, 1964.

The late King George VI was born Dec. 14, 1895, son of King George V (died Jan. 20, 1936), and Queen Mary (died March 24, 1953). He succeeded to the throne on the abdication of his brother, Edward VIII, Dec. 11, 1936. As Prince Albert Duke of York, he married April 26, 1923, Lady Elizabeth Bowes-Lyon (born Aug. 4, 1900). He died Feb. 6, 1952.

His widow became Queen Mother Elizabeth. Two brothers and a sister also survived George VI.

They were H.R.H. Prince Edward Albert (born June 23, 1894) Prince of Wales; proclaimed King Edward VIII, acceded Jan. 20, 1936 but never crowned, abdicated Dec. 10, 1936; created Duke of Windsor (Dec. 12, 1936) married (June 3, 1937) Mrs. Wallis Warfield; appointed Governor

of the Bahamas July 9, 1940, resigned Mar. 15, 1945; H.R.H. Prince Henry William (born March 31, 1900), created Baron Culloden, Earl of Ulster and Duke of Gloucester (March 31, 1928), married (Nov. 6, 1935), Lady Alice Montagu-Douglas-Scott (born Dec. 25, 1901), daughter of the Duke and Duchess of Buccleuch and Queensbury—issue: William Henry Andrew Frederick (born Dec. 18, 1941), Richard Alexander Walter George (born Aug. 26, 1944); Princess (Victoria Alexandra Alice) Mary, Princess Royal (born April 25, 1897, died Mar. 28, 1965), married (Feb. 28, 1922) Viscount Lascelles, later Earl of Harewood (died May 24, 1947)—issue: George Henry Hubert, Earl of Harewood (born Feb. 7, 1923), Gerald David (born Aug. 21, 1924).

A third brother, the Duke of Kent, was killed in an airplane accident in Scotland (Aug. 25, 1942). He was H.R.H. Prince George (born Dec. 20, 1902), married (Nov. 29, 1934) Princess Marina of Greece (born Nov. 30, 1906)—issue: Edward George Nicholas Patrick, Duke of Kent (born Oct. 9, 1935), married (June 8, 1961) Katharine Worsley; Alexandra Helen Elizabeth Olga Christabel (born Dec. 25, 1936) married Hon. Angus Ogilvy (April 1963); Michael George Charles Franklin (born July 4, 1942).

Queen Elizabeth announced Feb. 8, 1960, that her descendants, except princes and princesses of the royal family, would bear the surname Mountbatten-Windsor.

The Queen receives from Parliament an annuity of £475,000 (\$1,140,000), comprising her privy purse of £60,000 (\$144,000), and the rest for her household salaries and expenses. The Civil List grants Prince Philip £40,000 (\$96,000), Queen Mother Elizabeth £70,000 (\$168,000); the Duke of Gloucester £35,000 (\$84,000); Prince Charles £30,000 (\$72,000), Princess Margaret £15,000 (\$36,000).

PARLIAMENT is the legislative governing body for the United Kingdom, with certain powers over dependent units but none over the independent states. It consists of two Houses. The House of Lords is divided into (1) the Lords Temporal, consisting of hereditary peers and peeresses who have not disclaimed their titles, life peers created by the Crown, and Lords of Appeal; and (2) the Lords Spiritual who are the Archbishops of Canterbury and York and 24 diocesan bishops of the Church of England. Full membership of the House of Lords is over 1,000 but actual average voting strength is approx. 90-120.

Women became eligible to sit in the House of Lords for the first time, July 23, 1958. Previously, women had been eligible to sit only in Commons.

The House of Commons has 630 members, who are elected by direct ballot and divided as follows: England, 511; Wales and Monmouth, 36; Scotland 71; Northern Ireland, 12.

Clergymen of the Church of England, ministers of the Church in Scotland and Roman Catholic clergymen are disqualified from sitting as members, also certain government officers, and sheriffs. Women have had the right to vote since 1918.

Members of Parliament are paid £3,250 (\$7,800). Most cabinet Ministers are paid £8,500 (\$20,400). Ministers in the House of Commons draw an additional allowance of £1,250 (\$3,000) from their pay as M.P.s.

The Labor party ended 13 years of Conservative party rule by winning a close verdict in general parliamentary elections Oct. 15, 1964. Labor party leader Harold Wilson became Prime Minister, succeeding Conservative Sir Alec Douglas-Home. Election Mar. 31, 1966, gave Labor an over-all majority of 97 seats. The popular vote was: Labor, 13,064,951 (47.9%); Conservatives, 11,418,433 (41.9%); Liberals, 2,327,533 (8.6%); others, 452,689 (1.6%).

As of May 1968 the parties had the following number of seats in Commons: Labor, 348; Conservatives and Associates, 260; Liberal, 12; others, 6, vacancies, 4.

The Labor Government, on July 27, 1965, announced a wide variety of austerity moves aimed to speed deflation and strengthen the pound. In 1966 it took further action, raising taxes, cutting expenditures and imposing a wage and price freeze. In 1967 the freeze was slightly relaxed. The unemployment rate had risen from 1.3% in July 1966 to 2.3% in July 1967.

By Feb. 15, 1971, Britain will have completed a changeover to a system of decimal currency, continuing the same pound but dividing it into 100 new pence. In 1968, two of the new coins, a 5 pence equal to an old shilling and a 10 pence equal to the old two-shilling piece, were introduced. All 4 coins were in circulation but the shillings (worth 20 to the pound) were due to be retired and would not be a part of the new system. New pence (p) would entirely replace old pence (d) by 1971.

Also in 1968, Parliament approved a bill adopting a new British Standard Time for year-round use, keeping its clocks, during a 3-year test, one hour ahead of Greenwich Mean Time. This would make British time 5 hours ahead of New York in summer and 6 hours ahead in winter.

RESOURCES AND INDUSTRIES. Great Britain's major occupations are manufacturing and trade. Metals and metal-using industries contribute more than 50% of the exports. Agriculture provides wheat, barley, oats, sugar beets, rye and garden truck. Of about 60,000,000 acres of land in England, Wales and Scotland, 49,000,000 are farmed, of which 18,000,000 are arable, the rest pastures.

The country is rich in mineral resources. There are huge deposits of coal, the annual output approximates \$2 billion in value. Limestone, igneous rock and iron ore are valuable products. Other important minerals, in the order of their value, are gravel and sand, clay and shale, slate, sandstone, salt, China clay, fireclay, chalk, gypsum, oil shale, lead ore, tin ore and silica.

The railway systems, approx. 47,000 mi. of tracks, have been nationalized since 1948.

There are approx. 175 airports for civil use in Great Britain. There are two state-owned airlines, British European Airways and British Overseas Airways Corp.

Telephone service is a part of the postal system. Telephones number more than 11,400,000.

Broadcast receiving licenses in 1967 totaled 2,583,000 for radio only (including car radios) and 14,910,000 for both radio and TV.

The government, on July 28, 1967, took ownership of 14 steel companies which comprised 90% of the nation's steelmaking industry, paying shareholders in the companies more than \$1.4 billion in government securities. The new British Steel Corp. became Britain's largest industrial enterprise.

Tourism ranks high in earnings. Visitors from abroad average more than 2,500,000 annually, of whom about 650,000 are from the U. S.

Index of industrial production (1963=100) has been: 1964, 108; 1965, 111; 1966, 112; 1967, 112.

Industrial production:

	1964	1966	1967
Coal (million tons)	185.4	174.6	172.2
Crude steel (million tons) . . .	26.2	24.3	23.9
Automobiles (thousands) . . .	1,867.6	1,603.7	1,552.0
Trucks, etc. (thousands) . . .	467.8	438.7	385.2

The merchant marine totaled 21,530,264 gross registered tons on June 30, 1965, comprising about 13.3% of active world shipping. British shipyards have an estimated annual capacity of 1,300,000 tons.

The world's first power station using atomic energy to create electricity for civilian use began operation Oct. 17, 1956, at Calder Hall in Cumberland.

The largest aluminum rolling mill in Europe is the Alcan Industries' works at Rogerstone, Wales, with a capacity est. at 70,000 tons annually.

Britain's aid to less developed countries has more than doubled since 1956, totaling over \$2.5 billion and amounting to \$492,000,000 in 1967-68.

The United Kingdom is a member of the UN, Commonwealth, NATO, SEATO, CENTO, EFTA, Council of Europe. In 1967 the Government decided to reapply for membership in the European Common Market but France vetoed the application.

Britain imports all of its oil, cotton, rubber, sulphur, four-fifths of its wool, half of its food and iron ore, also certain amounts of paper, tobacco, chemicals. Manufactured goods made from these basic materials have been exported since the industrial age began.

Gross national product for 1967 was \$81.4 billion. Main exports are machinery, chemicals, woolen and synthetic textiles, autos and trucks, iron and

steel, locomotives, jet aircraft, farm machinery, drugs, radio, TV, radar and navigation equipment, whisky.

British imports and exports account for 8.1% of total world trade.

Britain devalued the pound in Nov. 1967, from a value of \$2.80 to \$2.40. In March 1968 it raised taxes by \$2.2 billion a year, and took other measures designed to improve exports and cut imports.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1968	\$16,107,000	\$14,132,000
1967	\$17,207,000	\$13,862,000

RELIGION AND CHURCHES. The Church of England is Protestant Episcopal. The Queen is supreme governor, with rights of appointment to archbishops, bishops and other offices. There are two provinces, Canterbury and York. The 100th Archbishop of Canterbury and Primate of All England is the Most Rev. Arthur Michael Ramsey (b. Nov. 14, 1904) whose seat is Lambeth Palace, London. Annual salary \$7,500 (\$18,000). Dean is the Very Rev. Ian White-Thomson. The 114th Bishop of London is the Rt. Rev. Robert W. Stopford, \$5,500 (\$13,200). The Dean of Westminster is the Very Rev. Eric Symes Abbott, £3,000 (\$7,200).

The 93rd Archbishop of York and Primate of England is the Most Rev. Donald Coggan, Bishop-thorpe, York; £6,000 (\$14,400).

The Church of England has an est. 27,750,000 members. In 1967 there were some 14,400 parishes. Most famous church is Westminster Abbey (1050-1760), site of coronations; tombs of Elizabeth I, Mary of Scots, kings, poets and of the Unknown Warrior. St. Paul's Cathedral, London, 365 ft. to top of cross, has American War Memorial Chapel. Altogether, the Anglican Commission in the UK and overseas has over 40,000,000 members.

The Roman Catholic Church—Archbishop of Westminster, John Cardinal Heenan. Membership in England and Wales, 1965, 4,000,690. In Scotland, 809,000; in Northern Ireland, 498,000.

The Methodist Church—The Pres. of the Conference (governing body) is the Rev. Dr. I. Morgan (1967-68). There were 14,287 churches and 690,000 members in 1968.

Others. There are an est. 450,000 Jews in the British Isles, 80% orthodox, over half in the London area. There are over 290,000 Baptists and more than 198,000 Congregationalists. The Calvinistic Methodist (Presbyterian) Church of Wales has over 122,600 communicants. The Unitarians have 330 chapels. The Presbyterian Church of England has 318 congregations, 68,000 members. The Society of Friends has 433 meeting houses, an est. 21,000 members. The Church of Christ, Scientist, has 330 branches in Great Britain and Ireland. There are some 250,000 Moslems in Britain.

The Church of Scotland is Presbyterian. It is presided over by a Moderator, chosen annually. Churches, 2,016; members, 1,233,800.

The Church of Ireland (Episcopalian) was established in 1869. The Primate is the Archbishop of Armagh, St. Patrick's Cathedral, Armagh.

Education. Primary and secondary education is free and compulsory from 5 to 15.

The most celebrated of British universities are Oxford and Cambridge, each with colleges founded in the 13th Century. There are 42 other universities in England, Scotland, Wales and Northern Ireland.

SOCIAL WELFARE, TAXES. Under the Ministry of Social Security, National Insurance provides for virtually universal compulsory insurance covering sickness, maternity, unemployment and industrial accidents, and death benefits and pensions for widows, orphans and the aged. The National Health Service provides free medical, dental and nursing care and makes minimum charges for certain appliances and prescriptions. Under the Family Allowance Act the government pays 8 shillings a week for each child of compulsory school age, after the first, and 10 shillings each for the third or more.

Supplementary Benefits provide for those not fully protected by National Insurance. Contributions are made by purchase of National Insurance stamps, the amounts varying according to sex and classification (employed, self-employed, non-employed). In the case of employed, the employer pays nearly one-half.

Standard income tax rate, 1967-68, was 41¼%, after allowances. Allowances, in addition to earned income credit: single persons, £220; married, £340,

plus £115 to £165 for each child according to age. Rate, including surtax, reaches 91¼% on largest incomes. A capital gains tax was instituted in 1962.

DEFENSE: In 1964, a new ministry headed by the Secretary of State for Defense was formed. It absorbed the Admiralty, War Office and Air Ministry, but the government said the separate identities of the three forces would be maintained.

The government announced in 1963 it would cut British forces abroad sharply; those in Singapore and Malaysia would be completely withdrawn by the end of 1971.

Total strength of the armed forces in 1968 was over 400,000, comprised of the Army, 190,600; Navy, 94,900; RAF, 120,900.

The Territorial Army corresponds to the National Guard in the United States, is voluntary, and serves only at home in peacetime. The women's services are integrated into the three branches of the armed forces.

In 1967-68 there were 167 ships in the operational fleet, including 2 aircraft carriers, 2 commando ships, 6 guided-missile destroyers, 11 other destroyers, 55 frigates, 33 subs, 57 minesweepers, etc. The Resolution, Britain's 1st Polaris-firing submarine, was launched in 1966.

Britain exploded its 1st atomic bomb in 1952 and has a stockpile of these weapons. The Air Force is equipped with Blue Steel air-to-surface nuclear missiles.

WALES

The Principality of Wales and Monmouthshire in western Britain has an area of 8,016 sq. mi. and a population (est. 1967) of 2,709,930.

England and Wales are administered as a unit and Wales does not have a separate local government act, as has Scotland. Approximately 600,000 people, less than one-fourth of its total, speak both English and Welsh and under 50,000 speak Welsh solely. Welsh nationalism is advocated by a small segment.

Early Anglo-Saxon invaders drove certain Celtic peoples into the mountains of Wales, terming them Waelisc (Welsh, or foreign). There they developed a distinct nationality and culture. Members of the ruling house of Gwynedd in the 13th Century fought England for sovereignty but were crushed, 1282-1283. Edward of Caernarvon, son of Edward I of England, was created Prince of Wales Feb. 7, 1301.

SCOTLAND

Scotland, a kingdom now united with England and Wales in Great Britain, occupies the northern 37% of the main British island, and the Hebrides, Orkney, Shetland and smaller islands. The Atlantic lies N and W; the North Sea, E. Length, 275 mi., breadth approx. 150 mi., area, 30,411 sq. mi., population (est. 1967) 5,187,000. Principal rivers are the Clyde, 106 mi.; the Tay, 117 mi., and the Tweed, 96 mi.

The Lowlands, a belt of land approximately 60 miles wide from the Firth of Clyde to the Firth of Forth, divide the farming region of the Southern Uplands from the granite Highlands of the north. Only one-tenth of the land area, the Lowlands contain three-quarters of the population and most of the industry. The Highlands, famous for hunting and fishing, have been opened to industry by many hydroelectric power stations.

Edinburgh, pop. (1967) 467,986, is the capital. It lies on the Firth of Forth in Midlothian County, 42 mi. from Glasgow, and has notable memorials of its royal and cultural history.

Glasgow, pop. (1967) 960,527, is the largest city, third largest in Britain, and Britain's greatest industrial center. It is a shipbuilding complex on the Clyde and an ocean port. Prestwick International Airport is a major transatlantic stop.

Aberdeen, pop. (1967) 182,117, 95 mi. NE of Edinburgh, is a major North Sea port, center of granite industry and fish processing.

Dundee, pop. (1967) 182,284, 40 mi. NE of Edinburgh, is an industrial and fish processing center on the Firth of Tay.

Scotland was called Caledonia by the Romans who battled early Picts and Scots and Celtic tribes and occupied southern areas from the 1st to the 4th Centuries. The Romans supposedly called one group Picti because they painted their bodies. The Scots were an Irish tribe from Scotia (an early name for Ireland). Missionaries from Britain introduced Christianity in the 4th Century; St. Columba, an Irish monk, converted most of Scotland to Christianity in the 6th Century.

The Kingdom of Scotland was established in the 11th Century. William Wallace, patriot leader, defeated an invading English army at Stirling Bridge, 1297, and Robert Bruce defeated another at Bannockburn, 1314.

In 1603 James VI of Scotland, son of Mary, Queen of Scots, succeeded Queen Elizabeth I on the throne of England as James I, and effected the Union of the Crowns. In 1707 Scotland received representation in the British Parliament, resulting from the union of former separate Parliaments. Its executive in the British cabinet is the Secretary of State for Scotland. John Knox led the Scottish church Reformation in the 16th Century. There is a small but growing Scottish Nationalist party which urges independence for Scotland.

There are 8 universities, at Aberdeen, Edinburgh, Glasgow, St. Andrews, Dundee and Stirling. Education receives some support from trusts, founded by Andrew Carnegie. St. Andrews is the birthplace of golf.

Historic sites and literary associations, where memorials of Robert Burns, Sir Walter Scott, John Knox, Mary, Queen of Scots, are preserved, draw many tourists, as do the beauties of the Trossachs, Loch Katrine, Loch Lomond and abbey ruins that are now state property.

Engineering products are the most important industry, with growing emphasis on lighter products such as office machinery, autos, electronics and other consumer goods and less dependence on locomotives, boilers, pumps, valves and other industrial machinery. Scotland contributes over a third of all British shipbuilding.

Scotland produces fine woolsens, worsteds, tweeds; silk textiles at Paisley and Glasgow; fine linens and jute. It is known for its Ayrshire, Aberdeen-Angus, Galloway, Belted Galloway, Highland and Scottish Shorthorn cattle. It raises Shetland, Highland and Cheviot sheep, Shetland ponies and Clydesdale draft horses. Fisheries have large hauls of herring, cod, whiting. Whisky remains the biggest export product.

Atomic projects to produce plutonium and electrical energy are at Dounreay, Dumfriesshire, Chapel Cross and Hunterston.

The Hebrides are a group of c. 500 islands, 100 inhabited, off the W coast. The Inner Hebrides include Skye, Mull and Iona, the last famous for the arrival of St. Columba, 563 A.D. The Outer Hebrides include St. Kilda and Harris. Industries include sheep raising and weaving (Harris tweeds).

The Orkney Islands, c. 90, are separated from Scotland by the Pentland Firth. The capital is Kirkwall, on Pomona Is. Fish curing, sheep raising and weaving are occupations. Northeast of the Orkneys are the 200 Shetland Islands, 24 inhabited, home of the Shetland pony.

NORTHERN IRELAND

Descriptive. Six of the 9 counties of Ulster, the NE corner of Ireland, constitute Northern Ireland, with the parliamentary boroughs of Belfast and Londonderry; they are Antrim, Armagh, Down, Londonderry, Fermanagh and Tyrone. The country has an area of 5,451 sq. mi. and a population (est. 1967) of 1,491,000. Belfast is the capital and chief industrial center.

The finest scenery in Northern Ireland is to be found on or close to the coast line. From Belfast northward the Antrim road takes the visitor to the famous Giant's Causeway, which consists of a perfect honeycomb of stone columns, 40,000 in all. Lough Erne, studded with islands, is one of the most famous of lakes, and Lough Neagh the largest in the British Isles.

Resources and Industries. Agriculture is the main industry; 68,000 small farms produce fat cattle, sheep, eggs, poultry, potatoes and milk. Much of the milk is shipped to England. Butter and cheese are produced, as well as many canned foods. Four-fifths of Northern Ireland's whisky is exported.

Annual estimated agricultural output is valued at \$317,800,000. There are 466,000 cattle, 887,000 sheep, and 2,010,000 hogs.

Linens and ships are the chief manufacturing products. Belfast shipyards launch more than 100,000 tons annually and the city is Ireland's largest port, with 10 mi. of wharves. Ropes and twines, rayon, clothing, aircraft, engineering products, hosiery and underwear are also made.

Government. An act of the British parliament, 1920, divided Northern from Southern Ireland, each with a parliament and government. When Ireland became a dominion, 1921, and later a republic, Northern Ireland elected to remain a part of the United Kingdom.

Parliament consists of a Senate of 26, and House of Commons of 52, both elected with power to legislate in local matters except such as are reserved to the British Parliament; Northern Ireland elects 12 members of the British House of Commons.

The government has outlawed the Irish Republican Army and other extremists and in 1956 banned the Sinn Féin party.

Education and Religion. Northern Ireland is preponderantly Protestant. Elementary education is compulsory to age 15. Queens Univ. of Belfast (1908) had a 1968 enrolment of 5,527. The new Univ. of Ulster was opened in 1968.

Northern Ireland closely followed Britain in systems of social insurance, industrial accident and disability benefits, family allowances and pensions.

Dependencies

CHANNEL ISLANDS

The Channel Islands, area 75 sq. mi., pop., 1967 110,644, off the NW coast of France, the only parts of the one-time Dukedom of Normandy belonging to England, are Jersey, Guernsey and the dependencies of Guernsey—Alderney, Brechou, Great Sark, Little Sark, Herm, Jethou and Lihou. Jersey has a separate legal existence and a lt. gov. named by the Crown. The islands are not bound by acts of Parliament unless named in the legislation. The islands were the only British soil occupied by German troops in World War II.

ISLE OF MAN

The Isle of Man, area 227 sq. mi., est. 1966 pop. 50,423, is in the Irish Sea, 20 mi. from Scotland, 30 mi. from Cumberland. It is rich in lead and iron. The island has its own laws and a lt. gov. who has wide constitutional powers, appointed by the Crown. The Tynwald (legislature) consists of the Legislative Council, partly elected, the House of Keys, elected. The island is not bound by acts of Parliament unless named in the legislation. Capital: Douglas.

Farming, tourism and fishing are chief occupations. The mild climate is popular with tourists. Ronaldsway Airport handles 250,000 passengers a year. Herring (kippers) and scallops top fishing trade. Man is famous for the Manx tailless cat.

Mediterranean Possession

GIBRALTAR

Gibraltar, a colony southeast of Spain, guards the entrance to the Mediterranean. The width of the strait dividing Europe from Africa varies from 7.75 mi. at the narrowest part to 23.75 at the widest. The Rock has been in British possession since 1713. There is a large harbor and as a naval base its position is of the greatest strategic importance. The Rock is 2 $\frac{3}{4}$ mi. long, $\frac{3}{4}$ of a mi. wide and 1,396 ft. in height; a narrow isthmus connects it with the mainland. The population, 1965 est., was 24,485.

In 1966 Spain called on Britain to give "substantial sovereignty" of Gibraltar to Spain and imposed a partial blockade of the isthmus. On Sept. 10, 1967, in a referendum sponsored by Britain despite Spain's objection, the residents voted 12,138 for remaining under British rule against 44 for returning to Spain.

British West Indies and Other American Possessions

WEST INDIES

Swinging in a vast arc from the coast of Venezuela northeast, then north and northwest toward Puerto Rico are the Windward and Leeward Islands, forming a coral and volcanic barrier sheltering the Caribbean from the open Atlantic. Most of the islands are British possessions which have internal self-government. Universal suffrage was instituted 1951-4; ministerial systems of government were set up 1956-1960.

Moving northward from the southern end of the arc lie the Windward Islands, starting with Grenada (1964 pop. est. 91,967, area 133 sq. mi., capital St. George's), St. Vincent (1965 pop. 88,451, area 150 sq. mi., capital Kingstown), St. Lucia (1966 pop. 110,142, area 238 sq. mi., capital Castries) and Dominica (1966 pop. 68,501, area 290 sq. mi., capital Roseau).

Further north, in the Leeward Islands, are Montserrat (1966 pop. 14,056, area 33 sq. mi., capital Plymouth), Antigua (1963 pop. 61,664, area 171 sq. mi., capital St. John's) and St. Christopher-

Nevis-Anguilla, three islands also referred to as St. Kitts (1965 pop. 59,476, area 138 sq. mi., capital Basseterre on St. Christopher). Nearby are the small British Virgin Islands.

Britain granted self-government to 5 of these islands and island groups in 1967; each became an Associated State, with Britain retaining responsibility for the foreign affairs and defense of each. These 5 were Antigua, Dominica, Grenada, St. Lucia and the St. Christopher-Nevis-Anguilla Federation. Similar status was offered St. Vincent, but action was delayed.

Anguilla, however, announced its independence from both the Federation and Britain June 16, 1967, and said it would like to become a U. S. Territory. On July 12, voters in Anguilla, which is a 35-sq.-mi. coral island with a pop. of 6,000, voted 1,813 to 4 in favor of independence and also approved a 15-man council of government. Anguilla rejoined the Federation on Dec. 22, 1967, after agreement for appointment of a British Administrator to be stationed on Anguilla and represent the island's interests. The islanders make a bare existence by exporting lobsters and salt.

Sugar is the major crop of Antigua and St. Kitts; bananas are the main product of the Windwards; Dominica and Grenada produce cocoa; Antigua, Montserrat, St. Kitts and St. Vincent have Sea Island cotton; St. Vincent and Grenada have arrowroot; Grenada grows spices, and Dominica citrus fruits. Many of these products are exported; imports include other foods, clothing, machinery. Tourism is of mounting importance.

The three Cayman Islands, a colony formerly under administration of Jamaica, lie S of Cuba, NW of Jamaica. Population is 9,374, most of it on Grand Cayman, about 1,000 on Cayman Brac, about two dozen on Little Cayman. It is a free port; inhabitants are exempt from British taxes. Fishing and tourism are the main industries. Total area: over 100 sq. mi. Capital: Georgetown.

The Turks and Caicos Islands, at the SE end of the Bahama Islands, are a separate British possession. There are about 30 islands, only 6 inhabited, 1964 pop. 6,770, area 166 sq. mi., capital Grand Turk. Salt, crayfish and conch shells are the main exports.

BERMUDA

Bermuda (or the Bermuda Islands) is a British possession governed by a royal governor and a representative legislature, the oldest legislative body among British dependencies.

It is a group of 360 small islands of coral formation, 20 inhabited, comprising 21 sq. mi. in the western Atlantic, 677 mi. SE of New York, 580 mi. E of North Carolina. Population, est. 1966, was 49,448 (about 30,000 of African or mixed descent, the rest of European descent).

It was named for Juan de Bermudez, Spanish explorer, and settled by Virginia-bound British colonists under Sir George Somers who were wrecked in the islands, 1609. Its capital is Hamilton.

Bermuda's Parliament dates from 1620. In general elections May 22, 1968, the first on the basis of full universal adult suffrage without property qualifications, the predominantly white United Bermuda party won 30 of the 40 Assembly seats.

The predominantly Negro Progressive Labor party won the other 10. Negroes make up about 63% of the population; many of them voted for the United Bermuda party.

The British-appointed governor controls foreign and defense affairs and internal security. The Assembly, its members elected for 5-year terms, controls all local affairs; a Prime Minister was chosen for the first time in 1968.

The United States maintains air and naval bases in the Bermudas, under long-term lease, and a NASA tracking station.

Bermuda levies no taxes on real estate, incomes or inheritance, but raises revenue by excise, postal, transportation, stamp taxes and duties. Cruise ships and airlines bring large numbers of tourists; there are many modern resort hotels.

Bermuda exports Easter lilies, drugs, essences, beauty preparations.

BAHAMAS

The Bahamas comprise nearly 700 islands (30 inhabited) and over 2,000 rocks in the Atlantic, extending NW to SE from a point near Florida toward Haiti. Nassau, on the island of New Providence, near the Florida coast, is the capital and a popular tourist resort. The land area of the group

is 4,404 sq. mi.; population, 1967 UN est., was 144,000 (84% Negro).

A new constitution, effective Jan. 7, 1964, replacing a 235-year-old charter, granted the islands internal self-government. In 1966 the government adopted a 7-shilling dollar, replacing the old 20-shilling pound, to facilitate business with the U. S. and tourists.

Elections in Jan. 1967 to the Assembly resulted in the selection of Lynden O. Pindling as the Bahamas' first Negro Prime Minister. Mr. Pindling launched an inquiry into alleged underworld control of gambling, one of the islands' many tourist attractions.

Prime Minister Pindling's all-Negro Government won 29 of the 38 seats in the Assembly in elections Apr. 10, 1968. He indicated more independence would be sought, particularly control of the police forces, still held by the Governor.

Principal exports are salt, crayfish, pulpwood and cucumbers.

BRITISH HONDURAS

British Honduras is in Middle America facing the Caribbean to the E, with Mexico on the N and Guatemala on the W. Population (UN est. 1966) 109,000, area 8,867 sq. mi., capital Belize.

Internal self-government was granted by Britain in 1964.

The country had long been claimed by Guatemala, but also was promised independence by Britain. In Apr. 1968, U. S. lawyer Bethuel Webster, serving as mediator, proposed that British Honduras be made independent by the end of 1970, but have close association with Guatemala, consulting with it on foreign affairs of mutual concern.

Main export is sugar, along with citrus fruits, mahogany and other hardwoods, chicle, lobsters and fish.

British Antarctica

Falkland Islands and Dependencies, a Colony, lies 300 mi. E. of the Strait of Magellan at the southern end of South America.

The Falklands or Islas Malvinas include about 200 islands with an area of 4,618 sq. mi and pop., est. 1966, of 2,170. Sheep-grazing is the main industry; wool is the principal export. The islands are also claimed by Argentina. South Georgia, area 1,450 sq. mi., and pop. 439, and the uninhabited South Sandwich Islands are dependencies of the Falklands.

Britain and Argentina discussed Argentine claims to the Falklands, but in Mar. 1968 officials of the islands declared their opposition to being ceded to Argentina.

British Antarctic Territory, south of 60° S lat., was made a separate Colony in 1962 and comprises mainly the South Shetland Islands, the South Orkneys and Graham's Land. A chain of meteorological stations is maintained.

Although Great Britain has held possession of the Islands since 1834, Argentina and Chile also claim ownership.

Atlantic Ocean Possessions

St. Helena, an island 1,200 mi. off the W coast of Africa and 1,800 E of South America, has 47 sq. mi. and population 1965, of 4,702. Flax, lace and rope making are the chief industries. After Napoleon Bonaparte was defeated at Waterloo the British exiled him to St. Helena, where he lived from Oct. 16, 1815, to his death, May 5, 1821. He was buried there until 1840, when his remains were transferred to Paris.

Tristan da Cunha is the principal of a group of islands of volcanic origin, total area 40 sq. mi., half way between the Cape of Good Hope and South America, which form one of the loneliest places on the globe. The other islands are inaccessible, Gough (or Diego Alvarez) and the 3 Nightingale Islands. An ancient volcanic peak 6,760 ft. high erupted in Oct. 1961, and ruined the settlement. The 262 inhabitants were removed to England for resettlement, but most returned in 1963. The islands are administered as dependencies of St. Helena.

Ascension is an island of volcanic origin, 34 sq. mi. in area, 700 mi. NW of St. Helena, through which it is administered. It lies midway between Africa and South America and is an important communications relay center for Britain and has a U. S. satellite tracking center. Est. pop., 1965, was

1,217, about half of them communications workers. The island is noted for its sea turtles.

Former African Possessions

For various former British possessions in southern Africa which have recently become independent countries with changed names, see index for Botswana (Bechuanaland), Malawi (Nyasaland), Lesotho (Basutoland), Zambia (Northern Rhodesia). See also Swaziland.

RHODESIA

Rhodesia is a self-governing country (formerly a British colony) which declared its independence Nov. 11, 1965, but to which Britain has refused to grant independence unless its white-dominated government broadens voting rights to include eventually its vast majority of native Africans.

Rhodesia (formerly Southern Rhodesia) lies in the east central part of southern Africa with the Zambesi River and Zambia (formerly Northern Rhodesia) to the N, Mozambique (Port. East Africa) to the E, Republic of South Africa to the S and Botswana to the W. Area, 150,333 sq. mi., almost the size of California; population, 1967 UN est., 4,530,000 including about 220,000 of European descent.

Victoria Falls on the Zambezi, partly in Zambia, are a tremendous spectacle, 355 ft. high, 5,580 ft. wide, dropping into a deep, narrow gorge. The falls were discovered by Dr. David Livingstone in 1855.

The country is rich in mineral wealth and farming is profitable. Tobacco is the largest crop and is normally by far the leading export along with asbestos, sugar, copper, pig iron, chrome, coal, ferro-chrome and tin, in that order. Also important are corn, cobalt, lead, zinc and gold.

When Rhodesian Prime Minister Ian D. Smith announced his country's unilateral declaration of independence the British government termed the act illegal, and imposed sanctions, including embargoes on oil shipments to Rhodesia, which were backed by most nations, including the U. S. Some oil and gasoline reportedly reached the country by truck from South Africa and Mozambique. Some African nations denounced Britain for failing to use force against the Rhodesian government. U. S. President Johnson denounced Rhodesia's white supremacy policies.

In Mar. 1968, Rhodesia condemned 3 black Africans to death on murder charges. British Queen Elizabeth commuted their sentences to life imprisonment. Rhodesia defied the commutations and executed the 3.

In May 1968 the UN Security Council ordered a complete trade and travel blockade against Rhodesia, but provided no punishment for nations continuing to trade with it.

British Asiatic States

For Aden and South Arabia, see index for Southern Yemen.

BAHRAIN, QATAR, TRUCIAL STATES

These are British Protected States on the Persian Gulf which have treaties giving Britain responsibility for their foreign relations.

Britain has announced plans to withdraw its military forces from the Persian Gulf area by 1971. In July 1968, the rulers of Bahrain, Qatar and the 7 Trucial Sheikdoms agreed on forming a federation which would have a common currency, postal system, flag and anthem, a High Council of sheiks and a Federal Council of notables to be named by the sheiks.

Bahrain is an Arab sheikdom consisting of the island of Bahrain, 250 sq. mi., and several smaller islands, halfway down the Persian Gulf 20 mi. off Arabia's NE coast, under British protection since 1861. Formerly known for pearl fishing, it is now being developed for oil found in the central plateau of Bahrain Is., mostly by American corporations. Population, UN est. 1967, 195,000, chiefly Moslem. Manama is the capital. It has international air service. Fruit raising, shrimp fishing, boat building, weaving and modern light industries are among occupations.

Qatar, also an Arab sheikdom, occupies the Qatar peninsula on the Persian Gulf on Arabia's NE coast. Area (est.), 8,000 sq. mi.; population est., 1965, 55,000. Capital: Doha. It is rich in oil.

The seven Trucial Sheikdoms, semi-independent, occupy approx. 32,300 sq. mi. along a 400-mile strip from Sha'am to Khor el Odeid at SE end of

Qatar peninsula. Population is est. 86,000. Dubai is the main port. Fishing and pearling are industries. The states are Abu Dhabi, Ajman, Dubai, Fujairah, Ras al Khaima, Sharjah, Umm al Quwain.

BRUNEI

Brunei has been since 1888 a protected sultanate on the north side of the Island of Borneo, between the Malaysian states of Sarawak and Sabah. Its area is about 2,226 sq. mi., the size of Delaware, with population (1967 UN est.) 107,000, two-thirds Malay and indigenous races, one-third of Chinese descent.

A 1959 constitution was amended, 1965, to provide for general elections to the Legislative Council, some members of which are appointed. There is a Sultan and a British High Commissioner.

Brunei's rich Seria oilfield provides tax revenues well in excess of government expenditures. Rubber is also exported. In recent years, some of the surplus has been spent on a growing program of school building and social services.

HONG KONG

Hong Kong is a Crown Colony at the mouth of the Canton River in China, 90 mi. south of Canton. Its nucleus is Hong Kong Island, 35½ sq. mi., acquired from China 1841, on which is located Victoria, the colonial capital. Opposite is Kowloon peninsula, 3 sq. mi., and Stonecutters Island, ¼ sq. mi., added to the colony by convention of Peking, 1860. An additional 355 sq. mi. known as the New Territories, comprised of an adjacent mainland area and numerous islands, were leased from China, 1898, for 99 years. Total area of the colony is 391 sq. mi., with a population, est. in 1967, of 3,877,700, including many refugees from Communist China and fewer than 20,000 British. From 1949 to 1962 Hong Kong absorbed more than 1,000,000 refugees from the mainland.

Hong Kong harbor, one of the finest in the East, is an important British naval station and one of the world's greatest trans-shipment ports. It is served by many international airlines.

Principal industries are shipbuilding and textiles; also iron and steel, agriculture, fishing, cement, and small manufactures. American tourists spend an est. \$29,000,000 annually.

Since 1945 Hong Kong industry has zoomed from a few hundred factories to over 5,000. Its spinning mills, among the best in the world, and low wages compete with textiles elsewhere and have resulted in protective measures in some countries. It also has a booming electronics industry. The U. S. is the largest market for Hong Kong products.

During 1967 Communist China launched a campaign against British authority in Hong Kong, including demonstrations, strikes, riots, bombings, border incidents and slowdowns in supplying food from the mainland, accompanied by charges the British were mistreating Chinese residents.

Indian Ocean Possessions, Etc.

For the former British possession, Mauritius, see Index.

Seychelles and Dependencies are a group of islands N of Madagascar, area 69 sq. mi., population 1965 over 45,000. The capital is Victoria, on Mahe, a port with a coaling station. Coconuts are the chief product, followed by cinnamon, patchouli, mangrove bark, vanilla and tortoise shell. Copra is the chief export.

British Indian Ocean Territory was formed Nov. 1965, embracing islands formerly dependencies of Mauritius or Seychelles; the Chagos Archipelago (including Diego Garcia), Aldabra, Farquhar and Des Roches. Population 1966 was 1,500.

British Pacific Islands

FIJI ISLANDS

The Fiji Islands, a Colony, number 844 (106 inhabited), with an area of 7,055 sq. mi., in the South Pacific, E of Northern Australia. Population, UN est. 1966 was 478,000, including 228,000 of Indian descent and 11,000 of European descent.

The larger islands are mountainous; the highest peak, Mt. Victoria, is 4,341 ft. The southern islands contain dense forests with many valuable woods. The islands are very fertile and well watered. The climate is comparatively cool for the tropics, the temperature seldom rises above 90°.

The capital is Suva, on Viti Levu, largest of the islands (area 4,010 sq. mi.). Sugar is the principal export, accounting for 49% of total. Other

products are coconuts, gold, manganese, bananas. Britain holds 83% of the land in trust for the Fijis.

There is a British Governor and a Legislative Council with 36 of its 40 members elected by universal adult suffrage under a 1966 constitution.

TONGA ISLANDS

The Tonga, or Friendly Islands, an internally self-governing Polynesian kingdom of some 150 small islands E of Fiji, is a British Protected State, with an area of 269 sq. mi. and a population, 1968, of 77,500. Main exports are copra and bananas. There is a British Commissioner; a native King, Taufa'ahau Tupou IV, and a partly-elected Legislative Assembly. The capital is Nukualofa on Tongatapu.

PITCAIRN ISLAND

Pitcairn Island is in the Pacific, halfway between South America and Australia. The island was discovered in 1767 by Carteret but was not inhabited until 23 years later when the mutineers of the Bounty landed there. The area is less than two sq. mi. and population, 1967, was about 90. It is a British Colony and is administered by the British Governor of Fiji and a local Council. The uninhabited islands of Henderson, Ducie and Oeno are in the Pitcairn group.

Principal island groups administered by the British High Commissioner for the Western Pacific Islands, seated at Honiara, Guadalcanal, include the British Solomon Islands and the Gilbert and Ellice Islands:

BRITISH SOLOMON ISLANDS

The British Solomon Islands, a Protectorate, number 10 large islands and four groups of small islands with a total area of 11,500 sq. mi. and population, est. 1967, of 139,730, mostly Melanesians. The Solomons lie E of New Guinea. The chief islands in the group are Guadalcanal, Malaita, San Cristobal, New Georgia, Santa Ysabel, Choiseul, Shortland, Mono or Treasury, Vella Lavella, Ganongga, Gizo, Rendova, Russell, Florida and Rennell. Among the groups of islands are the Lord Howe, Santa Cruz, Tucupia, Mitre, Duff or Wilson, and Reef. Some of the Solomons, including Bougainville, are an Australian UN Trusteeship. Exports: copra, timber, nuts, and trochus shell.

GILBERT AND ELLICE ISLANDS

Gilbert and Ellice Islands Colony. The group of islands in the Crown Colony was proclaimed a Protectorate in 1892 and, at the request of the native governments, was annexed Nov. 10, 1915, as the Gilbert and Ellice Islands Colony. The Colony includes the Gilbert Islands (16), Ellice Islands (9), Phoenix Islands, Ocean Island, Line Islands, composed of Fanning, Washington and Christmas Islands, the last the largest atoll in the Pacific (also claimed by the United States). The total area is 375 sq. mi. and the population, 1966 est., 53,450. Exports: chiefly copra and phosphates.

NEW HEBRIDES

New Hebrides, a Condominium jointly administered since 1906 by Great Britain and France, is a group of 11 main islands and about 69 islets lying 500 mi. W of Fiji, with an aggregate area of approx. 5,700 sq. mi. Population, est. 1964, over 65,000, mostly Melanesian. Chief products are copra, cotton, cocoa, fish and coffee.

British and French Resident Commissioners are joint heads of the administration.

Banks (309 sq. mi.) and Torres (40 sq. mi.) Islands, with pop. of 2,640, are attached to the New Hebrides for administration.

United States

(See Index for listings)

Upper Volta

REPUBLIC OF THE UPPER VOLTA

Capital: Ouagadougou. Area: 105,869 sq. mi. Population (UN est. 1967): 5,054,000. Monetary unit: CFA franc (246.85 per U. S. \$1).

The Republic of the Upper Volta, one-time French Overseas Territory, is an inland plateau region in west Africa, bounded by Mali, Niger, the Ivory Coast, Ghana, Togo and Dahomey. It is the size of Colorado.

More than 90% of the people are subsistence farmers. Greatest wealth is in livestock, mostly cattle and sheep, accounting for 55% of exports.

Principal market crops are cotton, rice, peanuts and karite. Climate is extremely dry but irrigation efforts, using water from the Black Volta, White Volta and pumped from underground, have been started with aid from the UN Special Fund.

In accordance with provisions of the 1958 French constitution, Upper Volta became an autonomous state Dec. 11, 1958. It became fully independent Aug. 5, 1960, and a member of the UN Sept. 20. It elected to remain outside the French Community proper, but signed a bilateral agreement Apr. 24, 1961, maintaining close ties with France.

The constitution, adopted Nov. 27, 1960, provides for a presidential form of government and a unicameral National Assembly. On Jan. 3, 1966, the army chief of staff, Lt. Col. Sangoule Lamizana, took control of the Presidency during demonstrations against austerity measures and at the request of the labor unions set up a provisional government of 7 officers and 5 civilians, promising elections.

Uruguay

REPÚBLICA ORIENTAL DEL URUGUAY

Capital: Montevideo. Area: 72,172 sq. mi. Population (Govt. fig. 1967): 2,845,734. Monetary unit: Peso (250 per U. S. \$).

Uruguay is one of the smallest but most advanced republics in South America. Slightly larger than Missouri, it is a country of rich, rolling, grassy plains on the South Atlantic coast. Brazil and Argentina are its neighbors, with the Uruguay River forming the boundary line with Argentina. The Uruguay is navigable from the mouth of the Río de la Plata, its estuary, to Salto, 200 mi. north.

Resources and Industries. Some 85% of Uruguay's area is devoted to stock raising; 9.6% to agriculture; 3.5% woods and forests; 1.8% is unproductive. The chief products are meat, wool, hides, corn, wheat, citrus fruits, rice, oats and linseed. The meat packing, metallurgical, textile and wine making industries are important.

More than one-third of the country's population lives in one city, Montevideo. More than one-third of the nation's workers are employed by the Government. The state owns the power, telephone, railroad, cement, oil-refining and other industries.

Uruguay's standard of living has been one of the highest in South America. Inflation, plus floods, drought and a cold wave in 1967 and a general strike in 1968 brought attempts by the Government to strengthen the economy through another in a series of devaluations of the peso, rationing of electricity and wage and price controls.

History and Government. Uruguay, once a part of the Spanish Viceroyalty of Río de la Plata and later a province of Brazil, declared its independence, Aug. 25, 1825, which was confirmed by a treaty with Brazil and Argentina, Aug. 27, 1828. The first constitution was adopted July 18, 1830. The constitution provides for a Chamber of Deputies and a Senate elected for 4-year terms. Suffrage is universal, with proportional representation.

In late 1966 the nation approved a proposal to strengthen the powers of the President's office, permitting a President to serve 5 years.

Uruguay has one of the world's most extensive social welfare programs with old age pensions, child welfare, etc.

Education and Religion. Church and state are separate and there is complete religious tolerance. The preponderant religion is Roman Catholic. Education, including college is free; primary education is compulsory. Univ. of Montevideo was founded in 1849. The language is Spanish.

Defense. The Army is composed of hired volunteers between the ages of 18 and 45. Uruguay has a small Air Force and Navy. It is a member of the UN and OAS.

State of Vatican City

STATO DELLA CITTA DEL VATICANO

Area: 108.7 acres. Population: over 1,000.

The Popes for many centuries, with some slight interruptions, held temporal sovereignty over mid-Italy (the so-called Papal States), comprising an area of some 16,000 sq. mi., with a population in the 19th Century of more than 3,000,000. This territory in the reign of Pius IX, was incorporated in the Kingdom of Italy, the sovereignty of the Pope being confined to the palaces of the Vatican and the Lateran in Rome and the villa of Castel Gandolfo, by an Italian law, May 13, 1871. This law also guaranteed to the Pope and his successors in

the chair of St. Peter a yearly indemnity of 3,225,000 lire (\$622,425 at par of exchange), which allowance, however, remained unclaimed.

Final settlement of the Roman question came when the Treaty of Conciliation, the Concordat and a financial convention were signed in the Lateran Palace, Feb. 11, 1929, by Cardinal Gasparri and Premier Mussolini. The Treaty and Concordat established the independent state of Vatican City, and gave the Catholic religion special status in Italy. The treaty (Lateran Agreement) was duly ratified by the Pope and by the Italian Parliament, May 14 and 25, and signed by the King, May 27, and became effective June 7 by exchange of ratification at the Vatican.

The Lateran Agreement was made an integral part of the Constitution of Italy (Article 7) March 26, 1947.

Vatican City includes St. Peter's, the Vatican Palace and Museum covering more than 13 acres, the Vatican gardens, and neighboring buildings between Viale Vaticano and the Church. Thirteen buildings in Rome, although outside the boundaries, enjoy extra-territorial rights; these include buildings housing the congregations or officers necessary for the administration of the Holy See.

The legal system is based on the code of canon law, the apostolic constitutions and the laws especially promulgated for the Vatican City by the Sovereign Pontiff or those to whom he may delegate legislative power. In all cases not covered the Italian law of Rome applies. The Secretariat of State represents the Holy See in its diplomatic relations. By the Treaty of Conciliation the Pope is pledged to a perpetual neutrality unless his mediation is specifically requested by both parties in political disputes. This, however, does not prevent the defense of the Church whenever it is persecuted. A total of 56 nations maintain diplomatic representatives in Vatican City. The United States is not represented.

Police duties are carried out by the Pontifical Armed Corps comprised of the Noble Guards, the Swiss Guards, the Palatine Guards of Honor and the Pontifical Gendarmery. The state has its own railway station, postal facilities, radio.

The present sovereign of the State of Vatican City is the Supreme Pontiff, Paul VI, Giovanni Battista Montini, born in Concesio, Italy, Sept. 26, 1897, elected Pope June 21, 1963, in succession to Angelo Giuseppe Roncalli, John XXIII, who died June 3, 1963.

Venezuela

REPÚBLICA DE VENEZUELA

Capital: Caracas. Area: 352,148 sq. mi. Population (Govt. est. 1967): 9,600,000. Monetary unit: Bolivar (4.5 per U. S. \$).

Venezuela, a land of wide plains and lofty mountains, lies within the Torrid Zone in northern South America, with a 1,750-mi. coastline on the Caribbean and the Atlantic. Its neighbors are Guyana, Brazil and Colombia. It includes 72 islands totaling 14,650 sq. mi., the largest being Margarita, 40 mi. by 20, which is one of Venezuela's 20 states and an important pearl center. Venezuela is more than twice the size of California.

The Orinoco River with its tributaries, drains about four-fifths of the country. About 1,700 mi. in length and 13½ mi. across at its widest point, it is the 2nd largest river system in South America, and is navigable for about 700 mi. Its headwaters near the Parima Sierra and the Venezuelan-Brazilian border were located in 1951.

Angel Falls, said to be the tallest in the world, 3,212 ft. in all, with one drop of 2,648 ft., was found on the Churun, a branch of the Caroní River by Jimmy Angel, American aviator, in 1937.

Caracas, the capital, is 12 mi. inland from its port, La Guaira. It has an international airport and airlines reach cities in the interior. It is noted for its modern architecture and luxury hotels. In its Pantheon are enshrined the ashes of Simón Bolívar, South American liberator (1783-1830).

Resources and Industries. Mining, agriculture, fishing and stock raising are the chief industries. Venezuela in 1967 was the world's 3rd largest oil producer, behind U. S. and USSR, and largest oil exporter. Lake Maracaibo is the largest oil field in South America. In 1967, production was 3,511,300 bbls. per day, up 5% from 1966. Concessions are held by foreign interests, with 60% of the revenue going to the government. Other minerals are iron, gold, copper, coal, salt, tin, manganese, asbestos, diamonds and mica. Iron ore production is more than 15,000,000 tons annually and supplies

a high percentage of total U. S. iron imports. Coffee is the major agricultural product and is 2nd only to petroleum in export value. Exports also include fish, cocoa, rubber, sisal, balata and tonka beans. Industries include steel, petrochemicals, textiles, containers, tobacco products, paper and tires.

Tourists increased from 95,000 in 1965 to 152,515 in 1967. Attractions include resorts on Margarita Is., Merida in the Andes with its cable car to snow-capped Mirror Peak, 15,000 ft.; beaches near Caracas.

Construction is booming, including a 30-story skyscraper in Caracas; a new, \$3.8 billion city, Ciudad Guyana, 300 mi. SE of Caracas, and a 4,175-ft. suspension bridge across the Orinoco which was opened in 1967 and is South America's largest.

Oil profits help finance the extensive industrial development. The gross national product rose from \$7.9 billion in 1966 to \$8.3 billion in 1967.

Foreign trade, in thousands of U. S. dollars:

	Imports	Exports
1966	\$1,188,000	\$2,713,000
1967	\$1,400,000	\$3,000,000

History and Government. Columbus first set foot on the South American continent on the peninsula of Paria, Aug. 1498; on the same voyage he found the mouth of the Orinoco. Alonso de Ojeda, 1499, found Lake Maracaibo, called the land Venezuela, or Little Venice, because natives had houses on stilts. Vespucci was in Ojeda's expedition. Venezuela was under Spanish domination until about 1821. The republic was formed after secession from the Colombian Federation in 1830.

The 1961 Constitution provided for a strong central government; a President, Senate and Chamber of Deputies elected for 5 years by direct universal vote, and a Supreme Court appointed by the Congress. Member: UN, OAS.

Education and Religion. The language is Spanish and Roman Catholic is the religion of the majority of the people, but religious freedom is guaranteed. All education, including college, is free. Primary education is compulsory.

Defense. Military service is obligatory for all men, 18 to 45. The Navy consists of 9 destroyers, 4 frigates, one submarine and other craft.

Vietnam

Total area: 127,241 sq. mi. Population (UN est. 1967): 37,073,000. Vietnam is split between two hostile governments, the Republic of Vietnam, which controls the southern half, and the Communist regime of North Vietnam.

Vietnam, one of 3 former French Indo-Chinese Associated States, is in SE Asia, bounded on the N by China, on the E and S by the South China Sea, and on the W by Cambodia and Laos. It consists of the former French protectorates of Tonkin and Annam, and former colony of Cochinchina. Principal cities are Saigon, Hanoi, Haiphong, Hue and Danang.

Resources and Industries. Chief products are rice, principal food staple; rubber; and coal. Peacetime exports included rubber, rice, fish, coal, lumber, pepper, cattle and hides, corn, zinc and tin. Tea, coffee and quinine are grown in the South. Rice and coal are chief products of the North; also coffee, tea, maize, sweet potatoes, tobacco, sugar cane and shellac.

History and Government. Vietnam's recorded history began in Tonkin before the Christian era; settled by the Viets who emigrated from central China. It was held by China, 111-939 A.D., and was a vassal state during many subsequent periods. Vietnam defeated the armies of Kublai Khan at Bach Dang Giang, 1288. The French and Portuguese came in the late 16th Century. Piecemeal conquest by France began in 1858 and ended in 1884 with acceptance of a French protectorate.

In 1940 Vietnam was occupied by Japan and used as a base for the invasion of Malaya. During the occupation nationalist aims gathered force. A number of groups formed the Vietminh (Independence) League, headed by Ho Chi Minh, Communist guerrilla leader. In August, 1945, the Vietminh forced out Bao Dai, former Emperor of Annam, head of a short-lived regime sponsored by Japan. France, seeking to reestablish colonial control, battled Communist and nationalist forces, 1946-1954, incurring huge losses and was finally defeated at Dienbienphu, May 8, 1954. Meanwhile, on July 1, 1949, Bao Dai had formed a State of Vietnam, with its capital at Saigon and himself

as Chief of State, with French approval. Communist China backed Ho Chi Minh.

A cease-fire accord signed in Geneva July 21, 1954, divided Vietnam along the Ben Hai River. It provided for a buffer zone, withdrawal of French troops from Northern Vietnam and elections to determine the country's future. Under the agreement the Communists gained control of the territory north of the 17 parallel, 22 provinces with an area of approx. 62,000 sq. mi. and 13,000,000 pop. (est.), with its capital at Hanoi, and Ho Chi Minh as President. South Vietnam was to comprise the 39 southern provinces with an area of 65,000 sq. mi. and pop. of 12,000,000 (est.). Approx. 800,000 North Vietnamese fled to South Vietnam. Neither South Vietnam nor the U. S. signed the agreement.

Republic of Vietnam VIET NAM CONG HOA

Capital: Saigon. Area: 65,948 sq. mi. Population (UN est. 1967): 16,973,000. Monetary unit: Piastre (117.5 per U. S. \$1).

On Oct. 26, 1955, Ngo Dinh Diem, Premier of the interim government of South Vietnam, proclaimed the Southern Zone a republic and became its first President under a provisional constitution act, following a referendum Oct. 23 which ousted Bao Dai as Chief of State. Pres. Diem was re-elected for a second 5-year term, Apr. 9, 1961.

Guerrilla fighting has persisted since 1956, with the Communist Vietcong, aided by North Vietnam, pressing a spreading war, and South Vietnam receiving increasing U. S. aid and, since June 1965, active U. S. combat participation.

A serious political conflict arose in 1963 when Buddhist groups charged the government with authoritarianism and brutality. This and government delays in reforms paved the way for a military coup Nov. 1-2, 1963, which overthrew the Diem regime and resulted in the deaths of Pres. Diem and his brother and political adviser, Ngo Dinh Nhu. A third brother, Ngo Dinh Can, was executed May 9, 1964.

A military triumvirate headed by Maj. Gen. Duong Van Minh formed the nucleus of a 23-member interim junta which was overthrown Jan. 30, 1964, in a bloodless coup led by Maj. Gen. Nguyen Khanh. Other governments followed; Air Force Commander Nguyen Cao Ky became Premier, on June 19, 1965, of the 9th regime since the fall of Pres. Ngo Dinh Diem.

On Sept. 11, 1966, South Vietnamese voters chose members of an assembly which was to draft a new constitution for a civilian government early in 1967. Despite anti-election Vietcong terrorism, 80% of eligible voters took part in the election.

In elections Sept. 3, 1967, Chief of State Nguyen Van Thieu was chosen Pres. and Premier Ky, Vice Pres. A 60-member Senate was also elected Sept. 3 and 137-member House on Oct. 22.

Despite U. S. aid, the Saigon regime failed to halt the growing Communist Vietcong guerrilla war. Following attacks on two U. S. destroyers by North Vietnamese PT boats in the Gulf of Tonkin Aug. 2-4, 1964, the U. S. retaliated with heavy air strikes against North Vietnamese torpedo bases and oil storage depots, and increased its fleet.

In 1965-67 the war accelerated as the U. S. stepped up bombing raids on the North and increased the number of Americans fighting in the country from 23,000 at the start of 1965 to a projected total of 525,000 by June 1968.

On Mar. 31, 1968, U. S. President Johnson announced the unilateral halting of bombing of North Vietnam, except for the southernmost area, and urged North Vietnam to join in peace talks. Hanoi agreed Apr. 3 to preliminary talks which began May 10 in Paris. Meanwhile, U. S. casualties continued rising to new weekly highs; as early as mid-March they had exceeded U. S. casualties in the Korean War in numbers of wounded and soon were approaching the earlier war's total of dead. In June 1968 South Vietnam ordered a general draft making males 18-38 eligible for military duty for the duration.

(For details of war and of peace negotiations during 1968 see Vietnam in Index.)

Most Vietnamese practice parts of several religions or mixtures of Confucianism, Taoism, Buddhism, ancestor worship and animism. About 20% practice Buddhism and about 12% Roman Catholicism. New indigenous religions include Cao Dai (1919) and Hoa Hao (1939).

There is a National Univ. in Saigon, others at Hue, Dalat and Cantho.

Democratic Republic of Vietnam VIET NAM DAN CHU CONG HOA

Capital: Hanoi. Area: 61,293 sq. mi. Population (UN est. 1967): 20,100,000. Monetary unit: Dong (2.94 per U. S. \$1.).

A Vietnam constitution, adopted Dec. 31, 1959, is based on Communist principles and calls for reunification of all Vietnam. It provides for a President elected by Parliament and a Prime Minister appointed by the President. President Ho Chi Minh, reelected July 15, 1960, by unanimous vote of the National Assembly, has held office since 1945. Prime Minister since 1959: Pham Van Dong.

United States and South Vietnamese forces began air attacks against military bases in North Vietnam in February, 1965, in retaliation against what the White House called "provocations ordered and directed by the Hanoi regime," including infiltration from North Vietnam into South Vietnam.

North Vietnam maintained that the U. S. was waging an "aggressive war" in Vietnam.

Western Samoa

Capital: Apia. Area: 1,130 sq. mi. Population (UN est. 1967): 135,000. Monetary unit: Tala (.7143 per U. S. \$1.).

Western Samoa, which became an independent nation Jan. 1, 1962, comprises 4 inhabited islands of a group in the South Pacific Ocean lying about 2,600 mi. SW of Hawaii. Largest of the islands are Savaii and Upolu. Eastern Samoa, the smaller portion of the group with its capital at Pago Pago, remains a dependency of the U. S.

Western Samoa was a German colony, 1899 to 1914, when New Zealand landed troops and took over. It became a New Zealand mandate under the League of Nations and, in 1945, a New Zealand UN Trusteeship.

An elected local government took office in Oct. 1959 and the country became fully independent in 1962. New Zealand has continued economic aid and educational assistance. Western Samoa changed from pounds to decimal currency July 10, 1967.

The population is composed almost solely of Polynesians. The islands are fertile and life is leisurely. Chief products are fish, copra, cocoa, coconuts, bananas, taro, coffee, bark cloth (tapa) and mats.

Robert Louis Stevenson's grave is on a hill near Apia.

Yemen

Capital: Sana. Area: 75,289 sq. mi. Population (Govt. est. 1967): 5,000,000. Monetary unit: Yemeni rial (official rate 1.071 per U. S. \$1.).

Yemen is an ancient, mountainous country, near the southern tip of the Arabian Peninsula on the Red Sea. Its neighbors are Southern Yemen (formerly Aden) and Saudi Arabia. It is about the size of Nebraska.

Hodeida, with its deep-water facilities at Ahmedi, is a major port on the Red Sea; others are Mocha and Lohelya. Marib and Sana are archeological sites.

Resources and Industries. On the plateau of El Jebel, the most fertile section of Arabia, coffee, barley and grain are grown. Mocha coffee, hides, dates, charcoal, sesame, herbs, fruits and precious stones are exported. It has granted several oil concessions to American companies, with half the revenues to go to the government.

History and Government. Yemen's territory once was part of the ancient kingdom of Sheba, or Saba, a prosperous link in trade between Africa and India. A Biblical reference speaks of its gold, spices and precious stones as gifts borne by the Queen of Sheba to King Solomon.

Yemen was described as a democratic Islamic monarchy during the regime of the Imam Ahmed, who had ruled 1948-1962. The King was reported assassinated Sept. 26, 1962, and a revolutionary group headed by Brig. Gen. Abdullah al-Salal declared the country a republic. He became Pres.

The Imam Ahmed's heir, the Imam Mohamed al-Badr, fled to the mountains where tribesmen joined royalist forces; internal warfare continued into 1967. UAR Pres. Nasser sent 70,000 troops to aid the republicans; Saudi Arabia supported the royalists with military aid.

A cease-fire was agreed on by Pres. Nasser and Saudi Arabia's King Faisal Aug. 24, 1965; the UAR was to pull out its troops and a plebiscite on the form of government was to be held, with a care-

taker government set up temporarily. In 1967 the UAR was accused of dropping poison gas or villages in royalist-held territory.

The agreement, like others before it, collapsed. During 1966 UAR planes from Yemen bombed towns in Saudi Arabia near the Yemen border.

In Oct. 1966 Premier Hassan al-Amri was ousted, one of his ministers and 7 other officials were shot, and several hundred persons were arrested by the pro-UAR government of Pres. al-Salal.

After the UAR defeat in the June 1967 Israeli-Arab war, the UAR announced it would withdraw its troops from Yemen; the last of them left Nov. 29, 1967, and Saudi Arabia said it would stop aiding the royalists.

Fighting continued between the Republican and royalist forces; troops from Southern Yemen aided those of the Republicans in 1968. Saudi Arabia announced in Feb. 1968 it was renewing its aid to the royalists, charging that both Soviet Russia and Syria, as well as Southern Yemen, were aiding the Republicans. Russian MIG planes had been delivered to the Republicans and a Russian pilot had been shot down by royalists.

Yemen is a member of the UN and Arab League.

Yugoslavia

SOЦИЈАЛИСТИЧКА ФЕДЕРАТИВНА РЕПУБЛИКА ЈУГОСЛАВИЈА

Capital: Belgrade. Area: 98,766 sq. mi. Population (UN est. 1967): 19,938,000. Monetary unit: Dinar (official rate, 1966 dinar, 12.5 per U. S. \$1.).

The Socialist Federal Republic of Yugoslavia is a rugged mountainous land, densely forested, which rises from the eastern shore of the Adriatic Sea. Its neighbors are Italy, Austria, Hungary, Romania, Bulgaria, Greece and Albania. It is about the size of Wyoming.

The federation comprises 6 republics: Serbia, Croatia, Slovenia, Montenegro, Bosnia-Herzegovina and Macedonia.

Rijeka, on the northern Adriatic, formerly Italian Fiume, is the largest port.

Resources and Industries. Chief crops are cereals, maize, wheat, barley, rye, tobacco, oats, hops and fruits. The principal minerals are coal, iron, copper, chrome ore, antimony, manganese, lead, mercury, salt and bauxite.

Because of its intensive program of industrialization the country is gradually losing its predominantly agricultural character. Most industry is socialized and private enterprise is limited to small-scale production. Central planning guides the economy and the free play of the market is limited. Since 1952 workers are guaranteed a basic wage and a share in cooperative profits. Management of industrial enterprises is handled by some 220,000 members of workers' councils. The commune is the basic territorial and administrative unit, with autonomy in local government, workers' affairs and social management.

A 7-year development plan, 1964-1970, emphasizes all branches of the economy and living standards.

The index for industrial production (1963=100) was 130 in 1967.

Foreign trade in thousands of U. S. dollars:

	Imports	Exports
1966	\$1,570,000	\$1,221,000
1967	\$1,707,000	\$1,252,000

History and Government. Serbia, which had since the Battle of Kosovo (1389), been a vassal principality of Turkey, was established as an independent kingdom by the Treaty of Berlin, 1878. After the Balkan wars its boundaries were enlarged by the annexation of Old Serbia and Macedonia, 1913. When the Austrian Archduke Francis Ferdinand and wife were assassinated at Sarajevo June 28, 1914, the Austrian government forced war on Serbia, the onset of World War I, 1914-1918.

When the Austro-Hungarian empire collapsed the Kingdom of the Serbs, Croats and Slovenes was formed from the former provinces of Croatia, Dalmatia, Bosnia, Herzegovina, Slovenia, Vojvodina and the independent state of Montenegro, with Peter I of Serbia as king. The name was later changed to Yugoslavia. Peter (d. 1921) was succeeded by his son Alexander I (assassinated at Marseille Oct. 9, 1934), after which Prince Paul became regent. He was overthrown in Mar. 1941 and Crown Prince Peter, born Sept. 6, 1923, was proclaimed king. Germany invaded April, 1941, and King Peter II fled to London.

But many Yugoslav troops continued to fight the Nazis from their mountainous strongholds. Foremost among these guerrilla forces were the chetniks led by Draža Mihailovich. Mihailovich became involved in open warfare with other partisan forces led by Josip Broz, known as Marshal Tito, for control of the resistance movement. Tito, backed by the USSR and Great Britain, won and by the time the Germans had been driven from Yugoslavia in 1944, was in control. Mihailovich was captured and executed in Belgrade July 17, 1946, by the Tito regime.

The constituent assembly proclaimed Yugoslavia a republic Nov. 29, 1945. It became a federated republic Jan. 31, 1946, and Marshal Tito, a Communist, became head of the government. By terms of a treaty with Italy the greater part of Venezia-Giulia, Zara, Pelagosa and adjacent islands were ceded to Yugoslavia.

The Stalin policy of dictating the Communist line to all Communist nations was rejected by Marshal Tito. He accepted economic aid and military equipment from the U. S., and received aid in foreign trade also from France and Great Britain.

In 1968 Pres. Tito supported the liberalization of government of Czechoslovakia.

Yugoslavia is governed by the President, a cabinet (Federal Executive Council), and a parliament (Federal Assembly), from which cabinet members are drawn. The Assembly is composed of five chambers which deal with economic, political, health and cultural matters.

A new constitution was approved by Parliament, Apr. 7, 1963, replacing that in force since 1946. It made the country's official name the Socialist Federal Republic of Yugoslavia, limited political parties to the Communists and the Communist-dominated Socialist Alliance of Working People, and provided that future presidents be elected by parliament and restricted to two consecutive 4-year terms. A new office of vice president was created. The ballot is secret and freedom of worship is guaranteed. Tito was reelected President for 4 more years in May, 1967.

In 1966, Pres. Tito ousted Vice Pres. Aleksandar Rankovic after a hidden microphone was found in Pres. Tito's home; Rankovic had been in charge of the secret police. Writer Mihajlo Mihajlov was sentenced to a year in prison for writings published abroad. In a reorganization of the Communist party, Pres. Tito, 74, added a new title Pres. of the League of Communists, in place of General Secretary.

Education and Religion. All education is free; elementary training is compulsory to age 14. There are universities in Belgrade, Zagreb, Ljubljana, Skopje and Sarajevo. Principal languages are Slovene, Macedonian, Serbo-Croat. All religions are recognized and enjoy equal rights. Serbia-Orthodox comprises 42%, Roman Catholic 32%, Moslem 12%.

Complete free social security is in force, including unemployment, medical, maternity benefits.

Defense. Army service is compulsory for men over 18. The air force comprises two corps, equipped with more than 500 first-line planes. The navy comprises 3 destroyers, 4 escorts, 68 torpedo

boats, 2 submarines, a minelayer, numerous sweepers, patrol vessels and others.

Yugoslavia is a member of the UN and, with Greece and Turkey, of a Balkan defense group under a treaty signed in Ankara, Turkey, Feb. 27, 1953, and a 20-year military aid pact, Aug. 9, 1954.

Zambia

REPUBLIC OF ZAMBIA (Former Northern Rhodesia)

Capital: Lusaka. **Area:** 288,130 sq. mi. **Population:** (est. 1967): 3,947,000. **Monetary unit:** Kwacha (.7143 per U. S. \$1).

The Republic of Zambia is the former British Protectorate of Northern Rhodesia. It is a landlocked country located in South Central Africa. Bordering nations are the Democratic Republic of the Congo, Tanzania, Malawi, Mozambique, Rhodesia, Botswana, South-West Africa and Angola. It is slightly larger than Texas.

The terrain is mostly high plateau covered with thin forest and suitable for both farming and grazing. The country is rich in minerals, including copper, zinc, cobalt, gold, vanadium, manganese, and coal. Zambia's wealth is mainly its copper; it is the world's 3rd largest copper producer.

Victoria Falls on the Zambesi River, the border with Rhodesia, is 3 times the width and more than twice the height of Niagara. Further down the river, the Kariba Dam, completed 1961, created Lake Kariba, 175 mi. long.

As Northern Rhodesia, the country was under the administration of the South Africa Company, 1889 until 1924 when the office of governor was established, with an executive council and, subsequently, a legislature.

A new constitution, announced in 1963, granted internal self-government with a prime minister and cabinet, effective Jan. 22, 1964. The United National Independence party won the first elections Jan. 21 and its leader, Kenneth D. Kaunda, became the country's first Prime Minister. He was elected President and, on Oct. 24, 1964, Zambia became an independent republic within the Commonwealth. It has a National Assembly of 75 elected members and 5 nominated by the President. It is a member of the UN and the OAU.

After the white government of Rhodesia declared its independence from Britain Nov. 17, 1965, relations between Zambia and Rhodesia became increasingly strained and use of their jointly owned railroad was disputed.

Britain gave Zambia an extra \$12,000,000 in 1966 after imposing an oil embargo on Rhodesia, and Zambia bought cargo planes from the Lockheed Aircraft Corp. of the U. S. to carry copper out from its mines and gasoline in. In Aug. 1968 a 1,958-mi. pipeline was completed, bringing oil from Dar es Salaam, Tanzania.

In Apr. 1968 Pres. Kaunda announced plans for nationalizing some major industries; he said studies of economies in both East and West countries had convinced him none were completely capitalist or completely state-controlled.

The "Wealth" of Nations

Some of the world's peoples have, since time immemorial, measured their wealth in terms of how many cattle or other livestock they own. While this is not true of most nations in the 20th Century, nevertheless large numbers of livestock are still an important source of wealth for many countries.

Figures gathered by the U. S. Department of Agriculture show that in 1968 the total number of cattle in the world was 1.15 billion, up a little less than 1% from 1967.

The world's sheep totaled 1.008 billion, also up a little less than 1%. But hogs, totaling just over half a billion, had increased 2%.

The leading cattle raiser was the U. S., which had 108,813,000 head. The USSR was 2nd with 97,100,000; Brazil was 3rd with 91,093,000; Argentina ranked 4th although figures were not available for that country.

The No. 1 sheep-raising nation was Australia with 165,000,000. Soviet Russia ranked 2nd in

sheep, as in cattle, with 138,300,000. Next came New Zealand, its sheep estimated at something over 60,000,000, followed by Argentina, about 48,000,000. The U. S. ranked 5th with 22,122,000, Brazil 6th with 22,000,000, the United Kingdom 7th with 20,446,000.

Tops in hogs was Brazil, 63,000,000; the U. S. was 2nd with 54,263,000. Soviet Russia was 3rd with 51,000,000 and West Germany 4th with 19,032,000.

Another measure of wealth could be a nation's mineral production. Among the more widely used metals, the U. S. and Canada are tops. While the U. S., according to the Bureau of Mines, ranked 1st in 1967 in coal, copper, magnesium, petroleum and uranium, Canada was the leader in asbestos, nickel, silver and zinc.

Other leaders were: Jamaica, bauxite; Democratic Republic of Congo, industrial diamonds; South Africa, gold; Spain, mercury; USSR, platinum; Malaysia, tin.

Cost of Living in Various Cities of the World

This comparison of the cost of living in various cities in 1968 was drawn up by the UN Statistical Bureau, based on prices for goods, services and housing for international officials stationed in these cities. Figures show relative costs, based on about 120 items. New York City was assigned the index figure 100. Thus, while expenditure for these items might be \$1,000 in New York, it would be \$950 for them in Copenhagen and \$1,040 in Caracas. Figures with an asterisk (*) omit cost of housing (rent, utilities and domestic service) in cities where they were furnished at nominal cost by governments.

Index	City	Index	City
*113	Abidjan, Ivory Coast	83	La Paz, Bolivia
*93	Accra, Ghana	77	Lima, Peru
94	Addis Ababa, Ethiopia	*103	Lome, Togo
85	Algiers, Algeria	70	London, United Kingdom
84	Amman, Jordan	86	Lusaka, Zambia
81	Ankara, Turkey	93	Managua, Nicaragua
89	Athens, Greece	89	Manila, Philippines
82	Baghdad, Iraq	87	Mexico City, Mexico
*86	Bamako, Mali	89	Mogadishu, Somalia
91	Bangkok, Thailand	*109	Monrovia, Liberia
84	Beirut, Lebanon	52	Montevideo, Uruguay
73	Bogota, Colombia	87	Montreal, Canada
80	Bonn, West Germany	83	Nairobi, Kenya
*114	Brazzaville, Rep. of Congo	79	New Delhi, India
86	Bridgetown, Barbados	100	New York, U. S.
74	Buenos Aires, Argentina	*116	Nouakchott, Mauritania
105	Bujumbura, Burundi	*108	Ouagadougou, Upper Volta
80	Cairo, United Arab Rep.	86	Panama City, Panama
104	Caracas, Venezuela	102	Paris, France
71	Colombo, Ceylon	74	Port-of-Spain, Trinidad & Tobago
95	Copenhagen, Denmark	79	Quito, Ecuador
72	Damascus, Syria	82	Rabat, Morocco
87	Dar es Salaam, Tanzania	94	Rio de Janeiro, Brazil
101	Jakarta, Indonesia	105	Riyadh, Saudi Arabia
*113	Fort-Lamy, Chad	84	Rome, Italy
79	Gaborone, Botswana	84	San Jose, Costa Rica
89	Geneva, Switzerland	92	San Salvador, El Salvador
66	Georgetown, Guyana	78	Santiago, Chile
92	Guatemala City, Guatemala	84	Seoul, South Korea
86	The Hague, Netherlands	74	Taipei, Republic of China
95	Havana, Cuba	95	Tananarive, Malagasy Republic
72	Kabul, Afghanistan	88	Tegucigalpa, Honduras
*95	Kampala, Uganda	86	Tehran, Iran
87	Karachi, Pakistan	101	Tripoli, Libya
88	Katmandu, Nepal	80	Tunis, Tunisia
*99	Khartoum, Sudan	83	Vienna, Austria
75	Kingston, Jamaica	88	Vientiane, Laos
*76	Kinshasa, Dem. Rep. of Congo	92	Washington, D. C., U. S.
87	Kuala Lumpur, Malaysia	*111	Yaounde, Cameroon
*103	Lagos, Nigeria	68	Zomba, Malawi

The Monroe Doctrine; Its Origin and Meaning

President James Monroe, in his annual message to Congress on Dec. 2, 1823, made the statement of policy since known as the Monroe Doctrine. Its major assertion is that the United States would consider as dangerous to its peace and safety any attempt of the European powers to extend their political system to any portion of the western hemisphere.

Balancing this statement in the same message is Monroe's declaration that in regard to Europe it is the policy of the United States "not to interfere in the internal concerns of any of its powers, to consider the government *de facto* as the legitimate (one) for us . . ."

Statesmen besides Monroe associated in the development of the Doctrine were John Quincy Adams, Secretary of State; Richard Rush, American Minister in London, and George Canning, British Secretary for Foreign Affairs. Consulted were Thomas Jefferson, John C. Calhoun, Secretary of War, and William Wirt, Attorney General.

History of Its Origin. The message grew out of two complications. The first was the decree of Russia reserving exclusively to Russian subjects the whole of the northwest coast of North America, from the Bering Straits to 51° N. Lat. and from the Aleutians to Siberia, for commerce, whaling, fishery and other industries, and prohibiting any foreign ship from approaching within 100 miles, on penalty of seizure. Secretary Adams rejected this, and after negotiations Russia re-

versed itself. In the message President Monroe said the American continents, "by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for colonization by any European power."

The other part originated in the threat of foreign encroachment on Latin-American states, the independence of which had been recognized by the United States. George Canning, British Foreign Secretary, on Aug. 20, 1823, suggested to Rush, the American Minister, that the British and American governments declare "in the face of the world" their attitude toward the Spanish-American countries. He believed the two governments entertained similar views, and cited that the British conceived the recovery of the colonies by Spain to be hopeless; thought recognition of them as independent states to be a matter "of time and circumstances"; would not interfere with amicable negotiation between them and their mother country (Spain); did not wish to possess any portion of them or see it go to any other power with indifference.

Canning thought such a declaration might forestall any military attempts to coerce Latin America. When the United States did not act by October he addressed a similar statement to the French ambassador in London Prince de Polignac, and received the assurance that France did not intend to take any of the Spanish colonies in America.

Secretary Adams, writing to Minister Rush Nov. 29, 1823, endorsed Canning's views but urged as indispensable the recognition of the independence of the new governments by Britain. He thought a unilateral statement better, and the joint declaration was never issued.

UNITED NATIONS

History, Membership, Organization and Purpose

The 23rd regular session of the United Nations General Assembly opened Sept. 1968. See *Chronology for developments at UN sessions during 1968*.

The resumed twenty-second session of the General Assembly, which began on Apr. 24, 1968, adjourned on June 12 after adopting a resolution commending the Treaty on the Non-Proliferation of Nuclear Weapons and another resolution on Namibia, formerly called South West Africa, declaring that the situation in the territory was "a grave threat to international peace and security," and calling on all States to help the Namibian people in their struggle for independence and to assist the United Nations Council for Namibia in ending South Africa's illegal occupation of the territory.

The membership of the UN rose to 124 states during the 22nd regular session of the General Assembly. This resulted from the admission of 2 new nations—Southern Yemen and Mauritius.

Foundations of the United Nations were laid at the Dumbarton Oaks Conference in Washington between the United States, the United Kingdom and the Soviet Union, Aug. 21-Sept. 28, 1944, and between the United States, the United Kingdom and the Republic of China (Nationalist) Sept. 29-Oct. 7, 1944. Proposals to establish

an organization of nations for maintenance of world peace led to the United Nations Conference on International Organization at San Francisco, Apr. 25-June 26, 1945, where the charter of the United Nations was drawn up. It was signed June 26 by 50 nations, and by Poland, one of the original 51, on Oct. 15, 1945. The charter came into effect Oct. 24, 1945, when the requisite ratification by the 5 permanent members of the Security Council, China, France, Soviet Union, United Kingdom and United States, and a majority of other signatories had been completed.

United Nations headquarters are located in New York, N. Y., between First Ave. and Roosevelt Drive and E. 42nd St. and E. 48th St. The General Assembly Bldg. (opened 1952), Secretariat, Conference and Library bldgs. are interconnected. The Dag Hammarskjöld Library, built by a \$6,200,000 grant from the Ford Foundation, was dedicated Nov. 16, 1961. It has room for 400,000 vols. To build the headquarters the U. S. Government advanced an interest-free loan of \$65,000,000, payable in annual instalments until 1982. John D. Rockefeller, Jr., contributed \$8,000,000 for land and the City of New York contributed an est. \$26,500,000 for adapting the site. United Nations has a post office originating its own stamps. See *Postal Information*.

Roster of the United Nations

(As of August, 1968)

The 124 Members of the United Nations, with the dates on which they became Members.

Member	Date	Member	Date	Member	Date
Afghanistan.....	Nov. 19, 1946	Ghana.....	Mar. 8, 1957	Niger.....	Sept. 20, 1960
Albania.....	Dec. 14, 1955	Greece.....	Oct. 25, 1945	Nigeria.....	Oct. 7, 1960
Algeria.....	Oct. 8, 1962	Guatemala.....	Nov. 21, 1945	Norway.....	Nov. 27, 1945
Argentina.....	Oct. 24, 1945	Guinea.....	Dec. 12, 1958	Pakistan.....	Sept. 30, 1947
Australia.....	Nov. 1, 1945	Guyana.....	Sept. 20, 1966	Panama.....	Nov. 13, 1945
Austria.....	Dec. 14, 1955	Haiti.....	Oct. 24, 1945	Paraguay.....	Oct. 24, 1945
Barbados.....	Dec. 9, 1966	Honduras.....	Dec. 17, 1945	Peru.....	Oct. 31, 1945
Belgium.....	Dec. 27, 1945	Hungary.....	Dec. 14, 1955	Philippines.....	Oct. 24, 1945
Bolivia.....	Nov. 14, 1945	Iceland.....	Nov. 19, 1946	Poland.....	Oct. 24, 1945
Botswana.....	Oct. 17, 1966	India.....	Oct. 30, 1945	Portugal.....	Dec. 14, 1955
Brazil.....	Oct. 24, 1945	Indonesia.....	Sept. 28, 1950	Romania.....	Dec. 14, 1955
Bulgaria.....	Dec. 14, 1955	Iran.....	Oct. 24, 1945	Rwanda.....	Sept. 18, 1962
Burma.....	Apr. 19, 1948	Iraq.....	Dec. 21, 1945	Saudi Arabia.....	Oct. 24, 1945
Burundi.....	Sept. 18, 1962	Ireland.....	Dec. 14, 1955	Senegal.....	Sept. 28, 1960
Byelorussian Soviet Socialist Rep.....	Oct. 24, 1945	Israel.....	May 11, 1949	Sierra Leone.....	Sept. 27, 1961
Cambodia.....	Dec. 14, 1955	Italy.....	Dec. 14, 1955	Singapore.....	Sept. 21, 1965
Cameroon.....	Sept. 20, 1960	Ivory Coast.....	Sept. 20, 1960	Somalia.....	Sept. 20, 1960
Canada.....	Nov. 9, 1945	Jamaica.....	Sept. 18, 1962	South Africa.....	Nov. 7, 1945
Central African Republic.....	Sept. 20, 1960	Japan.....	Dec. 18, 1956	Southern Yemen.....	Dec. 14, 1967
Ceylon.....	Dec. 14, 1955	Jordan.....	Dec. 14, 1955	Spain.....	Dec. 14, 1955
Chad.....	Sept. 20, 1960	Kenya.....	Dec. 16, 1963	Sudan.....	Nov. 12, 1956
Chile.....	Oct. 24, 1945	Kuwait.....	May 14, 1963	Sweden.....	Nov. 19, 1946
China.....	Oct. 24, 1945	Laos.....	Dec. 14, 1955	Syria ²	Oct. 24, 1945
Colombia.....	Nov. 5, 1945	Lebanon.....	Oct. 24, 1945	Tanzania ³	Dec. 14, 1961
Congo—Brazzaville.....	Sept. 20, 1960	Lesotho.....	Oct. 17, 1966	Thailand.....	Dec. 16, 1946
Congo, Dem. Rep.....	Sept. 20, 1960	Liberia.....	Nov. 2, 1945	Togo.....	Sept. 20, 1960
Costa Rica.....	Nov. 2, 1945	Libya.....	Dec. 14, 1955	Trinidad & Tobago.....	Sept. 18, 1962
Cuba.....	Oct. 24, 1945	Luxembourg.....	Oct. 24, 1945	Tunisia.....	Nov. 12, 1956
Cyprus.....	Sept. 20, 1960	Madagascar.....	Sept. 20, 1960	Turkey.....	Oct. 24, 1945
Czechoslovakia.....	Oct. 24, 1945	Malawi.....	Sept. 1, 1964	Uganda.....	Oct. 25, 1962
Dahomey.....	Sept. 20, 1960	Malaysia ¹	Sept. 17, 1959	Ukrainian Soviet Socialist Republic.....	Oct. 24, 1945
Denmark.....	Oct. 24, 1945	Maldives Islands.....	Sept. 21, 1965	Union of Soviet Socialist Repub. ²	Oct. 24, 1945
Dominican Rep.....	Oct. 24, 1945	Malta.....	Dec. 1, 1964	United Arab Rep. ²	Oct. 24, 1945
Ecuador.....	Dec. 21, 1945	Mauritania.....	Oct. 27, 1961	United Arab Rep. ²	Oct. 24, 1945
El Salvador.....	Oct. 24, 1945	Mauritius.....	Apr. 24, 1968	United Kingdom.....	Oct. 24, 1945
Ethiopia.....	Nov. 13, 1945	Mexico.....	Nov. 7, 1945	United States.....	Oct. 24, 1945
Finland.....	Dec. 14, 1955	Mongolia.....	Oct. 27, 1961	Upper Volta.....	Sept. 20, 1960
France.....	Oct. 24, 1945	Morocco.....	Nov. 12, 1956	Uruguay.....	Dec. 18, 1945
Gabon.....	Sept. 20, 1960	Nepal.....	Dec. 14, 1955	Venezuela.....	Nov. 5, 1945
Gambia.....	Sept. 21, 1965	Netherlands.....	Dec. 10, 1945	Yemen.....	Sept. 30, 1947
		New Zealand.....	Oct. 24, 1945	Yugoslavia.....	Oct. 24, 1945
		Nicaragua.....	Oct. 24, 1945	Zambia.....	Dec. 1, 1964

¹The Federation of Malaya joined the UN on Sept. 17, 1957. On Sept. 16, 1963, its name changed to Malaysia, following the admission to the new federation of Singapore. Sabah (North Borneo) and Sarawak, Singapore became an independent State Aug. 9, 1965 and a Member of the UN Sept. 21.

²Egypt and Syria were original Members of the United Nations from Oct. 24, 1945. Following a plebiscite held on Feb. 21, 1958, the United Arab Republic was established by a union of Egypt and Syria and continued as a single Member of the United Nations. On Oct. 13, 1961, Syria, having resumed its status as an independent State, resumed its separate membership in the Organization.

³Tanganyika was a Member of the United Nations from Dec. 14, 1961 and Zanzibar was a Member from Dec. 16, 1963. Following the ratification, on Apr. 26, 1964, of Articles of Union between Tanganyika and Zanzibar, the United Republic of Tanganyika and Zanzibar continued as a single Member of the United Nations, later changing its name to United Republic of Tanzania.

Operations of the United Nations Under Its Charter

The following article describes both the powers of the United Nations and its present organization. It is based on the provisions of the charter of the United Nations, and on an official report furnished by the Secretariat. The text of the Charter may be obtained from the Office of Public Information, United Nations, N. Y.

GENERAL ASSEMBLY

Officers and Committees 22nd (1967-68) Regular session:

President—Corneliu Manescu, Romania.
Vice Presidents—Australia, China, Dahomey, Dominican Republic, Ecuador, France, Iceland, Jordan, Laos, Libya, Nepal, Nicaragua, Sudan, Union of Soviet Socialist Republics, United Kingdom, United Republic of Tanzania, United States.
Committee Chairmen: First Committee (Political and Security)—Ismail Fahmy, United Arab Republic. Special Political Committee—Humberto Lopez Villamil, Honduras. Second Committee (Economic and Financial)—Jorge Pablo Fernandini, Peru. Third Committee (Social, Humanitarian and Cultural)—Mrs. Mara Radić, Yugoslavia. Fourth Committee (Trust and Non-Self-Governing Territories)—George J. Tomeh, Syria. Fifth Committee (Administrative and Budgetary)—Harry L. Morris, Liberia. Sixth Committee (Legal)—Edvard Hambro, Norway.

The General Assembly is composed of representatives of all the member nations. Each nation may send not more than five representatives to each session. Each nation is entitled to one vote.

The General Assembly meets in regular annual sessions and in special session when necessary. Special sessions are convoked by the Secretary General at the request of the Security Council or of a majority of the members of the UN.

Any matter within the scope of the charter may be brought before the General Assembly, which may make recommendations on all except issues on the agenda of the Security Council. However, the General Assembly in November, 1950, decided that if the Security Council, because of lack of unanimity of the permanent members, fails to exercise its primary responsibility for the maintenance of international peace and security, in any case where there appears to be a threat to the peace, breach of the peace or act of aggression, the Assembly may consider it and recommend collective measures, including, in the case of a breach of the peace or act of aggression, the use of armed forces to maintain or restore peace. In such cases, the General Assembly may be convened within 24 hours in an emergency special session.

On important questions a two-thirds majority of members present and voting is required; on other questions a simple majority is sufficient. Questions that require a two-thirds majority include: recommendations on maintenance of international peace and security, election of non-permanent members of the Security Council, election of members of the Economic and Social Council, election of members of the UN that are to designate the members of the Trusteeship Council, admission of members to the UN, suspension and expulsion of members, trusteeship questions and budgetary matters.

The General Assembly must approve the budget and apportion expenses among members. A member in arrears will have no vote if the amount of arrears equals or exceeds the amount of the contributions due for the preceding two full years. The General Assembly may permit such a member to vote if it is satisfied that the failure is due to conditions beyond control.

A general or steering committee co-ordinates the proceedings of the Assembly and is composed of 26 members—the president of the Assembly, the 18 vice-presidents, and the chairmen of the seven main committees.

SECURITY COUNCIL

The Security Council consists of 15 members, 5 with permanent seats. The remaining 10 are elected for 2-year terms by the General Assembly; they are not eligible for immediate re-election.

Permanent members of the Council: China, France, USSR, United Kingdom, United States.

Non-permanent members are Algeria, Brazil, Canada, Denmark, Ethiopia, Hungary, India, Pakistan, Paraguay, Senegal.

The Presidency of the Council is held monthly in turn by the member states in English alphabetical order.

The Security Council has the primary responsibility for maintaining international peace and security and members agree to carry out its de-

cisions. The Council may investigate any dispute that threatens international peace and security. When the Security Council is handling a dispute or situation the General Assembly requests it. The Secretary General notifies the General Assembly what matters are being dealt with, and if the G.A. is not in session he so notifies the members of the UN. The Security Council makes full reports to the G.A.

The Security Council functions continuously, each member being represented at all times. It may change its place of meeting. Any member of UN may participate in its discussions even if without a vote and a nation not a member of UN may appear if it is a party to a dispute.

Decisions on procedural questions are made by an affirmative vote of 9 members. On all other matters the affirmative vote of 9 members must include the concurring votes of all permanent members; it is this clause which gives rise to the so-called "veto." A party to a dispute must refrain from voting.

Reporting to the Security Council are: the Military Staff Committee, which advises the Council on military requirements for maintaining peace; and the Disarmament Commission which is concerned with the regulation and reduction of armaments and the control of nuclear weapons. The latter also reports to the General Assembly.

The Security Council may decide to enforce its decisions without the use of arms. Such measures include interruption of economic relations, break in transportation and communications, and severance of diplomatic relations. If such measures fail the Council may call on UN members to furnish armed forces, assistance and facilities, based on agreements made by the Council with the states and subject to ratification by the members of the UN "in accordance with their constitutional processes."

The right of individual or collective self-defense is not prohibited by membership in the UN, and if a member nation is attacked it may do what is necessary, reporting this to the Security Council, which may take independent action. However, the Council encourages regional arrangements or agencies by means of which local disputes can be settled without getting as far as the Council, after the Council has approved this method.

In the event of a conflict between the obligations of members to the UN and to other international bodies of which they may be members then obligations to the UN are paramount.

ECONOMIC AND SOCIAL COUNCIL

The Economic and Social Council consists of 27 members elected by the General Assembly for 3-year terms of office. The council is responsible under the General Assembly for carrying out the functions of the United Nations with regard to international economic, social, cultural, educational, health and related matters. The council meets usually twice a year.

Membership of the Council

Until Dec. 31, 1968—Czechoslovakia, Iran, Morocco, Panama, Philippines, Sweden, Union of Soviet Socialist Republics, United Kingdom, Venezuela.

Until Dec. 31, 1969—Belgium, France, Guatemala, Kuwait, Libya, Mexico, Sierra Leone, Turkey, Tanzania.

Until Dec. 31, 1970—Argentina, Bulgaria, Chad, Congo (Brazzaville), India, Ireland, Japan, United States, Upper Volta.

The President for 1968 was Manuel Perez Guerrero, Venezuela. The Economic and Social Council had the following commissions in 1967:

Functional Commissions

Statistical; Population; Social; Narcotic Drugs; Human Rights (and its Sub-Commission on the Prevention of discrimination and the protection of minorities); Status of Women.

Regional Economic Commissions

Economic Commission for Europe.

Economic Commission for Asia and the Far East.

Economic Commission for Latin America.

Economic Commission for Africa.

Also reporting to the Economic and Social Council are the Permanent Central Opium Board and the Drug Supervisory Body, the United Nations Children's Fund (UNICEF), the Council of the United Nations Development Program (UNDP) and the United Nations Special Fund, established to assist the economy of less-developed countries.

The Economic & Social Council may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

It may call international conferences on matters falling within its competence.

TRUST AND NON-SELF GOVERNING TERRITORIES

The work of the United Nations in the field of dependent territories falls into two categories: (1) the duties and functions of the Trusteeship Council with respect to those territories placed under the International Trusteeship System; and (2) the responsibility of the Organization in connection with information on non-self-governing territories other than Trust territories. The objectives of trusteeship are to further international peace and security; promote the political, economic, social and educational advancement of the inhabitants and their progressive development toward self-government or independence. Also to encourage respect for human rights and fundamental freedoms without distinction as to race, sex, language or religion, and to encourage recognition of the interdependence of all peoples; to insure equal treatment in social, economic and commercial matters for all members of the United Nations and their nationals, and also equal treatment for the latter in the administration of justice.

TRUSTEESHIP COUNCIL

The administration of Trust territories is subject to the supervision of the United Nations. Administering authorities are required to render an account of their stewardship to the Trusteeship Council. The Council may entertain petitions from private persons or organizations regarding conditions in the Trust territories and may dispatch missions to study conditions there.

The membership of the Council is made up of (1) countries which administer trust territories (Australia, the United Kingdom and the United States); (2) countries which are permanent members of the Security Council but which do not administer trust territories (China, France, USSR); and (3) as many other countries as may be necessary to ensure equal representation in the Council between administering and non-administering members. Those in the last named category are elected by the General Assembly for 3-year terms and are eligible for immediate reelection.

The Council usually meets once a year, in the spring. The President of the 35th session (1968) was Mrs. Eugene M. Anderson, United States.

The trust territories and the members administering them are: New Guinea (Australia), Pacific Islands (United States). New Zealand is no longer a member of the Council. Its membership ceased as a result of the accession to independence of Nauru, in January 1968, which Australia had administered on behalf of herself, New Zealand and the United Kingdom. A former trust territory, Togoland (United Kingdom) became independent in 1957, joining the Gold Coast, formerly a British colony, to become the new State of Ghana. In April 1960 the former trust territories, Camerouns and Togoland (France), gained their independence and formed the Republics of Cameroon and Togo. In July 1960 the former trust territory of Somaliland (Italy) became together with British Somaliland, the Republic of Somalia. After plebiscites held in the Camerouns (United Kingdom) in 1961, the Northern section joined Nigeria, and the southern section joined the Republic of Cameroon. Tanganyika (United Kingdom), gained independence in December 1961, Western Samoa (New Zealand), became independent in January 1962, and Ruanda-Urundi (Belgium), in July 1962, separated into two independent countries, the Kingdom of Burundi and the Republic of Rwanda.

NON-SELF-GOVERNING TERRITORIES

Members of the United Nations responsible for the administration of non-self-governing territories not under trusteeships recognize the principle that the interests of the inhabitants are paramount and promote their welfare. They are bound by the charter to transmit to the Secretary-General technical information concerning economic, social and educational conditions in the territories. This information is summarized, analyzed and classified by the Secretariat. Since 1961 a committee has been studying the implementation of the 1960 general assembly declaration on the granting of independence to colonial countries and peoples. This committee also receives the reports on non self-governing territories.

INTERNATIONAL COURT OF JUSTICE

The International Court of Justice is the principal judicial organ of the United Nations. All members are *ipso facto* parties to the statute of the Court. Other states may become parties to the Court's statute on conditions determined in each case by the General Assembly on the recommendation of the Security Council.

The jurisdiction of the Court comprises cases which the parties submit to it and matters especially provided for in the charter or in treaties. The Court gives advisory opinions and renders judgments. Its decisions, which are final, are only binding between the parties concerned and in respect of a particular dispute. Of any party to a case fails to heed a judgment of the Court, the other party may have recourse to the Security Council, which may decide what is to be done.

The Court consists of 15 judges elected for 9-year terms by the General Assembly and the Security Council voting independently. No two of the judges may be nationals of the same state. Retiring judges are eligible for re-election. The Court remains permanently in session, except during the judicial vacations. A quorum of 9 judges suffices to constitute the Court. All questions are decided by majority. In the event of a tie, the President of the Court or the judge who acts in his place casts the deciding vote.

Judges

Nine-year term of office ending on Feb. 5, 1976:

Sture Petren, Sweden
Cesar Bengzon, Philippines
Fouad Ammoun, Lebanon
Manfred Lachs, Poland
Charles D. Onyeama, Nigeria

Nine-year term of office ending on Feb. 5, 1973:

Sir Gerald Fitzmaurice, United Kingdom
Isaac Forster, Senegal
Andre Gros, France
Luis Padilla Nervo, Mexico
Muhammad Zafrulla Khan, Pakistan

Nine-year term of office ending on Feb. 5, 1970:

Jose Luis Bustamante y Rivero, Peru
Philip C. Jessup, United States
Vladimir M. Koretsky, USSR
Gaetano Morelli, Italy
Kotaro Tanaka, Japan

AGENCIES RELATED TO THE UNITED NATIONS

Working in partnership with the United Nations in various economic, social, scientific and technical fields is a group of intergovernmental organizations related to the United Nations by special agreements. Among these agencies (with their headquarters) are:

International Atomic Energy Agency (IAEA) aims to promote the peaceful uses of atomic energy. (Vienna)

International Labor Org. (ILO) aims to promote social justice; improve labor conditions and living standards; and promote economic stability. (Geneva)

Food & Agriculture Org. (FAO) aims to raise nutrition levels and living standards; secure improvements in production and distribution of food and agricultural products. (Rome)

United Nations Educational, Scientific & Cultural Org. (UNESCO) aims to promote collabora-

tion among nations through education, science and culture in order to further human rights and freedoms without distinction of race, sex, language or religion. (Paris)

World Health Org. (WHO) aims to aid the attainment of the highest possible level of health. (Geneva)

International Bank for Reconstruction & Development (World Bank) aims to help in reconstruction and development of territories of members by facilitating investment of capital; promote foreign investment and supplement private investment by providing loans for productive purposes out of its capital, funds raised by it and its other resources; and to promote growth of international trade and equilibrium in balance of payments. (Washington, D. C.)

International Development Assn. (IDA) aims to further economic development of members by financing on terms bearing less heavily on balance of payments than those of conventional loans. (Washington, D. C.)

International Finance Corp. (IFC) aims to further economic development by encouraging productive private enterprise, particularly in less developed areas. It is empowered to invest in private enterprises in association with private investors, and without government guarantee of repayment in cases where sufficient private capital is not available on reasonable terms; and to bring together private capital and management. (Washington, D. C.)

International Monetary Fund (Fund) aims to promote international monetary co-operation and expansion of international trade; to promote exchange stability and avoid competitive exchange depreciations; to assist in the establishment of a multilateral system of payments between members and in the elimination of foreign restrictions. (Washington, D. C.)

International Civil Aviation Org. (ICAO) promotes international standards and regulations. (Montreal)

Universal Postal Union (UPU) aims to perfect postal services and promote development of international collaboration. To this end, member countries are united in a single postal territory for reciprocal exchange of mail. (Berne)

International Telecommunication Union (ITU) sets up international regulations for radio, telegraph and telephone services and studies means to lower costs on international services. (Geneva)

World Meteorological Org. (WMO) aims to co-ordinate, standardize and improve world meteorological work. (Geneva)

Intergovernmental Maritime Consultative Org. (IMCO) aims to promote co-operation in technical problems of international shipping and to encourage the removal of discriminatory action by governments and restrictive practices by shippers. (London)

General Agreement on Tariffs and Trade (GATT) was drafted in 1946. Its functions are to ease trade barriers and establish rules of fair trade. In recent years, GATT has made special efforts to develop international trade and also has given particular emphasis to increasing the export trade of developing countries. (Geneva)

United Nation's Children's Fund (UNICEF) helps requesting countries meet the urgent needs of their children. Supported entirely by voluntary contributions from governments and individuals, UNICEF is currently helping 112 countries, mainly in the developing areas of the world. It is governed by a thirty-nation executive board. (New York)

SECRETARIAT

The Secretariat is composed of a Secretary-General appointed by the General Assembly upon the recommendation of the Security Council and such staff as the organization may require.

The Secretary General is the chief administrative officer of the UN. He may bring to the attention of the Security Council any matter that

threatens international peace. He reports to the General Assembly.

Secretary General—U Thant (Burma).

An international staff assists the Secretary-General. Its members are recruited on a wide geographical basis and are appointed by him. The Secretary General and staff may not receive instructions from outside authorities or be influenced by the UN members.

The principal officers as of August 1, 1968 were: Officials of the rank of under-Secretary-General at Headquarters:

Conference Services—Jiri Nosek (Czech.).

Economic and Social Affairs—Philippe de Seynes (France).

General Assembly Affairs and Chef de Cabinet—C. V. Narasimhan (India).

Political and Security Council Affairs—Leonid N. Kutakov (USSR).

Special Political Affairs—José Rolz-Bennett (Guatemala), Ralph J. Bunche (U. S.).

Trusteeship and Non-Self-Governing Territories—Issoufou S. Djermakoye (Niger).

Officials of the rank of Assistant-Secretary-General at Headquarters:

Controller—Bruce Turner (New Zealand).

General Services—David Vaughn (U. S.).

Legal Counsel—Constantin A. Stavropoulos (Greece).

Personnel—William W. Cox (U. S.).

Public Information—Agha Abdul Hamid (Pakistan).

Technical co-operation—Victor Hoo (China).

UN Children's Fund—Henry R. Labouisse (U. S.).

UN Development Program—Paul G. Hoffman (U. S.), David Owen (U. K.), Roberto Heurtematte (Panama).

UN Institute for Training and Research—Chief S. O. Adebisi (Nigeria).

Offices Overseas

Africa—Robert K. A. Gardiner (Addis-Ababa).

Asia and Far East—U Nyun (Bangkok).

Europe—Janez Stanovnik (Geneva).

Geneva—Vittorio W. Guicciardi (Geneva).

Latin America—Carlos Quintana (Santiago).

Industrial Development Organization—Ibrahim Helmi Abdel-Rahman (Vienna).

Conference on Trade and Development—Raül Prebisch (Geneva).

In charge of Missions, or Special Assignments: Chief of Staff, UNTSO—General Odd Bull (Jerusalem).

UN Relief and Works Agency for Palestine Refugees in the Near East—Laurence V. Michelmore (Beirut).

Refugees—Prince Sadruddin Aga Khan (Geneva).

Commander, UN Force in Cyprus—General I. A. E. Martola (Nicosia).

Special Representative of Secretary-General in Cyprus—B. F. Osorio-Tafall (Nicosia).

Chief Officer UN India-Pakistan Observation Mission—Dr. F. Graham (New York).

UNITED NATIONS BUDGET

The General Assembly voted a gross budget of \$140,430,950 for 1968—\$10,116,720 higher than the gross budget for 1967. It also approved estimates of income totalling \$23,635,000, thus bringing the net budget for 1968 to \$116,795,950.

SOURCES OF INFORMATION

Public Inquiries Unit, Office of Public Information, United Nations, N. Y. Provides pamphlets, study guides, speakers, films; arranges group visits. Telephones—Information on UN activities: PL 4-1234, Ext. 2526. Inquiries on tickets to meetings: Ext. 711.

UN Publications: UN Bookshop, United Nations, N. Y.

United Nations Assn. of the United States of America Inc., 345 E. 46th St., New York, N. Y. Tel. OX 7-3232. Publications Center, 78 Fifth Ave., New York, N. Y. Tel.: CH 3-1521.

Major International Organizations

(See also United Nations)

THE COMMONWEALTH, originally called the British Commonwealth of Nations, is an association of nations and dependencies loosely joined by a common interest based on having been parts of the old British Empire. The British monarch is the symbolic head of the Commonwealth. By tacit agreement, the name British Commonwealth of Nations has been shortened to the Commonwealth.

There are 28 self-governing independent nations which are full members of the Commonwealth, plus some 50 colonies, protectorates and trust territories which are dependencies of the United Kingdom, Australia or New Zealand and which are thus part of the Commonwealth.

The 28 members, as of Aug. 1968 were the United Kingdom of Great Britain and Northern Ireland and 12 other nations recognizing the British monarch, represented by a governor-general, as their head of state: Australia, Barbados, Canada, Ceylon, Gambia, Guyana, Jamaica, Malta, Mauritius, Sierra Leone, Trinidad and Tobago, New Zealand; and 15 countries with their own heads of state: Botswana, Cyprus, Ghana, India, Kenya, Lesotho, Malawi, Malaysia, Nigeria, Pakistan, Singapore, Swaziland, Tanzania, Uganda, Zambia.

The Commonwealth is an evolving organization. Many of its members have obtained independence from Britain and became full members since 1945. Members may secede; Ireland left in 1949, the Republic of South Africa left in 1961. Nations which have won independence since 1945 and did not join the Commonwealth are Burma (1948), Sudan (1956), Somaliland (1960), Southern Cameroons (1961), Maldivé Islands (1965), Southern Yemen (1967).

The Commonwealth facilitates consultation among member states through meetings of prime ministers and finance ministers; economic, scientific and educational standing committees provide information and other services. Population (est. 1966) was 737,300,000 in member nations and 12,000,000 in dependencies.

THE FRENCH COMMUNITY was created in the 1958 French Constitution and modified by later amendment. It is an association of France, its Overseas Departments and Territories, 6 African republics (former possessions) and one Condominium (New Hebrides). France aids members in construction of roads, railroads, etc., and in improvement of agricultural production, health and education. France and the 6 African republics have cultural, economic, financial and technical cooperation agreements. Nine other African republics have bilateral agreements of cooperation with France. There are also economic, customs and monetary unions to which various African states belong. (See *France for Community members.*)

NORTH ATLANTIC TREATY ORG. (NATO) was created April 4, 1949, in a treaty signed in Washington, effective Aug. 24, by Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom and the U. S. Greece, Turkey and West Germany have joined since. The members agreed to settle disputes by peaceful means; to develop their individual and collective capacity to resist armed attack; to regard an attack on one as an attack on all and to take necessary action to repel it under Art. 51 of the UN Charter.

NATO Council meetings may consist of heads of government, cabinet ministers, or permanent NATO representatives, who hold the rank of ambassadors. The Military Committee is composed of the Chiefs-of-Staff of the member countries and permanent representatives.

Armed forces of NATO members include forces assigned to NATO commands, forces earmarked for NATO commands and forces under national command. There is a Supreme Allied Commander Europe (SACEUR); a Supreme Allied Commander Atlantic (SACLANT); a Channel Committee and Allied Command Channel (covering the English Channel and southern North Sea); a Canada-U. S. Regional Planning Group.

Following announcement in 1966 of nearly total French withdrawal from the military affairs of NATO, the Council moved its hq. in 1967 from Paris to Evere, near Brussels, and SACEUR's hq. (SHAPE) to Casteau, Belgium; a subordinate command, Allied Forces Central Europe, was to go to Maastricht, Netherlands; the Military Committee's Standing Group (the U. K., U. S. and France) was abolished.

EUROPEAN ECONOMIC COMMUNITY (EEC) generally called the Common Market (or "Inner Six"), came into effect Jan. 1, 1958, after Belgium, France, Italy, Luxembourg, the Netherlands and West Germany signed a treaty in Rome in March, 1957, to work toward a customs union and free flow of goods and services. Britain's applications for admission were vetoed by France in 1963 and 1967. Other nations have become associate members.

ORGANIZATION OF AMERICAN STATES (OAS) grew out of the Pan American Union, which, with hq. in Washington, is its general secretariat. OAS (formed at Bogota, Colombia, 1948) has a Council, to which each of the member nations sends a representative. The Council can call meetings of ministers of foreign affairs to make decisions under the *Inter-American Treaty of Reciprocal Assistance*, formed in Rio de Janeiro 1947, to which most countries of the western hemisphere belong. There are 23 members, each with one vote on the Council and other organizations: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad-Tobago, U. S., Uruguay, Venezuela. In 1962, the OAS excluded Cuba "from participation in the inter-American system," a step motivated by Cuba's "alignment with the Communist bloc" and designed to exclude it from OAS activities but not to deprive it of OAS membership.

CENTRAL TREATY ORG. OF THE MIDDLE EAST (CENTO) was formed 1959 by Iran, Turkey, Pakistan and the United Kingdom to continue the mutual security and economic development objectives of the 1955 Baghdad Pact from which Iraq had withdrawn. The U. S. is represented on some of its committees and signed bilateral defense agreements with Iran, Turkey and Pakistan. Funds of the 4 members and the U. S. have been used in economic programs. Rail, road and radio links, harbors and schools are included.

EUROPEAN FREE TRADE ASSOCIATION (EFTA), consisting of Austria, Denmark, Norway, Portugal, Sweden, Switzerland and the United Kingdom (sometimes called the "Outer Seven"), was created by treaty Jan. 4, 1960, effective May 3, to gradually reduce customs duties and quantitative restrictions between members on industrial (but not agricultural) products. By Dec. 31, 1966, tariffs and restrictions had been eliminated. Finland became an associate member in 1961.

WARSAW TREATY ORGANIZATION (WARSAW PACT) was created May 14, 1955, as a 20-year mutual defense alliance by Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania and the USSR. However, Albania was excluded from the group's meetings in 1962. It provides for a unified military command with headquarters in Moscow; if one member is attacked, the others will aid it with all necessary steps including armed force; joint maneuvers are held; there is a Political Consultative Committee and economic cooperation is advanced.

SOUTHEAST ASIA TREATY ORGANIZATION (SEATO) was established Sept. 8, 1954, by Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom and the U. S. to provide for collective defense and economic cooperation in SE Asia. France boycotted the 1967 annual ministers' meeting. Bangkok is hq.

LEAGUE OF ARAB STATES (THE ARAB LEAGUE) was created March 22, 1945, by Egypt (United Arab Republic), Iraq, Jordan, Lebanon, Saudi Arabia, Syria and Yemen. Joining later were Algeria, Kuwait, Libya, Morocco, Southern Yemen, Sudan and Tunisia. Cairo is headquarters for the Secretary-General. The League has created Arab Postal and Telecommunications Unions. The League has maintained a boycott of Israel.

ORGANIZATION OF AFRICAN UNITY (OAU) was formed May 25, 1963, by 30 African countries to coordinate cultural, political, scientific and economic policies; to end colonialism in Africa; to promote a common defense of members' independence. It holds conferences of heads of government, has a council of foreign ministers, a secretary-general and a mediation-arbitration commission. Hq. is in Addis Ababa, Ethiopia.

International Bank for Reconstruction and Development

Robert S. McNamara, President

Address, 1818 H St., N.W., Washington, D. C. 20433. European Office, Paris

The Articles of Agreement of the International Bank for Reconstruction and Development, also known as the World Bank, were drawn up by representatives of 44 nations at the United Nations Monetary and Financial Conference, Bretton Woods, N. H., July 1-12, 1944. Its official existence dates from December 27, 1945, when the articles were signed by 28 nations in Washington. By June 30, 1968, 107 countries were members.

The purposes of the Bank are: to assist the economic development of member countries by facilitating investment of capital for productive purposes, and thereby promote growth of international trade and improvement of standards of living; to promote participation in loans and investments made by private investors, and to make loans for productive purposes when private capital is not easily available.

The Bank's chief sources of funds for loans are derived from paid-in capital subscriptions and from the sale of its own bonds and by other borrowing in the capital markets. By June 30, 1968, the subscribed capital was \$22,941,900,000. Of this \$2,294,190,000 was paid-in capital, the greater part of which has been made available for loans; \$20,647,710,000 was on call and serves as a guarantee fund for the Bank's bonds and other obligations. The Bank's funded debt at that time amounted to \$3,289,568,000 which included obligations in U. S. dollars, Canadian dollars, Belgian francs, Netherlands guilders, pounds sterling, Swedish kronor, Swiss francs, Deutsche marks and Italian lire. The Bank's funds for loans also are replenished through sales of parts of Bank loans to outside investors. Funds from this source amounted to \$2,142,637,000.

By June 30, 1968, the Bank had made 552 loans totaling over \$11,246,854,000 in 85 countries or territories. Where the government itself was not the borrower the government guaranteed the loan. Disbursements on loans approximated \$8,820,919,000.

Net income for the fiscal year ended June 30, 1968, was \$169,124,000. Loan commissions were \$595,000. Commissions were added to the Special Reserve, raising it to \$291,017,000. After the close of the fiscal year ended June 30, 1968, the Executive Directors of the Bank allocated \$96,124,000 from net income for 1967-68 to Supplemental Reserve, increasing it to \$963,108,000, and recommended to the Board of Governors that the balance of \$75,000,000 of that year's net income be transferred to the International Development Association (IDA), an affiliate of the Bank, as a grant.

There was a further expansion in the Bank's technical assistance services. It assisted member countries in preparing development projects and programs of high priority. It also acted as executing agency for a number of pre-investment studies financed by the United Nations Development Programme. Members of the Bank's Development Advisory Service worked with several countries on planning and development policy.

International Development Assn. (IDA) provides finance on terms more flexible and bearing less heavily on the balance of payments of recipient countries than those of conventional loans. IDA's funds are kept separate from those of the Bank. Membership is open to the Bank's members. By June 30, 1968, 98 countries had become members with initial subscriptions amounting to \$1,000,222,000. Its supplementary resources amounted to \$1,004,230,000, including \$49,495,000 additional

contributions by Sweden and \$210,000,000 transfers from the Bank. It has also borrowed \$12,100,000 from the Swiss Confederation. \$1,829,100,000 of usable funds had been available for commitment as of June 30, 1968. IDA had extended 127 development credits totaling \$1,788,400,000 in 40 countries; 21 in Africa, 8 in Asia and the Middle East, 10 in the Western Hemisphere, and one in Europe.

These credits are on identical terms: each is for 50 years, free of interest. Repayment is due in foreign exchange; amortization is to begin after a ten-year period; thereafter, 1% of the principal is repayable annually for 10 years and 3% annually for the final 30 years. A service charge of 3/4 of 1% per annum, payable on the amounts withdrawn and outstanding is made to meet IDA's costs.

International Finance Corporation

The International Finance Corporation (IFC) was established by member governments in July 1956, as an affiliate of the International Bank for Reconstruction and Development (World Bank). Its objective is to assist less developed member countries by helping to promote the growth of productive private enterprise.

At June 30, 1968, IFC's share capital was \$101,368,000, subscribed by 86 countries. IFC is empowered to increase its lending resources by borrowing up to approximately \$400,000,000 from the World Bank. The first use of this line of credit, a \$100,000,000 drawing, was approved in October 1966.

IFC provides risk capital for productive private enterprises, in association with private investors and management. It encourages the development of local capital markets and it seeks to stimulate the international flow of private capital. The Corporation makes investments in the form of share subscriptions and long-term loans. It carries out standby and underwriting arrangements and it provides financial and technical assistance to privately controlled development finance companies. It neither seeks nor accepts government guarantees.

IFC is responsible for the technical and financial appraisal and supervision of all industrial, mining and development finance company projects submitted to the World Bank Group (the World Bank, the International Development Assn. and IFC).

In the year ended June 30, 1968, IFC's commitments rose to a record annual level of \$50,700,000 from \$49,100,000 in the previous year. This brought the cumulative total of gross commitments to \$271,800,000, representing 154 transactions in 39 countries.

IFC expanded its geographic scope in the 1967/68 fiscal year by making its first investment in Korea, Mauritania and Nicaragua. This brought to 39 the number of countries in which IFC has operated.

Net income of IFC in 1967/68 rose to \$6,200,000 from \$6,000,000 in the previous year. The reserve against losses increased to \$41,000,000 from \$34,700,000. Sales of portions of IFC commitments to other investors came to \$18,600,000. These items, together with subscriptions from three new members—Vietnam, Mauritania and Indonesia—and loan repayment, raised the cumulative total of funds available to the IFC to \$340,000,000.

Robert S. McNamara, President of the World Bank, is Chairman and President of IFC. Martin M. Rosen is Executive Vice President. The address of IFC is 1818 H Street, N.W., Washington, D. C. 20433.

International Monetary Fund

Pierre-Paul Schweitzer, Managing Director and Ch. of Executive Board
1914 and H Sts., NW, Washington, D. C.

The International Monetary Fund, with over \$21 billion in gold and national currencies, is the world's largest source of quickly available international credit. By April 30, 1968, the 107-nation Fund had provided \$14.6 billion in short-term financial assistance to 64 of its member countries. Its activities reached a record level in 1961 when 22 members drew the equivalent of \$2,478.5 million. The Fund was established in terms of Articles of Agreement formulated at the Bretton Woods Conference, July, 1944, effective Dec. 27, 1945.

The purposes of the Fund are: (1) to promote international monetary cooperation through a permanent institution which provides machinery for consultation and collaboration on international

monetary problems, and, more specifically, (2) to promote exchange stability and avoid competitive exchange depreciation, (3) to assist in the establishment of a multilateral system of payments in respect of current transactions, which means the eventual elimination of restrictions on the making of payments and transfers for current international transactions and the avoidance of discriminatory currency arrangements or multiple currency practices, and (4) to permit members, under appropriate conditions, to draw upon the resources of the Fund with a view to shortening the duration and lessening the degree of any disequilibrium which may from time to time arise in their balances of payments.

The Fund obtains its resources from the payment by members of quotas, the size of which was agreed for original members at Bretton Woods. Each member pays in gold either 25% of its quota or 10% of its net official holdings of gold and convertible currency, as of a certain date, and the remainder in the member's own currency. The aggregate of members' quotas as of April 30, 1968 was equivalent to \$21,119,400,000. The total subscriptions paid on that date amounted to the equivalent of \$20,350,400,000, of which \$4,908,200,000 was received in gold.

Members are under an obligation, once the foreign exchange values of their currencies have

been agreed with the Fund, to make no change in their exchange rates without consultation with the Fund. The Fund, however, is not entitled to object if the proposed change does not exceed 10% of the original par value. By the end of April 30, 1968, 76 countries had effective par value agreed with the Fund. From the commencement of operations on Mar. 1, 1947, through April 30, 1968, exchange drawings on the Fund amounted to the equivalent of U. S. \$14,630,600,000. On that date repurchases amounted to \$7,439,500,000 in gold and currencies. Sales of members' currencies and other items reduced the net amount due to \$4,549,900,000.

Inter-American Development Bank

Felipe Herrera, President, 808 17th St., N.W., Washington, D. C. 20577

The Inter-American Development Bank was created Dec. 30, 1959, to foster the individual and collective development of its member countries, which are:

Argentina	Ecuador	Paraguay
Bolivia	El Salvador	Peru
Brazil	Guatemala	Trinidad &
Chile	Haiti	Tobago
Colombia	Honduras	United States
Costa Rica	Mexico	Uruguay
Dominican Republic	Nicaragua	Venezuela
	Panama	

The Bank was set up with two completely separate funds: the ordinary capital resources, currently authorized at \$3.15 billion, and a Fund for Special Operations totaling \$2,321,436,000.

The authorized ordinary resources include \$475,000,000 in "paid in" capital and \$2,675,000,000 in "callable" capital. A total of \$383,650,000 of the paid in portion has been subscribed by the member countries and another \$91,350,000 is available for subscription by countries which might join the Bank in the future. Of the callable portion, \$2,356,710,000 has been subscribed and \$318,290,000 is available for subscription by present or future members. The callable capital, in effect, constitutes a guarantee of the Bank's securities and thus enables the Bank to borrow funds in the world's capital markets. As of June 30, 1968, the Bank's outstanding borrowings amounted to \$540 million.

With its ordinary resources, the Bank makes "hard" loans for development projects on conventional terms, including repayment in the currencies lent, and interest rates which reflect the cost to the Bank of borrowing funds in the world's capital markets.

The Fund for Special Operations is used to make "soft" loans, on terms and conditions which are more flexible than those applied to loans made from the ordinary capital resources, which are made primarily for economic or infrastructure projects.

In addition to its own resources, the Bank also administers other funds. Since 1961 it has been the Administrator of the Social Progress Trust Fund, which the United States Government established to promote social development in Latin America as part of the Alliance for Progress program. The U. S. has contributed \$525,000,000 to this Fund.

It also administers resources totaling \$52,000,000 entrusted to it by Canada, Sweden and the United Kingdom for economic development projects in Latin America.

As of June 30, 1968, the Bank had authorized 466 loans totaling \$2.5 billion in Latin America for projects whose total cost is estimated at \$6.6 billion. Of this amount, 158 loans totaling \$926 million were authorized from the ordinary capital resources, 177 loans totaling \$1,046 million from the Fund for Special Operations, 117 loans totaling \$501 million from the Social Progress Trust Fund and 14 loans totaling \$27 million from the resources it administers for non-member countries.

The distribution of the loans by fields of investment was: Industry and mining \$500 million; Agriculture \$577 million; Water supply and Sewage systems \$413 million; Transportation \$256 million; Electric power \$257 million; Housing \$300 million; Advanced education \$108 million; Pre-investment \$60 million; and Credit to finance export of capital goods \$29 million.

The Voice of America and Other World-Wide Broadcasting

VOICE OF AMERICA, a division of the United States Information Agency (USIA), furnishes countries all over the globe with news of American events and policies, analyses of current issues and programs about life in the United States. It broadcasts some 800 hours weekly in 36 languages over 102 medium and shortwave transmitters, 61 overseas and 41 in the U. S. About 40% of these broadcasts are directed toward Communist countries. These had about 2,000 transmitters that in the past have tried to jam the American stations. In mid-1963 the USSR ceased jamming and some of the other communist countries did likewise, but a certain amount of jamming has continued.

It is estimated that 42,000,000 listeners hear the programs during an average week with many more in times of crisis. Estimate based on mail received (over 200,000 letters annually), surveys, etc.

USIA also has 213 posts in 101 countries (where they are known as the U. S. Information Service or USIS). The Motion Picture and Television Service of USIA annually produces films and television programs, illustrating various facets of American life. These are shipped in several language versions to USIS posts which arrange for commercial and private showings, as well as telecasts on foreign TV stations. The Press and Publications Service radioteletypes a daily 12,000-word compilation of major addresses and statements of general interest by American leaders to USIS posts for placement in foreign newspapers and periodicals. It also publishes magazines such as *America Illustrated*, which is distributed and sold in two editions in USSR and Poland. The cultural aspects

of USIA's programs are carried out by the above services and information centers, libraries, reading rooms and binational centers in more than 80 countries. USIA director is Leonard H. Marks.

RADIO FREE EUROPE is the major division of Free Europe, Inc., 2 Park Ave., New York. William P. Durkee is president, Ralph E. Walter, director, is based at RFE headquarters in Munich, West Germany. RFE is a privately operated network of 5 radio stations that broadcasts to the 84,000,000 people of Communist-ruled Bulgaria, Czechoslovakia, Hungary, Poland and Romania in their native languages. It operates 32 transmitters, located in West Germany and Portugal, with a total power of 2,260,000 watts. RFE is on the air 536 hours a week, broadcasting news and information about the free world and the countries under Communist domination, as well as programs of music, political comment, entertainment, sports and religion beamed at all age groups. Surveys indicate RFE has a regular audience exceeding 25,000,000.

RADIO LIBERTY speaks to the peoples of the Soviet Union as the free voice of their fellow countrymen abroad. It is supported by the Radio Liberty Committee, Inc., a private, non-profit organization with headquarters at 30 East 42nd Street, New York, N. Y. Howland H. Sargeant, President. In its transmission to the Soviet Union, Radio Liberty uses 17 languages of that country. Radio Liberty broadcasts 24 hours a day, 7 days a week. Fourteen transmitters in Spain and Western Germany and 3 transmitters on Taiwan broadcast a total of 235-315 transmitter hours daily. Total transmitting power is 1,840,000 watts.

Heads of States and Prime Ministers

Data to Aug. 15, 1968

Country	Head of State, Title	Born	Acceded or Elected	Premier or Prime Minister
Afghanistan	Mohammad Zahir Shah, King	Oct. 15, 1914	Nov. 8, 1933	Noor Ahmad Etemadi
Albania	Maj.-Gen. Haxhi Lleshi, Pres.		July 1953	Maj.-Gen. Mehmet Shehu
Algeria	Col. Houari Boumedienne, Pres.	1925	June 19, 1965	
Andorra	Pres. of France & Spanish Bishop of Urgel			
Argentina	Lt. Gen. Juan Carlos Onganía, Pres.	May 17, 1914	June 28, 1966	
Australia (C)	Lord Richard G. Casey, Gov. Gen. (*)	Aug. 29, 1890	Sept. 22, 1965	John G. Gorton
Austria	Franz Jonas, Pres.	Oct. 4, 1899	June 9, 1965	Josef Klaus
Barbados (C)	Dr. A. W. Scott, Gov. Gen. (*)	Mar. 17, 1900	May 18, 1967	E. W. Barrow
Belgium	Baudouin I, King	Sept. 7, 1930	July 17, 1951	Gaston Eyskens
Bhutan	Maharajah Jigme Dorji Wangchuk	1929	Oct. 27, 1952	Lhendup Dorji
Bolivia	Gen. Rene Barrientos, Pres.	May 30, 1918	Aug. 6, 1966	
Botswana (C)	Sir Seretse Khama, Pres.	1921	Oct. 1, 1966	
Brazil	Arthur da Costa e Silva, Pres.	Oct. 3, 1902	Mar. 15, 1967	
Bulgaria	Georgi Traikov, Pres.	1898	Apr. 23, 1964	Todor Zhivkov
Burma				Gen. Ne Win
Burundi	Michael Micombero	1939	Nov. 28, 1966	
Cambodia	Prince Norodom Sihanouk, Chief of State	Oct. 31, 1932	June 20, 1960	Son Sann
Cameroon	Ahmadou Ahidjo, Pres.		1960	Charles Assale
Canada (C)	Roland Michener, Gov.-Gen. (*)	Apr. 19, 1900	Apr. 5, 1967	Pierre E. Trudeau
Central African Rep. (F)	Col. Jean Bedel Bokassa		Jan. 1, 1966	
Ceylon (C)	William Gopallawa, Gov. Gen. (*)	1898	Mar. 2, 1962	Dudley Senanayake
Chad Rep. (F)	Francois Tombalbaye, Pres.	1918	Aug. 11, 1960	
Chile	Eduardo Frei Montalva, Pres.	June 16, 1911	Sept. 4, 1964	
China, People's Republic	Liu Shao-chi	c. 1898	Apr. 27, 1959	Chou En-Lai
China (Taiwan)	Gen. Iissimo, Chiang Kai-shek, President	1887	Apr. 1948	C. K. Yen
Colombia	Dr. Carlos Lleras Restrepo, Pres.	Apr. 12, 1908	Aug. 7, 1966	
Congo—Brazzaville (F)	Alphonse Massamba—Debat, Pres.		Aug. 10, 1963	Alphonse Massamba—Debat
Congo, Dem. Rep.	Lt. Gen. Joseph Mobutu, Pres.	Oct. 30, 1930	Nov. 25, 1965	Brig. Gen. Leonard Mulamba
Costa Rica	Jose Joaquin Trejos, Pres.	Apr. 18, 1916	May 8, 1966	
Cuba	Dr. Osvaldo Dorticos Torrado	1919	July 17, 1959	Fidel Castro
Cyprus (C)	Archbishop Makarios, Pres.	Aug. 13, 1913	Dec. 14, 1959	
Czechoslovakia	Ludvik Svoboda, Pres.	Nov. 25, 1895	Mar. 30, 1968	Oldrich Cernik
Dahomey Rep.	Emile Derlin Zinsou, Pres.	1918	June 27, 1968	
Denmark	Frederick IX, King	Mar. 11, 1899	Apr. 20, 1947	Hilmar Baunsgaard
Dominican Rep.	Dr. Joaquin Balaguer	1907	July 1, 1966	
Ecuador	Jose Maria Velasco Ibarra, Pres.	1893	June 3, 1968	
El Salvador	Col. F. Sanchez Hernandez, Pres.	1918	July 1, 1967	
Ethiopia	Haile Selassie I, Emperor	July 23, 1892	Nov. 2, 1930	Aklilu Abde Wold
Finland	Dr. Urho Kekkonen, Pres.	Mar. 9, 1900	Feb. 15, 1956	Mauno Koivisto
France (F)	Gen. Charles A. de Gaulle, Pres.	Nov. 22, 1890	Dec. 21, 1958	Maurice Couve de Murville
Gabon Rep. (F)	Albert Bernard Bongo, Pres.	1935	Dec. 1, 1967	
Gambia (C)	Sir Farlimang Singhatch	1912	July 1966	D. K. Jawara
Germany, Fed. Republic	Heinrich Lübke, Pres.	Oct. 14, 1894	July 1, 1959	Kurt G. Kiesinger
Germany, East	Walter Ulbricht, Chairman	June 30, 1893	Sept. 12, 1960	Willi Stoph
Ghana (C)	Lt. Gen. J. A. Ankrah	1917	Feb. 24, 1966	
Greece	King Constantine XIII	June 2, 1940	Mar. 6, 1964	George Papadopoulos
Guatemala	Julio Cesar Mendez Montenegro	Nov. 23, 1915	July 1, 1966	
Guinea, Rep.	Sekou Toure, Pres.	Jan. 9, 1922	Oct. 2, 1958	Sekou Toure
Guyana (C)	Sir David Rose, Gov. Gen. (*)	1923	Dec. 16, 1966	Forbes Burnham
Haiti	Dr. Francois Duvalier, Pres.	Apr. 14, 1909	Oct. 22, 1957	
Honduras	Col. Oswaldo Lopez Arellano, Pres.	June 30, 1921	Oct. 3, 1963	
Hungary	Pal Losonczy, Pres.	1919	Apr. 14, 1967	Jano Fock
Iceland	Kristian Eldjarn, Pres.	1917	July 1, 1968	Bjarni Benediktsson
India (C)	Dr. Zakir Hussain, Pres.	Feb. 8, 1897	May 13, 1967	Indira Nehru Gandhi
Indonesia	Lt. Gen. Subarto, Pres.	Feb. 28, 1921	Mar. 11, 1967	
Iran	Mohammed Reza Pahlavi, Shah	Oct. 26, 1919	Sept. 18, 1941	Amir Abbas Hoveida
Iraq	Ahmed Hassan al-Bakr, Pres.	1912	July 17, 1968	Ahmed Hassan al-Bakr
Ireland	Eamon de Valera, Pres.	Oct. 14, 1882	June 26, 1959	John Mary Lynch
Israel	Zalman Shazar, Pres.	Oct. 6, 1889	May 21, 1963	Levi Eshkol
Italy	Giuseppe Saragat	Sept. 19, 1898	Dec. 28, 1964	Giovanni Leone
Ivory Coast	Felix Houphouët-Boigny, Pres.	Oct. 18, 1905	Nov. 27, 1960	
Jamaica (C)	Sir Clifford Campbell, Gov. Gen. (*)	June 28, 1892	Dec. 1, 1962	Hugh Shearer
Japan	Hirohito, Emperor	Apr. 29, 1901	Dec. 25, 1926	Isaku Sato
Jordan	Hussein I, King	Nov. 14, 1935	May 2, 1952	Bahjat Telhoumy
Kenya (C)	Jomo Kenyatta, Pres.	1890	Dec. 12, 1964	
Korea, Republic	Gen. Chung Hee Park, Pres.	Sept. 30, 1917	Nov. 26, 1963	Chung Il Kwon
Korea, People's Dem. Rep.	Kim Du-Bong, Pres.			Marshall Kim Il-Sung
Kuwait	Sabah al-Salim al-Sabah, Emir	1915	Nov. 27, 1965	Jaber al-Ahmed al-Jaber
Laos	Sri Savang Vatthana, King	Nov. 13, 1907	Oct. 30, 1959	Souvanna Phouma
Lebanon	Charles Helou, Pres.	1913	Sept. 23, 1964	Rashid Karamé
Lesotho (C)	Motloutshi Moshoeshoe II, King	1938	Oct. 4, 1966	Chief Leabua Jonathan
Liberia	William V. Tubman, Pres.	Nov. 29, 1895	May 6, 1943	Abdullah el-Bakoush
Libya	Mohammed Idris el Senussi, King	Mar. 13, 1890	Dec. 24, 1951	

Heads of States and Prime Ministers (continued)

Country	Head of State, Title	Born	Acceded or Elected	Premier or Prime Minister
Liechtenstein....	Prince Franz Joseph II, Ruler....	July 16, 1906	Mar. 30, 1938	Gerald Batliner
Luxembourg....	Grand Duke Jean.....	Jan. 5, 1921	Nov. 12, 1964	Pierre Werner
Malagasy Rep. (F)	Philibert Tsiranana, Pres.....	1912	May 1, 1959	.....
Malawi (C).....	Dr. H. Kamuzu Banda, Pres.....	1906	July 6, 1966	.....
Malaysia (C)....	Sultan Ismail Nasiruddin Shah, Paramount Ruler.....	.....	Aug. 19, 1965	Tunku Abdul Rahman
Maldives Islands..	Sultan Mohammed Farid Didi I..	June 12, 1901	Mar. 7, 1954	Ibrahim Nasir
Malta (C).....	Modibo Kelta, Pres.....	June 4, 1915	1960	Modibo Kelta
Mali.....	Sir Maurice Henry Dorman, Gov. Gen. (*).....	Aug. 7, 1912	Sept. 21, 1964	Dr. G. Borg Olivier
Mauritania.....	Moktar O. Daddah, President.....	Apr. 25, 1925	Nov. 1958	.....
Mauritius (C)....	Sir John Rennie, Gov. Gen. (*)	.....	Sept. 17, 1962	Sir Seewoosagar Ramgoolam
Mexico.....	Gustavo Diaz Ordaz, Pres.....	Mar. 12, 1911	Dec. 1, 1964	.....
Monaco.....	Rainier III, Prince.....	May 31, 1923	May 9, 1949	.....
Mongolia.....	Yumzhagin Tsendenbal, Chairman of Presidium.....	.....	.....	Y. Tsendenbal
Morocco.....	Hassan II, King.....	July 11, 1929	Mar. 3, 1961	Mohamed Benhima
Muscat and Oman	Sultan Said bin Taimur.....	Aug. 13, 1910	Feb. 10, 1932	.....
Nauru.....	Chief Hammer De Roburt, Chmn., Coun. of State.....	Sept. 25, 1922	Jan. 31, 1968	.....
Nepal.....	Mahendra Bir Bikram, Shah.....	June 11, 1920	Mar. 14, 1955	Surya Bahadur Thapa
Netherlands.....	Juliana, Queen.....	Apr. 30, 1909	Sept. 4, 1948	Petrus J. S. de Jong
New Zealand (C)	Sir Arthur Porritt, Gov. Gen. (*)	Aug. 10, 1900	Nov. 1967	Kelth J. Holyoake
Nicaragua.....	Anastasio Somoza Debayle, Pres.	Dec. 5, 1925	Feb. 6, 1967	.....
Niger.....	Hamani Diori, Pres.....	.....	1960	.....
Nigeria (C).....	Maj. Gen. Yakubu Gowon, Head of Mil. Council.....	Oct. 19, 1934	Aug. 1, 1966	.....
Norway.....	Olav V., King.....	July 2, 1903	Sept. 21, 1957	Per Borten
Pakistan (C)....	Mohammad Ayub Khan, Pres.....	May 14, 1907	Oct. 27, 1958	.....
Panama.....	Dr. Arnulfo Arias, Pres.....	1901	May 30, 1968	.....
Paraguay.....	Gen. Alfredo Stroessner, Pres.....	Nov. 3, 1912	Aug. 15, 1954	.....
Peru.....	Fernando Belaunde Terry, Pres.....	Oct. 7, 1912	June 9, 1963	Oswaldo Herceles
Philippines.....	Ferdinand Marcos, Pres.....	Sept. 11, 1917	Dec. 30, 1965	.....
Poland.....	Marian Spychalski, Chmn., Council of State.....	Dec. 6, 1906	Apr. 11, 1968	Josef Cyrankiewicz
Portugal.....	Rear Admiral Americo R. Thomaz, Pres.....	Nov. 19, 1894	July 22, 1958	Antonio de Oliveira Salazar
Romania.....	Nicolae Ceausescu, Pres. of State. Council.....	Jan. 26, 1918	Dec. 7, 1967	Ion G. Maurer
Rwanda.....	Georgire Kayibanda, Pres.....	May 1, 1924	Oct. 26, 1961	.....
San Marino.....	Leonida Luzzi Valli and Stello Montironi, Co-Regents.....	.....	.....	Federico Bigli
Saudi Arabia.....	Faisal Abdel Aziz al Saud, King.....	1906	Nov. 2, 1964	.....
Senegal Rep. (F)	Leopold S. Senghor, Pres.....	1907	Sept. 1960	Lamine Gueye
Sierra Leone (C)	Henry J. L. Boston, Gov. Gen. (*)	.....	1962	Siaka Stevens
Singapore (C)....	Inche Yusof bin Ishak, Pres.....	Aug. 12, 1910	Dec. 3, 1959	Lee Kuan Yew
Somalia.....	Abdirashid Ali Shermarke, Pres.....	.....	June 10, 1967	Mohamed Ibrahim Egal
South Africa.....	Jacobus J. Fouché, Pres.....	June, 6, 1898	Apr. 10, 1968	Balthazar, J. Vorster
Southern Yemen	Qahtan al-Shaabi, Pres.....	.....	Nov. 30, 1967	.....
Spain.....	Gen. Francisco Franco Bahamonde, Chief of State.....	Dec. 4, 1892	Aug. 9, 1939	Gen. Francisco Franco
Sudan.....	Ismail el Azhari, Pres.....	.....	Sept. 1965	Mohammed Ahmed Mahgoub
Swaziland (C)....	Sobhuza VI, King.....	1899	Apr. 25, 1967	Makhosini Dlamini
Sweden.....	Gustav VI Adolf, King.....	Nov. 11, 1882	Oct. 29, 1950	Tage Erlander
Switzerland (I) ..	Dr. Willy Spühler, Pres.....	Jan. 31, 1902	Dec. 14, 1967	.....
Syria.....	Nureddin al-Attassi, Chief of State	1928	Feb. 25, 1966	Dr. Youssef Zayyin
Tanzania (C)....	Julius K. Nyerere, Pres.....	1922	Apr. 26, 1964	.....
Thailand.....	Phumiphol Aduldet, King.....	Dec. 5, 1927	June 9, 1946	Thanom Kittikachorn
Togo.....	Gen. Etienne Eyadema.....	1932	Jan. 13, 1967	.....
Trinidad-Tobago	Sir Solomon Hochoy, Gov. Gen. (*).....	Apr. 20, 1905	Aug. 31, 1962	Dr. Eric E. Williams
Tunisia.....	Habib Bourguiba, Pres.....	Aug. 3, 1903	July 25, 1957	.....
Turkey.....	Cevdet Sunay, Pres.....	1900	Mar. 28, 1966	Suleyman Demirel
Uganda (C).....	A. Milton Obote, Pres.....	1924	Apr. 15, 1966	.....
USSR.....	Nikolai V. Podgorniy, Pres., Presidium.....	1903	Dec. 9, 1965	Aleksel N. Kosygin
United Arab Rep.	Gamal Abdel Nasser, Pres.....	Jan. 18, 1918	June 23, 1956	Gamal Abdel Nasser
United Kingdom	Elizabeth II, Queen.....	Apr. 21, 1926	Feb. 6, 1952	Harold Wilson
United States.....	Lyndon B. Johnson, Pres.....	Aug. 27, 1908	Nov. 22, 1963	.....
Upper Volta.....	Lt. Col. Sangoule Lamizana, Chief of State.....	1921	Jan. 3, 1966	.....
Uruguay.....	Jorge Pacheco Areco.....	Apr. 9, 1920	Dec. 6, 1967	.....
Vatican City.....	Giovanni Battista Montini, Pope Paul VI.....	Sept. 26, 1897	June 21, 1963	.....
Venezuela.....	Dr. Raul Leoni, Pres.....	Apr. 26, 1905	Dec. 1, 1963	.....
Vietnam, Dem. Republic of.....	Ho Chi Minh, Pres.....	1880	.....	Pham Van Dong
Vietnam, Rep. of	Maj. Gen. Nguyen Van Thieu, Pres.....	Apr. 5, 1923	June 12, 1965	Tran Van Huong
Western Samoa....	Malietoa Tanumafili II, Head of State.....	1913	Jan. 1, 1962	Fiamema Matafa'a Faumua Mulunui II
Yemen.....	Abdul Rahman al-Iryani, Pres. of Republican Council.....	July 18, 1917	.....	Hassan al-Amri
Yugoslavia.....	Marshal Tito (Joseph Broz), President.....	May 25, 1892	Jan. 31, 1946	Mika Spiljak
Zambia (C).....	Kenneth Kaunda, Pres.....	1925	Oct. 24, 1964	.....

(1) President serves one-year term, the Vice President customarily succeeds him.

(C) Member of the Commonwealth of Nations.

(F) Member of French Community.

(*) Gov. Gen. acts as representative of the British monarch, who is recognized as head of state.

Population of Important World Cities

Source: Latest census reports and latest official estimates; *(asterisk) denotes capital;
Gr. denotes Greater, or metropolitan area
For U. S. Cities see Index

Afghanistan		Montreal	1,222,255	Cyprus		Erfurt	190,620
*Kabul	292,294	Montreal, Gr.	2,436,817	Famagusta	39,200	Halle	274,904
Kandahar	121,152	Ottawa	290,741	Limasol	48,100	Leipzig	594,661
Albania		*Ottawa, Gr.	494,535	*Nicosia	105,600	Magdeburg	265,968
Tifane	180,000	Quebec	166,934	Czechoslovakia		Rostock	181,606
Algeria		Quebec, Gr.	413,397	Bratislava	268,513	Ghana	
*Algiers	943,142	Regina	131,127	Brno	328,457	*Accra	521,900
Constantine	253,649	St. Catherine's	97,101	Ostrava	262,064	Greece	
Oran	328,257	St. John, Gr.	101,192	Pizen (Pilsen)	140,181	*Athens (Incl. Piraeus)	1,852,709
Andorra		Saskatoon	115,992	*Prague	1,022,957	Patras	95,364
*Andorra La Vella	6,972	Sudbury	84,888	Dahomey		Thessaloniki (Salonica)	309,205
Argentina		Toronto	664,584	Cotonou	109,328	Guatemala	
Avellaneda	329,626	Toronto, Gr.	2,158,196	Denmark		*Guatemala City	577,120
*Buenos Aires	2,966,816	Vancouver	110,775	Aarhus	187,342	Quezaltenango	56,921
Cordoba	589,153	Vancouver, Gr.	892,238	*Copenhagen	1,377,605	Guinea	
General San Martin	279,213	Windsor	192,544	Frederiksborg	112,211	*Conakry	175,000
La Plata	330,310	Windsor, Gr.	211,697	Odense	132,978	Guyana	
Lanus	244,473	Winnipeg	257,005	Dominican Republic		*Georgetown	72,964
Mar del Plata	141,886	Winnipeg, Gr.	508,759	*Santo Domingo	560,636	Haiti	
Rosario	671,859	Central Africa Rep.		Ecuaodr		Cap-Haitien	30,000
Santa Fe	259,560	*Bangul	111,266	Guayaquil	651,542	*Port-au-Prince	240,000
Tucuman	251,000	Ceylon		*Quito	401,811	Honduras	
Australia		*Colombo	510,947	El Salvador		*Tegucigalpa	170,535
Adelaide	726,930	Jaffna	94,248	*San Salvador	281,122	San Pedro Sula	95,890
Brisbane	719,140	Kandy	67,768	Santa Ana	72,839	Hungary	
*Canberra	100,938	Chad		Ethiopia		*Budapest	1,928,000
Hobart	119,415	*Fort-Lamy	99,000	*Addis Ababa	560,000	*Budapest, Gr.	1,970,000
Melbourne	2,228,511	Chile		Asmara	131,000	Debrecen	150,000
Newcastle	233,967	Concepcion	174,224	Finland		Miskolc	170,000
Perth	499,494	*Santiago	248,378	*Helsinki (Helsingfors)	528,000	Pecs	140,000
Sydney	444,735	Valparaiso	276,330	Tampere	150,000	Szeged	120,000
Austria		China		Turku (Abo)	148,000	Iceland	
Graz	250,300	Amoy	224,300	France		*Reykjavik	92,000
Innsbruck	110,209	Anshan	805,000	Bordeaux	283,528	India	
Linz	203,983	Canton	1,840,000	Le Havre	184,133	Agra	530,518
Salzburg	115,720	Changshu	703,000	Lille	199,033	Ahmedabad	1,316,723
*Vienna	1,640,106	Changteh	300,000	Lyon	543,519	Alahabad	465,123
Barbados		Chengtu	1,107,000	Marseille	850,362	Amritsar	403,255
*Bridgetown	94,000	Chenteh (Jehol)	510,000	Nantes	246,245	Bangalore	972,419
Belgium		Chungking	2,121,000	Nice	291,976	Benares	540,239
Antwerp	661,697	Darien	1,590,000	*Paris	2,811,171	Bombay	4,784,136
*Brussels	1,074,586	Fatshan	122,500	*Paris, Gr.	9,811,171	Calcutta	3,039,316
Charleroi	282,444	Foochow	616,000	St. Etienne	203,633	Calcutta (Met.)	4,703,398
Ghent	232,736	Hangechow	784,000	Strasbourg	233,549	Dohi	2,440,473
Lige	450,387	Hong Kong, Br.	3,739,990	Toulouse	330,570	Howrah	1,554,715
Bolivia		Hsinking (Changchun)	975,000	Gabon		Hyderabad	1,261,085
Cochabamba	120,000	Kowloon	675,000	*Libreville	45,909	Kanpur	1,011,700
La Paz	360,329	Lanchow	699,000	*Bathurst	27,809	Lucknow	875,829
Santa Cruz	139,000	Macao, Port.	161,252	Germany, West		Madras	1,896,122
*Sucre	58,359	Nanking	1,419,000	Aachen	177,900	Madrural	458,426
Botswana		*Peking	4,010,000	Augsburg	212,200	Nagpur	729,712
*Gaborone	4,200	Pin-chiang (Harbin)	1,552,000	Berlin (West)	2,190,600	Patna	406,484
Brazil		Shanghai	6,900,000	Bielefeld	170,600	Poona	793,016
Belem	471,000	Shenyang	2,411,000	Bochum	355,500	Indonesia	
Belo Horizonte	929,000	Sian (Mukden)	2,411,000	*Bonn	140,500	Bandung	972,566
*Brasilia	200,000	Taiyuan	1,310,000	Bremen	599,000	*Jakarta	
Curitiba	582,000	Tientsin	3,220,000	Brunswick	233,000	(Batavia)	2,906,533
Fortaleza	486,000	Tsinan	862,000	Cologne	861,000	Jogjakarta	312,698
Niteroi	271,000	Tsingtao	1,121,000	Darmstadt	139,300	Makassar	384,159
Porto Alegre	822,000	Wenchow	201,600	Dortmund	667,100	Malang	341,452
Recife	1,010,000	Wuhan	2,146,000	Duesseldorf	698,400	Medan	479,095
Rio de Janeiro	3,909,000	China (Taiwan)		Duesseldorf	484,000	Palembang	474,971
Salvador	842,000	Kaohsiung	596,092	Essen	721,200	Semarang	503,153
Santos	307,000	Keelung	728,320	Frankfurt	684,800	Surabaya	1,007,945
Sao Paulo	4,098,000	Taichung	364,262	Gelsenkirchen	367,000	Surakarta	367,626
Bulgaria		Tainan	369,820	Hamburg	851,300	Iran	
Plovdiv	220,600	*Taipei	1,135,500	Hannover	547,800	Abadan	302,189
*Sofia	793,300	Colombia		Heidelberg	124,400	Hamedan	111,610
Varna	177,400	Barranquilla	593,779	Kassel	211,100	Isfahan	339,909
Burma		*Bogota	2,206,091	Kiel	269,100	Meshed	312,186
Mandalay	195,348	Bucaramanga	285,499	Krefeld	223,400	Shiraz	229,761
Moulmein	108,020	Call	815,294	Luebeck	241,800	Tahrir	387,503
*Rangoon	821,800	Cartagena	293,113	Ludwigshafen	177,500	*Tehran	2,317,116
Burundi		Medellin	976,010	Mannheim	329,900	Iraq	
*Bujumbura	71,000	Congo—Brazzaville		Muelheim (Ruhr)	191,200	*Baghdad	1,745,328
Cambodia		*Brazzaville	136,200	Munich	1,231,500	Basrah	313,327
*Phnom-Penh	403,500	Congo, Democratic Rep.		Nuremberg	472,300	Mosul	243,311
Cameroon		Lubumbashi	233,145	Oberhausen	257,900	Ireland	
Douala	200,000	*Kinshasa	507,868	Stuttgart	630,500	Cork	77,980
*Yaounde	101,000	Costa Rica		Wiesbaden	261,100	*Dublin	537,448
Canada		*San Jose	177,969	Wuppertal	422,900	Drogheda	17,085
Calgary, Gr.	330,575	Cuba		Germany (East)		Galway	22,028
Edmonton	376,925	Camaguey	204,254	*Berlin (East)	1,073,647	Kilkenny	10,159
Edmonton, Gr.	401,299	*Havana, Gr.	1,517,700	Chemnitz		Limerick	50,786
Halifax	86,792	Holguin	226,644	Kiel Marx Stadt	293,736	Liverford	28,216
Hamilton	298,121	Marianao	229,576	Dresden	504,910		
Hamilton, Gr.	449,116	Santa Clara	144,630				
Kitchener	93,255	Santiago de Cuba	231,000				
Laval	196,088						
London	194,416						
London, Gr.	207,396						

Israel		Mongolian Rep.		Sierra Leone		Leningrad	3,341,000
Haifa	207,000	*Ulan Bator ..	195,300	*Freetown	148,000	Lugansk	352,000
*Jerusalem ..	195,700	Morocco		Singapore		Lviv	524,000
Ramat Gan ..	105,000	Casablanca ...	1,085,000	*Singapore ...	1,955,600	Magnitogorsk ..	357,000
Tel Aviv-Jaffa ..	389,700	Fez	235,000	Somalia		Maakevka	414,000
Italy		Marrakesh ..	255,000	*Mogadishu ...	170,000	Minsk	805,000
Barl	332,486	Meknes	185,000	So. Africa		*Moscow	6,422,000
Bologna	481,527	*Rabat	355,000	Blancm. Town ..	154,273	*Moscow, Gr. ..	6,507,000
Calania	391,709	Tanger	110,000	*Cape Town ...	808,000	Novokaz-	
Florence	454,858	Tetuan	101,352	Durban	682,000	netsk	493,000
Genoa	845,427	Muscat and Oman		Johannesburg ..	1,244,000	Novosibirsk ..	1,080,000
Messina	263,254	*Muscat	5,080	*Pretoria	423,000	Odessa	797,000
Milan	675,000	Matrah	14,000	Southern Yemen		Omsk	801,000
Naples	1,245,000	Nepal		Aden	150,000	Perm	811,000
Palermo	640,000	*Katmandu ...	122,507	Spain		Riga	691,000
*Rome	2,560,000	Netherlands		Barcelona	1,696,756	Rostov	774,000
Trieste	281,000	*Amsterdam ..	864,940	Bilbao	334,198	Saratov	738,000
Turin	1,108,000	Arnhem	131,193	Cadiz	126,409	Sverdlovsk ...	881,000
Venice	365,000	Eindhoven ..	179,979	Cordoba	214,296	Tashkent	346,000
Verona	236,700	Euschede ..	134,907	Granada	157,980	Tbilisi	861,000
Ivory Coast		Groningen ..	152,594	*Madrid	2,599,330	Tula	377,000
*Abidjan	400,000	The Hague ...	602,448	Murcia	1312,018	Ufa	724,000
Jamaica		Haarlem	171,965	Palma	169,754	Vladivostok ...	397,000
*Kingston	493,619	Rotterdam ...	731,315	Seville	474,082	Volgograd	757,000
Japan		Tilburg	145,591	Valencia	501,795	Voronezh	626,000
Amagasaki ...	500,990	Utrecht	268,583	Zaragoza	357,693	Yaroslavl	508,000
Fukuoka	749,808	New Zealand		Sudan		Zaporozhie ...	616,000
Hakodate	243,418	Auckland	548,300	*Khartoum ...	135,000	Zhigansk	385,000
Hiroshima ...	504,245	Christchurch ..	247,200	Omdurman	167,000	United Arab Republic	
Kawasaki	854,866	Dunedin	108,700	*Wellington ..		(Egypt)	
Kita Kyushu ..	1,042,388	*Wellington ..	282,500	(incl. Hutt) ..		Alexandria	1,800,951
Kobe	1,216,666	Nicaragua		Boras	69,443	Assiut	137,000
Kyoto	1,365,007	*Managua	262,047	Goteborg	443,292	*Calro	4,196,998
Nagasaki	405,479	Niger		Helsingborg ..	79,460	Gizeh	285,700
Nagoya	1,935,430	*Niamey	40,172	Linköping	77,365	Port Said	282,876
Osaka	3,156,222	Nigeria		Malmö	253,502	Suez	264,025
Sapporo	794,908	Ibadan	627,379	Norrköping	94,067	Taata	215,400
Sendai	480,925	Kano	295,432	Orebro	86,003	United Kingdom	
Shizuoka	367,705	*Lagos	665,246	*Stockholm ...	777,115	ENGLAND	
*Tokyo, Gr. ..	11,027,000	Cobomocho ...	343,279	*Stockholm ...		Birmingham ..	1,101,990
Yokohama	1,788,915	Norway		Gr.	1,262,402	Bradford	296,860
Jordan		Bergen	117,000	Uppsala	94,587	Bristol	429,020
*Amman	330,000	*Oslo	483,196	Vasteras	107,048	Coventry	333,830
Kenya		Stravanger ...	79,400	Switzerland		Kingston-upon	
*Nairobi	314,760	Trondheim ...	118,000	Basel	212,100	-Hull	295,900
Korea		Pakistan		*Bern	166,800	Leeds	507,780
Incheon	485,511	Chittagong ...	364,205	Geneva	170,500	Lester	282,800
Pusan	1,419,808	Dacca	556,712	Lausanne	136,600	Liverpool	705,310
Pyongyang ...	653,100	*Islamabad ...	50,000	Zurich	432,500	*London, GR. ..	7,880,760
*Seoul	3,800,000	Karachi	1,912,598	Syria		Manchester	616,520
Taegu	811,406	Lahore	1,296,477	Aleppo	562,753	Newcastle	251,650
Kuwait		Rawalpindi ...	340,175	*Damascus ...	599,669	Nottingham ...	309,740
*Kuwait	99,609	Panama		Hama	135,523	Oxford	109,350
Laos		Colon	64,900	Homs	189,898	Plymouth	267,400
*Luang		*Panama	373,200	Lattakia	85,993	Portsmouth ...	219,110
Prabang	45,000	Paraguay		Tanzania		Sheffield	534,100
*Vientiane ...	138,000	*Asuncion ...	305,160	*Dares Salaam ..	272,515	Stoke-on-	
Lebanon		Concepcion ...	33,886	Tanga	60,935	Trent	275,730
*Beirut	700,000	Encarnacion ..	35,186	Thailand		WALES	
Sidon	50,000	Villarica	30,000	*Bangkok	1,608,305	Barry	42,430
Tripoli	127,611	Peru		Thonburi	459,555	Cardiff	289,320
Lesotho		Arequipa	135,358	Togo Rep.		Merthyr	
*Maseru	14,000	Callao	155,358	*Lome	86,400	Tydnf	57,200
Liberia		Cuzco	671,106	Trinidad and		Swansea	170,940
*Monrovia ...	80,992	*Lima	1,436,231	Tobago		SCOTLAND	
Libya		Philippines		*Port of Spain ..	93,964	Aberdeen	182,117
*Bengazi	137,295	Cebu	299,700	Tunisia		Dundee	182,284
Misurata	63,000	Davao	269,300	Bizerte	46,681	Edinburgh ...	467,986
*Tripoli	213,506	Hoilo	180,900	*Tunis	662,000	Glasgow	960,527
Liechtenstein		Manila	1,356,000	Sfax	65,635	NORTHERN	
*Vaduz	3,966	Manila, Gr. ...	3,100,000	Sousse	48,172	IRELAND	
Luxembourg ..		*Quezon City ..	482,400	Turkey		Belfast	406,800
*Luxembourg ..	77,055	Zamboanga ...	158,000	Adana	290,515	Londonberry ..	56,300
Malagasy Rep.		Poland		*Ankara	1,067,048	Upper Volta	
*Tananarive ..	321,654	Bydgoszcz ...	254,500	Bursa	212,518	*Ouagadougou ..	59,126
Malawi		Gdansk		Istanbul	1,750,642	Uruguay	
Blantyre		(Danzig)	324,300	Izmir	417,411	*Montevideo ...	1,158,632
Limbe	109,795	Krakow	525,000	Uganda		Venezuela	
Malaysia		Lodz	745,400	*Kampala	46,736	Barquisimeto ...	253,820
*Kuala		Poznan	440,700	USSR		*Caracas	1,694,586
Lumpur	316,230	Szczecin		Alma-Ata	668,000	Maracaibo	535,320
Penang	234,930	(Stettin) ...	314,700	Astrakhan	368,000	Valencia	207,942
Maldives Islands		*Warsaw	1,261,300	Baku	1,218,000	Vietnam	
*Male	11,561	Wroclaw		Barnaul	407,000	Haiphong	369,248
*Malta	165,000	(Breslau) ...	477,300	Cheliabinsk ...	851,000	*Hanoi	643,576
*Valletta	17,679	Portugal		Dnepro-		Hue	104,500
Silmes	21,000	Funchal	99,645	petrovsk	837,000	*Saigon	3,000,000
Mauritania ..		*Lisbon	822,000	Donsk	855,000	Da Nang	250,000
*Nouakchott ..	35,000	Porto	319,250	Erevan	687,000	Vinh	150,000
Mauritius		Rhodesia		Frunze	412,000	Western Samoa	
*Port Louis ...	129,700	*Salsbury ...	324,800	Gorky	1,140,000	*Apla	25,000
Mexico		Romania		Gorlovka	343,000	Yemen	
Chihuahua ...	232,000	Arad	115,468	Irkutsk	420,000	Hodeida	45,000
Guadalajara ..	1,138,000	Braila	122,410	Ivanovo	407,000	*Sana	70,000
Juarez	442,000	*Bucharest ...	1,246,878	Izhevsk	376,000	*Talz	40,000
Leon	299,000	Cluj	167,930	Karaganda	505,000	Yugoslavia	
Mexicali	367,000	Timisoara ...	152,552	Kazan	838,000	*Belgrade	585,234
*Mexico	3,118,059	Saudi Arabia		Kemerovo	361,000	Ljubljana	134,169
Mexico, D.F. ..	6,815,800	Jedda	194,000	Khabarovsk ...	435,000	Sarajevo	143,117
Monterrey	908,000	Mecca	185,000	Kharkov	1,148,000	Skopje	165,529
Puebla	369,000	*Riyadh	225,000	Kiev	1,457,000	Zagreb	430,802
San Luis Potosi	198,000	Senegal		Krasnodar	407,000	Zambia	
Torreón	233,000	*Dakar	374,700	Krasnoyarsk ...	592,000	*Lusaka	138,000
Veracruz	200,000			Krivoi Rog	523,000		
				Kulbyshev	1,016,000		

U. S. Aid to Foreign Countries

Source: Office of Business Economics, U. S. Department of Commerce

For security reasons data by country do not include the military aid furnished principally under the mutual security program. Data shown include credits which have been extended to private entities in the country specified.

Grants are largely outright gifts for which no payment is expected or which at most involve an obligation on the part of the receiver to extend aid to the United States or other countries to achieve a common objective.

Credits are loans or other agreements which give rise to specific obligations to repay, over a period of years, usually with interest.

Net grants and credits take into account all known returns to the U. S. Government, including reverse grants, returns of grants and payments of principal. A minus sign indicates that the total of these returns to the U. S. is greater than the total of grants or credits.

Other assistance represents the transfer of U. S. farm products in exchange for foreign currencies, less the Government's disbursement of the currencies as grants, credits, or for purchases. The net acquisitions of currencies represents net transfers of resources to foreign currencies, in addition to those classified as grants or credits.

Amounts do not include investments in international financial institutions as follows: Asian Development Bank (ADB) \$10,000,000; Inter-American Development Bank (IDB), \$65,000,000; International Development Association (IDA) \$119,000,000.

(In millions of dollars or equivalent) (*Less than \$500,000)

Calendar Year 1967	Total	Net grants	Net credits	Net other assist.	Calendar Year 1967	Total	Net grants	Net credits	Net other assist.
Total	4,865	2,766	2,377	-278	Trust Territory of the Pacific Islands	20	20	—	—
Military grants	974	974	—	—	Vietnam	399	543	-48	-95
Other grants, credits & other assistance	3,891	1,792	2,377	-278	Other & unspecified	13	3	—	—
Western Europe	264	11	286	-32	Africa	330	186	158	-15
Austria	-1	—	1	—	Algeria	11	12	-1	—
Belgium-Luxemb'g	-1	—	1	—	Cameroon	3	2	1	—
Finland	-6	—	-5	—	Congo (Kinshasa)	34	9	31	-5
France	-2	(*)	-4	1	Ethiopia	11	10	1	-1
Germany	13	1	13	-1	Ghana	33	5	25	2
Italy	41	(*)	41	—	Guinea	7	3	4	-1
Portugal	-4	3	-6	—	Kenya	2	5	-3	—
Spain	89	3	65	(*)	Liberia	37	11	25	—
United Kingdom	126	—	126	-1	Monrovia	32	14	19	-1
Yugoslavia	-12	17	-32	—	Nigeria	35	27	9	(*)
Other & unspecified	29	(*)	28	—	Sierra Leone	4	4	—	—
Eastern Europe	-23	6	-14	-14	Somali Republic	5	4	1	—
Poland	-14	6	-6	-14	South Africa	-2	—	-2	—
Other	-8	—	-8	—	Sudan	5	6	(*)	-2
Near East & S. Asia	1,435	300	1,238	-104	Tanzania	9	7	2	—
Afghanistan	24	16	9	—	Tunisia	45	9	43	-6
Ceylon	14	4	10	-1	Other & unspecified	58	56	3	-1
Greece	3	4	3	-4	Western Hemisphere	619	219	414	-13
India	835	107	824	-96	Argentina	-20	2	-22	(*)
Iran	18	6	17	-5	Bolivia	25	9	19	-3
Iraq	2	(*)	1	—	Brazil	141	58	87	-4
Israel	25	3	35	-12	Canada	31	—	31	—
Jordan	19	20	(*)	-2	Chile	60	12	42	-4
Nepal	11	11	(*)	—	Colombia	86	18	68	—
Pakistan	321	66	235	20	Costa Rica	12	4	7	—
Turkey	101	16	90	-4	Dominican Republic	60	14	46	(*)
United Arab Rep.	5	8	-3	(*)	Ecuador	27	8	19	—
Yemen	1	1	—	—	El Salvador	11	5	6	—
Other & unspecified	54	38	17	-1	Guatemala	15	8	7	—
East Asia & Pacific	986	819	266	-99	Honduras	6	4	3	—
Australia	153	—	153	—	Jamaica	10	3	7	—
China-Taiwan	38	6	36	-5	Mexico	50	1	49	—
Indonesia	40	4	37	—	Nicaragua	9	4	6	—
Japan	-9	—	-9	—	Panama	17	8	9	—
Korea	193	109	78	6	Paraguay	3	4	(*)	-1
Laos	58	58	—	—	Peru	24	16	9	-2
New Zealand	-6	—	-6	—	Trinidad & Tobago	2	2	-1	—
Philippines	36	23	18	-4	Venezuela	48	7	41	—
Ryukyu Islands	12	11	1	—	Other & unspecified	45	31	14	—
Thailand	39	35	4	—	International institutions & unspecified areas	249	250	-1	—

Major U. S. Foreign Aid, by Type

Source: Office of Business Economics, U. S. Department of Commerce

Grants and credits are generally goods delivered or shipped by services rendered by, or funds disbursed by U. S. Government to or for account of a foreign government. Reverse grants and returns, and principal collections, are comprised of goods, services, and funds received by U. S. Government. Assistance through net accumulation of foreign currency claims represents transfer of U. S. farm products in exchange for foreign currencies, less U. S. disbursements of the currencies as grants, credits, or for purchases.

Type—Post-war period (a)	1945-1967 (In millions)	Type—Post-war period (a)	1945-1967 (In millions)
Total	\$111,874	Gross grants	51,924
Investment in 5 international financial institutions (b)	1,384	Less: Reverse grants and returns	1,877
Under assistance programs, net	110,490	Net new credits (c)	19,373
Military grants (supplies and services), net	37,611	New credits	33,354
Gross grants	38,095	Less: Principal collections	13,981
Less: Reverse grants and returns	484	Other assistance (through net accumulation of foreign currency claims), net	3,259
Other aid, net	72,879	Farm products sales (claims acquired (d))	14,115
Net, new grants (c)	50,247	Less: Currency disbursed	10,855

(a) July 1, 1945, through Dec. 31, 1967. all lend-lease from V-J Day (Sept. 2, 1945) (b) Asian Development Bank, Inter-American Development Bank, International Bank for Reconstruction & Development, International Development Ass'n., and International Finance Corp. (c) Net new grants have not been adjusted for postwar relief and other grants under agreements. Net new credits exclude prior grants converted into credits totaling \$2.74 billion. Repayments on these settlements are included in net new credits. (d) Includes foreign currencies acquired through second stage operations under farm sales legislation, such as principal and interest amounting to \$548,000,000.

WEIGHTS AND MEASURES

Source: National Bureau of Standards, Department of Commerce

Tables of United States Customary Weights and Measures

LINEAR MEASURE

12 inches (in.)	= 1 foot (ft)
3 feet	= 1 yard (yd)
5½ yards	= 1 rod (rd), pole, or perch (16½ ft)
40 rods	= 1 furlong (fur.) = 220 yards = 660 feet
8 furlongs	= 1 statute mile (mi) = 1,760 yards = 5,280 feet
3 miles	= 1 league = 5,280 yards = 15,840 feet
6,076.11549 feet	= 1 International Nautical Mile

AREA MEASURE

Squares and cubes of units are sometimes abbreviated by using "superior" figures. For example, ft² means square foot, and ft³ means cube foot.

144 square inches	= 1 square foot (ft ²)
9 square feet	= 1 square yard (yd ²) = 1,296 square inches
30¼ square yards	= 1 square rod (rd ²) = 272¼ square feet
160 square rods	= 1 acre = 4,840 square yards = 43,560 square feet
640 acres	= 1 square mile (mi ²)
1 mile square	= 1 section (of land)
6 miles square	= 1 township = 36 sections = 36 square miles

CUBIC MEASURE

1,728 cubic inches (in ³)	= 1 cubic foot (ft ³)
27 cubic feet	= 1 cubic yard (yd ³)

GUNTER'S OR SURVEYOR'S CHAIN MEASURE

7.92 inches (in.)	= 1 link
100 links	= 1 chain (ch) = 4 rods = 66 feet
80 chains	= 1 statute mile (mi) = 320 rods = 5,280 feet.

LIQUID MEASURE

When necessary to distinguish the liquid pint or quart from the dry pint or quart, the word "liquid" or the abbreviation "liq" should be used in combination with the name or abbreviation of the liquid unit.

4 gills	= 1 pint (pt) (= 28.875 cubic inches)
2 pints	= 1 quart (qt) (= 57.75 cubic inches)
4 quarts	= 1 gallon (gal) (= 231 cubic inches) = 8 pints = 32 gills

DRY MEASURE

When necessary to distinguish the dry pint or quart from the liquid pint or quart, the word "dry" should be used in combination with the name or abbreviation of the dry unit.

2 pints (pt)	= 1 quart (qt) (= 67.200 6 cub. o inches)
8 quarts	= 1 peck (pk) (= 537.605 cublo inches) = 16 pints
4 pecks	= 1 bushel (bu) (= 2,150.42 cublo inches) = 32 quarts

AVOIRDUPOIS WEIGHT

When necessary to distinguish the avoirdupois ounce or pound from the troy ounce or pound, the word "avoirdupois" or the abbreviation "avdp" should be used in combination with the name or abbreviation of the avoirdupois unit.

(The "grain" is the same in avoirdupois and troy weight.)

27 11/32 grains	= 1 dram (dr)
16 drams	= 1 ounce (oz) = 437½ grains
16 ounces	= 1 pound (lb) = 256 drams = 7,000 grains
100 pounds	= 1 hundredweight (cwt)*
20 hundredweights	= 1 ton = 2,000 pounds*
In "gross" or "long" measure, the following values are recognized:	
112 pounds	= 1 gross or long hundredweight*
20 gross or long hundredweights	= 1 gross or long ton = 2,240 pounds*

*When the terms "hundredweight" and "ton" are used unmodified, they are commonly understood to mean the 100-pound hundredweight and the 2,000-pound ton, respectively; these units may be designated "net" or "short" when necessary to distinguish them from the corresponding units in gross or long measure.

TROY WEIGHT

24 grains	= 1 pennyweight (dwt)
20 pennyweights	= 1 ounce troy (oz t) = 480 grains
12 ounces troy	= 1 pound troy (lb t) = 240 pennyweights = 5,760 grains

Tables of Equivalents

When the name of a unit is enclosed in brackets thus, [1 hand], this indicates (1) that the unit is not in general current use in the United States, or (2) that the unit is believed to be based on "custom and usage" rather than on formal definition. See above about superior figures in Area Measure.

Equivalents involving decimals are, in most instances, rounded off to the third decimal place except where they are exact, in which cases these exact equivalents are so designated.

LENGTHS

	{ 0.1 nanometer (exactly)
	{ 0.000 1 micron (exactly)
1 Angstrom (A).....	{ 0.000 000 1 millimeter (exactly)
	{ 0.000 000 004 inch
1 cable's length.....	{ 120 fathoms
	{ 720 feet
	{ 219.456 meters (exactly)
1 centimeter (cm).....	{ 0.039 37 inch
1 chain (ch) (Gunter's or surveyors).....	{ 66 feet
	{ 20.1168 meters (exactly)
1 chain (engineers).....	{ 100 feet
	{ 30.48 meters (exactly)
1 decimeter (dm).....	{ 3.937 inches
1 dekameter (dam).....	{ 32.808 feet
1 fathom.....	{ 6 feet
	{ 1.8288 meters (exactly)
1 foot (ft).....	{ 0.3048 meters (exactly)
	{ 10 chains (surveyors)
	{ 660 feet
1 furlong (fur.).....	{ 220 yards
	{ ¼ statute mile
	{ 201.168 meters
[1 hand].....	{ 4 inches
1 inch (in.).....	{ 2.54 centimeters (exactly)
1 kilometer (km).....	{ 0.621 mile
	{ 3,280.8 feet
1 league (land).....	{ 3 statute miles
	{ 4.828 kilometers
1 link (Gunter's or surveyors).....	{ 7.92 inches
	{ 0.201 meter

1 link (engineers).....	{ 1 foot
	{ 0.305 meter
1 meter (m).....	{ 39.37 inches
	{ 1.094 yards
1 micron (μ [the Greek letter mu]).....	{ 0.001 millimeter (exactly)
	{ 0.000 039 37 inch
1 mil.....	{ 0.001 inch (exactly)
	{ 0.025 4 millimeter (exactly)
1 mile (mi) (statute or land).....	{ 5,280 feet
	{ 1.609 kilometers
1 International Nautical Mile (INM).....	{ 1.852 kilometers (exactly)
	{ 1.150779 statute miles
	{ 6,076.11549 feet
1 millimeter (mm).....	{ 0.039 37 inch
	{ 0.001 micron (exactly)
1 nanometer (nm).....	{ 0.000 000 039 37 inch (exactly)
1 point (typography).....	{ 0.013 837 inch (exactly)
	{ 0.351 millimeter
1 rod (rd), pole, or perch.....	{ 16½ feet
	{ 5½ yards
	{ 5.029 meters
1 yard (yd).....	{ 0.9144 meter (exactly)

AREAS OR SURFACES

1 acre.....	{ 43,560 square feet
	{ 4,840 square yards
	{ 0.405 hectare
1 are (a).....	{ 119,599 square yards
	{ 0.025 acre

(Tables of Equivalents continued)

1 hectare (ha).....	2.471 acres
1 square (building).....	100 square feet
1 square centimeter (cm ²).....	0.155 square inch
1 square decimeter (dm ²).....	15.500 square inches
1 square foot (ft ²).....	929.030 square centimeters
1 square inch (in. ²).....	6.452 square centimeters
1 square kilometer (km ²).....	247.105 acres
	0.386 square mile
1 square meter (m ²).....	1.196 square yards
	10.764 square feet
1 square mile (mi ²).....	258.999 hectares
1 square millimeter (mm ²).....	0.002 square inch
1 square rod (rd ²), sq pole, or sq perch.....	25.293 square meters
1 square yard (yd ²).....	0.836 square meter

CAPACITIES OR VOLUMES

1 barrel (bbl), liquid.....	31 to 42 gallons*
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*There are a variety of "barrels", established by law or usage. For example: Federal taxes on fermented liquors are based on a barrel of 31 gallons; many State laws fix the "barrel for liquids" as 31½ gallons; one State fixes a 36-gallon barrel for cistern measurement; Federal law recognizes a 40-gallon barrel for "proof spirits"; by custom, 42 gallons comprise a barrel of crude oil or petroleum products for statistical purposes, and this equivalent is recognized "for liquids" by four States.

1 barrel (bbl), standard, for fruits, vegetables, and other dry commodities except cranberries.....	7.056 cubic inches 105 dry quarts 3.231 bushels, struck measure
1 barrel (bbl), standard, cranberry.....	5.826 cubic inches 86 45/64 dry quarts 2.709 bushels, struck measure
1 bushel (bu) (U. S.) (struck measure).....	2,150.42 cubic inches (exactly) 35.238 liters

[1 bushel, heaped (U. S.)]..	2,747.715 cubic inches 1.278 bushels, struck measure
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*Frequently recognized as 1½ bushels, struck measure.

[1 bushel (bu) (British Im- perial) (struck mea- sure)].....	1.032 U. S. bushels, struck measure 2.219.36 cubic inches
1 cord (cd) (firewood).....	128 cubic feet
1 cubic centimeter (cm ³).....	0.061 cubic inch
1 cubic decimeter (dm ³).....	61.023 cubic inches
1 cubic foot (ft ³).....	7.481 gallons 28.317 cubic decimeters

1 cubic inch (in. ³).....	0.554 fluid ounce 4.433 fluid drams 16.387 cubic centimeters
1 cubic meter (m ³).....	1.308 cubic yards
1 cubic yard (yd. ³).....	0.765 cubic meter 8 fluid ounces
1 cup, measuring.....	½ liquid pint

1 dram, fluid (fl dr) (British).....	0.961 U. S. fluid dram 0.217 cubic inch 3.552 milliliters
---	---

1 dekaliter (dal).....	2.642 gallons 1.135 pecks
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1 gallon (gal) (U. S.).....	231 cubic inches 3.785 liters 0.833 British gallon 128 U. S. fluid ounces
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[1 gallon (gal) British Imperial].....	277.42 cubic inches 1.201 U. S. gallons 4.546 liters 160 British fluid ounces
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1 gill.....	7.219 cubic inches 4 fluid ounces 0.118 liter
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1 hectoliter (hl).....	26.418 gallons 2.838 bushels
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1 liter.....	1.057 liquid quarts 0.908 dry quart 61.025 cubic inches
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1 milliliter (ml).....	0.271 fluid dram 16.231 minims 0.061 cubic inch
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1 ounce, liquid (U. S.).....	1.805 cubic inches 29.573 milliliters 1.041 British fluid ounces
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1 ounce, fluid (fl oz) (British).....	0.961 U. S. fluid ounce 1.734 cubic inches 28.412 milliliters
1 peck (pk).....	8.810 liters
1 pint (pt), dry.....	33.600 cubic inches 0.551 liter
1 pint (pt), liquid.....	28.875 cubic inches (exactly) 0.473 liter
1 quart (qt), dry (U. S.).....	67.201 cubic inches 1.101 liters 0.969 British quart
1 quart (qt), liquid..... (U. S.).....	57.75 cubic inches (exactly) 0.946 liter 0.833 British quart
1 quart (qt) (British)]..	69.354 cubic inches 1.032 U. S. dry quarts 1.201 U. S. liquid quarts
1 tablespoon.....	3 teaspoons* 4 fluid drams ½ fluid ounce
1 teaspoon.....	¼ tablespoon* 1½ fluid drams*

*The equivalent "1 teaspoon = 1½ fluid drams" has been found by the Bureau to correspond more closely with the actual capacities of "measuring" and silver teaspoons than the equivalent "1 teaspoon = 1 fluid dram" which is given by a number of dictionaries.

WEIGHTS OR MASSES

1 assay ton** (AT).....	29.167 grams
**Used in assaying. The assay ton bears the same relation to the milligram that a ton of 2000 pounds avoirdupois bears to the ounce troy; hence the weight in milligrams of precious metal obtained from one assay ton of ore gives directly the number of troy ounces to the net ton.	

1 carat (c).....	200 milligrams 3.086 grains
1 dram avoirdupois (dr avdp).....	27 11/32 (= 27.314) grains 1.772 grams

gamma, see microgram

1 grain.....	64.799 milligrams 15.432 grains
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1 gram (g).....	0.035 ounce, avoirdupois 112 pounds 50.802 kilograms
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***The gross or long ton and hundredweight are used commercially in the United States to only a limited extent, usually in restricted industrial fields. These units are the same as the British "ton" and "hundredweight."

1 hundredweight, gross or long*** (gross cwt).....	100 pounds 45.359 kilograms
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1 kilogram (kg).....	2.205 pounds
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1 microgram (μ [the Greek letter gamma]).....	0.000.001 gram (exactly) 0.015 grain
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1 milligram (mg).....	437.5 grains (exactly) 0.911 troy ounce 28.350 grams
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1 ounce, avoirdupois (oz avdp).....	480 grains 1.097 avoirdupois ounces 31.103 grams
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1 ounce, troy (oz t).....	480 grains 1.097 avoirdupois ounces 31.103 grams
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1 pennyweight (dwt).....	7.000 grains 1.555 grams
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1 pound, avoirdupois (lb avdp).....	7,000 grains 1.215 troy pounds 453.592 37 grams (exactly) 5.760 grains
--	---

1 pound, troy (lb t).....	5.760 grains 0.823 avoirdupois pound 373.242 grams
---------------------------	--

1 ton, gross or long* (gross tn).....	2,240 pounds 1.12 net tons (exactly) 1.016 metric tons
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*The gross or long ton and hundredweight are used commercially in the United States to only a limited extent, usually in restricted industrial fields. These units are the same as the British "ton" and "hundredweight."

1 ton, metric (t).....	2,204.623 pounds 0.984 gross ton 1.102 net tons
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1 ton, net or short (sh ton).....	2,000 pounds 0.893 gross ton 0.907 metric ton
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Roman and Arabic Numerals

Source: Historical Records

I.....	1	VI.....	6	XI.....	11	XVI.....	16	XX.....	20	LXXX.....	80	CD.....	400	CM.....	900
II.....	2	VII.....	7	XII.....	12	XVII.....	17	XXI.....	21	LXXXI.....	81	CDI.....	401	CMI.....	901
III.....	3	VIII.....	8	XIII.....	13	XVIII.....	18	XXII.....	22	LXXXII.....	82	CDII.....	402	CMII.....	902
IV.....	4	IX.....	9	XIV.....	14	XIX.....	19	XXIII.....	23	LXXXIII.....	83	CDIII.....	403	CMIII.....	903
V.....	5	X.....	10	XV.....	15	XX.....	20	LXX.....	70	LXXX.....	80	CDIV.....	404	CMIV.....	904

NOTE—A dash line over a numeral multiplies the value by 1,000; thus, $\overline{X}$ =10,000; $\overline{L}$ =50,000; $\overline{C}$ =100,000; $\overline{D}$ =500,000; $\overline{M}$ =1,000,000; $\overline{CLIX}$ =159,000; $\overline{DLIX}$ =559,000.

Other general rules in Roman numerals are as follows: (1), repeating a letter repeats its value— $\overline{XX}$ =20; $\overline{CCC}$ =300; (2), a letter placed after one of greater value adds thereto— $\overline{VI}$ =6; $\overline{DC}$ =600; (3), a letter placed before one of greater value subtracts therefrom— $\overline{IV}$ =4.

Arabic numerals are those now commonly in use—0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

Tables of Interrelation of Units of Measurement

Bold face type indicates exact values

UNITS OF LENGTH

Units	Inches	Links	Feet	Yards	Rods	Chains	Miles	Cm.	Meters
1 inch =		0.126 263	0.083 333	0.027 778	0.005 051	0.001 263	0.000 016	2.54	0.025 4
1 link =	7.92	1	0.66	0.22	0.04	0.01	0.000 125	20.117	0.201 168
1 foot =	12	1.515 152	1	0.333 333	0.060 606	0.015 152	0.000 189	30.48	0.304 8
1 yard =	36	4.545 45	3	1	0.181 818	0.045 455	0.000 568	91.44	0.914 4
1 rod =	198	25	16.5	5.5	1	0.25	0.003 125	502.92	5.029 2
1 chain =	792	100	66	22	4	1	0.012 5	2011.68	20.116 8
1 mile =	63 360	8000	5280	1760	320	80	1	160 934.4	1609.344
1 cm =	0.3937	0.049 710	0.032 808	0.010 936	0.001 988	0.000 497	0.000 006	1	0.01
1 meter =	39.37	4.970 970	3.280 840	1.093 613	0.198 839	0.049 710	0.000 621	100	1

UNITS OF AREA

Units	Square inches	Square links	Square feet	Square yards	Square rods	Square chains
1 sq. inch =		1	0.15 942 3	0.006 944	0.000 771 605	0.000 025 5
1 sq. link =	62.726 4	1	0.435 6	0.048 4	0.001 111 1	0.000 1
1 sq. foot =	144	2.295 684	1	0.111 111 1	0.003 673 09	0.000 229 568
1 sq. yard =	1296	20.661 16	9	1	0.033 057 85	0.002 066 12
1 sq. rod =	39 204	625	272.25	30.25	1	0.062 5
1 sq. chain =	627 264	10 000	4356	484	16	1
1 acre =	6 272 640	100 000	43 560	4840	160	10
1 sq. mile =	4 014 489 600	64 000 000	27 878 400	3 097 600	102 400	6400
1 sq. cm =	0.155 000 3	0.002 471 05	0.001 076	0.000 119 599	0.000 003 954	0.000 000 247
1 sq. meter =	1550.003	24.710 54	10.763 91	1.195 990	0.039 536 86	0.002 471 054
1 hectare =	15 500 031	247.105	107 639.1	11 959.90	395.368 6	24.710.54

Units	Acres	Square miles	Square centimeters	Square meters	Hectares
1 sq. inch =	0.000 000 159 423	0.000 000 000 249 10	6.451 6	0.000 645 16	0.000 000 065
1 sq. link =	0.000 01	0.000 000 015 625	404.685 642 24	0.040 468 56	0.000 004 047
1 sq. foot =	0.000 022 956 84	0.000 000 035 870 06	929.030 4	0.092 903 04	0.000 009 290
1 sq. yard =	0.000 206 611 6	0.000 000 322 830 6	8 361.273 6	0.836 127 36	0.000 083 613
1 sq. rod =	0.006 25	0.000 009 765 625	252 928.526 4	25.292 852 64	0.002 529 285
1 sq. chain =	0.1	0.000 156 25	4 046 856	404.685 642 24	0.040 468 564
1 acre =	1	0.001 562 5	40 468 564	4046.856 422 4	0.404 685 422
1 sq. mile =	640	1	25 899 881 103	2 589 988.11	258.998 811 034
1 sq. centim'r =	0.000 000 024 711	0.000 000 000 038 610	1	0.0001	0.000 000 01
1 sq. meter =	0.000 247 105 4	0.000 000 386 102 2	10 000	1	0.0001
1 hectare =	2.471 054	0.003 861 022	100 000 000	10 000	1

UNITS OF MASS NOT GREATER THAN POUNDS AND KILOGRAMS

Units	Grains	Pennyweights	Avoirdupois Drains	Avoirdupois Ounces
1 grain =		0.041 666 67	0.036 571 43	0.002 285 71
1 pennyweight =	24	1	0.877 714 3	0.054 857 14
1 dram avdp. =	27.343 75	1.139 323	1	0.062 5
1 ounce avdp. =	437.5	18.229 17	16	1
1 ounce troy =	480	20	17.554 29	1.097 143
1 pound troy =	5760	240	210.651 4	13.165 71
1 pound avdp. =	7000	291.666 7	256	16
1 milligram =	0.015 432	0.000 643 015	0.000 564 383	0.000 035 274
1 gram =	15.432 36	0.643 014 9	0.564 383 4	0.035 273 96
1 kilogram =	15 432.36	643.014 9	564.383 4	35.273 96

Units	Troy Ounces	Troy Pounds	Avoirdupois Pounds	Milligrams	Grams	Kilograms
1 grain =	0.002 083 33	0.000 173 611	0.000 142 857	64.798 91	0.064 798 91	0.000 064 799
1 pennyw't =	0.05	0.004 166 667	0.003 428 571	1555.173 84	1.555 173 84	0.001 555 174
1 dram avdp. =	0.056 966 15	0.004 747 179	0.003 906 25	1771.845 195	1.771 845 195	0.001 771 845
1 oz. avdp. =	0.911 458 3	0.075 954 86	0.062 5	28 349.523 125	28.349 523 125	0.028 349 52
1 oz. troy =	1	0.083 333 333	0.068 571 43	31.103 476 8	31.103 476 8	0.031 103 48
1 lb. troy =	12	1	0.822 857 1	373 241.721 6	373.241 721 6	0.373 241 722
1 lb. avdp. =	14.583 33	1.215 278	1	453 592.37	453.592 37	0.453 592 37
1 milligram =	0.000 032 151	0.000 002 679	0.000 002 205	1	0.001	0.000 001
1 gram =	0.032 150 75	0.002 679 229	0.002 204 623	1000	1	0.001
1 kilogram =	32.150 75	2.679 229	2.204 623	1000 000	1000	1

UNITS OF MASS NOT LESS THAN AVOIRDUPOIS OUNCES

Units	Avdp. Ounces	Avdp. Pounds	Short Cwt.	Short Tons	Long Tons	Kilograms	Metric Tons
1 oz. av. =	1	0.0625	0.000 625	0.000 031 25	0.000 027 902	0.028 349 523	0.000 028 350
1 lb. av. =	16	1	0.01	0.0005	0.000 446 429	0.453 592 37	0.000 453 592
1 sh. cwt. =	1 600	100	1	0.05	0.044 642 86	45.359 237	0.045 359 237
1 sh. ton =	32 000	2000	20	1	0.892 857 1	907.184 74	0.907 184 74
1 long ton =	35 840	2240	22.4	1.12	1	1016.046 908 8	1.016 046 909
1 kg. =	35.273 96	2.204 623	0.022 046 23	0.001 102 311	0.000 094 207	1	0.001
1 metric ton =	35 273.96	2204.623	22.046 23	1.102 311	0.984 206 5	1000	1

UNITS OF VOLUME

Units	Cubic inches	Cubic feet	Cubic yards	Cubic centimeters	Cubic decimeters	Cubic meters
1 cubic inch =		0.000 578 704	0.000 021 433	16.387 064	0.016 387	0.000 016 387
1 cubic foot =	1728	1	0.037 037 04	28 316 846 592	28.316 847	0.028 316 847
1 cubic yard =	46 656	27	1	764 554.857 984	764.554 858	0.764 554 858
1 cubic cm =	0.061 023 74	0.000 035 315	0.000 001 305	1	0.001	0.000 001
1 cubic dm =	61.023 74	0.035 314 67	0.001 307 951	1 000	1	0.001
1 cubic meter =	61 023.74	35.314 67	1.307 951	1 000 000	1000	1

UNITS OF CAPACITY (Liquid Measure)

Units	Minims	Fluid drams	Fluid ounces	Gills	Liquid pt.
1 minim	1	0.016 666 7	0.002 083 33	0.000 520 833	0.000 130 208
1 liquid dram	60	1	0.125	0.031 25	0.007 812 5
1 liquid ounce	480	8	1	0.25	0.062 5
1 gill	1920	32	4	1	0.25
1 liquid pint	7680	128	16	4	1
1 liquid quart	15 360	256	32	8	2
1 gallon	61 440	1024	128	32	8
1 cubic inch	265.974	4.432 900	0.554 112 6	0.138 528 1	0.034 632 03
1 cubic foot	459 603.1	7660.052	957.506 5	239.376 6	59.844 16
1 milliliter	16.230 73	0.270 512 18	0.033 814 02	0.008 453 506	2.002 113 376
1 liter	16 230.73	270.512 18	33.814 02	8.453 506	2113 376

Units	Liquid quarts	Gallons	Cubic inches	Cubic feet	Liters
1 minim	0.000 065 104 17	0.000 016 276 04	0.003 759 766	0.000 002 175 790	0.000 061 611 52
1 liq. dram	0.003 906 25	0.000 976 562 5	0.225 585 9	0.000 130 547 4	0.003 695 691
1 liquid oz.	0.031 25	0.007 812 5	1.804 687 5	0.001 044 379	0.029 573 53
1 gill	0.125	0.031 25	7.218 75	0.004 177 517	0.118 294 118 25
1 liquid pt.	0.5	0.125	28.875	0.016 710 07	0.473 176 473
1 liquid qt.	1	0.25	57.75	0.033 420 14	0.946 352 946
1 gallon	4	1	231	0.133 680 6	3.785 411 784
1 cubic in.	0.017 316 02	0.004 329 004	1	0.000 578 703 7	0.016 387 064
1 cubic foot	29.922 08	7.480 519	1728	1	28.316 846 592
1 liter	1.056 688	0.264 172 05	61.023 74	0.035 314 67	1

UNITS OF CAPACITY (Dry Measure)

Units	Dry pints	Dry quarts	Pecks	Bushels	Cubic inches	Liters
1 dry pint	1	0.5	0.062 5	0.015 625	33.600 312 5	0.550 610 47
1 dry quart	2	1	0.125	0.031 25	67.200 625	1.101 220 9
1 peck	16	8	1	0.25	537.600	8.809 767 5
1 bushel	64	32	4	1	2150.42	35.239 07
1 cubic inch	0.029 761 6	0.014 880 8	0.001 860 10	0.000 465 025	1	0.016 387 064
1 liter	1.816 166	0.908 083	0.113 510 37	0.028 377 59	61.023 74	1

Tables of Metric Weights and Measures

LINEAR MEASURE

10 millimeters (mm)	= 1 centimeter (cm)
10 centimeters	= 1 decimeter (dm) = 100 millimeters
10 decimeters	= 1 meter (m) = 1,000 millimeters
10 meters	= 1 dekameter (dam)
10 dekameters	= 1 hectometer (hm) = 100 meters
10 hectometers	= 1 kilometer (km) = 1,000 meters

AREA MEASURE

100 square millimeters (mm ²)	= 1 square centimeter (cm ²)
10,000 square centimeters	= 1 square meter (m ²) = 1,000,000 square millimeters
100 square meters	= 1 are (a)
100 ares	= 1 hectare (ha) = 10,000 square meters
100 hectares	= 1 square kilometer (km ²) = 1,000,000 square meters

VOLUME MEASURE

10 milliliters (ml)	= 1 centiliter (cl)
10 centiliters	= 1 deciliter (dl) = 100 milliliters

10 deciliters	= 1 liter (l) = 1,000 milliliters
10 liters	= 1 dekaliter (dal)
10 dekaliters	= 1 hectoliter (hl) = 100 liters
10 hectoliters	= 1 kiloliter (kl) = 1,000 liters

CUBIC MEASURE

1,000 cubic millimeters (mm ³)	= 1 cubic centimeter (cm ³)
1,000 cubic centimeters	= 1 cubic decimeter (dm ³) = 1,000,000 cubic millimeters
1,000 cubic decimeters	= 1 cubic meter (m ³) = 1 ster e = 1,000,000 cubic centimeters = 1,000,000,000 cubic millimeters

WEIGHT

10 milligrams (mg)	= 1 centigram (cg)
10 centigrams	= 1 decigram (dg) = 100 milligrams
10 decigrams	= 1 gram (g) = 1,000 milligrams
10 grams	= 1 dekagram (dag)
10 dekagrams	= 1 hectogram (hg) = 100 grams
10 hectograms	= 1 kilogram (kg) = 1,000 grams
1,000 kilograms	= 1 metric ton (t)

Special Terms Used in Metric System

In the metric system of weights and measures, designations of multiples and subdivisions of any unit may be arrived at by combining with the name of the unit the prefixes deka, hecto, kilo, mega, giga, and tera, meaning, respectively, 10, 100, 1,000, 1,000,000, 1,000,000,000, and 1,000,000,000,000, and deci, centi, milli, micro, nano, pico, femto and atto, meaning, respectively, one-tenth, one-hundredth, one-thousandth, one-millionth, one-billionth, one-trillionth, one-quadrillionth and one-quintillionth. In some of the foregoing metric tables some such multiples and subdivisions have not been included for the reason that these have little, if any, currency.

A special case is found in the term "micron" (abbreviated as μ [the Greek letter mu]), a coined word meaning one-millionth of a meter) equivalent

to one-thousandth of a millimeter; a milli-micron (m μ) is a billionth of a meter and hence should always be designated as a nanometer, and a micromicron (abbreviated as $\mu\mu$) which is a trillionth of a meter and hence should always be designated as a picometer.

In October, 1960, the Eleventh General (International) Conference on Weights and Measures redefined the meter as 1 650 763.73 wavelengths of the orange-red radiation in vacuum of krypton 86 corresponding to the unperturbed transition between the $2p_{10}$ and $5d_5$ levels. The platinum-iridium meter bars formerly used as standards will remain important because of the ease with which they can be used for certain types of measurements.

Weight of Water

Source: National Bureau of Standards

1	cubic inch	0.0360	pound	1	imperial gallon	10.0	pounds
12	cubic inches	.433	pound	11.2	imperial gallons	112.0	pounds
1	cubic foot	62.4	pounds	224	imperial gallons	2240.0	pounds
1	cubic foot	7.48052	U. S. gals.	1	U. S. gallon	8.33	pounds
1.8	cubic feet	112.0	pounds	13.45	U. S. gallons	112.0	pounds
35.96	cubic feet	2240.0	pounds	269.0	U. S. gallons	2240.0	pounds

Squares, Square Roots, Cubes and Cube Roots of Nos. 1 to 100

No.	Sq.	Cube	Sq. Root	Cube Root	No.	Sq.	Cube	Sq. Root	Cube Root	No.	Sq.	Cube	Sq. Root	Cube Root
1	1.000	1.000	1.000	1.000	35	1225	42875	5.916	3.271	68	4624	314432	8.246	4.081
2	4	8	1.414	1.259	36	1296	46656	6.000	3.301	69	4761	328509	8.306	4.121
3	9	27	1.732	1.442	37	1369	50653	6.082	3.332	70	4900	343000	8.366	4.161
4	16	64	2.000	1.587	38	1444	54872	6.164	3.362	71	5041	357911	8.426	4.140
5	25	125	2.246	1.710	39	1521	59319	6.245	3.391	72	5184	373248	8.485	4.160
6	36	216	2.449	1.817	40	1600	64000	6.324	3.420	73	5329	389017	8.544	4.179
7	49	343	2.645	1.913	41	1681	68921	6.403	3.448	74	5476	405224	8.602	4.198
8	64	512	2.828	2.000	42	1764	74088	6.480	3.476	75	5625	421875	8.660	4.217
9	81	729	3.000	2.080	43	1849	79507	6.557	3.503	76	5776	438976	8.717	4.235
10	100	1000	3.162	2.154	44	1936	85184	6.633	3.530	77	5929	456533	8.775	4.254
11	121	1331	3.316	2.224	45	2025	91125	6.708	3.556	78	6084	474552	8.831	4.272
12	144	1728	3.464	2.289	46	2116	97336	6.782	3.583	79	6241	493039	8.888	4.290
13	169	2197	3.605	2.351	47	2209	103823	6.855	3.608	80	6400	512000	8.944	4.308
14	196	2744	3.741	2.410	48	2304	110592	6.928	3.634	81	6561	531441	9.000	4.326
15	225	3375	3.873	2.466	49	2401	117649	7.000	3.659	82	6724	551368	9.055	4.344
16	256	4096	4.000	2.519	50	2500	125000	7.071	3.684	83	6889	571787	9.110	4.362
17	289	4913	4.123	2.571	51	2601	132651	7.141	3.708	84	7056	592704	9.165	4.379
18	324	5832	4.242	2.620	52	2704	140608	7.211	3.732	85	7225	614125	9.219	4.396
19	361	6859	4.358	2.668	53	2809	148877	7.280	3.756	86	7396	636056	9.273	4.414
20	400	8000	4.472	2.714	54	2916	157464	7.348	3.779	87	7569	658503	9.327	4.431
21	441	9261	4.582	2.758	55	3025	166375	7.416	3.803	88	7744	681472	9.380	4.448
22	484	10648	4.690	2.802	56	3136	175616	7.483	3.825	89	7921	704969	9.434	4.464
23	529	12167	4.795	2.843	57	3249	185193	7.549	3.848	90	8100	729000	9.486	4.481
24	576	13824	4.899	2.884	58	3364	195112	7.615	3.870	91	8281	753577	9.538	4.497
25	625	15625	5.000	2.924	59	3481	205379	7.681	3.893	92	8464	778688	9.591	4.514
26	676	17576	5.099	2.962	60	3600	216000	7.746	3.914	93	8649	804357	9.643	4.530
27	729	19683	5.196	3.000	61	3721	226981	7.810	3.936	94	8836	830584	9.695	4.546
28	784	21952	5.291	3.036	62	3844	238328	7.874	3.957	95	9025	857375	9.746	4.562
29	841	24389	5.385	3.072	63	3969	250047	7.937	3.979	96	9216	884736	9.798	4.578
30	900	27000	5.477	3.107	64	4096	262144	8.000	4.000	97	9409	912673	9.848	4.594
31	961	29791	5.567	3.141	65	4225	274625	8.062	4.020	98	9604	941192	9.899	4.610
32	1024	32768	5.656	3.174	66	4356	287496	8.124	4.041	99	9801	970299	9.949	4.626
33	1089	35937	5.744	3.207	67	4489	300763	8.185	4.061	100	10000	1000000	10.000	4.641
34	1156	39304	5.831	3.239										

Square Roots and Cube Roots, 1000 to 2000

No.	Square Root	Cube Root	No.	Square Root	Cube Root	No.	Square Root	Cube Root	No.	Square Root	Cube Root
1000	31.62	10.00	1255	35.43	10.79	1510	38.86	11.47	1765	42.01	12.09
1005	31.70	10.02	1260	35.50	10.80	1515	38.92	11.49	1770	42.07	12.10
1010	31.78	10.03	1265	35.57	10.82	1520	38.99	11.50	1775	42.13	12.11
1020	31.94	10.07	1275	35.71	10.84	1530	39.12	11.52	1785	42.25	12.13
1025	32.02	10.08	1280	35.78	10.86	1535	39.18	11.54	1790	42.31	12.14
1030	32.09	10.10	1285	35.85	10.87	1540	39.24	11.55	1795	42.37	12.15
1035	32.17	10.12	1290	35.92	10.89	1545	39.31	11.56	1800	42.43	12.16
1045	32.33	10.15	1300	36.06	10.91	1555	39.43	11.59	1810	42.54	12.19
1050	32.40	10.16	1305	36.12	10.93	1560	39.50	11.60	1815	42.60	12.20
1060	32.56	10.20	1315	36.28	10.96	1570	39.62	11.62	1825	42.72	12.22
1065	32.63	10.21	1320	36.33	10.97	1575	39.69	11.63	1830	42.78	12.23
1075	32.79	10.24	1330	36.47	11.00	1585	39.81	11.66	1840	42.90	12.25
1080	32.86	10.26	1335	36.54	11.01	1590	39.87	11.67	1845	42.95	12.26
1085	32.94	10.28	1340	36.61	11.02	1595	39.94	11.68	1850	43.01	12.28
1090	33.02	10.29	1345	36.67	11.04	1600	40.00	11.70	1855	43.07	12.29
1095	33.09	10.31	1350	36.74	11.05	1605	40.06	11.71	1860	43.13	12.30
1100	33.17	10.32	1355	36.81	11.07	1610	40.12	11.72	1865	43.19	12.31
1105	33.24	10.34	1360	36.88	11.08	1615	40.19	11.73	1870	43.24	12.32
1110	33.32	10.35	1365	36.95	11.09	1620	40.25	11.74	1875	43.30	12.33
1115	33.39	10.37	1370	37.01	11.11	1625	40.31	11.75	1880	43.36	12.34
1120	33.47	10.38	1375	37.08	11.12	1630	40.37	11.77	1885	43.42	12.35
1125	33.54	10.40	1380	37.15	11.13	1635	40.44	11.78	1890	43.47	12.36
1130	33.62	10.42	1385	37.22	11.15	1640	40.50	11.79	1895	43.53	12.37
1135	33.69	10.43	1390	37.28	11.16	1645	40.56	11.80	1900	43.59	12.39
1140	33.76	10.45	1395	37.35	11.17	1650	40.62	11.82	1905	43.65	12.40
1145	33.84	10.46	1400	37.42	11.19	1655	40.68	11.83	1910	43.70	12.41
1150	33.91	10.48	1405	37.48	11.20	1660	40.74	11.84	1915	43.76	12.42
1155	33.99	10.49	1410	37.55	11.21	1665	40.80	11.85	1920	43.82	12.43
1160	34.06	10.51	1415	37.62	11.23	1670	40.87	11.86	1925	43.87	12.44
1165	34.13	10.52	1420	37.68	11.24	1675	40.93	11.88	1930	43.93	12.45
1170	34.21	10.54	1425	37.75	11.25	1680	40.99	11.89	1935	43.99	12.46
1175	34.28	10.55	1430	37.82	11.27	1685	41.05	11.90	1940	44.05	12.47
1180	34.35	10.57	1435	37.88	11.28	1690	41.11	11.91	1945	44.10	12.48
1185	34.42	10.58	1440	37.95	11.29	1695	41.17	11.92	1950	44.16	12.49
1190	34.50	10.60	1445	38.01	11.31	1700	41.23	11.93	1955	44.22	12.50
1195	34.57	10.61	1450	38.08	11.32	1705	41.29	11.95	1960	44.27	12.51
1200	34.64	10.63	1455	38.14	11.33	1710	41.35	11.96	1965	44.33	12.53
1205	34.71	10.64	1460	38.21	11.34	1715	41.41	11.97	1970	44.38	12.54
1210	34.79	10.66	1465	38.28	11.36	1720	41.47	11.98	1975	44.44	12.55
1215	34.86	10.67	1470	38.34	11.37	1725	41.53	11.99	1980	44.50	12.56
1220	34.93	10.69	1475	38.41	11.38	1730	41.59	12.00	1985	44.55	12.57
1225	35.00	10.70	1480	38.47	11.40	1735	41.65	12.02	1990	44.61	12.58
1235	35.14	10.73	1490	38.60	11.42	1745	41.77	12.04	1995	44.67	12.59
1245	35.28	10.76	1500	38.73	11.45	1755	41.89	12.06	2000	44.72	12.60

Simple Interest Table

Time	4%	5%	6%	7%	8%	Time	4%	5%	6%	7%	8%
\$1.00 1 month.....	\$.003	\$.004	\$.005	\$.005	\$.006	\$100.00 4 days.....	\$.045	\$.053	\$.066	\$.077	\$.089
" 2 months.....	.007	.008	.010	.011	.013	" 5 ".....	.056	.069	.082	.097	.111
" 3 ".....	.010	.013	.015	.017	.020	" 6 ".....	.067	.083	.100	.116	.133
" 6 ".....	.020	.025	.030	.035	.040	" 1 month.....	.334	.416	.500	.583	.667
" 12 ".....	.040	.050	.060	.070	.080	" 2 months.....	.667	.832	1.000	1.166	1.333
\$100.00 1 day.....	.011	.013	.016	.019	.022	" 3 ".....	1.000	1.250	1.500	1.750	2.000
" 2 days.....	.022	.027	.032	.038	.044	" 6 ".....	2.000	2.500	3.000	3.500	4.000
" 3 ".....	.034	.041	.050	.058	.067	" 12 ".....	4.000	5.000	6.000	7.000	8.000

Mathematical Formulas

To find the CIRCUMFERENCE of a:

Circle—Multiply the diameter by 3.14159265 (usually 3.1416).

To find the AREA of a:

Circle—Multiply the square of the diameter by .785398 (usually .7854).

Rectangle—Multiply the length of the base by the height.

Sphere (surface)—Multiply the square of the radius by 3.1416 and multiply by 4.

Square—Square the length of one side.

Trapezoid—Add the two parallel sides, multiply by the height and divide by 2.

Triangle—Multiply the base by the height and divide by 2.

To find the VOLUME of a:

Cone—Multiply the square of the radius of the base by 3.1416, multiply by the height, and divide by 3.

Cube—Cube the length of one edge.

Cylinder—Multiply the square of the radius of the base by 3.1416 and multiply by the height.

Pyramid—Multiply the area of the base by the height and divide by 3.

Rectangular Prism—Multiply the length by the width by the height.

Sphere—Multiply the cube of the radius by 3.1416, multiply by 4 and divide by 3.

Common Fractions Reduced to Decimals

8ths	16ths	32ds	64ths		8ths	16ths	32ds	64ths		8ths	16ths	32ds	64ths	
		1	.015625		3	6	12	23	.359375			23	45	.703125
		2	.03125					24	.375			24	46	.71875
	1	2	.046875				13	25	.390625	6	12	24	47	.734375
		3	.0625				14	26	.40625			25	48	.75
		4	.078125			7	14	27	.421875			26	49	.765625
		5	.09375					28	.4375			27	50	.78125
1	2	4	.109375				15	29	.453125			28	51	.796875
		6	.125				16	30	.46875			29	52	.8125
		7	.140625		4	8	16	31	.484375			30	53	.828125
		8	.15625					32	.5			31	54	.84375
		9	.171875				17	33	.515625			32	55	.859375
		10	.1875				18	34	.53125	7	14	28	56	.875
		11	.203125				19	35	.546875			29	57	.890625
		12	.21875			9	18	36	.5625			30	58	.90625
2	4	8	.234375					37	.578125			31	59	.921875
		9	.25				19	38	.59375			32	60	.9375
		10	.265625				20	39	.609375			33	61	.953125
		11	.28125		5	10	20	40	.625			34	62	.96875
		12	.296875					41	.640625			35	63	.984375
		13	.3125				21	42	.65625	8	16	32	64	1.
		14	.328125					43	.671875					
		15	.34375				22	44	.6875					

Multiplication and Division Table

A number in the top line (19) multiplied by a number in the last column on the left (18) produces the number where the top line and the side line meet (342), and so on throughout the table.

A number in the table (342) divided by the number at the top of that column (19) results in the number (18) at the extreme left; also, a number in the table (342) divided by the number (18) at the extreme left gives the number (19) at the top of the column, and so on throughout the table.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	1
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	2
3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75	3
4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96	100	4
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	5
6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	6
7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	161	168	175	7
8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160	168	176	184	192	200	8
9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180	189	198	207	216	225	9
10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	10
11	22	33	44	55	66	77	88	99	110	121	132	143	154	165	176	187	198	209	220	231	242	253	264	275	11
12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288	300	12
13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260	273	286	299	312	325	13
14	28	42	56	70	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280	294	308	322	336	350	14
15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360	375	15
16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336	352	368	384	400	16
17	34	51	68	85	102	119	136	153	170	187	204	221	238	255	272	289	306	323	340	357	374	391	408	425	17
18	36	54	72	90	108	126	144	162	180	198	216	234	252	270	288	306	324	342	360	378	396	414	432	450	18
19	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380	399	418	437	456	475	19
20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500	20
21	42	63	84	105	126	147	168	189	210	231	252	273	294	315	336	357	378	399	420	441	462	483	504	525	21
22	44	66	88	110	132	154	176	198	220	242	264	286	308	330	352	374	396	418	440	462	484	506	528	550	22
23	46	69	92	115	138	161	184	207	230	253	276	299	322	345	368	391	414	437	460	483	506	529	552	575	23
24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480	504	528	552	576	600	24
25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	25
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		

Electrical Units

Source: National Bureau of Standards

The watt is the unit expressing electrical power as horsepower (hp) represents power in mechanics; it is equal to the product of the volts (pressure) times amperes—(rate of flow). Thus, 2 volts times 2 amperes would give in a direct current circuit 4 watts.

A kilowatt is equal to 1,000 volts. A kilowatt is equal to 1,000 watts. A megawatt is equal to 1,000,000 watts.

Electrical energy is sold at so much per watt hour or more generally at a given amount per kilowatt hour—which means 1,000 watt hours.

This may represent 1 watt for 1,000 hours or 1,000 watts for 1 hour. 746 watts are equal to one horsepower or inversely 1 kilowatt (kw) is equal to about 1½ horsepower.

The horsepower represents the power required to lift a weight of 33,000 pounds 1 foot in 1 minute or 550 pounds 1 foot in 1 second.

The ohm is the unit of electrical resistance and represents the physical property of a conductor which offers a resistance to the flow of electricity, permitting just 1 ampere to flow at 1 volt of pressure.

Foreign Weights and Measures

Exclusive of the Metric System, which is used by many foreign countries, and for which see page 584
Source: National Bureau of Standards, Department of Commerce

Denominations	Where Used	American Equivalents	Denominations	Where Used	American Equivalents
Almude.....	Portugal.....	4.423 gal	Kwan.....	Japan.....	8.2673 lb
Ardeb.....	Egypt.....	5.6189 bu	Last.....	Belgium, Holland.....	85.134 bu
Arratel (Libra)	Portugal.....	1.012 lb	".....	England.....	82.56 bu
Arroba.....	Argentina.....	25.32 lb	".....	Germany.....	2 metric tons
".....	Brazil.....	32.38 lb	".....	Prussia.....	112.29 bu
".....	Cuba.....	25.36 lb	League (land).....	Paraguay.....	4.633 acres
".....	Paraguay.....	25.32 lb	Li.....	China.....	1890 ft
".....	Venezuela.....	25.40 lb	".....	China.....	0.01260 in (1-1000 ch'ih
" (liquid)	Cuba, Spain and Venezuela.....	4.263 gal	Libra (lb).....	Argentina.....	1.0128 lb
Arshine.....	U.S.S.R.....	28 in	".....	Central America.....	1.014 lb
" (sq.).....	".....	5.44 sq ft	".....	Chile.....	1.014 lb
Artel.....	Morocco.....	1.12 lb	".....	Cuba.....	1.0143 lb
Baril.....	Argentina.....	20.077 gal	".....	Mexico.....	1.01467 lb
".....	and Mexico.....	20.0787 gal	".....	Peru.....	1.0143 lb
Barle (wine).....	Malta.....	11.2 gal	".....	Truguay.....	1.0127 lb
Berkovets.....	U.S.S.R.....	361.128 lb	".....	Venezuela.....	1.0143 lb
Bongkal.....	Fed. Malay States.....	832 grains	Load, timber.....	England.....	50 cu ft
Bow.....	Sumatra.....	7.096.5 sq meter	Manzana.....	Nicaragua.....	1.742 acres
Bu.....	Japan.....	0.12 inch	".....	Costa Rica.....	1.727 acres
Bushel.....	British.....	1.03205 U. S. bu	".....	Salvador.....	1.727 acres
Caballeria.....	Cuba.....	33,162 acres	Marco.....	Bolivia.....	0.507 lb
".....	".....	2.13 bu	Maund.....	Bengal.....	82.2/7 lb
Caban (cavan).....	Philippines.....	19.8 gal	Mill.....	Denmark.....	4.68 miles
Cafiso.....	Malta.....	5.40 gal	" (geographic).....	Denmark.....	4.6036 miles
Candy.....	Bombay.....	560 lb	Milla.....	Nicaragua.....	1.594 miles
".....	India (Madras).....	500 lb	".....	Honduras.....	1.1493 miles
Cantaro.....	Malta.....	175 lb	Mina.....	Greece.....	0.95 lb
Carat (metric).....	World.....	3.086 grains	Morgen.....	Germany.....	0.63 acre
Catty.....	China.....	1.333 1/2 lb	Oka (Oke).....	Greece.....	2.82 lb
" (see Kin).....	Japan.....	".....	Oke.....	Egypt.....	2.7514 lb
".....	Java, Malacca.....	1.36 lb	".....	Turkey.....	2.826 lb
".....	Siam.....	2 1/2 lb	Pic.....	Egypt.....	22.83 inches
" (stand).....	Siam.....	1.32 lb	Picul.....	Borneo—Celebes.....	135.64 lb
".....	Sumatra.....	2.12 lb	".....	China.....	132 1/2 lb
Centaro.....	Central America.....	4.2631 gal	".....	Java.....	136.16 lb
Centner.....	Brunswick.....	117.5 lb	".....	Philippines.....	139.44 lb
".....	Bremen.....	127.5 lb	Pic.....	Argentina.....	0.9471 ft
".....	Denmark, Norway.....	110.23 lb	".....	Spain.....	0.91416 ft
".....	Germany.....	113.44 lb	Pik.....	Turkey.....	27.9 inches
".....	Sweden.....	93.7 lb	Pood.....	Russia.....	36.113 lb
Chetvert.....	U.S.S.R.....	5.957 bu	Pund (lb).....	Denmark.....	1.102 lb
Ch'ih.....	China.....	2.60 lb	Quart.....	British.....	1.20094 liq qt
" (metric).....	China.....	33.37 in = 1 meter	".....	".....	0.93205 dry qt
Cho.....	Japan.....	2.451 lb	Quarter.....	".....	8.256 bu
Coomb.....	England.....	4.1282 bu	Quintal.....	Argentina.....	101.3 lb
Coyan.....	Siam.....	2,645.5 lb	".....	Brazil.....	129.54 lb
Cuadra.....	Argentina.....	4.2 acres	".....	Castile, Peru.....	101.43 lb
".....	Paraguay.....	94.71 yd	".....	Chile.....	101.43 lb
" (sq.).....	Paraguay.....	1.85 acres	".....	Mexico.....	101.47 lb
".....	Uruguay.....	1.82 acres	".....	Palestine.....	6.35 lb
Cwt. (hund. weight).....	British.....	112 lb	Rotl.....	U.S.S.R.....	7 feet
Desiatine.....	U.S.S.R.....	2.6997 acres	Sagene.....	Malta.....	8.26 bu
Drachma.....	Greece.....	49.38 grains	Salm.....	Japan.....	0.02451 acre
Dunam.....	Palestine.....	0.22239 acre	Seer.....	India.....	2.2-35 lb
Fanega (dry).....	Ecuador, Salvador.....	1.5745 bu	Shaku.....	Japan.....	11.9303 in
".....	Chile.....	2.75268 bu	Sho.....	".....	1.91 liq qt
" (dry).....	Guatemala, Spain.....	1.57744 bu	Skalpund.....	Sweden.....	0.937 lb
".....	Mexico.....	2.57716 bu	Stone.....	British.....	14 lb
" (dry).....	Spain.....	1.57501 bu	Sun.....	Japan.....	1.193 inches
" (liquid).....	Spain.....	1.57501 bu	Tael (Kuping).....	China.....	575.64 grs (troy)
" (dry).....	Trinidad & Tobago.....	56 gal	Tan.....	Japan.....	0.25 acre
" (double).....	Uruguay.....	7.776 bu	Tan.....	Japan.....	2.05 pecks
" (single).....	Uruguay.....	3.888 bu	Tonde (cereal).....	Denmark.....	3.9480 bu
".....	Venezuela.....	3.334 bu	Tonde (land).....	Denmark.....	1.36 acres
Feddan.....	Egypt.....	1.04 acres	Tonne.....	France.....	2204.62 lb
Frail (raisins).....	Spain.....	50 lb	Tsubo.....	Japan.....	35.58 sq ft
Frasco.....	Argentina.....	2.51 liq qt	Ts'un.....	China.....	1.26 inches
Frasila.....	Zanzibar.....	35 lb	Tunna (wheat).....	Sweden.....	4.16 bu
Fuder.....	Luxemburg.....	264.18 gal	Tunmland.....	".....	1.22 acres
Funt.....	U.S.S.R.....	0.9028 lb	Vars.....	Argentina.....	34.0944 inches
Gallon.....	British.....	1.20094 U. S. gal	".....	Costa Rica.....	32.913 inches
Garniec.....	Poland.....	1.0567 gal	".....	Salvador.....	32.913 inches
Jerib.....	Iran.....	2.471 acres	".....	Guatemala.....	32.909 inches
Joch.....	Austria.....	1.422 acres	".....	Honduras.....	32.874 inches
".....	Hungary.....	1.067 acres	".....	Nicaragua.....	33.057 inches
Kantar.....	Egypt.....	99.05 lb	".....	Chile and Peru.....	32.913 inches
".....	Morocco.....	112 lb	".....	Cuba.....	33.886 inches
".....	Turkey.....	124.45 lb	".....	Mexico.....	32.992 inches
Ken.....	Japan.....	5.97 feet	Vedro.....	U.S.S.R.....	0.249 gal
Kin.....	Japan.....	1.32 lb	Vloka.....	".....	0.663 mile
Klafter.....	Austria.....	2.074 yd	Wey.....	Poland.....	41.50 acres
Klafter.....	Germany.....	1.90 yd	".....	Scotland.....	40 bu
Koku.....	Japan.....	5.119 bu	".....	Ireland.....	40 bu

The metric carat of 200 milligrams is now very generally in use. The word carat also is used to denote the proportion of alloy in a metal. Thus, pure gold is 24 carats fine.

Knots and Miles: Nautical Measures

Source: Coast and Geodetic Survey (ESSA)

A Knot is a measure of speed, one knot being a speed of one nautical mile an hour.

The U. S. Statute Mile is 5,280 feet. In Europe, the old miles, which varied in length from about 3,300 feet to over 36,000 feet, have been mostly replaced, officially at least, by the kilometer, which equals 0.6214 statute mile or 3,280.8 feet.

The International Nautical Mile is 1,852 meters or 6,076.1155 feet; this distance is equivalent to 1.150779 statute miles.

To convert statute miles into international

nautical miles multiply statute miles by 0.868976; to convert international nautical miles into statute miles multiply nautical miles by 1.150779 or 1 1/7.

A Nautical, Geographic, or Sea Mile at any place is considered, for purposes of navigation, to be equal to the length of one minute of the meridian at that place.

A fathom—6 feet, chiefly water depth.

A cable—100 fathoms or 600 feet or approximately 0.1 nautical mile (In U.S. Navy, 120 fathoms or 720 feet).

Chemical Elements, Discoverers, Atomic Weights

Atomic weights, based on the exact number 12 as the assigned atomic mass of the principal isotope of carbon, carbon 12, are provided through the courtesy of the International Union of Pure and Applied Chemistry and Butterworth Scientific Publications.

For the radioactive elements with the exception of uranium and thorium, the mass number of either the isotope of longest half-life (marked with a star) or the better known isotope (marked with two stars) is given.

Chemical element	Symbol	Atomic number	Atomic weight	Year discov.	Discoverer
Actinium.....	Ac	89	227*	1899	Debiere
Aluminum.....	Al	13	26.9815	1825	Oersted
Americium.....	Am	95	243*	1944	Seaborg, et al
Antimony.....	Sb	51	121.75	1450	Valentine
Argon.....	Ar	18	39.948	1894	Rayleigh, Ramsay
Arsenic.....	As	33	74.9216	13th C.	Magnus
Astatine.....	At	85	210*	1940	Corson, et al.
Barium.....	Ba	56	137.34	1808	Davy
Berkelium.....	Bk	97	247*	1949	Thompson, Ghiorso, Seaborg
Beryllium.....	Be	4	9.0122	1798	Vauquelin
Bismuth.....	Bi	83	208.980	15th C.	Valentine
Boron.....	B	5	10.811a	1808	Davy
Bromine.....	Br	35	79.904b	1826	Balard
Cadmium.....	Cd	48	112.40	1817	Stromeyer
Calcium.....	Ca	20	40.08	1808	Davy
Californium.....	Cf	98	249**	1950	Thompson, et al.
Carbon.....	C	6	12.01115a	B. C.	
Cerium.....	Ce	58	140.12	1803	Klaproth
Cesium.....	Cs	55	132.905	1861	Bunsen, Kirchhoff
Chlorine.....	Cl	17	35.453b	1774	Scheele
Chromium.....	Cr	24	51.996b	1797	Vauquelin
Cobalt.....	Co	27	58.9332	1735	Brandt
Copper.....	Cu	29	63.546b	B. C.	
Curium.....	Cm	96	247*	1944	Seaborg, et al.
Dysprosium.....	Dy	66	162.50	1886	Boisbaudran
Einsteinium.....	Es	99	254*	1952	Ghiorso, et al.
Erbium.....	Er	68	167.26	1843	Mosander
Europium.....	Eu	63	151.96	1901	Demarcay
Fermium.....	Fm	100	257*	1953	Ghiorso, et al.
Fluorine.....	F	9	18.9984	1771	Scheele
Francium.....	Fr	87	223*	1939	Perey
Gadolinium.....	Gd	64	157.25	1886	Mariagnac
Gallium.....	Ga	31	69.72	1875	Boisbaudran
Germanium.....	Ge	32	72.59	1886	Winkler
Gold.....	Au	79	196.967	B. C.	
Hafnium.....	Hf	72	178.49	1923	Coster, Hevesy
Helium.....	He	2	4.0026	1895	Ramsay
Holmium.....	Ho	67	164.930	1879	Cleve
Hydrogen.....	H	1	1.00797a	1766	Cavendish
Indium.....	In	49	114.82	1863	Reich, Richter
Iodine.....	I	53	126.9044	1811	Courtois
Iridium.....	Ir	77	192.22	1804	Tennant
Iron.....	Fe	26	55.847b	B. C.	
Krypton.....	Kr	36	83.80	1898	Ramsay, Travers
Lanthanum.....	La	57	138.91	1839	Mosander
Lawrencium.....	Lw	103	256*	1961	Ghiorso, T. Sikkeland, A. E. Larsh, and R. M. Latimer
Lead.....	Pb	82	207.19	B. C.	
Lithium.....	Li	3	6.939	1817	Arfvedson
Lutetium.....	Lu	71	174.97	1907	Weisbach, Urbain
Magnesium.....	Mg	12	24.312	1830	Liebig, Bussy
Manganese.....	Mn	25	54.9380	1774	Gahn
Mendelevium.....	Md	101	258*	1955	Ghiorso, et al.
Mercury.....	Hg	80	200.59	B. C.	
Molybdenum.....	Mo	42	95.94	1782	Hjelme
Neodymium.....	Nd	60	144.24	1885	Weisbach
Neon.....	Ne	10	20.183	1898	Ramsay, Travers
Neptunium.....	Np	93	237*	1940	McMillan and Abelson
Nickel.....	Ni	28	58.71	1751	Cronstedt
Niobium (Form. Columbium)	Nb	41	92.906	1801	Hatchett
Nitrogen.....	N	7	14.0067	1772	Rutherford
Nobelium.....	No	102	255*	1958	Ghiorso, et al.
Osmium.....	Os	76	190.2	1804	Tennant
Oxygen.....	O	8	15.9994a	1774	Priestley, Scheele
Palladium.....	Pd	46	106.4	1803	Wollaston
Phosphorus.....	P	15	30.9738	1669	Brandt
Platinum.....	Pt	78	195.09	1735	Ulloa
Plutonium.....	Pu	94	242**	1940	Seaborg, et al.
Polonium.....	Po	84	210**	1898	P. and M. Curie
Potassium.....	K	19	39.102	1807	Davy
Praseodymium.....	Pr	59	140.907	1885	Weisbach
Promethium.....	Pm	61	147**	1945	Glendenin and Marinsky
Protactinium.....	Pa	91	231*	1917	Hahn and Meitner
Radium.....	Ra	88	226*	1898	P. & M. Curie, Bemont
Radon.....	Rn	86	222*	1900	Dorn
Rhenium.....	Re	75	186.2	1925	Noddark and Tacke
Rhodium.....	Rh	45	102.905	1803	Wollaston
Rubidium.....	Rb	37	85.47	1861	Bunsen, Kirchhoff
Ruthenium.....	Ru	44	101.07	1845	Claus
Samarium.....	Sm	62	150.35	1879	Boisbaudran
Scandium.....	Sc	21	44.956	1879	Nilson
Selenium.....	Se	34	78.96	1817	Berzelius
Silicon.....	Si	14	28.086a	1823	Berzelius
Silver.....	Ag	47	107.868b	B. C.	
Sodium.....	Na	11	22.9898	1807	Davy
Strontium.....	Sr	38	87.62	1790	Crawford
Sulfur.....	S	16	32.064a	B. C.	
Tantalum.....	Ta	73	180.948	1802	Ekeberg
Technetium.....	Tc	43	98**	1937	Perrier and Segre
Tellurium.....	Te	52	127.60	1782	Von Reichenstein
Terbium.....	Tb	65	158.924	1843	Mosander
Thallium.....	Tl	81	204.37	1861	Crookes
Thorium.....	Th	90	232.038	1828	Berzelius
Thulium.....	Tm	69	168.934	1879	Cleve

Chemical element (continued)	Symbol	Atomic number	Atomic weight	Year discov.	Discoverer
Tin.....	Sn	50	118.69	B. C.	
Titanium.....	Ti	22	47.90	1789	Gregor
Tungsten (Alternate Wolfram)	W	74	183.85	1783	d'Elhujar
Uranium.....	U	92	238.03	1789	Klaproth
Vanadium.....	V	23	50.942	1830	Selstrom
Xenon.....	Xe	54	131.30	1898	Ramsay, Travers
Ytterbium.....	Yb	70	173.04	1878	Mariagac
Yttrium.....	Y	39	88.905	1794	Gadolín
Zinc.....	Zn	30	65.37	B. C.	
Zirconium.....	Zr	40	91.22	1789	Klaproth

*Atomic weights so designated are known to be variable because of natural variations in isotopic composition. The observed ranges are: hydrogen ± 0.00001 ; boron ± 0.003 ; carbon ± 0.00005 ; oxygen ± 0.0001 ; silicon ± 0.001 ; sulfur ± 0.003 .

*Atomic weights so designated are believed to have the following experimental uncertainties: chlorine ± 0.001 ; chromium ± 0.001 ; iron ± 0.003 ; bromine ± 0.001 ; silver ± 0.001 ; copper ± 0.001 .

Density of Gases and Vapors

Source: National Bureau of Standards (Grams per liter)

Gas	Wt.	Gas	Wt.	Gas	Wt.
Acetylene.....	1.171	Ethylene.....	1.260	Methyl fluoride.....	1.545
Air.....	1.293	Fluorine.....	1.696	Mono methylamine.....	1.38
Ammonia.....	0.759	Helium.....	0.178	Neon.....	0.900
Argon.....	1.784	Hydrogen.....	0.090	Nitric oxide.....	1.341
Arsene.....	3.48	Hydrogen bromide.....	3.50	Nitrogen (chem.).....	1.250
Butane-iso.....	2.60	Hydrogen chloride.....	1.639	Nitrosyl chloride.....	2.99
Butane-n.....	2.519	Hydrogen iodide.....	5.724	Nitrous oxide.....	1.997
Carbon dioxide.....	1.977	Hydrogen selenide.....	3.66	Oxygen.....	1.129
Carbon monoxide.....	1.250	Hydrogen sulfide.....	1.539	Phosphine.....	1.48
Carbon oxydisulfide.....	2.72	Krypton.....	3.745	Propane.....	2.020
Chlorine.....	3.214	Methane.....	0.717	Silicon tetrafluoride.....	4.67
Chlorine monoxide.....	3.89	Methyl chloride.....	2.25	Sulfur dioxide.....	2.927
Ethane.....	1.356	Methyl ether.....	2.091	Xenon.....	5.897

Temperature Conversion Table

Source: National Bureau of Standards, U. S. Department of Commerce

The numbers in bold face type refer to the temperature either in degrees Centigrade or Fahrenheit which are to be converted. If converting from degrees Fahrenheit to Centigrade, the equivalent will be found in the column on the left, while if converting from degrees Centigrade to Fahrenheit the answer will be found in the column on the right.

For temperatures not shown. To convert Fahrenheit to Centigrade subtract 32 degrees and multiply by 5, divide by 9; to convert Centigrade to Fahrenheit, multiply by 9, divide by 5 and add 32 degrees.

Centi- grade	Fahren- heit	Centi- grade	Fahren- heit	Centi- grade	Fahren- heit
-273.2	-459.7	-17.8	0	35.0	95
-184	-300	-12.2	10	36.7	98
-169	-273	-6.67	20	37.8	100
-157	-250	-1.11	30	43	110
-129	-200	4.44	40	104	230
-101	-150	10.6	50	122	250
-73.3	-100	15.6	60	140	284
-45.6	-50	21.1	70	158	302
-40.0	-40	23.9	75	167	300
-34.4	-30	26.7	80	176	300
-28.9	-20	29.4	85	185	300
-23.3	-10	32.2	90	194	300

Water boils at 212° Fahrenheit at sea level. For every 550 feet above sea level, boiling point of water is lower by about 1° Fahrenheit. Methyl alcohol boils at 148° Fahrenheit. Average human oral temperature, 98.6° Fahrenheit. Water freezes at 32° Fahrenheit. Although "Centigrade" is still frequently used, the International Committee on Weights and Measures and the National Bureau of Standards have recommended since 1948 that this scale be called "Celsius."

Factors and Prime Numbers

Factors are such numbers as multiplied together will produce a required number.

A Prime Number is one that cannot be resolved into two or more factors; or, it is a number exactly divisible only by itself and unity. A Composite Number is one that can be resolved into factors.

TABLE OF PRIME NUMBERS FROM 1 TO 1000

(*)	59	139	233	337	439	537	653	769	883
2	61	149	239	347	443	541	659	773	887
3	67	151	241	349	449	559	661	787	907
5	71	157	251	353	457	561	673	797	911
7	73	163	257	359	461	577	677	809	919
11	79	167	263	367	463	587	683	811	929
13	83	173	269	373	467	593	691	821	937
17	89	179	271	379	479	599	701	823	941
19	97	181	277	383	487	601	709	827	947
23	101	191	281	389	491	607	719	839	953
29	107	193	283	397	493	613	727	847	967
31	109	197	293	401	503	617	733	853	971
37	109	199	307	409	509	619	739	857	977
41	113	211	311	419	521	631	743	859	983
43	127	223	313	421	523	641	751	863	991
47	131	227	317	431	541	643	757	877	997
53	137	229	331	433	547	647	761	881	

(*) The number 1 is usually excluded.

Bell Time on Shipboard

Source: Maritime Administration

Time, A.M.	Time, A.M.	Time, A.M.	Time, P.M.	Time, P.M.	Time, P.M.
1 Bell..... 12:30	1 Bell..... 4:30	1 Bell..... 8:30	1 Bell..... 12:30	1 Bell..... 4:30	1 Bell..... 8:30
2 Bells..... 1:00	2 Bells..... 5:00	2 Bells..... 9:00	2 Bells..... 1:00	2 Bells..... 5:00	2 Bells..... 9:00
3 "..... 1:30	3 "..... 5:30	3 "..... 10:00	3 "..... 2:00	3 "..... 6:00	3 "..... 10:00
4 "..... 2:00	4 "..... 6:00	4 "..... 11:00	4 "..... 2:30	4 "..... 6:30	4 "..... 10:30
5 "..... 2:30	5 "..... 6:30	5 "..... 11:30	5 "..... 3:00	5 "..... 7:00	5 "..... 11:00
6 "..... 3:00	6 "..... 7:00	6 "..... 11:30	6 "..... 3:30	6 "..... 7:30	6 "..... 11:30
7 "..... 3:30	7 "..... 7:30	7 "..... Noon	7 "..... 4:00	7 "..... 8:00	7 "..... Midnight
8 "..... 4:00	8 "..... 8:00				

Legal or Public Holidays in the United States in 1969

NOTE—See Index under Holidays for new Federal legislation.

Federal "Legal Public Holidays" are New Year's, Washington's Birthday, Memorial or Decoration Day, Independence Day, Labor Day, Veterans Day, Thanksgiving, and Christmas. The President and Congress designate only for the District of Columbia and Federal employees throughout the nation. Each State has jurisdiction over the holidays it will observe. They are designated either by legislative enactment or executive proclamation. There are no national holidays in the United States.

Christmas is observed by Christians the world over.

New Year's Day is observed by Christians and many other religions.

In Episcopal countries, the only other church days which are regular legal holidays are Good Friday, Easter Monday, and Whit Monday.

In Roman Catholic countries, the church days other than Christmas which are usually legal holidays are Epiphany, Ascension, Assumption, All Saints', and Immaculate Conception. In Latin American countries, it is usual to observe Good Friday and Corpus Christi.

In Lutheran countries, Epiphany, Annunciation, Ash Wednesday, Good Friday, Easter Monday, Ascension Day, Whit Monday, and Corpus Christi are holidays.

CHIEF LEGAL OR PUBLIC HOLIDAYS

When a holiday falls on a Sunday it is usually observed on the following Monday.

Saturday—In most of the states banks close at noon or are closed all day.

Jan. 1 (Wednesday)—New Year's Day. All the states and possessions.

Feb. 12 (Wednesday)—Lincoln's Birthday. All the states, Puerto Rico and Virgin Islands, with the following exceptions—Ala., Fla., Ga., Hawaii, Idaho, Me., Mass., Miss., Mo., Nev., N. H., N. C., Okla., R. I., S. C., Tex., Va., (in Ark. a memorial day).

Feb. 22 (Saturday)—Washington's Birthday. All the states and possessions (except Nev. and Okla.). (Presidents' Day in Hawaii; in Massachusetts celebrated on third Monday of Feb.)

April 4—Good Friday. Observed in all the states and possessions. A legal holiday in Conn., Del., Fla., Hawaii, Ill., Ind., La., Minn., N. J., N. D., Penn., Tenn., Guam, Canal Zone, Puerto Rico, and Virgin Islands.

May 30 (Friday)—Memorial or Decoration Day. All the states and possessions with the following exceptions—Ala., Ga., Miss., S. C. (in Florida, Memorial Day for Veterans of all Wars. In Massachusetts celebrated on last Monday in May.)

July 4 (Friday)—Independence Day. All the states and possessions.

Sept. 1—Labor Day. (First Monday in September.) All the states and possessions.

Oct. 12 (Sunday)—Columbus Day. All the states and Puerto Rico with the following exceptions—Alaska, Hawaii, Idaho, Maine, Miss., N. M., Nev., N. C., Okla., Ore., S. C., S. D., Tenn., Va., Wyo. (Discovery Day in Indiana and North Dakota; Landing Day in Wisconsin. In Arkansas and Oregon, a memorial day. Observed on the Saturday nearest Oct. 12 in Michigan.)

Nov. 4—General Election Day. (First Tuesday after the first Monday in November.) All the states, Puerto Rico, Virgin Islands, with the following exceptions—Ala., Alaska, Conn., D. C., Ga., Idaho, Ky., Mass., Minn., Miss., Neb., Nev., N. M., Utah; Vt., Ohio, a half-holiday after 12 noon. (Observed usually only when presidential or general elections are held. Primary election days are observed in some states; see list of Days Usually Observed.)

Nov. 11 (Tuesday)—Veterans, or Armistice Day. All the states and possessions.

Nov. 27—Thanksgiving Day. (Always the fourth Thursday in November.) All states and possessions. (The day after Thanksgiving is a legal holiday in Fla.)

Dec. 25 (Thursday)—Christmas Day. All the states and possessions (South Carolina and the Virgin Islands also observe Second Christmas Day, Dec. 26.)

OTHER LEGAL OR PUBLIC HOLIDAYS

Jan. 6—Three Kings' Day (Epiphany). In Puerto Rico and Virgin Islands.

Jan. 8—Battle of New Orleans. In Louisiana.

Jan. 11—De Hostos' Birthday. In Puerto Rico.

Jan. 17—Arbor Day. In Florida (always third Friday in January).

Jan. 19—Robert E. Lee's Birthday. Ala., Ark., Fla., Ga., Ky., La., Miss., N. C., S. C., Tenn., Tex.; Lee-Jackson Day in Virginia.

Jan. 22—Inauguration Day. The District of Columbia, observed every fourth year since 1937.

Jan. 30—Franklin D. Roosevelt Day. Kentucky and Virgin Islands.

Feb. 14—Admission Day. In Arizona.

Feb. 18—Mardi Gras (Shrove Tuesday). Alabama; Florida; Louisiana.

March 2—Texas Independence Day. In that state.

March 11—Town Meeting Day. In Vermont (always first Tuesday in March).

March 15—Andrew Jackson's Birthday. In Tennessee.

March 17—Evacuation Day. In Boston and Suffolk County, Mass.

March 22—Emancipation Day. In Puerto Rico.

March 25—Maryland Day. In that state.

March 26—Kuhio Day. In Hawaii.

March 30—Seward's Day. In Alaska.

March 31—Transfer Day. Virgin Islands.

April 2—Pascua Florida Day. In that state.

April 3—Holy Thursday. Virgin Islands.

April 7—Easter Monday. North Carolina and Virgin Islands.

April 12—Halifax Day. In North Carolina.

April 13—Thomas Jefferson's Birthday. Ala., Mo., Va.

April 14—Pan American Day. In Florida.

April 16—De Diego's Birthday. In Puerto Rico.

April 19—Patriots' Day. Maine.

April 21—Patriots Day. In Massachusetts (always third Monday in April.)

April 21—San Jacinto Day. In Texas.

April 22—Arbor Day. In Nebraska; Oklahoma Day, in that state.

April 22—Fast Day. New Hampshire (always fourth Monday in April.)

April 25—Arbor Day. In Utah (always last Friday in April.)

April 26—Confederate Memorial Day. Alabama, Florida, Georgia, Mississippi.

May 10—Confederate Memorial Day. North Carolina and South Carolina.

May 20—Mecklenburg Day. In North Carolina.

May 26—Whit Monday. Virgin Islands.

June 3—Birthday of Jefferson Davis or *Confederate Memorial Day. In Alabama, Georgia, *Kentucky, *Louisiana, Mississippi, South Carolina, *Tennessee and Texas. (In Arkansas a memorial day.)

June 11—Kamehameha Day. In Hawaii.

June 14—Flag Day. In Pennsylvania.

June 17—Bunker Hill Day. In Boston and Suffolk County, Mass.

June 20—West Virginia Day. In that state.

June 22—Organic Act Day. Virgin Islands.

July 13—Nathan Bedford Forrest's Birthday. In Tennessee.

July 17—Muñoz Rivera's Birthday. Puerto Rico.

July 21—Liberation Day. In Guam.

July 24—Pioneer Day. In Utah.

July 25—Constitution Day. In Puerto Rico; Supplication Day (beginning of hurricane season), Virgin Islands.

July 27—Barbosa's Birthday. In Puerto Rico.

Aug. 4—Colorado Day. In that state. (Always first Monday in August).

Aug. 14—Victory Day. In Rhode Island. World War II Memorial Day, in Arkansas.

Aug. 16—Bennington Battle Day. In Vermont.

Aug. 30—Huey P. Long's Birthday. In Louisiana.

Sept. 9—Admission Day. In California.

Sept. 12—Defenders' Day. In Maryland.

Oct. 18—Alaska Day. In that state.

Oct. 25—Thanksgiving Day (end of hurricane season). Virgin Islands.

Oct. 31—Nevada Day. In that state.

Nov. 1—All Saints' Day. In Louisiana; Liberty Day in the Virgin Islands.

Nov. 3—Panama Independence Day. Canal Zone.
Nov. 19—Discovery Day. In Puerto Rico.
Nov. 28—Day After Thanksgiving. In Florida.
Dec. 10—Wyoming Day. In that state.

DAYS USUALLY OBSERVED

Not legal or public holidays:

Air Force Day (see Armed Forces Day).

American Indian Day (Sept. 26 in 1969). Always fourth Friday in September.

Arbor Day. Tree-planting day. First observed April 10, 1872, in Nebraska. Over one million trees were set out. Now observed in every state in the Union (except Alaska) and Puerto Rico. A legal holiday in Utah (always last Friday in April), in Florida (always third Friday in January), in Nebraska (April 22) and in Wyoming. (Date to be proclaimed by Governor.)

Armed Forces Day (May 17 in 1969) Always third Saturday in that month, by Presidential proclamation. Replaced Army, Navy and Air Force Days. (Air Force Day was the 2nd Saturday in September; Army Day April 6th; Navy Day October 27, the birthday of Theodore Roosevelt. October is also the month in which the American Navy was founded (1775) by the Continental Congress.)

Bill of Rights Day, Dec. 15. By Act of Congress. Bill of Rights took effect Dec. 15, 1791.

Bird Day. Often observed with Arbor Day. In Iowa, March 21.

Child Health Day (Oct. 6 in 1969). Always first Monday in October, by Presidential proclamation.

Citizenship Day, Sept. 17. President Truman, Feb. 29, 1952, signed bill designating Sept. 17 as annual Citizenship Day. It replaced I Am An American Day, formerly 3rd Sunday in May and Constitution Day formerly Sept. 17.

East Sunday (April 6 in 1969).

Elizabeth Cady Stanton Day, Nov. 12. Birthday of pioneer leader for equal rights for women.

Father's Day (June 15 in 1969). Always third Sunday in that month.

Feast of the Immaculate Conception, Dec. 8. A memorial day in Guam.

Flag Day, June 14. By Presidential proclamation. It is a legal holiday in Pennsylvania.

Forefathers' Day, Dec. 21. Landing on Plymouth Rock, in 1620. Is celebrated with dinners by New England societies, especially "Down East."

Frances Willard Day, Sept. 28. Observed in Minnesota.

Four Chaplains Memorial Day, February 3.

Gen. Douglas MacArthur Day, Jan. 26. A memorial day in Arkansas.

Gen. Pulaski Memorial Day, Oct. 11. Native of Poland and Revolutionary War hero; died (Oct. 11, 1779) from wounds received at the siege of Savannah, Ga.

Gen. von Steuben Memorial Day, Sept. 17. By Presidential proclamation.

Groundhog Day, Feb. 2. A popular belief is that if the groundhog sees his shadow this day he returns to his burrow and winter continues 6 weeks longer.

Halloween, Oct. 31. The evening before All Saints or All-Hallows Day. Informally observed in the United States with masquerading and pumpkin-decorations. Traditionally an occasion for children to play harmless pranks (trick or treat, ticktack).

Independence Sunday (June 29 in 1969). The Sunday preceding the Fourth of July. Observed in Iowa.

Leif Ericsson Day, Oct. 9. Observed in Minnesota.

Loyalty Day, May 1. By act of Congress.

May Day. Popularly given to May 1st.

Minnesota Day, May 11. In that state.

Mother's Day (May 11 in 1969). Always second Sunday in that month.

National Aviation Day, Aug. 19. By Presidential proclamation.

National Day of Prayer. By Presidential proclamation each year on a day other than a Sunday.

National Freedom Day, February 1. To commem-

orate the signing, by President Lincoln, of the document to abolish slavery, Feb. 1, 1865. By Presidential proclamation.

National Maritime Day, May 22. First proclaimed 1935 in commemoration of the departure of the SS Savannah, from Savannah, Ga., on May 23, 1819, on the first successful transatlantic voyage under steam propulsion. By Presidential proclamation.

Pan American Day, April 14. In 1890 the First International Conference of American States, meeting in Washington, was held on that date. A resolution was adopted which resulted in the creation of the organization known today as the Pan American Union. By Presidential proclamation. A legal holiday in Florida.

Poetry Day, Oct. 15.

Primary Election Day. A legal holiday in Ark., Cal., Ind., Me., Mo., Mont., N. D., Ore., S. D., Tenn., W. Va., and Wis. Observed usually only when presidential or general elections are held.

Reformation Day, Oct. 31. Observed by Protestant groups.

Sadie Hawkins Day, first Saturday after November 1.

St. Patrick's Day, March 17. Observed by Irish Societies and with parades.

St. Valentine's Day, Feb. 14. Festival of a martyr beheaded at Rome under Emperor Claudius. Association of this day with lovers has no connection with the saint and probably has its origin in an old belief that on this day birds begin to choose their mates.

Susan B. Anthony Day, Feb. 15. Birthday of a pioneer crusader for equal rights for women. Observed in Minnesota.

United Nations Day, Oct. 24. By Presidential proclamation, to commemorate founding of United Nations.

Verrazano Day, April 17. Observed in New York State, to commemorate the probable discovery of New York harbor by Giovanni da Verrazano in April, 1524.

Wright Brothers Day, Dec. 17. By Presidential designation, to commemorate first successful flight by Orville and Wilbur Wright, Dec. 17, 1903.

Youth Honor Day, Oct. 31. A day of observance in Iowa.

WEEKS AND MONTHS

The following list contains special weeks and months designed to call to the attention of the public an event of importance. The dates usually change each year at the discretion of the sponsoring organization. Among the Weeks observed each year are American Art Week, American Education Week, American Heart Month, American Red Cross Fund Drive, Boys and Girls Week, Boy Scout Week, Brotherhood Week, Camp Fire Girls' Birthday Week, Cancer Control Month, Christmas Sea Sale (sponsored by National Tuberculosis Association), Constitution Week, Fire Prevention Week, Girl Scout Week, Human Rights Week, Jewish Youth Week, March of Dimes (sponsored by National Foundation), Mutual Insurance Week, National Allergy Month, National Bible Week, National Boys' Club Week (sponsored by Boys Clubs of America), National Crime Prevention Week, National Drum Corps Week, National Employ the Physically Handicapped Week, National Heart Month, National Farm Safety Week, National 4-H Club Week, National Garden Week, National Highway Week, National Hospital Week, National Letter Writing Week, National Library Week, National Safe Boating Week, National Salvation Army Week, National School Lunch Week, National Stamp Collecting Week, National Transportation Week, National Wildlife Week (sponsored by National Wildlife Federation), Poppy Week (sponsored by Veterans of Foreign Wars of the U. S.), Red Cross Month, Save Your Vision Week, United Nations Week, United States-Canada Good Will Week (sponsored by the Kiwanis International), World Trade Week, and Youth Week (sponsored by United Christian Youth Movement).

Old English Holidays

Jan. 6. TWELFTH DAY, or Twelfth-tide, sometimes called Old Christmas Day, the same as Epiphany (Feast of the Three Kings). It is celebrated in Spain as Christmas and in Italy as Epiphany (Befana Day). The previous evening is Twelfth Night. Since 1909 the Russian Orthodox Church has observed Jan. 7 as Christmas, inasmuch as 13 days instead of 12 now mark the difference between the old and the new or Gregorian calendar.

Feb. 2. CANDELMAS: Festival of the Purification of the Virgin. Consecration of the lighted candles to be used in the church during the year.

Feb. 14. OLD CANDELMAS: St. Valentine's Day.

Mar. 25. LADY DAY: Annunciation of the Virgin.

April 6 is OLD LADY DAY.

June 24. MIDSUMMER DAY: Feast of the Nativity of John the Baptist.

July 6 is OLD MIDSUMMER DAY.

July 15. ST. SWITHIN'S DAY. An old superstition: if rain fell it would continue forty days.

Aug. 1. LAMMAS DAY. Originally in England the festival of the wheat harvest. In the church the festival of St. Peter's miraculous deliverance from prison. Old Lammas Day is August 13.

Sept. 29. MICHAELMAS—Feast of St. Michael the Archangel.

Nov. 1. HALLOWMAS. All-Hallows or All Saints Day. Previous evening is Hallowmas Eve.

Nov. 2. ALL SOULS' DAY. Day of prayer for the souls of the dead.

Nov. 11. MARTINMAS. Feast of St. Martin. Old Martinmas is Nov. 23.

Dec. 28. CHILDERMAS. Holy Innocents' Day.

UNITED STATES POPULATION

1970 Census Will Be Taken by Mail in Major Metropolitan Areas

Source: U. S. Bureau of the Census

Plans for the 1970 Census—The Bureau of the Census in 1968 continued to perfect its plans to take the 1970 Census of Population and Housing principally by mail. In late March 1970, letter carriers will deliver census forms to all households. In major metropolitan areas, with 60% of the total population, households will be asked to fill out the questionnaires and return them by mail on Apr. 1. Census workers will visit only households failing to return forms or failing to answer all questions. Elsewhere in the nation, census workers will visit every household to pick up questionnaires.

In 1968, the Bureau conducted "rehearsal" censuses in Sumter and Chesterfield Counties, South Carolina; Dane County, Wisconsin; and Trenton, New Jersey.

The 1970 Census will provide up-to-date information concerning numbers of people, their education, income, housing and other important factors for the nation, each state, county, city, metropolitan area, and for small segments of each area. The new information will be used to determine representation in government and to guide many programs aimed at meeting the needs of the American people.

Total Population—The total population of the United States including members of the armed services overseas on Apr. 1, 1968, reached 200,658,000, according to Census Bureau estimates. This figure represented an increase of 20,651,000 over the Apr. 1, 1960, census count.

Elements of Change—The estimated rate of population growth in the United States in calendar year 1967 was 1.01%, a rate lower than any year since 1940. It compared with 1.15% in 1966 and 1.23 in 1965, and the low of 0.92 in 1940. The 1967 rate represents a continuing decline in the annual population growth rate that began in 1957—influenced primarily by the lowering of the birth rate.

Deaths numbered about 1,860,000 in 1967, slightly less than in 1966. Since 1960, the death rate has remained virtually unchanged at about 9.5 deaths per thousand people. Since 1954, the death rate has fluctuated between 9.3 and 9.6 per thousand with no definite trend appearing in the 1954-1967 period.

Net civilian immigration, averaging about 390,000 annually since 1960, has contributed about 14.7% to population growth in that period. This represented an increase over the 300,000 annual average for the 1950s. The largest net gain from this source since 1950 was in 1966, when immigration added 456,000 persons to the population and in 1967, when net immigration amounted to 444,000. These recent increases probably reflect the effect of the Immigration Act of 1965 and the U. S.-Cuban agreement on the transfer of Cuban refugees to the U. S., both of which took effect in 1965.

Educational Attainments and Projections—About 55,100,000 persons 5 to 34 years old were enrolled in school or college in the United States in the fall of 1966. This represents 30% of the total population.

Of these, about 32,900,000 were enrolled

in grades 1 to 8, 13,400,000 in grades 9 to 12, and 6,100,000 in college. There were an additional 2,700,000 children in kindergarten excluding those below age 5.

The increase of enrollment in the last 6 years has been 8,800,000 or 19% over the 46,300,000 enrolled in October 1960. The rate of increase varied considerably by level of school. During this 6-year period, there was a 70% gain in college enrollments, 30% in high schools (grades 9 to 12) and 8% in elementary (grades 1 to 8).

Increased enrollment in elementary and secondary schools was due primarily to increases in the population 5 to 17 years old rather than in changes in the percent of persons enrolled. College and professional enrollments, however, reflect both an increase in the percent enrolled among persons aged 18 to 34, and an increase in the total population at these ages.

In May, 1967, Census Bureau population specialists revised school enrollment projections for 1985 upward from those anticipated just a year earlier. College enrollment, according to the new projections, would rise to between 9,700,000 and 11,800,000 by 1985 from the October, 1966 total of 6,100,000 depending upon assumptions about the proportions of the population enrolled in colleges. A year earlier, specialists projected college enrollment to a 1985 range of between 9,000,000 and 11,600,000 students. High school enrollment by 1985 would rise to a range of 13,800,000 to 17,300,000, the revised projections indicate. A year earlier, the projections for high school were in the range of 13,300,000 and 17,000,000. The 1966 total was 13,400,000. New projections for elementary and kindergarten call for a range of 35,400,000 to 47,700,000 pupils by 1985. A year earlier, the range was 34,300,000 to 46,600,000 pupils, and the total for October, 1966, was 35,600,000.

Farm Population Drop Continues—An average of 10,817,000 persons lived on farms in rural areas of the United States in 1967. Of the total U. S. population, 5.5% or 1 in 18, lived on a farm. The 1967 estimate of farm residents is 778,000 less than 1966.

Since 1960, when there were 15,600,000 farm residents, the farm population has declined approximately 4.8 million persons, an average annual decline of 5.3%.

Family Income Higher—Median income for all families in 1966 was \$7,400, more than double the median figure of \$3,000 in 1947. Despite rises in consumer prices the gain in real income over 1947 is about 69%.

Over the past 19 years, median family income has increased at an average annual rate of 5% in current dollars and 3% in constant dollars. This increase in family income parallels the expansion of general economic activity in the U. S. for the same period during which time the Gross National Product increased at an annual rate of about 6% in current dollars and 4% in constant dollars.

Families receiving income under \$3,000 (in current dollars) have decreased from 49% in 1947 to 14% in 1966, and those receiving \$10,000 or more have increased from 3% in 1947 to about 30% in 1966.

ESTIMATED POPULATION OF THE UNITED STATES

Date	Inc. armed forces overseas	Resident population	Date	Inc. armed forces overseas	Resident population
1960 Census	180,007,000	179,323,175	July 1, 1965	194,592,000	193,815,000
July 1, 1961	183,756,000	183,057,000	July 1, 1966	196,920,000	195,936,000
July 1, 1962	186,658,000	185,890,000	July 1, 1967	199,118,000	197,836,000
July 1, 1963	189,417,000	188,658,000	July 1, 1968	201,087,000	199,809,000
July 1, 1964	192,120,000	191,372,000			

POPULATION OF THE UNITED STATES, 1950-1960

By States, Regions, Geographic Divisions, Urban, Rural and Rank

Source: Bureau of the Census. See States of the Union section for latest official estimates.

Region, division and state	April 1, 1960 census	April 1, 1950 census	Pct. + or -	1960 census			Rank	
				Urban	Rural	Per cent urban	1960	1950
UNITED STATES...	179,323,175	151,325,798	18.5	125,268,750	54,054,425	69.9		
REGIONS								
Northeast.....	44,677,819	39,477,986	13.2	35,840,140	8,837,679	80.2		
North Central.....	51,619,139	44,460,762	16.1	35,481,254	16,137,885	68.7		
South.....	54,973,113	47,197,088	16.5	32,160,250	22,812,863	58.5		
West.....	28,053,104	20,189,962	38.9	21,787,106	6,265,998	77.7		
DIVISIONS:								
New England.....	10,509,367	9,314,453	12.8	8,031,795	2,477,572	76.4		
Middle Atlantic.....	34,168,452	30,163,533	13.3	27,808,345	6,360,107	81.4		
E. No. Central.....	36,225,024	30,399,368	19.2	26,434,937	9,790,087	73.0		
W. No. Central.....	15,394,115	14,061,394	9.5	9,046,317	6,347,798	58.8		
So. Atlantic.....	25,971,732	21,182,335	22.6	14,851,516	11,120,216	57.2		
E. So. Central.....	12,050,126	11,477,181	5.0	5,830,569	6,219,557	48.4		
W. So. Central.....	16,951,255	14,537,572	16.6	11,478,165	5,473,090	67.7		
Mountain.....	6,855,060	5,074,998	35.1	4,600,852	2,254,208	67.1		
Pacific.....	21,198,044	15,114,964	40.2	17,186,254	4,011,790	81.1		
NEW ENGLAND								
Maine.....	969,265	913,774	6.1	497,114	472,151	51.3	35	35
New Hampshire.....	606,921	533,242	13.8	353,766	253,155	58.3	46	44
Vermont.....	389,881	377,747	3.2	149,921	239,960	38.5	47	46
Massachusetts.....	5,148,578	4,690,514	9.8	4,302,530	846,048	83.6	9	9
Rhode Island.....	859,488	791,896	8.5	742,897	116,591	86.4	39	36
Connecticut.....	2,535,234	2,007,280	26.3	1,985,567	549,667	78.3	25	28
MID. ATLANTIC								
New York.....	16,782,304	14,830,192	13.2	14,331,925	2,450,379	85.4	1	1
New Jersey.....	6,066,782	4,835,329	25.5	5,374,369	692,413	88.6	3	3
Pennsylvania.....	11,319,366	10,498,012	7.8	8,102,051	3,217,315	71.6	8	8
E. NO. CENTRAL								
Ohio.....	9,706,397	7,946,627	22.1	7,123,162	2,583,235	73.4	5	5
Indiana.....	4,662,498	3,934,224	18.5	2,910,149	1,752,349	62.4	11	12
Illinois.....	10,081,158	8,712,176	15.7	8,140,315	1,940,843	80.7	4	4
Michigan.....	7,823,194	6,371,766	22.8	5,739,132	2,084,062	73.4	7	7
Wisconsin.....	3,951,777	3,434,575	15.1	2,522,179	1,429,598	63.8	15	14
W. NO. CENTRAL								
Minnesota.....	3,413,864	2,928,483	14.5	2,122,566	1,291,298	62.2	18	18
Iowa.....	2,757,537	2,621,073	5.2	1,462,512	1,295,025	53.0	24	22
Missouri.....	4,319,813	3,954,633	9.2	2,876,557	1,443,256	66.0	13	11
North Dakota.....	632,446	619,636	2.1	222,708	409,738	35.2	44	40
South Dakota.....	680,514	652,740	4.3	267,180	413,334	39.3	40	40
Nebraska.....	1,411,330	1,325,510	6.5	766,053	645,277	54.3	34	31
Kansas.....	2,178,611	1,905,299	14.3	1,328,741	849,870	61.0	28	28
SO. ATLANTIC								
Delaware.....	446,292	318,085	40.3	292,788	153,504	65.6	46	47
Maryland.....	3,100,689	2,343,001	32.3	2,253,832	846,857	72.7	21	24
Dist. of Col.....	763,956	802,178	-4.8	763,956		100.0		
Virginia.....	3,966,949	3,318,680	19.5	2,204,913	1,762,036	55.6	14	15
West Virginia.....	1,860,421	2,055,552	-7.2	711,101	1,149,320	38.2	30	26
North Carolina.....	4,566,155	4,061,929	12.2	1,801,921	2,754,234	39.5	12	10
South Carolina.....	2,382,594	2,117,027	12.5	981,386	1,401,208	41.2	26	27
Georgia.....	3,943,116	3,444,578	14.5	2,180,236	1,762,880	55.3	16	18
Florida.....	4,951,560	2,771,305	78.7	3,661,383	1,290,177	73.9	10	20
E. SO. CENTRAL								
Kentucky.....	3,038,156	2,944,806	3.2	1,353,215	1,684,941	44.5	22	19
Tennessee.....	3,567,089	3,291,718	8.4	1,864,828	1,702,261	52.3	17	16
Alabama.....	3,266,740	3,061,743	6.7	1,791,721	1,475,019	54.8	19	17
Mississippi.....	2,178,141	2,178,914		820,805	1,357,336	37.7	29	26
W. SO. CENTRAL								
Arkansas.....	1,786,272	1,909,511	-6.5	765,303	1,020,969	42.8	31	34
Louisiana.....	3,257,022	2,683,516	21.4	2,060,606	1,196,416	63.3	20	21
Oklahoma.....	2,328,284	2,233,351	4.3	1,464,786	863,498	62.9	27	25
Texas.....	9,579,677	7,711,194	24.2	7,187,470	2,392,207	75.0	6	6
MOUNTAIN								
Montana.....	674,767	591,024	14.2	338,457	336,310	50.2	41	42
Idaho.....	667,191	588,637	13.3	317,097	350,094	47.5	42	47
Wyoming.....	330,066	290,529	13.6	187,551	142,515	56.8	48	48
Colorado.....	1,753,947	1,325,089	32.4	1,292,790	461,157	73.7	33	34
New Mexico.....	1,951,023	681,187	39.6	626,479	1,324,544	65.9	32	37
Arizona.....	1,302,161	749,587	7.7	970,618	331,543	74.5	35	37
Utah.....	890,627	688,862	29.3	667,158	223,469	74.9	39	38
Nevada.....	285,278	160,083	78.2	200,704	84,574	70.4	48	48
PACIFIC								
Washington.....	2,853,214	2,378,963	19.9	1,943,249	909,965	68.1	23	23
Oregon.....	1,768,687	1,521,341	16.3	1,100,122	668,565	62.2	32	32
California.....	15,717,204	10,586,223	48.5	13,573,155	2,144,049	86.4	2	2
Alaska.....	226,167	128,643	75.8	85,767	140,400	37.9	50	50
Hawaii.....	632,772	499,794	26.6	483,961	148,811	76.5	43	45

Households by Type, Color of Head and Residence

Source: Bureau of the Census (Numbers in thousands)

Type of household March 1967	Total		Color of head						Residence			
			White		Nonwhite		Nonfarm		Farm			
	No.	%	No.	%	No.	%	No.	%	No.	%		
All households...	58 845	100.0	52,826	100.0	6,018	100.0	55,910	100.0	2,934	100.0		
Primary families...	48,491	82.9	43,934	83.2	4,856	80.7	46,097	82.4	2,693	91.3		
Husband-wife...	42,489	72.2	38,963	73.8	3,526	58.6	40,022	71.6	2,467	84.1		
Other male head...	1,185	2.0	992	1.9	192	3.2	1,100	2.0	84	2.9		
Female head...	5,117	8.7	3,979	7.5	1,138	18.9	4,975	8.9	142	4.8		
Primary individuals...	10,054	17.1	8,892	16.8	1,162	19.3	9,813	17.6	241	8.2		
Male.....	3,408	5.8	2,890	5.5	518	8.6	3,292	5.9	116	4.0		
Female.....	6,646	11.3	6,002	11.4	644	10.7	6,521	11.7	125	4.3		

United States Population (Official Census), 1790-1880

Source: Bureau of the Census

State	1810	1820	1830 ¹	1840 ¹	1850	1860	1870	1880
Alabama.....	9,046	127,901	309,527	590,756	771,623	964,201	996,992	1,262,505
Arizona.....							9,658	40,440
Arkansas.....	1,062	14,273	30,388	97,574	209,897	435,450	484,471	802,525
California.....					92,597	379,994	560,247	864,694
Colorado.....						34,277	39,864	194,327
Connecticut.....	261,942	275,248	297,675	309,978	370,792	460,147	537,454	622,700
Delaware.....	72,674	72,749	76,748	78,085	91,532	112,216	125,015	146,698
Dist. of Col.....	24,023	33,039	39,834	43,712	51,687	75,080	131,700	177,624
Florida.....			84,730	87,447	140,424	187,748	269,630	542,180
Georgia.....	252,433	340,989	516,823	691,392	906,185	1,057,286	1,184,109	1,542,180
Idaho.....							14,999	32,610
Illinois.....	12,282	55,211	157,445	476,183	851,470	1,711,951	2,539,891	3,077,371
Indiana.....	24,520	147,178	343,031	685,866	988,416	1,350,428	1,680,367	1,978,301
Iowa.....				43,112	192,214	674,913	1,194,020	1,624,615
Kansas.....						107,206	364,399	996,096
Kentucky.....	406,511	564,517	687,917	779,828	982,405	1,155,681	1,321,011	1,648,890
Louisiana.....	76,556	153,407	215,739	352,411	517,762	708,002	726,915	939,946
Maine.....	228,705	298,335	309,455	601,793	583,169	628,279	626,915	648,936
Maryland.....	389,846	407,350	447,040	470,019	588,034	687,049	780,891	934,943
Massachusetts.....	472,040	523,287	610,408	737,699	994,514	1,231,066	1,373,351	1,783,985
Michigan.....	4,762	8,896	31,639	212,267	397,654	749,113	1,184,059	1,636,937
Minnesota.....					6,077	172,023	439,706	780,773
Mississippi.....	40,352	75,448	136,621	375,651	606,526	791,305	827,922	1,131,597
Missouri.....	19,783	66,586	140,455	383,702	682,044	1,182,012	1,721,295	2,168,380
Montana.....							20,595	39,159
Nebraska.....						28,841	122,993	452,402
Nevada.....						6,857	42,491	62,235
New Hampshire.....	214,460	244,161	269,328	284,574	317,976	326,073	318,300	346,991
New Jersey.....	245,562	277,575	320,823	373,306	489,555	672,036	906,099	1,131,116
New Mexico.....					61,847	98,516	91,774	119,565
New York.....	959,049	1,372,812	1,918,608	2,428,921	3,097,394	3,880,735	4,382,759	5,082,371
North Carolina.....	555,500	638,829	737,987	753,419	869,039	992,622	1,071,361	1,399,750
North Dakota.....							2,405	36,909
Ohio.....	230,760	581,434	937,903	1,519,467	1,980,329	2,339,511	2,665,260	3,198,062
Oklahoma.....								
Oregon.....					13,294	62,465	90,923	174,768
Pennsylvania.....	810,091	1,049,458	1,348,233	1,724,033	2,311,786	2,906,215	3,621,951	4,282,891
Rhode Island.....	76,931	83,059	97,199	108,830	147,545	174,620	217,353	276,531
South Carolina.....	415,115	502,741	581,185	594,398	668,507	703,708	705,006	995,577
South Dakota.....							1,770	268
Tennessee.....	261,727	422,823	681,904	829,210	1,002,717	1,109,891	1,258,520	1,512,359
Texas.....					212,592	604,215	818,577	1,591,719
Utah.....					11,380	40,273	68,756	113,963
Vermont.....	217,895	235,981	280,652	291,948	314,120	315,098	330,551	332,286
Virginia.....	974,600	1,065,366	1,221,405	1,239,797	1,421,661	1,596,318	1,225,163	1,512,565
Washington.....						11,594	23,455	75,116
West Virginia.....							412,014	618,457
Wisconsin.....							1,054,679	1,315,497
Wyoming.....				30,945	305,391	775,881	9,115	20,789
Total U. S.....	7,239,881	9,638,453	12,866,020	17,069,453	23,191,876	31,443,321	38,558,371	50,189,209

¹1860 figure is for Dakota Territory; 1870 figures are for parts of Dakota Territory.

U. S. Total includes persons (5,318 in 1830 and 6,100 in 1840) on public ships in the service of the United States not credited to any census, division, or state.

1790—Connecticut 237,916; Delaware 59,096; Georgia 82,548; Kentucky 73,677; Maine 96,540; Maryland 319,728; Massachusetts 378,787; New Hampshire 141,885; New Jersey 184,139; New York 340,120; North Carolina 393,751; Pennsylvania 344,373; Rhode Island 68,825; South Carolina 249,073; Tennessee 35,691; Vermont 85,425; Virginia 747,610. Total 3,929,214.

1800—Connecticut 251,002; Delaware 64,273; Dist. of Col. 14,093; Georgia 162,686; Indiana 5,641; Kentucky 220,955; Maine 151,719; Maryland 341,548; Massachusetts 422,845; Mississippi 8,850; New Hampshire 183,858; New Jersey 211,149; New York 589,051; North Carolina 478,103; Ohio 45,365; Pennsylvania 602,365; Rhode Island 69,122; South Carolina 354,591; Tennessee 105,602; Vermont 154,465; Virginia 880,200. Total 5,308,483.

United States Area and Population: 1790 to 1960

Source: Bureau of the Census

Area figures represent area on indicated date including in some cases considerable areas not then organized or settled, and not covered by the census. Area figures have been adjusted to bring them into agreement with remeasurements made in 1940.

Census date	Area (square miles)			Population		
	Gross	Land	Water	Per sq. mile of land area	Increase over preceding census	
					No.	%
Continental U.S. ¹						
1790 (Aug. 2).....	888,811	864,746	24,065	3,929,214	1.5	(X)
1800 (Aug. 4).....	888,811	864,716	24,065	5,308,183	6.1	1,379,269
1810 (Aug. 6).....	1,716,003	1,681,828	34,175	7,239,881	4.3	1,931,398
1820 (Aug. 7).....	1,788,006	1,749,462	38,544	9,638,453	5.5	2,398,572
1830 (June 1).....	1,788,006	1,749,462	38,544	12,866,020	7.4	3,227,567
1840 (June 1).....	1,788,006	1,749,462	38,544	17,069,453	9.8	4,203,133
1850 (June 1).....	2,992,747	2,940,042	52,705	23,191,876	7.9	6,122,423
1860 (June 1).....	3,022,387	2,969,640	52,747	31,443,321	10.6	8,251,145
1870 (June 1).....	3,022,387	2,969,640	52,747	38,558,371	21.3	8,375,128
1880 (June 1).....	3,022,387	2,969,640	52,747	50,189,209	18.9	10,337,334
1890 (June 1).....	3,022,387	2,969,640	52,747	62,947,711	21.2	12,791,931
1900 (June 1).....	3,022,387	2,969,640	52,747	75,914,711	25.6	13,016,861
1910 (Apr. 15).....	3,022,387	2,969,640	52,747	92,912,766	31.0	15,977,691
1920 (Jan. 1).....	3,022,387	2,969,640	52,747	105,710,620	35.6	17,378,354
1930 (Apr. 1).....	3,022,387	2,977,128	45,259	122,775,016	41.2	17,064,426
1940 (Apr. 1).....	3,022,387	2,977,128	45,259	131,689,275	44.2	8,894,229
1950 (Apr. 1).....	3,022,387	2,977,128	45,259	150,697,361	50.7	19,028,086
1960 (Apr. 1).....	3,022,387	2,977,128	45,259	179,323,175	60.1	27,766,875
1950 (Apr. 1).....	3,615,211	3,552,206	63,005	151,325,798	47.6	19,161,229
1960 (Apr. 1).....	3,615,211	3,552,206	63,005	179,323,175	50.5	27,997,377

X Not applicable. ¹Excludes Alaska and Hawaii. ²Revised to include adjustments for underenumeration in Southern States; unrevised number is 38,558,371. ³Includes Alaska and Hawaii.

United States Population (Official Census), 1890–1960

Source: Bureau of the Census

State	1890	1900	1910	1920	1930	1940	1950	1960
Alabama...	1,513,401	1,828,697	2,138,093	2,348,174	2,616,248	2,832,961	3,061,743	3,266,740
Alaska.....								226,167
Arizona.....	88,245	122,931	204,354	334,162	435,575	499,267	749,587	1,302,161
Arkansas.....	1,128,211	1,311,564	1,574,449	1,752,204	1,854,482	1,949,387	1,909,511	1,786,272
California....	1,213,398	1,885,053	2,377,549	3,426,861	5,677,251	6,907,387	10,586,223	15,717,204
Colorado.....	413,249	539,700	799,024	939,629	1,035,791	1,123,296	1,325,089	1,753,947
Connecticut..	746,258	908,420	1,114,756	1,380,631	1,606,903	1,709,242	2,007,280	2,535,234
Delaware.....	168,493	184,735	202,322	223,003	238,380	266,505	318,085	446,292
Dist. of Col..	230,392	278,718	331,069	437,571	486,869	663,091	802,178	763,956
Florida.....	391,422	528,542	752,619	968,470	1,468,211	1,897,414	2,771,305	4,951,560
Georgia.....	1,837,353	2,216,331	2,609,121	2,895,832	2,908,506	3,123,723	3,444,578	3,943,116
Hawaii.....								632,772
Idaho.....	85,548	161,772	325,594	451,866	645,032	824,873	858,637	667,191
Illinois.....	3,826,352	4,821,550	5,638,591	6,485,280	7,630,654	7,897,241	8,712,176	10,081,153
Indiana.....	2,192,404	2,516,462	2,700,876	2,930,390	3,238,503	3,427,796	3,934,224	4,662,498
Iowa.....	1,912,297	2,231,853	2,224,771	2,404,021	2,470,939	2,538,268	2,621,073	2,757,537
Kansas.....	1,428,108	1,470,495	1,690,949	1,769,257	1,880,999	1,801,028	1,905,299	2,178,611
Kentucky.....	1,858,635	2,147,174	2,289,905	2,416,630	2,614,589	2,845,627	2,944,806	3,038,156
Louisiana....	1,118,588	1,381,625	1,656,388	1,798,509	2,101,593	2,363,880	2,683,516	3,257,022
Maine.....	661,086	694,466	742,371	768,014	797,423	847,226	913,774	969,265
Maryland....	1,042,390	1,188,044	1,295,346	1,449,661	1,631,526	1,821,244	2,343,001	3,100,689
Massach. ts.	2,238,947	2,805,346	3,366,416	3,852,356	4,249,614	4,316,721	4,690,514	5,148,578
Michigan.....	2,093,890	2,420,982	2,810,173	3,668,412	4,842,325	5,256,106	6,371,766	7,823,194
Minnesota....	1,310,283	1,751,394	2,075,708	2,387,125	2,563,953	2,792,300	2,952,483	3,413,864
Mississippi..	1,289,600	1,551,270	1,797,114	1,790,618	2,009,821	2,183,796	2,178,914	2,178,141
Missouri.....	2,679,185	3,106,665	3,293,335	3,404,055	3,629,367	3,784,664	3,954,653	4,319,813
Montana.....	142,924	243,329	376,053	548,889	537,066	559,456	591,024	674,767
Nebraska....	1,062,656	1,066,300	1,192,214	1,296,372	1,377,963	1,315,834	1,325,510	1,411,330
Nevada.....	47,355	42,335	81,875	77,407	91,058	110,247	160,083	285,278
N. Hamp.....	376,530	411,588	430,572	443,083	465,293	491,524	533,242	606,921
New Jersey..	1,444,933	1,883,669	2,537,167	3,155,900	4,041,334	4,160,165	4,835,329	6,066,782
New Mexico..	160,282	195,310	327,301	360,350	423,317	531,818	681,187	951,023
New York....	6,005,174	7,298,894	9,113,614	10,385,227	12,585,066	13,479,142	14,830,192	16,782,304
No. Carolina	1,617,949	1,893,810	2,206,287	2,559,123	3,170,276	3,571,623	4,061,929	4,556,155
N. Dakota....	190,983	319,146	577,056	646,872	680,845	641,935	619,636	632,446
Ohio.....	3,672,329	4,157,545	4,767,121	5,759,394	6,646,097	6,907,612	7,946,627	9,706,397
Oklahoma....	258,657	790,391	1,657,155	2,028,283	2,396,040	2,336,434	2,233,351	2,328,284
Oregon.....	317,704	413,536	672,765	783,389	953,786	1,089,684	1,521,341	1,768,687
Penn.....	5,258,113	6,302,115	7,665,111	8,720,017	9,631,350	9,900,180	10,498,012	11,319,366
Rhode Is....	345,506	428,556	542,610	604,397	687,497	713,346	791,896	859,488
So. Carolina.	1,151,149	1,340,316	1,615,400	1,683,724	1,738,765	1,899,804	2,117,027	2,382,594
So. Dakota..	348,600	401,570	583,888	636,547	692,849	642,961	652,740	680,514
Tennessee...	1,767,518	2,020,616	2,184,789	2,337,885	2,616,556	2,915,841	3,291,718	3,567,089
Texas.....	2,235,527	3,048,710	3,896,542	4,663,228	5,824,715	6,414,824	7,711,194	9,579,677
Utah.....	210,779	276,749	373,351	449,396	507,847	550,310	638,862	890,627
Vermont.....	332,422	343,641	355,956	352,428	359,611	359,231	377,747	389,881
Virginia.....	1,655,980	1,854,184	2,061,612	2,309,187	2,421,851	2,677,773	3,318,680	3,966,949
Washington.	357,232	518,103	1,141,990	1,356,621	1,563,396	1,736,191	2,378,962	2,853,214
W. Virginia.	762,794	958,800	1,221,119	1,463,701	1,729,205	1,901,974	2,005,553	1,860,421
Wisconsin...	1,693,330	2,069,042	2,333,860	2,632,067	2,939,006	3,137,587	3,434,575	3,951,777
Wyoming....	62,555	92,531	145,965	194,402	225,565	250,742	290,529	330,066
Tot. U. S....	62,947,714	75,994,575	91,972,266	105,710,620	122,775,046	131,669,275	150,697,361	179,323,175

U. S. Center of Population, 1790 to 1960

Source: Bureau of the Census

Center of population is that point which may be considered as center of population gravity of the U. S. or that point upon which the U. S. would balance if it were a rigid plane without weight and the population distributed thereon with each individual being assumed to have equal weight and to exert an influence on a central point proportional to his distance from that point.

Year	North latitude	West longitude	Approximate location
CONTINUED U.S. ¹			
1790.....	39 16 30	76 11 12	23 miles east of Baltimore, Md.
1800.....	39 16 6	76 56 30	18 miles west of Baltimore, Md.
1810.....	39 11 30	77 37 12	40 miles northwest by west of Washington, D. C. (in Virginia).
1820.....	39 5 42	78 33 0	16 miles east of Moorefield, W. Va. ²
1830.....	38 57 54	79 16 54	19 miles west-southwest of Moorefield, W. Va. ³
1840.....	39 2 0	80 18 0	16 miles south of Clarksburg, W. Va. ²
1850.....	38 59 0	81 19 0	23 miles southeast of Parkersburg, W. Va. ³
1860.....	39 0 24	82 48 48	20 miles south by east of Chillicothe, Ohio.
1870.....	39 12 0	83 35 42	48 miles east by north of Cincinnati, Ohio.
1880.....	39 8 8	84 39 40	8 miles west by south of Cincinnati, Ohio (in Ky.)
1890.....	39 11 56	85 32 53	20 miles east of Columbus, Ind.
1900.....	39 9 36	85 48 54	6 miles southeast of Columbus, Ind.
1910.....	39 10 12	86 32 20	In the city of Bloomington, Ind.
1920.....	39 10 21	86 43 15	8 miles south-southeast of Spencer, Owen County, Ind.
1930.....	39 8 45	87 8 6	3 miles northeast of Linton, Greene County, Ind.
1940.....	38 56 54	87 22 35	2 miles southeast by east of Carlisle, Haddon township, Sullivan County, Ind.
1950.....	38 50 21	88 9 33	8 miles north-northwest of Olney, Richland County, Ill.
1960.....	38 37 57	88 52 23	4 miles east of Salem in Marion County, Ill.
UNITED STATES ³			
1950.....	38 48 15	88 22 8	About 3 miles northeast of Louisville, in Clay County, Ill.
1960.....	38 35 58	89 12 35	6½ miles northwest of Centralia, Ill., and approximately 50 miles east of East St. Louis, Ill.

¹Excludes Alaska and Hawaii.²West Virginia was set off from Virginia Dec. 31, 1862, and admitted as a State June 20, 1863.³Includes Alaska and Hawaii.

U. S. Population, White and Nonwhite, by States

Source: Bureau of the Census (Census of 1960)

State	All classes		White		Nonwhite	
	Male	Female	Male	Female	Male	Female
Alabama.....	1,591,709	1,675,031	1,124,061	1,159,548	467,648	515,483
Alaska.....	128,811	97,356	101,194	73,352	27,617	24,004
Arizona.....	654,928	647,233	587,872	581,645	67,056	65,588
Arkansas.....	878,987	907,285	690,762	704,941	188,225	202,344
California.....	7,836,707	7,880,497	7,193,094	7,262,136	643,613	618,361
Colorado.....	870,467	883,480	843,575	857,125	26,892	26,355
Connecticut.....	1,244,229	1,291,005	1,189,653	1,234,163	54,576	56,842
Delaware.....	221,136	225,156	190,186	194,141	30,950	31,015
Dist. of Col.....	358,171	405,783	58,124	187,139	290,047	218,646
Florida.....	2,436,783	2,514,777	2,000,593	2,063,288	436,190	451,489
Georgia.....	1,925,913	2,017,203	1,391,735	1,425,487	534,178	591,715
Hawaii.....	338,173	294,599	112,915	89,315	225,258	205,284
Idaho.....	338,421	328,770	333,298	324,085	5,123	4,685
Illinois.....	4,952,866	5,128,292	4,435,687	4,574,565	517,179	553,727
Indiana.....	2,298,738	2,363,760	2,165,509	2,223,045	133,229	140,715
Iowa.....	1,359,047	1,398,490	1,344,933	1,383,776	14,114	14,714
Kansas.....	1,081,377	1,097,234	1,031,409	1,047,257	49,968	49,977
Kentucky.....	1,508,448	1,529,708	1,401,904	1,418,179	106,544	111,529
Louisiana.....	1,592,254	1,684,768	1,090,306	1,121,409	501,948	563,359
Maine.....	479,064	490,211	475,682	487,609	3,372	2,602
Maryland.....	1,533,200	1,587,489	1,273,444	1,300,475	259,756	287,014
Massachusetts.....	2,486,235	2,662,443	2,233,947	2,399,197	252,288	263,146
Michigan.....	3,882,868	3,940,326	3,520,422	3,565,443	362,446	374,883
Minnesota.....	1,692,962	1,720,902	1,671,493	1,700,110	21,469	20,792
Mississippi.....	1,067,933	1,110,208	625,011	632,535	442,922	477,673
Missouri.....	2,108,279	2,211,534	1,918,378	2,004,589	189,901	206,945
Montana.....	343,743	331,024	331,374	319,364	12,369	11,660
Nebraska.....	700,026	711,304	681,603	693,161	18,423	18,143
Nevada.....	147,521	137,757	136,298	127,145	11,223	10,612
New Hampshire.....	298,107	308,814	296,662	307,672	1,445	1,142
New Jersey.....	2,971,991	3,094,791	2,717,512	2,821,491	254,479	273,300
New Mexico.....	479,770	471,233	442,352	433,411	37,418	37,842
New York.....	8,123,239	8,659,065	7,421,364	7,866,707	701,875	793,358
North Carolina.....	2,247,069	2,309,086	1,684,797	1,714,488	562,272	594,598
North Dakota.....	323,208	309,238	316,637	302,901	6,571	6,337
Ohio.....	4,764,228	4,942,169	4,376,126	4,533,572	388,102	408,597
Oklahoma.....	1,147,851	1,180,433	1,041,202	1,066,698	106,649	113,735
Oregon.....	879,951	888,736	861,040	870,997	18,911	17,739
Pennsylvania.....	5,509,851	5,809,515	5,093,879	5,360,125	415,972	449,390
Rhode Island.....	421,845	437,643	411,265	427,447	10,580	10,196
South Carolina.....	1,175,818	1,206,776	775,754	775,268	400,064	431,508
South Dakota.....	344,271	336,243	330,434	322,664	13,837	13,579
Tennessee.....	1,740,690	1,826,399	1,459,508	1,518,245	281,182	308,154
Texas.....	4,744,981	4,824,696	4,159,510	4,215,321	585,471	619,375
Utah.....	444,924	445,703	436,198	437,630	8,726	8,073
Vermont.....	191,743	198,138	191,321	197,771	422	367
Virginia.....	1,979,372	1,987,577	1,571,139	1,571,304	408,233	416,273
Washington.....	1,435,037	1,418,177	1,381,261	1,370,414	53,776	47,763
West Virginia.....	915,035	945,386	871,178	898,955	43,857	46,431
Wisconsin.....	1,964,512	1,987,265	1,918,199	1,940,704	46,313	46,568
Wyoming.....	160,075	161,051	165,349	157,573	3,666	3,471
Total.....	88,331,494	90,991,681	78,367,149	80,464,583	9,964,345	10,527,098

Latest U. S. Population by Age, Color and Sex

Source: Bureau of Census

Estimates of the total population of the United States and Armed Forces Abroad, July, 1967

Age	All classes			White		Nonwhite	
	Total	Male	Female	Male	Female	Male	Female
All ages.....	199,118,000	97,945,000	101,173,000	86,258,000	88,797,000	10,629,000	11,354,000
Under 5 years.....	19,191,000	9,745,000	9,397,000	8,196,000	7,822,000	1,463,000	1,433,000
5 to 9 years.....	20,910,000	10,642,000	10,268,000	9,071,000	8,700,000	1,434,000	1,433,000
10 to 14 years.....	19,885,000	10,101,000	9,784,000	8,695,000	8,378,000	1,292,000	1,298,000
15 to 19 years.....	17,885,000	9,082,000	8,786,000	7,889,000	7,543,000	1,098,000	1,102,000
20 to 24 years.....	15,197,000	7,665,000	7,531,000	6,769,000	6,617,000	823,000	840,000
25 to 29 years.....	12,118,000	6,045,000	6,083,000	5,343,000	5,330,000	630,000	685,000
30 to 34 years.....	10,975,000	5,137,000	5,518,000	4,823,000	4,839,000	552,000	626,000
35 to 39 years.....	11,610,000	5,713,000	5,897,000	5,095,000	5,172,000	551,000	641,000
40 to 44 years.....	12,374,000	6,034,000	6,341,000	5,416,000	5,627,000	554,000	645,000
45 to 49 years.....	11,841,000	5,745,000	6,097,000	5,185,000	5,464,000	506,000	583,000
50 to 54 years.....	10,780,000	5,224,000	5,556,000	4,729,000	5,001,000	450,000	518,000
55 to 59 years.....	9,525,000	4,571,000	4,952,000	4,155,000	4,489,000	378,000	435,000
60 to 64 years.....	8,048,000	3,778,000	4,250,000	3,452,000	3,875,000	305,000	346,000
65 to 69 years.....	6,501,000	3,058,000	3,543,000	2,714,000	3,291,000	241,000	252,000
70 to 74 years.....	5,177,000	2,236,000	2,941,000	2,067,000	2,726,000	154,000	200,000
75 to 79 years.....	3,785,000	1,587,000	2,198,000	1,462,000	2,038,000	114,000	152,000
80 to 84 years.....	2,160,000	871,000	1,286,000	800,000	1,195,000	66,000	87,000
85 years and over.....	1,174,000	416,000	727,000	396,000	661,000	47,000	64,000
1 to 4 years.....	15,652,000	7,988,000	7,664,000	6,695,000	6,390,000	1,183,000	1,167,000
5 to 13 years.....	36,965,000	18,799,000	18,167,000	16,088,000	15,157,000	2,482,000	2,486,000
14 to 17 years.....	14,625,000	7,134,000	7,191,000	6,132,000	6,190,000	922,000	926,000
18 to 21 years.....	13,632,000	6,913,000	6,720,000	6,073,000	5,874,000	774,000	782,000
14 years and over.....	142,961,000	69,351,000	73,609,000	61,975,000	65,518,000	6,684,000	7,425,000
18 years and over.....	128,336,000	61,918,000	66,418,000	55,543,000	59,329,000	5,762,000	6,499,000
21 years and over.....	117,503,000	56,118,000	61,085,000	50,714,000	54,663,000	5,147,000	5,880,000
62 years and over.....	23,163,000	10,294,000	13,169,000	9,429,000	12,114,000	772,000	955,000
65 years and over.....	18,796,000	8,101,000	10,695,000	7,438,000	9,889,000	591,000	755,000
Median age, years.....	27.7	26.4	29.0	27.4	30.1	20.2	22.4

U. S. Population, Nonwhite, by States and Races

Source: Bureau of the Census (Census of 1950-1960.)

State	Total		Negro		Indian		Japanese		Chinese	
	1960	1950	1960	1950	1960	1950	1960	1950	1960	1950
Alabama....	983,131	982,152	980,271	979,617	1,276	928	500	88	288	187
Alaska.....	51,621	35,835	6,771	(¹)	14,444	14,089	818	(¹)	137	(¹)
Ariz.....	132,644	95,076	43,403	25,974	83,387	65,761	1,501	780	2,936	1,951
Ark.....	390,569	428,004	388,737	428,639	580	533	237	113	676	592
Calif.....	1,261,974	671,050	883,861	462,172	39,014	19,947	157,317	84,956	95,600	58,324
Colo.....	53,247	28,436	39,992	20,177	4,288	1,567	6,846	5,412	724	458
Conn.....	111,418	54,951	107,449	63,472	923	333	653	254	865	450
Dist. of Col..	418,693	284,313	411,737	280,803	587	330	900	353	2,632	1,825
Del.....	61,965	44,207	60,888	43,598	597	.....	152	14	191	85
Fla.....	887,679	605,254	880,186	603,101	2,504	1,011	1,315	238	1,023	429
Ga.....	1,125,893	1,064,001	1,122,596	1,062,762	749	333	885	128	686	511
Hawaii.....	430,542	385,001	4,943	2,651	472	(¹)	203,455	184,611	38,197	32,376
Idaho.....	9,808	7,242	1,502	1,050	5,231	3,800	2,254	1,980	311	244
Ill.....	1,070,906	666,118	1,037,470	645,980	4,704	1,443	14,074	11,646	7,047	4,207
Ind.....	273,944	175,712	269,275	174,168	948	438	1,093	318	952	496
Ia.....	28,828	21,527	25,354	19,692	1,708	1,084	599	310	423	310
Kan.....	99,945	76,338	91,445	73,158	5,069	2,381	1,362	116	537	315
Kentucky....	218,073	202,716	215,949	201,921	391	234	774	74	288	335
La.....	1,045,307	886,833	1,039,207	882,428	3,587	409	519	127	731	526
Me.....	5,974	2,928	3,318	1,221	1,879	1,522	343	30	123	77
Md.....	526,770	388,026	518,410	385,972	1,538	314	1,842	289	2,188	795
Mass.....	125,434	79,011	111,842	73,171	2,118	1,201	1,924	384	6,745	3,627
Mich.....	737,329	453,941	717,581	442,296	9,701	7,000	3,211	1,517	3,234	1,619
Minn.....	42,261	28,786	22,263	14,022	15,496	12,533	1,726	1,049	1,270	720
Miss.....	920,595	990,282	915,743	986,494	3,119	2,502	178	62	1,244	1,011
Mo.....	396,846	299,060	390,853	297,088	1,723	547	1,473	527	954	519
Mont.....	24,029	18,986	1,467	1,232	21,181	16,606	589	524	240	209
Nebr.....	36,566	24,182	29,262	19,234	5,545	3,954	905	619	290	202
Nev.....	21,835	10,175	13,484	4,302	6,681	5,025	544	382	572	281
N. H.....	2,587	967	1,903	731	135	74	207	25	152	93
N. J.....	527,779	323,744	514,876	318,565	1,699	621	3,514	1,784	3,813	1,818
N. M.....	75,260	50,976	17,063	8,408	56,255	41,901	930	251	362	166
N. Y.....	1,495,233	958,097	1,417,511	918,191	16,491	10,640	8,702	3,893	37,573	20,171
N. C.....	1,156,870	1,078,803	1,116,021	1,047,353	38,129	3,742	1,265	98	404	345
N. D.....	12,908	11,188	777	257	11,736	10,766	127	61	100	82
Ohio.....	796,899	518,405	786,097	513,072	1,910	1,146	3,135	1,986	2,507	1,542
Okla.....	220,384	200,825	153,084	145,503	64,689	53,769	749	137	398	397
Ore.....	36,650	24,213	18,133	11,529	8,026	5,820	5,016	3,660	2,995	2,102
Pa.....	865,362	644,164	852,750	638,485	2,122	1,141	2,348	1,029	3,741	2,258
R. I.....	20,776	14,881	18,332	13,903	932	385	192	25	574	403
S. C.....	831,572	823,622	829,291	822,077	1,098	554	460	34	158	101
S. D.....	27,416	24,236	1,114	727	25,794	23,344	188	56	89	44
Tenn.....	589,336	531,461	586,876	530,603	638	339	507	104	487	230
Texas.....	1,204,846	984,660	1,187,125	977,458	5,750	2,736	4,053	957	4,172	2,435
Utah.....	16,799	11,953	4,148	2,729	6,961	4,201	4,371	4,452	629	335
Vt.....	789	559	519	443	57	30	79	14	68	34
Va.....	824,506	737,125	816,258	734,211	2,155	1,056	1,733	193	1,135	565
Wash.....	101,539	62,467	48,738	30,691	21,076	13,816	16,652	9,694	5,491	3,408
W. Va.....	90,288	115,270	89,378	114,867	181	160	176	46	138	99
Wis.....	92,874	41,885	74,546	28,182	14,297	12,196	1,425	529	1,010	590
Wyo.....	7,144	6,520	2,183	2,557	4,020	3,237	514	450	192	106
Total.....	20,491,443	16,176,169	18,871,831	15,044,937	523,591	357,499	464,332	326,379	237,292	150,005

State	Filipino *	All other **	State	Filipino *	All other **	State	Filipino *	All other **
	1960	1960		1960	1960		1960	1960
Ala.....	127	669	La.....	754	509	Okla.....	287	1,197
Alaska.....	814	28,637	Me.....	131	180	Ore.....	1,109	1,371
Ariz.....	943	474	Md.....	1,670	1,122	Pa.....	1,640	2,761
Ark.....	83	206	Mass.....	809	1,996	R. I.....	424	322
Calif.....	*65,459	20,723	Mich.....	1,134	2,468	S. C.....	328	237
Colo.....	605	792	Minn.....	646	860	S. D.....	59	172
Conn.....	726	802	Miss.....	69	252	Tenn.....	249	579
D. of C.....	1,158	1,679	Mo.....	719	1,124	Texas.....	1,623	2,123
Del.....	67	270	Mont.....	253	299	Utah.....	207	483
Fla.....	1,361	1,290	Nebr.....	123	441	Vt.....	25	41
Ga.....	433	544	Nev.....	286	268	Va.....	1,857	1,368
Hawaii.....	*69,070	114,405	N. H.....	41	149	Wash.....	*7,110	2,472
Idaho.....	193	317	N. J.....	1,451	2,427	W. Va.....	105	310
Ill.....	3,587	4,024	N. M.....	192	458	Wis.....	401	1,195
Ind.....	402	1,274	N. Y.....	*5,403	9,553	Wyo.....	99	136
Ia.....	167	577	N. C.....	343	708			
Kan.....	372	1,160	N. D.....	47	121			
Ky.....	236	435	Ohio.....	943	2,107	Total.....	176,310	218,807

¹Not available.

*Filipino 1950—California 40,424; Hawaii 61,071; New York 3,719; Washington 4,274. All other states not available.

**All other total for 1950, 174,642.

Foreign Born and 2nd Generation in U. S.: Countries of Origin

BY NATIVITY, COLOR AND SEX

"Foreign stock," as used in this table, includes foreign born American residents, plus native born American residents whose father, mother or both were immigrants

Source: Bureau of the Census (Census of 1960)

Country of Origin	Total foreign stock			Foreign born ¹		Native of foreign or mixed parentage ²	
	Total	White	Non-white	White	Non-white	White	Non-white
Austria.....	1,098,630	1,097,581	1,049	304,192	315	793,389	734
Belgium.....	140,266	140,028	238	50,210	84	89,818	154
Canada ³	3,181,051	3,153,514	27,537	941,906	10,594	2,211,608	16,943
China.....	208,455	32,543	175,912	12,858	86,877	19,685	89,035
Cuba.....	124,418	116,354	8,062	74,921	4,229	41,433	3,833
Czechoslovakia.....	917,830	917,172	658	227,467	151	689,705	507
Denmark.....	399,350	398,806	544	84,989	71	313,817	473
Finland.....	240,827	240,525	302	67,540	84	172,985	218
France.....	351,681	349,360	2,321	110,864	718	238,496	1,603
Germany.....	4,320,664	4,312,638	8,026	986,564	3,251	3,326,074	4,775
Greece.....	378,586	377,973	613	158,894	273	219,079	340
Hungary.....	701,637	700,899	738	244,945	307	455,954	431
Ireland (Eire).....	1,773,332	1,771,070	2,262	338,350	372	1,432,720	1,870
Italy.....	4,543,935	4,534,692	9,243	1,255,812	1,187	3,283,880	3,056
Japan.....	322,090	30,169	291,921	11,686	97,487	18,483	194,432
Lithuania.....	402,846	402,498	348	121,349	126	281,149	222
Mexico.....	1,735,992	1,724,838	11,154	572,564	3,393	1,152,274	7,816
Netherlands.....	398,658	398,151	507	118,160	255	279,991	252
Norway.....	774,754	774,081	673	152,644	54	621,437	619
Philippines.....	201,746	45,328	156,418	15,624	89,219	29,704	67,199
Poland.....	2,780,026	2,778,210	1,816	747,250	500	2,030,960	1,316
Romania.....	233,805	233,540	265	84,471	104	149,069	161
Spain.....	126,163	125,167	996	44,815	184	80,352	812
Sweden.....	1,046,942	1,044,763	1,179	214,313	178	831,450	1,001
Switzerland.....	263,054	262,734	320	61,490	78	201,244	242
Turkey.....	106,225	105,790	435	51,887	341	53,903	94
United Kingdom.....							
England.....	1,826,825	1,820,740	6,085	526,157	2,048	1,294,583	4,037
Scotland.....	668,672	667,672	1,000	213,026	193	454,646	807
Wales.....	134,008	133,793	215	23,407	62	110,386	153
Northern Ireland.....	255,146	254,809	337	68,083	79	186,726	258
USSR.....	2,290,267	2,286,986	3,281	689,462	1,136	1,597,524	2,145
Yugoslavia.....	448,503	448,142	361	165,658	140	282,484	221
Total.....	32,396,362	31,686,566	709,796	8,741,558	304,037	22,945,008	405,759
Other Countries.....	1,653,992	1,391,773	262,219	552,434	140,062	839,339	122,157
Total all countries.....	34,050,354	33,078,339	972,015	9,293,992	444,099	23,784,347	527,916

³Includes Newfoundland.

¹Foreign born—White, Male 4,507,502, Female 4,786,490. Nonwhite, Male 252,930, Female 191,169.

²Native of foreign or mixed parentage—White, Male 11,568,891, Female 12,215,456. Nonwhite, Male 266,746, Female 261,170.

Foreign Born in U. S. Standard Metropolitan Statistical Areas

See pages 652-654 for total population

Source: Bureau of the Census (Census of 1960)

Country	Boston	Chicago	Cleveland	Detroit	Los Angeles-Long Beach	New York	Philadelphia	San Francisco Oakland
Austria.....	2,683	20,805	8,274	6,725	12,278	95,631	9,441	4,431
Belgium.....	777	3,451	298	6,840	2,855	6,113	760	979
Canada ¹	83,364	21,428	7,827	94,027	83,685	42,823	8,682	24,328
China.....	2,790	3,011	481	1,022	8,924	21,529	1,287	23,207
Cuba.....	385	1,736	212	400	2,194	30,018	788	416
Czechoslovakia.....	573	28,156	16,935	5,024	6,656	33,756	4,005	1,861
Denmark.....	940	6,093	456	1,628	6,275	7,205	811	4,680
Finland.....	1,622	2,036	1,030	1,966	2,152	8,200	468	2,382
France.....	2,128	3,872	986	2,339	7,860	23,875	3,166	6,460
Germany.....	8,744	74,120	16,496	25,942	43,056	199,685	32,643	25,052
Greece.....	7,787	14,995	2,212	5,873	4,819	32,250	2,962	4,740
Hungary.....	1,189	13,645	18,249	10,790	13,340	52,305	8,549	2,747
Ireland (Eire).....	38,741	25,795	4,238	4,402	7,321	119,280	17,745	9,254
Italy.....	57,718	61,930	19,317	30,794	31,934	345,489	63,570	34,051
Japan.....	532	2,882	237	638	17,186	4,413	1,285	6,823
Lithuania.....	6,416	24,802	3,755	4,479	3,760	13,331	4,728	523
Mexico.....	248	23,450	447	3,565	117,004	3,909	557	18,977
Netherlands.....	1,082	6,462	800	2,777	12,811	7,433	1,004	3,766
Norway.....	2,106	9,854	523	1,164	6,483	24,783	1,213	4,635
Philippines.....	488	2,358	191	673	9,323	4,390	936	16,176
Poland.....	12,323	90,109	19,437	49,993	23,371	188,492	24,741	4,450
Romania.....	760	6,893	3,540	5,219	5,433	27,085	4,258	1,063
Spain.....	325	485	178	782	2,630	12,193	591	4,005
Sweden.....	6,526	26,316	1,425	2,875	11,709	17,071	1,632	6,902
Switzerland.....	597	2,112	467	913	4,168	8,636	1,043	4,304
Turkey.....	3,701	1,902	492	3,500	4,425	13,213	1,623	1,282
United Kingdom.....								
England.....	14,728	18,530	7,613	23,479	47,250	58,259	18,441	16,966
Scotland.....	8,318	8,835	3,895	18,132	14,644	30,229	8,863	6,187
Wales.....	328	846	599	960	1,719	1,478	726	759
Northern Ireland.....	3,099	3,191	291	2,211	3,529	15,516	7,056	2,121
USSR.....	28,863	43,700	11,487	19,435	43,514	222,874	46,048	12,399
Yugoslavia.....	306	21,574	15,505	8,570	9,656	13,954	2,738	3,175
Other Countries.....	20,131	25,633	6,691	17,425	44,616	172,991	13,979	40,550
Total.....	320,328	601,010	175,134	364,575	616,673	1,858,898	297,229	300,241

¹Includes Newfoundland.

Country of Birth of Foreign Born

Source: Bureau of the Census (1960 Census)

State	Total Foreign Born	Austria	Belgium	Canada ¹	China	Czechoslovak	Denmark	England ²	Finland	France	Germany
Alabama.....	14,955	357	78	1,171	124	223	114	2,350	39	465	3,196
Alaska.....	8,227	105	37	1,866	108	99	157	641	201	163	1,103
Arizona.....	70,318	1,061	268	6,234	1,053	643	430	4,101	219	624	4,273
Arkansas.....	7,457	250	69	687	251	175	63	1,128	21	143	1,457
California.....	1,343,686	21,269	5,012	149,351	40,796	10,847	17,503	121,442	6,809	20,585	95,279
Colorado.....	59,874	2,067	291	3,954	449	910	979	5,269	198	904	8,522
Connecticut.....	275,523	6,096	647	34,253	543	6,616	1,816	21,960	1,962	2,770	19,446
Delaware.....	14,650	330	87	912	60	201	64	1,982	41	150	1,726
Dist. of Col.....	38,971	862	164	1,902	1,411	523	242	3,406	146	1,280	3,166
Florida.....	272,161	7,830	1,378	31,905	631	4,217	2,752	32,324	2,710	4,022	24,757
Georgia.....	25,300	649	173	2,048	344	316	179	3,616	94	776	6,906
Hawaii.....	68,897	141	92	1,312	3,541	75	78	1,229	28	202	1,287
Idaho.....	15,542	336	70	2,500	140	208	588	1,731	216	245	1,685
Illinois.....	686,093	23,288	6,495	25,268	3,520	30,345	7,087	37,179	2,297	5,684	87,707
Indiana.....	93,202	2,579	1,645	6,533	596	3,773	411	8,465	187	1,215	13,474
Iowa.....	56,278	845	565	2,725	246	2,307	4,864	3,917	88	662	14,368
Kansas.....	33,268	1,242	401	2,038	291	786	454	3,067	64	765	7,049
Kentucky.....	16,830	463	117	1,161	155	168	85	2,091	4	511	5,015
Louisiana.....	30,557	365	165	1,611	331	182	199	2,622	67	1,357	3,091
Maine.....	60,403	150	28	44,075	107	225	285	3,939	653	309	1,378
Maryland.....	94,174	2,468	435	5,847	974	2,187	639	9,453	481	1,618	15,239
Massachusetts.....	576,452	5,026	1,537	152,057	3,256	1,762	1,536	49,285	6,050	4,839	17,593
Michigan.....	529,624	10,649	9,034	126,095	1,628	10,005	3,009	57,217	9,111	3,526	43,655
Minnesota.....	143,874	3,753	881	13,722	760	3,592	477	16,936	8,717	635	18,129
Mississippi.....	8,058	63	32	567	546	56	83	1,150	34	211	1,083
Missouri.....	77,756	3,926	546	3,563	432	1,803	588	5,515	41	1,041	15,728
Montana.....	30,646	1,058	259	5,619	98	425	1,010	3,349	727	256	2,568
Nebraska.....	40,238	871	247	1,562	108	3,819	2,888	2,333	37	257	8,743
Nevada.....	13,133	343	76	1,798	322	57	330	1,381	57	621	1,120
N. Hampshire.....	44,772	423	298	26,301	81	109	118	3,630	542	333	1,639
New Jersey.....	615,474	22,397	2,723	17,674	2,028	16,341	3,704	55,203	2,163	7,290	81,505
New Mexico.....	21,408	320	108	1,123	211	149	84	1,810	23	395	1,949
New York.....	2,289,310	107,101	7,955	111,280	22,251	42,021	9,462	131,122	9,765	27,639	250,173
North Carolina.....	21,978	506	163	2,113	255	186	160	3,052	35	547	4,657
North Dakota.....	29,907	562	105	3,749	75	418	764	730	182	103	2,794
Ohio.....	396,610	17,340	1,380	20,643	1,473	29,304	1,139	34,760	2,216	3,312	46,988
Oklahoma.....	20,003	503	103	1,674	184	681	169	2,342	11	468	4,234
Oregon.....	71,314	1,520	409	15,853	1,161	950	1,813	7,366	2,227	782	6,907
Pennsylvania.....	603,490	36,750	2,018	14,432	1,738	34,646	1,303	52,030	947	5,361	54,878
Rhode Island.....	85,974	830	524	18,072	393	197	123	12,321	414	1,320	2,535
South Carolina.....	11,140	242	61	1,039	122	112	44	2,022	31	446	2,266
South Dakota.....	18,577	340	95	1,050	37	593	1,624	993	151	51	3,342
Tennessee.....	15,843	306	92	1,575	226	200	106	2,111	16	261	2,836
Texas.....	298,791	2,752	738	7,960	1,941	5,054	893	12,176	172	2,444	19,506
Utah.....	32,133	441	232	2,256	287	112	1,665	5,568	169	359	5,585
Vermont.....	23,336	133	27	15,092	59	107	98	1,997	269	179	746
Virginia.....	48,181	996	328	4,736	745	861	531	7,321	151	1,547	8,132
Washington.....	178,658	2,868	706	44,423	2,925	1,266	3,336	18,552	4,703	1,501	14,483
West Virginia.....	23,863	912	323	822	84	947	71	2,545	72	337	1,536
Wisconsin.....	171,519	8,411	1,020	7,505	547	6,679	4,400	7,519	1,946	899	43,554
Wyoming.....	9,663	412	57	774	91	140	303	1,535	120	182	827
Totals.....	9,738,091	304,507	50,294	952,500	99,735	227,618	85,060	764,893	67,624	111,582	989,815

¹Includes Newfoundland. ²Includes Scotland and Wales

State	Greece	Hungary	Ireland (Eire)	Italy	State	Greece	Hungary	Ireland (Eire)	Italy
Alabama.....	715	262	243	1,151	Nebraska.....	454	283	500	1,996
Alaska.....	63	110	82	101	Nevada.....	383	171	202	1,665
Arizona.....	599	798	610	2,450	N. Hampshire.....	2,006	121	1,221	1,138
Arkansas.....	229	130	108	525	New Jersey.....	7,396	27,389	22,386	137,356
California.....	14,491	19,799	21,340	102,366	New Mexico.....	321	99	188	809
Colorado.....	903	1,049	894	4,797	New York.....	36,579	60,382	131,764	440,063
Connecticut.....	3,459	7,954	12,262	65,233	North Carolina.....	1,549	253	268	567
Delaware.....	374	259	606	2,914	North Dakota.....	106	515	221	73
Dist. of Col.....	1,774	639	1,005	3,086	Ohio.....	8,872	35,082	7,184	50,338
Florida.....	3,720	7,404	4,408	16,217	Oklahoma.....	387	256	203	710
Georgia.....	884	244	389	750	Oregon.....	897	866	1,378	3,024
Hawaii.....	48	117	115	249	Pennsylvania.....	8,816	23,823	22,534	131,149
Idaho.....	209	147	172	420	Rhode Island.....	858	220	4,426	18,438
Illinois.....	16,660	15,652	26,880	72,139	South Carolina.....	739	108	188	260
Indiana.....	3,517	5,816	1,673	4,756	South Dakota.....	183	79	161	174
Iowa.....	1,145	324	769	2,254	Tennessee.....	426	279	176	1,383
Kansas.....	431	274	496	1,024	Texas.....	2,034	1,238	2,228	4,568
Kentucky.....	400	299	437	911	Utah.....	1,537	79	139	1,437
Louisiana.....	356	303	563	5,470	Vermont.....	141	104	327	1,208
Maine.....	482	136	1,219	1,568	Virginia.....	1,709	811	945	2,468
Maryland.....	2,818	1,775	2,202	10,454	Washington.....	1,918	1,170	2,158	6,072
Massachusetts.....	13,519	1,871	51,428	86,921	West Virginia.....	1,292	1,380	235	5,882
Michigan.....	7,782	14,996	5,582	36,879	Wisconsin.....	1,891	6,787	945	8,479
Minnesota.....	1,176	1,297	1,398	3,541	Wyoming.....	498	95	254	555
Mississippi.....	247	46	159	923					
Missouri.....	1,833	2,636	2,513	9,033					
Montana.....	341	325	938	1,055					
Totals.....	159,167	245,252	338,722	1,256,999					

(Continued on page 600)

Country of Birth of Foreign Born

(Continued from page 599) Source: Bureau of the Census (1960 Census)

States	Japan	Lith- uania	Mexi- co	Neth- er- lands	North Ire- land	Nor- way	Phil- ip- pines	Po- land	Por- tugal	Ro- mania	Spain
Alabama.....	329	136	141	144	68	128	113	415	12	56	44
Alaska.....	376	8	77	52	49	982	515	97	4	8	10
Arizona.....	538	339	35,834	529	202	434	554	1,489	59	278	291
Arkansas.....	137	74	209	44	29	58	63	193	4	82	38
California.....	38,332	5,063	248,542	23,513	7,258	15,723	44,635	31,877	13,921	7,718	10,897
Colorado.....	1,964	196	4,882	966	237	580	559	2,032	15	450	135
Connecticut.....	303	7,508	245	1,132	2,278	1,734	630	30,326	3,253	862	1,045
Delaware.....	133	79	51	250	242	110	34	1,599	35	61	32
Dist. of Col.....	642	385	330	308	122	227	877	1,943	117	187	390
Florida.....	945	2,126	1,312	3,132	1,690	2,744	1,307	11,770	443	2,519	3,475
Georgia.....	548	118	161	287	140	142	343	1,138	88	154	138
Hawaii.....	24,658	38	112	90	43	82	28,649	93	764	29	146
Idaho.....	497	20	1,010	383	96	725	64	134	4	48	961
Illinois.....	3,551	27,977	25,477	7,734	3,554	11,524	2,534	94,132	136	7,194	735
Indiana.....	601	1,410	5,058	1,729	499	440	283	9,600	25	1,587	382
Iowa.....	258	427	1,038	4,335	395	3,159	130	1,133	10	180	23
Kansas.....	1,154	81	3,495	323	134	239	408	836	9	89	93
Kentucky.....	603	137	116	152	107	49	118	511	11	119	40
Louisiana.....	396	45	3,714	367	111	362	594	742	46	144	374
Maine.....	304	574	63	69	176	366	112	773	73	35	25
Maryland.....	1,299	2,602	478	912	526	730	1,280	7,825	94	801	340
Massachusetts.....	1,397	13,387	403	1,902	4,848	3,401	703	36,536	21,453	1,042	579
Michigan.....	1,324	7,143	6,292	20,395	3,014	2,868	919	63,378	117	6,037	893
Minnesota.....	533	785	846	2,649	358	20,009	511	6,295	.....	902	32
Mississippi.....	160	50	232	88	30	87	96	134	8	31	51
Missouri.....	816	642	2,506	451	304	199	600	5,072	53	1,512	361
Montana.....	262	78	430	748	201	3,371	167	611	.....	141	38
Nebraska.....	307	763	1,521	258	119	367	103	1,836	4	160	43
Nevada.....	257	24	920	130	71	159	240	188	63	56	620
New Hampshire.....	165	607	28	115	191	303	104	1,907	91	33	52
New Jersey.....	1,832	6,667	769	10,928	6,672	6,432	1,115	63,689	4,927	4,030	3,626
New Mexico.....	467	57	10,725	226	56	103	181	182	4	33	110
New York.....	5,564	17,815	4,496	13,132	18,749	27,125	5,037	234,742	4,489	29,040	13,563
North Carolina.....	1,140	105	207	521	145	190	261	554	28	66	57
North Dakota.....	152	42	72	241	49	7,274	28	545	7	267	4
Ohio.....	1,256	5,473	2,639	2,233	1,835	1,079	652	34,597	226	9,134	1,075
Oklahoma.....	600	88	1,105	249	94	146	198	534	28	65	58
Oregon.....	1,297	261	1,000	1,178	376	3,908	728	1,110	98	335	221
Pennsylvania.....	1,307	13,301	1,437	1,781	9,388	1,669	1,204	63,386	836	6,565	1,443
Rhode Island.....	174	455	47	144	790	263	354	4,002	6,664	209	102
South Carolina.....	383	45	52	126	81	79	235	430	12	45	36
South Dakota.....	104	35	56	1,055	72	3,079	80	216	4	122	5
Tennessee.....	449	75	232	108	63	65	212	921	8	69	56
Texas.....	2,893	374	202,315	1,333	454	843	1,412	3,725	124	459	785
Utah.....	1,049	7	1,153	3,905	95	967	197	151	.....	21	134
Vermont.....	82	35	30	101	87	84	17	678	24	23	224
Virginia.....	1,273	480	270	716	476	571	1,386	1,398	101	190	260
Washington.....	5,625	485	3,407	3,495	1,039	18,522	3,999	2,458	46	442	228
West Virginia.....	115	364	194	49	86	25	82	1,896	27	154	564
Wisconsin.....	477	2,471	1,880	3,678	414	8,693	229	17,695	25	768	106
Wyoming.....	147	13	770	29	49	289	36	221	.....	23	59
Totals.....	109,175	121,475	575,902	118,415	68,162	152,698	104,843	747,750	57,690	84,575	44,999

State	Sweden	Switz- erland	U.S. S.R.	Yugo- slavia	State	Sweden	Switz- erland	U.S. S.R.	Yugo- slavia
Alabama.....	160	112	477	104	Nebraska.....	2,892	334	4,826	577
Alaska.....	442	74	155	139	Nevada.....	267	254	325	225
Arizona.....	894	346	1,800	731	New Hampshire.....	716	109	927	82
Arkansas.....	171	132	260	112	New Jersey.....	6,287	4,832	46,268	5,490
California.....	26,553	15,157	68,677	18,210	New Mexico.....	136	102	202	236
Colorado.....	2,468	460	7,683	1,628	New York.....	23,516	10,926	245,068	17,488
Connecticut.....	7,668	1,545	16,542	1,159	North Carolina.....	222	162	554	106
Delaware.....	146	92	944	90	North Dakota.....	1,838	102	7,451	71
Dist. of Col.....	447	367	3,884	223	Ohio.....	3,368	2,513	20,530	28,870
Florida.....	6,323	1,596	18,183	1,620	Oklahoma.....	191	149	1,241	138
Georgia.....	204	108	1,280	98	Oregon.....	4,538	1,685	4,319	998
Hawaii.....	78	58	183	20	Pennsylvania.....	4,603	2,331	59,894	18,450
Idaho.....	1,035	304	736	204	Rhode Island.....	2,019	152	3,960	55
Illinois.....	34,606	2,940	45,522	24,570	South Carolina.....	65	55	317	56
Indiana.....	1,710	436	3,113	5,531	South Dakota.....	1,430	161	2,480	69
Iowa.....	3,813	522	1,777	867	Tennessee.....	177	168	986	63
Kansas.....	1,243	337	2,735	1,252	Texas.....	1,625	743	3,472	627
Kentucky.....	128	253	699	148	Utah.....	1,316	870	229	395
Louisiana.....	179	84	780	358	Vermont.....	345	118	364	41
Maine.....	536	63	1,082	30	Virginia.....	387	332	1,859	251
Maryland.....	874	575	10,332	566	Washington.....	13,507	1,682	6,611	2,775
Massachusetts.....	13,607	956	38,604	625	West Virginia.....	56	132	771	1,017
Michigan.....	7,790	1,513	25,784	11,633	Wisconsin.....	5,519	3,633	9,145	9,364
Minnesota.....	25,323	673	6,676	4,328	Wyoming.....	451	126	822	428
Mississippi.....	84	16	233	145					
Missouri.....	947	88	6,837	2,578					
Montana.....	1,541	303	2,616	1,142					
Totals.....	214,491	61,568	690,598	165,798					

Population of Voting Age—Votes Cast for President 1964-1960

Source: Bureau of the Census

(Population includes armed forces stationed in each state. Percentages based on unrounded numbers.)

State	1964 Pop. of voting age	Votes cast		1960 Pop. of voting age	Votes cast	
		Number (Rounded)	Per- cent		Number (Rounded)	Per- cent
Alabama.....	1,915,000	690,000	36.0	1,834,000	570,000	31.1
Alaska.....	138,000	67,000	48.7	134,000	61,000	45.5
Arizona.....	879,000	481,000	54.7	732,000	329,000	44.5
Arkansas.....	1,124,000	560,000	49.8	1,153,000	429,000	41.1
California.....	10,916,000	7,058,000	64.7	9,660,000	6,507,000	67.4
Colorado.....	1,142,000	777,000	68.0	1,031,000	736,000	71.4
Connecticut.....	1,698,000	1,219,000	71.8	1,691,000	1,223,000	76.8
Delaware.....	283,000	201,000	71.0	267,000	197,000	73.6
District of Columbia.....	517,000	199,000	38.4	509,000	.....	.....
Florida.....	3,516,000	1,854,000	52.8	3,088,000	1,544,000	50.0
Georgia.....	2,636,000	1,139,000	43.2	2,410,000	733,000	30.4
Hawaii.....	395,000	207,000	52.5	360,000	185,000	51.3
Idaho.....	386,000	292,000	75.8	372,000	300,000	80.7
Illinois.....	6,358,000	4,703,000	74.0	6,281,000	4,757,000	75.7
Indiana.....	2,326,000	2,092,000	74.0	2,258,000	2,125,000	94.1
Iowa.....	1,638,000	1,185,000	72.3	1,664,000	1,274,000	76.5
Kansas.....	1,323,000	858,000	64.8	1,322,000	929,000	70.3
Kentucky.....	1,976,000	1,046,000	52.9	1,898,000	1,124,000	59.2
Louisiana.....	1,893,000	896,000	47.3	1,804,000	808,000	44.8
Maine.....	581,000	381,000	65.6	581,000	422,000	72.6
Maryland.....	1,995,000	1,116,000	56.0	1,845,000	1,055,000	57.2
Massachusetts.....	3,290,000	2,345,000	71.3	3,245,000	2,469,000	76.1
Michigan.....	4,647,000	3,203,000	68.9	4,580,000	3,318,000	72.4
Minnesota.....	2,024,000	1,554,000	76.8	2,001,000	1,542,000	77.0
Mississippi.....	1,243,000	409,000	32.9	1,171,000	398,000	33.5
Missouri.....	2,696,000	1,813,000	67.4	2,696,000	1,934,000	71.8
Montana.....	399,000	279,000	69.9	389,000	278,000	71.4
Nebraska.....	877,000	584,000	66.6	858,000	613,000	71.4
Nevada.....	244,000	135,000	55.5	175,000	107,000	61.2
New Hampshire.....	396,000	288,000	72.3	373,000	296,000	79.4
New Jersey.....	4,147,000	2,847,000	68.6	3,861,000	2,773,000	71.8
New Mexico.....	514,000	328,000	63.7	501,000	311,000	62.1
New York.....	11,330,000	7,166,000	63.2	10,881,000	7,291,000	67.0
North Carolina.....	2,753,000	1,425,000	51.8	2,557,000	1,369,000	53.5
North Dakota.....	358,000	258,000	72.2	355,000	278,000	78.5
Ohio.....	3,969,000	3,969,000	66.6	5,839,000	4,162,000	71.3
Oklahoma.....	1,493,000	932,000	62.5	1,416,000	903,000	63.8
Oregon.....	1,130,000	786,000	69.6	1,073,000	776,000	72.3
Pennsylvania.....	7,080,000	4,823,000	68.1	7,100,000	5,007,000	70.5
Rhode Island.....	568,000	390,000	68.6	540,000	406,000	75.1
South Carolina.....	1,380,000	525,000	38.0	1,266,000	387,000	30.5
South Dakota.....	404,000	293,000	72.6	392,000	306,000	78.3
Tennessee.....	2,239,000	1,144,000	51.1	2,093,000	1,052,000	50.3
Texas.....	5,922,000	2,627,000	44.4	5,534,000	2,312,000	41.8
Utah.....	522,000	401,000	76.9	468,000	375,000	80.1
Vermont.....	240,000	165,000	67.9	231,000	167,000	72.5
Virginia.....	2,541,000	1,042,000	41.0	2,313,000	771,000	33.4
Washington.....	1,759,000	1,258,000	71.5	1,718,000	1,242,000	72.3
West Virginia.....	1,053,000	792,000	75.2	1,083,000	838,000	77.3
Wisconsin.....	2,391,000	1,692,000	70.8	2,354,000	1,729,000	73.4
Wyoming.....	195,000	143,000	73.2	190,000	141,000	74.0
Total.....	113,931,000	70,642,000	62.0	108,458,000	68,839,000	63.5

U. S. Population, Urban and Rural, by Color: 1950 and 1960

Source: Bureau of the Census

Includes Alaska and Hawaii. An urbanized area comprises at least 1 city of 50,000 inhabitants (central city) plus contiguous, closely settled areas (urban fringe).

Year and area	Total	White	Nonwhite	Percent distribution		
				Total	White	Non.
1950.....	151,326,000	135,150,000	16,176,000	100.0	100.0	100.0
Urban.....	96,847,000	86,864,000	9,983,000	64.0	64.3	61.7
Urbanized areas.....	69,249,000	61,925,000	7,324,000	45.8	45.8	45.3
Central cities.....	48,377,000	42,042,000	6,335,000	32.0	31.1	39.2
Urban fringe.....	20,872,000	19,883,000	989,000	13.8	14.7	6.1
Other urban.....	27,598,000	24,939,000	2,659,000	18.2	18.5	16.4
Rural.....	54,479,000	48,286,000	6,193,000	36.0	35.7	38.3
1960.....	179,323,000	158,832,000	20,491,000	100.0	100.0	100.0
Urban.....	125,269,000	110,428,000	14,840,000	69.9	69.5	72.4
Urbanized areas.....	95,845,000	83,770,000	12,079,000	53.5	52.7	58.9
Central cities.....	57,975,000	47,627,000	10,348,000	32.3	30.0	50.5
Urban fringe.....	37,873,000	36,143,000	1,731,000	21.1	22.8	8.4
Other urban.....	29,420,000	26,658,000	2,762,000	16.4	16.8	13.5
Rural.....	54,054,000	48,403,000	5,651,000	30.1	30.5	27.6

U. S. Population Urban, Rural, White, Nonwhite

Source: Bureau of the Census (Census of 1960)

Area	All classes			White		Nonwhite	
	Total	Male	Female	Male	Female	Male	Female
Total.....	179,323,175	88,331,494	90,991,681	78,367,149	80,464,583	9,964,345	10,527,098
Urban.....	125,268,750	60,733,005	64,535,745	53,631,145	56,797,187	7,101,860	7,738,558
Urbanized areas.....	95,848,487	46,194,210	49,654,277	40,706,094	43,063,854	5,788,116	6,290,436
Central cities.....	57,975,132	27,927,024	30,047,508	22,976,427	24,050,930	4,951,342	5,396,538
Urban fringe.....	37,873,355	18,566,586	19,306,769	17,720,812	18,132,891	836,774	893,778
Other urban.....	29,420,263	14,238,795	15,181,468	12,925,051	13,733,346	1,313,744	1,448,122
Places of 10,000 or more.....	16,172,839	7,838,676	8,334,163	7,070,615	7,490,599	768,061	843,564
2,500 to 10,000.....	13,247,424	6,400,119	6,847,305	5,854,436	6,242,747	545,683	604,558
Rural.....	54,054,425	27,598,489	26,455,936	24,736,044	23,667,396	2,862,485	2,788,540
Places of 1,000 to 2,500.....	6,496,788	3,149,889	3,346,919	2,909,209	3,086,545	240,680	260,374
Other rural.....	47,557,637	24,448,620	23,109,017	21,826,795	20,580,851	2,621,825	2,528,166

Jewish Population by Countries and Cities

Source: Jewish Statistical Bureau, Dr. H. S. Linfield, Exec. Secy. Figures are 1968 estimates

North America.....	5,995,000	Australia and New Zealand.....	74,000
Central and South America.....	745,350	Africa.....	238,650
Europe.....	4,020,950		
Asia(a).....	2,896,500	World total(a).....	13,970,450
Europe		World total(a)	
Albania.....	300	Switzerland.....	20,000
Austria.....	12,000	Turkey.....	44,000
Belgium.....	41,000	Yugoslavia.....	7,000
Bulgaria.....	7,000		
Czechoslovakia.....	14,000	North America	
Denmark.....	6,000	Canada.....	275,000
Finland.....	1,500	United States.....	5,720,000
France.....	520,000		
Germany.....	30,000	Central and South America	
Gibraltar.....	650	Argentina.....	450,000
Great Britain.....	450,000	Barbados.....	100
Greece.....	6,500	Bolivia.....	4,000
Hungary.....	80,000	Brazil.....	140,000
Irish Free State.....	5,500	Chile.....	30,000
Italy.....	35,000	Colombia.....	10,000
Luxembourg.....	1,000	Costa Rica.....	1,500
Malta.....	50	Cuba.....	2,000
Netherlands.....	30,000	Curaçao.....	700
Norway.....	750	Dominican Republic.....	500
Poland.....	25,000	Dutch Guiana.....	500
Portugal.....	700	Ecuador.....	2,000
Romania.....	120,000	El Salvador.....	300
Soviet Union.....	2,543,000	Guatemala.....	1,500
Spain.....	7,000	Haiti.....	200
Sweden.....	13,000		
		Honduras.....	150
		Jamaica.....	600
		Mexico.....	30,000
		Nicaragua.....	200
		Panama.....	2,000
		Paraguay.....	1,200
		Peru.....	4,000
		Trinidad.....	400
		Uruguay.....	50,000
		Venezuela.....	8,500
		Asia	
		Aden.....	150
		Afghanistan.....	800
		Burma.....	50
		Cyprus.....	50
		China.....	150
		Hong Kong.....	200
		India.....	16,000
		Indonesia.....	100
		Iran.....	80,000
		Iraq.....	4,000
		Israel(a).....	2,780,500
		Japan.....	1,000
		Lebanon.....	6,000
		Pakistan.....	300
		Philippines.....	500
		Singapore.....	600
		Syria.....	4,000
		Thailand.....	100
		Yemen.....	2,000
		Africa	
		Abyssinia.....	12,000
		Algeria.....	3,000
		Congo.....	2,500
		Egypt.....	500
		Kenya.....	1,000
		Libya.....	4,000
		Morocco.....	70,000
		Rhodesia.....	5,500
		Sudan.....	350
		Tunisia.....	23,000
		Union of South Africa.....	116,000
		Zambia.....	800
		Australia and New Zealand	
		Australia.....	69,000
		New Zealand.....	5,000

(a) Includes 392,500 Christians, Mohammedans and others; 65,000 in East Jerusalem and 327,000 in other cities and villages in State of Israel.

ESTIMATED JEWISH POPULATION IN FOREIGN CITIES (Over 5,000)

Amsterdam.....	12,000	Czernowitz.....	70,000	Manchester.....	28,000	Sao Paulo.....	60,000
Antwerp.....	13,000	Eilat.....	10,500	Marselles.....	60,000	Santiago.....	30,000
Ascalon.....	37,000	Glasgow.....	13,500	Melbourne.....	35,000	Stockholm.....	7,000
Asdod.....	27,000	Haifa.....	207,500	Milan.....	9,000	Strasbourg.....	14,000
Beersheba.....	67,500	Istanbul.....	38,000	Montreal.....	105,000	Sydney.....	28,000
Berlin.....	8,000	Jerusalem(a).....	261,500	Moscow.....	285,000	Tel Aviv.....	30,000
Beth Shean.....	12,500	Johannesburg.....	57,500	Nazareth.....	30,000	Tiberias.....	389,500
Birmingham.....	6,300	Kharkov.....	80,000	Nazareth.....	11,000	Toronto.....	88,000
Bordeaux.....	6,500	Kiev.....	220,000	Nice.....	20,000	Toulouse.....	20,000
Brussels.....	25,000	Leeds.....	18,000	Paris.....	300,000	Vienna.....	9,000
Bucharest.....	50,000	Leningrad.....	165,000	Peking.....	71,500	Warsaw.....	5,000
Budapest.....	65,000	Liverpool.....	7,500	Ramath Gan.....	105,000	Winnipeg.....	21,000
Buenos Aires.....	360,000	Lod (Lydda).....	25,000	Rio de Janeiro.....	55,000	Zurich.....	6,200
Casablanca.....	52,000	London (gr.).....	280,000	Rome.....	13,000		
Copenhagen.....	6,000	Lyons.....	25,000				

Includes also Christians, Mohammedans and others.

ESTIMATED JEWISH POPULATION IN LARGE U. S. CITIES (Over 10,000)

Albany.....	12,000	Hollywood, Fla.....	13,500	Brooklyn.....	760,000	Philadelphia.....	330,000
Atlanta.....	15,500	Houston.....	20,000	Queens.....	420,000	Phoenix.....	15,500
Atlantic City.....	10,000	Jersey City.....	13,000	Richmond.....	11,000	Pittsburgh.....	45,000
Baltimore.....	85,000	Kansas City.....	22,000	N. Y. City environs.....		Prince George County, Md.....	19,000
Bergen County.....	80,000	Long Beach, Cal.....	12,000	Nassau Co.....	372,000	Providence.....	20,000
Boston.....	185,000	Los Angeles.....	500,000	Suffolk Co.....	42,000	Rochester.....	21,500
Bridgeport.....	14,500	Lynn.....	12,000	Westchester County.....	131,000	St. Louis.....	57,000
Buffalo.....	25,000	Miami.....	100,000	Newark.....		St. Paul.....	10,000
Camden.....	15,000	Milwaukee.....	24,000	Essex Co.....	100,000	San Diego.....	10,000
Chicago.....	270,000	Minneapolis.....	20,000	Oakland.....		San Francisco.....	71,000
Cincinnati.....	27,000	Mont'g'y Co., Md.....	47,000	Alameda and Contra Costa.....	18,000	Seattle.....	11,000
Cleveland.....	85,000	New Brunswick.....	11,000	Orange Co., Calif.....	14,000	Springfield.....	
Columbus.....	10,000	New Haven.....	10,000	Passaic.....	10,500	Stamford.....	12,000
Dallas.....	20,000	New Orleans.....	10,000	Paterson.....	15,000	Syracuse.....	11,000
Denver.....	22,000	New York City.....	1,836,000			Washington.....	90,000
Detroit.....	85,000	Manhattan.....	250,000			Worcester.....	10,000
Elizabeth.....	16,500	Bronx.....	395,000				
Hartford.....	26,000						

*Indicates greater area.

United States Foreign Stock by States

Source: Bureau of the Census. Census of 1960.

State	Foreign born	Native of foreign or mixed parentage	State	Foreign born	Native of foreign or mixed parentage	State	Foreign born	Native of foreign or mixed parentage
Ala.....	14,955	39,839	La.....	30,557	92,983	Okl.....	20,003	69,151
Alaska.....	8,227	22,847	Me.....	60,403	165,990	Ore.....	71,314	229,734
Ariz.....	70,318	165,308	Md.....	94,178	277,379	Pa.....	603,190	1,898,343
Ark.....	7,457	26,328	Mass.....	576,452	1,481,857	R. I.....	85,974	253,745
Calif.....	1,343,710	2,650,052	Mich.....	529,024	1,368,903	S. C.....	11,140	26,429
Colo.....	59,881	201,355	Minn.....	143,878	730,648	S. D.....	18,577	123,266
Conn.....	275,323	706,820	Miss.....	8,058	20,657	Tenn.....	15,843	43,106
Del.....	14,650	44,240	Mo.....	77,756	289,490	Texas.....	298,791	783,677
D. of C.....	38,971	57,557	Mont.....	30,646	119,018	Utah.....	32,133	107,269
Fla.....	272,161	460,892	Nebr.....	40,238	217,921	Vt.....	23,336	62,193
Ga.....	25,300	53,090	Nev.....	13,133	36,692	Va.....	48,185	129,670
Hawaii.....	68,900	173,684	N. H.....	44,772	132,318	Wash.....	178,658	471,879
Idaho.....	15,542	67,217	N. J.....	615,479	1,493,286	W. Va.....	23,803	67,401
Ill.....	686,098	1,763,000	N. M.....	21,408	57,556	Wisc.....	171,519	742,583
Ind.....	93,202	283,895	N. Y.....	2,289,314	4,198,130	Wyo.....	9,663	38,753
Iowa.....	56,278	331,864	N. C.....	21,978	46,183			
Kan.....	33,268	172,296	N. D.....	29,907	159,711			
Ky.....	16,830	58,553	Ohio.....	396,614	1,094,058	Total.....	9,738,155	24,312,287

Marital Status of United States Population by States

Source: Bureau of the Census (1960 Census)

States	Male 14 years old and over				Female 14 years old and over			
	Total	Single	Married	Widowed or divorced	Total	Single	Married	Widowed or divorced
Alabama.....	1,069,866	270,845	735,545	53,476	1,157,626	221,981	752,437	183,208
Alaska.....	89,132	30,756	52,958	5,418	59,626	9,236	45,821	4,569
Arizona.....	435,986	108,368	301,183	26,435	435,196	76,873	298,782	59,541
Arkansas.....	606,401	145,217	423,049	38,135	643,007	108,663	428,607	105,737
California.....	5,530,596	1,371,603	3,786,286	372,707	5,652,177	928,656	3,771,579	951,942
Colorado.....	594,842	144,886	414,228	35,728	616,527	109,310	415,785	91,432
Connecticut.....	881,494	221,220	613,984	46,290	942,847	197,177	616,690	128,980
Delaware.....	161,255	36,305	106,852	8,078	157,955	39,546	107,220	21,159
Dist. of Col.....	285,503	82,417	164,116	18,970	313,161	84,367	165,601	60,193
Florida.....	1,730,220	374,544	1,241,993	113,683	1,827,398	272,521	1,249,347	305,530
Georgia.....	1,290,444	335,377	891,632	63,435	1,397,751	261,801	909,546	226,404
Hawaii.....	232,805	84,965	134,421	13,419	193,684	44,376	128,528	20,780
Idaho.....	226,097	55,122	157,798	13,177	221,295	36,234	157,901	27,160
Illinois.....	3,498,909	862,301	2,421,448	215,160	3,719,766	705,236	2,439,625	574,905
Indiana.....	1,580,100	357,582	1,127,277	94,941	1,670,751	288,626	1,132,436	249,659
Iowa.....	941,937	225,414	663,565	52,958	999,250	186,617	665,925	146,708
Kansas.....	754,886	174,588	537,048	43,250	783,472	129,835	587,325	116,312
Kentucky.....	1,036,635	272,754	703,396	60,485	1,074,053	203,317	707,757	162,979
Louisiana.....	1,037,798	267,633	716,265	53,900	1,126,618	220,706	734,376	171,536
Maine.....	334,141	86,356	224,921	22,864	349,182	68,276	225,143	55,763
Maryland.....	1,054,302	267,338	733,011	53,953	1,100,932	210,392	740,061	150,498
Massachusetts.....	1,767,940	487,744	1,177,799	102,397	1,971,652	479,217	1,190,007	302,472
Michigan.....	2,622,801	626,942	1,845,155	150,704	2,725,768	500,994	1,856,372	368,428
Minnesota.....	1,148,286	313,625	775,743	58,918	1,196,196	257,360	778,308	160,551
Mississippi.....	693,456	190,286	465,811	37,359	746,017	147,842	478,764	119,429
Missouri.....	1,496,446	344,446	1,053,285	96,715	1,620,617	286,446	1,059,992	274,118
Montana.....	234,200	63,003	155,254	15,943	224,198	38,191	154,769	31,278
Nebraska.....	488,723	120,473	341,033	27,217	507,502	92,119	341,875	73,544
Nevada.....	105,363	24,827	71,084	9,452	95,667	69,509	24,000	1,153
New Hampshire.....	209,583	52,846	143,172	13,500	223,616	45,038	144,104	34,413
New Jersey.....	2,125,478	519,170	1,497,601	108,707	2,278,413	442,693	1,511,112	324,777
New Mexico.....	305,452	79,090	210,812	15,550	301,432	56,403	209,892	35,101
New York.....	5,888,946	1,537,321	4,035,908	315,717	6,498,895	1,407,437	4,109,697	981,738
North Carolina.....	1,518,107	421,557	1,036,364	60,186	1,600,462	332,546	1,054,388	213,562
North Dakota.....	217,868	69,007	139,140	9,721	208,074	44,814	139,138	24,128
Ohio.....	3,267,146	742,609	2,322,247	202,290	3,499,338	642,553	2,333,487	523,222
Oklahoma.....	812,235	184,934	574,424	52,877	856,059	130,662	575,185	149,291
Oregon.....	616,766	139,280	435,000	42,486	634,518	102,736	436,231	95,512
Pennsylvania.....	3,915,461	987,646	2,791,373	226,442	4,270,170	904,654	2,740,734	624,737
Rhode Island.....	303,837	84,317	202,075	17,406	323,812	72,513	203,042	48,286
South Carolina.....	768,653	233,698	505,151	29,804	810,626	177,777	516,583	116,253
South Dakota.....	233,532	66,168	155,237	12,127	229,543	44,426	155,464	29,667
Tennessee.....	1,199,101	298,535	836,525	64,041	1,300,251	245,625	850,469	204,153
Texas.....	3,212,658	769,443	2,261,537	181,675	3,349,072	562,011	2,269,898	517,158
Utah.....	281,896	70,980	198,330	12,586	289,631	56,529	198,914	34,168
Vermont.....	132,187	36,571	87,567	8,049	141,327	30,724	88,365	22,280
Virginia.....	1,368,706	379,473	923,830	65,403	1,393,767	272,930	925,637	195,239
Washington.....	1,003,704	247,500	687,135	68,769	1,001,924	167,847	687,228	151,705
West Virginia.....	627,445	162,916	427,931	36,598	667,970	133,557	435,018	99,313
Wisconsin.....	1,347,800	352,665	919,328	75,847	1,395,184	285,762	921,919	187,592
Wyoming.....	114,875	27,775	79,852	7,248	108,991	16,780	78,679	13,503
Total.....	61,362,055	15,412,733	42,416,979	3,532,343	64,913,989	12,380,049	42,749,302	9,784,638

Density of Population by States

BY SQUARE MILE, LAND AREA ONLY

Source: Bureau of the Census

State	1920	1950	1960**	State	1920	1950	1960**	State	1920	1950	1960**
Ala.....	45.8	59.9	64.2	La.....	39.6	59.4	72.1	Okl.....	29.2	32.4	33.8
Alaska*.....	0.1	0.2	.39	Maine.....	25.7	29.4	31.5	Oregon.....	8.2	15.8	18.4
Ariz.....	2.9	6.6	11.5	Mass.....	15.3	23.1	27.5	R.I.....	194.5	233.1	251.4
Ark.....	33.4	36.3	34.2	Mich.....	47.9	59.2	65.7	S.C.....	56.6	74.5	81.3
Calif.....	22.0	67.5	100.4	Min.....	63.8	111.7	137.6	S.D.....	55.2	69.9	78.7
Colo.....	9.1	12.8	16.9	Miss.....	29.5	37.3	43.1P	S.D.....	8.3	8.5	9.0
Conn.....	286.4	409.7	520.6	Mo.....	38.6	46.1	46.0	Tenn.....	56.1	78.8	86.2
Del.....	113.5	160.8	225.2	Mont.....	49.5	57.1	62.6	Texas.....	17.8	29.3	36.4
D.C.....	7,292.9	13,150.5	12,442.3	Neb.....	3.8	4.1	4.6	Utah.....	5.5	8.4	10.8
Fla.....	17.7	51.1	91.5	Nev.....	16.9	17.3	18.4	Vt.....	38.6	40.7	42.0
Ga.....	49.3	58.9	67.8	N.H.....	.7	1.5	2.6	Va.....	57.4	83.2	99.3
Hawaii.....	39.9	78.0	98.4	N.J.....	49.1	59.1	67.2	Wash.....	20.3	35.6	42.8
Idaho.....	5.2	7.1	8.1	N.Y.....	42.0	64.2	80.5	W.Va.....	60.9	83.3	77.2
Illinois.....	115.7	155.8	180.4	N.C.....	2.9	5.3	7.5	Wis.....	47.6	61.8	72.6
Indiana.....	81.3	108.7	128.8	N.D.....	217.9	309.3	350.8	Wyo.....	2.0	3.0	3.4
Iowa.....	43.2	46.8	49.2	N.D.....	52.5	82.7	93.2	U.S.....	*29.9	*42.6	50.5
Kan.....	21.6	23.2	26.6	Ohio.....	9.2	8.8	9.1				
Ky.....	60.1	73.9	76.2		141.4	193.8	236.6				

*For purposes of comparison, Alaska and Hawaii included in above tabulation for 1920 and 1950 even though not states then. **Revised 1967, P-Preliminary.

Number of inhabitants per sq. mi. of Land Area in U. S. (1790) 4.5; (1800) 6.1; (1810) 4.3; (1820) 5.5; (1830) 7.4; (1840) 9.8; (1850) 7.9; (1860) 10.6; (1870) 13.0; (1880) 16.9; (1890) 21.2; (1900) 25.6; (1910) 31.0; (1920) 35.5; (1930) 41.2; (1940) 44.2; (1950) 50.7; (1960) 50.5 (Alaska and Hawaii included only in 1960).

Males per 100 Females in U. S.

Source: Bureau of the Census

Ratio represents number of males per 100 females. Total population including Armed Forces overseas.

Age	1910 1920 1930 1940 1950 1960						1967 ¹		
	Total	White	Negro	Total	White	Negro	Total	White	Negro
All ages.....	106.2	104.1	102.6	100.8	99.2	97.8	96.8	97.1	93.6
Under 15 years.....	102.2	102.1	102.6	103.0	103.8	103.8	103.7	104.3	100.3
15 to 24 years.....	101.2	96.9	98.2	98.7	100.0	100.3	102.6	103.2	98.9
25 to 44 years.....	110.5	105.3	101.0	96.7	97.2	97.2	97.3	98.6	88.0
45 to 64 years.....	114.7	105.4	109.2	105.3	100.1	98.9	92.7	93.1	87.0
65 and over.....	101.2	101.5	100.6	95.7	89.5	88.3	75.7	75.2	78.7

¹ Estimated as of July 1. ² Includes figures for "age not reported."

Population of U. S. Cities of 100,000 or more

1960 CENSUS OF POPULATION

Source: Bureau of the Census

City	1960	1950	City	1960	1950
1—New York, N. Y.	7,781,984	7,891,957	66—Worcester, Mass.	186,587	203,486
2—Chicago, Ill.	3,550,404	3,620,962	67—Austin, Texas.	186,545	132,459
3—Los Angeles, Calif.	2,479,015	1,970,358	68—Spokane, Wash.	181,608	161,721
4—Philadelphia, Pa.	2,002,512	2,071,605	69—St. Petersburg, Fla.	181,298	96,738
5—Detroit, Mich.	1,670,144	1,849,668	70—Gary, Ind.	178,320	133,911
6—Baltimore, Md.	939,024	949,708	71—Grand Rapids, Mich.	177,313	176,515
7—Houston, Texas.	938,219	596,163	72—Springfield, Mass.	174,463	162,399
8—Cleveland, Ohio.	875,050	914,808	73—Nashville, Tenn.	170,874	174,307
9—Washington, D. C.	763,956	852,178	74—Corpus Christi, Texas.	167,670	108,287
10—St. Louis, Mo.	750,026	856,796	75—Youngstown, Ohio.	166,689	168,330
11—Milwaukee, Wisc.	741,324	637,392	76—Shreveport, La.	164,372	127,206
12—San Francisco, Calif.	740,316	775,357	77—Hartford, Conn.	162,178	177,397
13—Boston, Mass.	697,197	801,444	78—Fort Wayne, Ind.	161,776	133,607
14—Dallas, Texas.	679,684	434,462	79—Bridgeport, Conn.	156,748	158,709
15—New Orleans, La.	627,525	570,445	80—Baton Rouge, La.	152,419	125,629
16—Pittsburgh, Pa.	604,332	676,806	81—New Haven, Conn.	152,048	164,443
17—San Antonio, Texas.	587,718	408,442	82—Savannah, Ga.	149,245	119,638
18—San Diego, Calif.	573,224	334,387	83—Tacoma, Wash.	147,979	143,673
19—Seattle, Wash.	557,087	467,591	84—Jackson, Miss.	144,422	98,271
20—Buffalo, N. Y.	532,759	580,132	85—Paterson, N. J.	143,663	139,336
21—Cincinnati, Ohio.	502,550	503,998	86—Evansville, Ind.	141,543	128,636
22—Memphis, Tenn.	497,524	396,000	87—Erie, Pa.	138,440	130,803
23—Denver, Colo.	493,887	415,786	88—Amarillo, Texas.	137,969	74,246
24—Atlanta, Ga.	487,455	331,314	89—Montgomery, Ala.	134,393	106,525
25—Minneapolis, Minn.	482,872	521,718	90—Fresno, Calif.	133,929	91,669
26—Indianapolis, Ind.	476,258	427,173	91—South Bend, Ind.	132,445	115,911
27—Kansas City, Mo.	475,539	456,622	92—Chattanooga, Tenn.	130,009	131,041
28—Columbus, Ohio.	471,316	375,901	93—Albany, N. Y.	129,726	134,995
29—Phoenix, Ariz.	439,170	106,818	94—Lubbock, Texas.	128,691	71,747
30—Newark, N. J.	405,220	438,776	95—Lincoln, Nebr.	128,521	98,884
31—Louisville, Ky.	390,639	369,129	96—Madison, Wisc.	126,706	96,056
32—Portland, Ore.	372,676	373,628	97—Rockford, Ill.	126,706	92,927
33—Oakland, Calif.	367,548	384,575	98—Kansas City, Kans.	121,901	129,553
34—Fort Worth, Texas.	356,268	278,778	99—Greensboro, N. C.	119,574	74,389
35—Long Beach, Calif.	344,168	250,767	100—Topeka, Kans.	119,484	78,791
36—Birmingham, Ala.	340,887	326,037	101—Glendale, Calif.	119,442	95,702
37—Oklahoma City, Okla.	324,253	243,504	102—Beaumont, Texas.	119,175	94,014
38—Rochester, N. Y.	318,611	332,488	103—Camden, N. J.	117,159	124,555
39—Toledo, Ohio.	318,003	303,616	104—Columbus, Ga.	116,779	79,811
40—St. Paul, Minn.	313,411	311,349	105—Pasadena, Calif.	116,407	104,577
41—Norfolk, Va.	304,869	213,513	106—Portsmouth, Va.	114,773	80,039
42—Omaha, Neb.	301,598	251,117	107—Trenton, N. J.	114,157	128,009
43—Honolulu, Hawaii.	294,194	248,034	108—Newport News, Va.	113,662	42,358
44—Miami, Fla.	291,688	249,276	109—Canton, Ohio.	113,631	116,912
45—Akron, Ohio.	290,351	274,605	110—Dearborn, Mich.	112,007	94,994
46—El Paso, Texas.	276,687	130,485	111—Knoxville, Tenn.	111,827	124,769
47—Jersey City, N. J.	276,101	299,017	112—Hammond, Ind.	111,698	87,594
48—Tampa, Fla.	274,970	124,681	113—Scranton, Pa.	111,443	125,536
49—Dayton, Ohio.	262,332	243,872	114—Berkeley, Calif.	111,263	113,805
50—Tulsa, Okla.	261,685	182,740	115—Winston-Salem, N. C.	111,135	87,811
51—Wichita, Kans.	254,698	168,279	116—Allentown, Pa.	108,347	106,756
52—Richmond, Va.	219,958	230,310	117—Little Rock, Ark.	107,813	102,213
53—Syracuse, N. Y.	216,038	220,583	118—Lansing, Mich.	107,807	92,129
54—Tucson, Ariz.	212,892	45,454	119—Cambridge, Mass.	107,716	120,740
55—Des Moines, Iowa.	208,982	177,965	120—Elizabeth, N. J.	107,698	112,817
56—Providence, R. I.	207,498	248,674	121—Waterbury, Conn.	107,130	104,477
57—San Jose, Calif.	204,196	95,280	122—Duluth, Minn.	106,884	104,511
58—Mobile, Ala.	202,779	129,009	123—Anaheim, Calif.	104,184	14,556
59—Charlotte, N. C.	201,564	134,042	124—Peoria, Ill.	103,162	111,856
60—Albuquerque, N. M.	201,189	96,815	125—New Bedford, Mass.	102,477	109,189
61—Jacksonville, Fla.	201,030	204,517	126—Niagara Falls, N. Y.	102,394	90,872
62—Flint, Mich.	196,940	163,143	127—Wichita Falls, Texas.	101,724	68,042
63—Sacramento, Calif.	191,667	137,572	128—Torrance, Calif.	100,991	22,241
64—Yonkers, N. Y.	190,634	152,798	129—Utica, N. Y.	100,410	101,531
65—Salt Lake City, Utah.	189,534	182,121	130—Santa Ana, Calif.	100,350	45,533
			San Juan, P. R.	432,377	224,767
			Ponce, P. R.	114,286	99,492

Farm Population of the United States

Age and color	Both sexes		Male		Female	
	1967	1960	1967	1960	1967	1960
Total.	10,817,000	15,669,000	5,587,000	8,184,000	5,230,000	7,485,000
White.	9,534,000	13,092,000	4,933,000	6,871,000	4,601,000	6,221,000
Nonwhite.	1,283,000	2,577,000	694,000	1,313,000	629,000	1,264,000
Under 14 years.	3,001,000	4,996,000	1,548,000	2,586,000	1,453,000	2,409,000
White.	2,485,000	3,851,000	1,291,000	1,995,000	1,194,000	1,856,000
Nonwhite.	516,000	1,144,000	257,000	591,000	259,000	553,000
14 years and over.	7,816,000	10,674,000	4,039,000	5,598,000	3,777,000	5,076,000
White.	7,049,000	9,241,000	3,642,000	4,876,000	3,407,000	4,365,000
Nonwhite.	767,000	1,433,000	397,000	722,000	370,000	711,000

Negro Population in 30 Largest Cities by Percentage (*Estimated)

	1950 1960 1965*			1950 1960 1965*			1950 1960 1965*		
	1950	1960	1965*	1950	1960	1965*	1950	1960	1965*
New York.	10	14	18	Milwaukee.	3	8	Cincinnati.	16	22
Chicago.	14	23	28	San Francisco.	6	10	Memphis.	37	37
Los Angeles.	9	14	17	Boston.	5	9	Denver.	4	6
Philadelphia.	19	26	31	Dallas.	13	19	Atlanta.	37	38
Detroit.	16	29	34	New Orleans.	32	37	Minneapolis.	15	21
Baltimore.	24	35	38	Pittsburgh.	12	17	Indianapolis.	15	21
Houston.	21	23	23	San Antonio.	7	7	Kansas City, Mo.	12	18
Cleveland.	16	29	34	San Diego.	5	6	Columbus.	12	16
Washington, D. C.	35	54	66	Seattle.	3	5	Phoenix.	5	5
St. Louis.	13	29	36	Buffalo.	6	13	Newark, N. J.	17	24

U. S. Places of 2,500 or More Population—with ZIP Codes

Source: U. S. Bureau of the Census, U. S. Post Office Dept.

Below are the population figures and ZIP codes of all the urban places in the United States (all incorporated and unincorporated places of 2,500 inhabitants or more, and the towns, townships and counties classified by the Bureau of the Census as urban). Included are data from the 1960 census and from all special censuses conducted by the Bureau of the Census between April 1, 1960, and Jan. 1, 1968. Also listed, in italics, are the towns of 2,500 inhabitants or more in New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont), where such minor civil divisions have greater significance than in most other states. It will be noted that some sizable unincorporated areas such as certain towns in New York State are not listed by the Bureau of the Census as urban places.

ZIP Code numbers appear in left-hand column. If the place name is not the name of a post office, the ZIP Code number for the post office serving that place is listed where possible. If not possible, no ZIP code is listed.

CAUTION—Where an asterisk (*) appears before the ZIP Code number of a city, ask your local postmaster for the correct ZIP Code number for a specific address within that city.

A national directory showing all ZIP codes may be purchased for \$7.00 from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Where special censuses were taken after April 1, 1960, the year taken appears after the name of the place. Places where population was changed by annexing areas after April 1, 1960, are indicated by (A). In many cases both annexation and a special census have taken place.

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
ALABAMA				ALABAMA—Continued			
36310	Abbeville	2,524	2,162	35476	Northport	5,245	3,885
35950	Albertville	8,250	5,397	35121	Oneonta	4,136	2,802
35010	Alexander City	13,140	6,430	36801	Opelika	15,678	12,295
35442	Alfalfa	3,184	3,170	36467	Opp	5,535	5,240
36201	Andalusia	10,263	9,162	36201	Oxford	3,603	1,697
36201	Anniston	33,657	31,066	36360	Ozark '65	10,368	5,238
35016	Arab	2,989	1,592	35125	Pell City (A) '67	4,569	1,139
35611	Athens, '64	13,652	6,309	36867	Phenix City	27,650	23,305
36502	Atmore	8,173	5,720	36272	Piedmont	4,794	4,498
35954	Attalla	8,257	7,537	35127	Pleasant Grove '64	3,977	1,802
36830	Auburn	16,261	12,939	36067	Prattville (A) '67	12,015	4,385
36507	Bay Minette	5,197	3,732	36612	Prichard	47,371	19,014
36509	Bayou La Batre	2,572		36274	Roanoke	5,288	5,392
35020	Bessemer	33,054	28,445	35653	Russellville	6,628	6,012
*36203	Birmingham	340,387	320,037	36571	Saraland (A) '67	6,922	
35957	Boaz	4,654	3,078	35768	Scottdale, '66	8,452	4,731
36426	Brewton	6,309	5,146	35701	Selma	28,385	22,840
35740	Bridgeport	2,906	2,386	35660	Sheffield	13,491	10,767
35020	Brighton	2,884	1,689	35150	Sylacauga	12,857	9,606
36010	Brundidge	2,523	2,605	35160	Talladega	17,742	13,134
36611	Chickasaw	10,002	4,920	36078	Tallassee	4,934	4,225
35044	Childersburg	4,884	4,023	35217	Tarrant City	7,810	7,571
35045	Clanton	5,683	4,640	36784	Thomasville	3,182	2,425
35550	Cordova	3,184	3,156	36081	Troy	10,234	8,555
35055	Cullman	10,883	7,523	35173	Trussville	2,510	1,575
36322	Dadeville	2,940	2,554	35401	Tuscaloosa	63,370	46,396
36322	Daleville, '64	2,510		35674	Tusculum	8,994	6,734
35601	Decatur	29,217	19,974	36083	Tuskegee	7,240	6,712
36732	Demopolis	7,377	5,004	36089	Union Springs	3,704	2,332
36301	Dothan	31,440	21,584	36216	Vestavia Hills	4,029	
36426	East Brewton	2,511	2,173	36201	West End Anniston	5,485	
36323	Elba	4,321	2,936	36092	Wetumpka	3,672	3,813
36330	Enterprise	11,410	7,288	35594	Winfield	2,907	2,108
36027	Eufaula	8,357	6,906	36925	York	2,932	1,774
35462	Eutaw	2,784	2,348				
35403	Evergreen	3,703	2,454				
36854	Fairfax	3,107	2,717	ALASKA			
35064	Fairfield	15,816	13,177	*99501	Anchorage	44,237	11,254
36532	Fairhope	4,858	3,354	99790	Fairbanks	13,311	5,771
35555	Fayette	4,227	3,707	99801	Juneau	6,797	5,956
36442	Floral	3,011	2,713	99901	Ketchikan	6,483	5,305
35630	Florence	31,649	23,879	99615	Kodiak	2,628	1,710
36535	Foley	2,889	1,301	99835	Sitka	3,237	1,985
35967	Fort Payne	7,029	6,226	99503	Spenard	9,074	2,108
35068	Fultondale, '62	2,820	1,904				
*35919	Gadsden	58,088	55,725				
35071	Gardendale, '67	6,207					
36340	Geneva	3,840	3,579				
35905	Glencoe	2,592	1,466				
35073	Graysville	2,870	879				
36744	Greensboro	3,081	2,217				
36037	Greenville	6,894	6,781				
35976	Guntersville	6,592	5,253				
35565	Haleyville	3,740	3,331				
35640	Hartselle	5,000	3,429				
36345	Headland	2,650	2,091				
35209	Homewood (A)	20,641	12,866				
35030	Hueytown	5,997					
*35801	Huntsville, '64	123,519	16,437				
35210	Irondale	3,501	1,876				
36545	Jackson	4,959	3,072				
36265	Jacksonville	5,678	4,751				
35501	Jasper	10,799	8,589				
36862	Lafayette	2,605	2,363				
36863	Laurel	7,674	7,434				
36864	Langdale	2,528	2,721				
35301	Leeds	3,162	3,306				
36748	Linden	2,516	1,363				
35020	Lipscomb	2,811	2,550				
36756	Marion	3,807	2,822				
35228	Midfield (A) '67	4,771					
35150	Mignon	2,271	3,053				
*36601	Mobile	202,779	129,009				
36460	Monroeville	3,632	2,772				
35115	Montevallo	2,755	2,150				
*36104	Montgomery	134,393	106,525				
35223	Mountain Brook (A) '67	18,414	8,569				
35660	Muscle Shoals	4,084	1,937				

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
ARIZONA—Continued				CALIFORNIA—Continued			
*85702	Tucson, '65	236,877	45,454	94025	Atherton	7,717	3,630
85364	West Yuma	2,781	4,741	95301	Atwater, '63	11,105	2,856
85643	Wilcox, '65	3,018	1,266	95603	Auburn	5,586	4,633
86046	Williams	3,559	2,152	93204	Avenal	3,147	3,982
86047	Winslow	8,862	6,518	91702	Azusa	20,497	11,042
85364	Yuma, '65	28,005	9,145	*93302	Bakersfield	56,848	34,754
ARKANSAS				91706	Baldwin Park	33,951	7,034
71923	Arkadelphia, '65	10,108	6,819	92220	Banning	10,250	7,135
71822	Ashdown, '67	3,449	2,738	92311	Barstow	11,644	6,135
72006	Augusta, '65	2,624	2,317	95501	Bayview-Rosewood	2,980	...
72501	Batesville, '64	7,129	6,414	92223	Beaumont, '61	4,432	3,152
72015	Benton (A), '64	15,018	6,277	90201	Bell	19,450	15,430
72712	Bentonville, '65	4,519	2,942	90706	Bellflower	45,909	...
72315	Blytheville, '62	25,883	16,234	90201	Bell Gardens, '65	28,779	...
72927	Booneville	2,690	2,433	94002	Belmont	15,996	5,567
72021	Brinkley	4,636	4,173	94510	Benicia	6,070	7,284
71701	Camden, '66	14,601	11,372	*94704	Berkeley	111,268	113,805
72029	Clarendon, '65	2,564	2,547	93514	Bishop, '65	30,817	29,032
72330	Clarksburg (A), '67	4,388	4,343	92225	Blythe	2,958	2,891
72032	Conway, '66	14,507	8,610	96001	Bonnyville	6,023	4,059
72422	Corning, '62	2,865	2,045	92227	Brawley, '66	14,467	11,922
71635	Crossett, '64	5,548	4,619	92621	Brea	8,487	3,208
72834	Dardanelle (A), '67	2,605	2,098	90620	Buena Park	46,401	...
71832	De Queen, '65	3,889	3,015	*91503	Burbank	90,155	78,577
71638	Dermott	3,665	3,601	94010	Burlingame	24,036	19,886
72042	De Witt, '65	3,900	2,843	...	Burton	4,635	2,381
71639	Dumas, '66	4,213	2,512	92231	Calexico, '66	9,850	6,433
72331	Earle, '63	2,896	...	92233	Calipatria	2,548	1,428
71730	El Dorado City	25,292	23,076	95008	Canby	11,803	...
72046	England	3,027	2,136	92007	Cardiff	3,119	...
71640	Eudora	3,598	3,072	92008	Carlsbad	9,253	...
72701	Fayetteville (A), '67	29,724	17,471	93921	Carmel-by-the-Sea, '66	4,136	4,351
71742	Fordyce, '66	4,579	3,754	95608	Carmichael	20,455	4,199
72335	Forrest City (A), '67	12,763	7,607	93013	Carlsbad	4,998	2,864
72901	Fort Smith (A), '64	64,874	47,942	90744	Carson	38,059	...
71646	Hamburg	2,904	2,655	94546	Castro Valley	37,120	...
72601	Harrison, '64	7,015	5,542	95012	Castroville	2,838	1,865
72342	Helena	11,500	11,236	96019	Central Valley	2,854	2,202
71801	Hope	8,399	8,605	95307	Ceres, '66	5,573	2,351
71901	Hot Springs (A), '65	37,286	29,307	95326	Chico	14,757	12,272
72076	Jacksonville, '65	18,078	2,471	95926	Chico Viejo	4,688	3,967
72401	Jonesboro, '63	23,941	16,310	91710	Chino, '65	4,216	7,784
*71653	Lake Village, '64	3,297	2,484	93610	Chowchilla, '65	4,611	3,893
*72021	Little Rock (A)	128,929	102,213	...	Chrisman	3,923	4,211
72086	Lonoke, '64	2,856	...	92010	Chula Vista	42,034	15,927
71654	McGehee	5,101	3,854	91711	Claremont	12,633	6,327
71753	Magnolia, '65	11,159	6,918	95125	Clarendale, '65	3,201	1,292
72104	Malvern, '65	9,268	8,072	93612	Clovis, '66	11,461	2,766
72360	Mareanna, '64	5,653	4,530	92236	Coachella (A), '67	7,502	2,755
72365	Marked Tree	3,216	2,878	93210	Coalinga	5,965	5,539
71953	Mena	4,388	4,445	95350	College Gardens	4,132	...
71655	Monticello, '64	5,031	4,501	92324	Colton, '66	19,470	14,165
72110	Morrilton (A), '67	6,955	5,483	95032	Colusa	3,518	3,031
72653	Mountain Home, '66	3,258	2,217	90022	Commerce	9,553	...
71852	Nashville, '64	4,109	3,548	90220	Compton	71,812	47,991
72112	Newport (A), '67	7,607	6,254	*94520	Concord	36,208	6,933
*72114	North Little Rk., '65	61,510	44,087	93212	Corcoran	4,976	3,150
72949	Ozark, '63	2,568	1,757	96021	Coring	3,006	2,537
72370	Oscarola, '62	7,053	5,006	91720	Corona	13,336	10,223
72150	Paragould, '64	10,053	9,668	92118	Cotton	18,039	12,700
72855	Paris, '67	3,597	3,731	94925	Corte Madera	5,962	1,933
72154	Pigroft, '66	2,842	2,558	92626	Costa Mesa, '66	66,396	...
71601	Pine Bluff (A), '66	57,108	37,162	91122	Covina	20,124	3,956
71601	Pine Bluff SE	2,679	...	95531	Crescent City	2,658	1,706
72455	Pocahontas (A), '67	4,610	3,840	95531	Crescent City NW	3,086	...
71857	Prescott (A), '67	3,849	3,960	93277	Crowley	3,950	...
72756	Rogers, '65	8,284	4,962	90230	Culver City	32,163	19,720
72801	Russellville, '66	11,154	8,166	95014	Cupertino	3,664	...
72143	Searcy, '66	8,841	6,024	90630	Cypress, '66	19,005	...
72761	Silvan Springs (A), '67	5,553	3,270	90701	Dairy Valley	3,508	...
72764	Springdale, '65	14,044	8,835	94014	Daly City	44,791	15,191
71860	Stamps	2,591	2,552	94526	Danville	3,585	...
72160	Stuttgart, '65	10,252	7,276	95616	Davis	8,910	3,554
75501	Texarkana (A)	21,652	15,875	93215	Delano	11,913	8,717
72472	Trumann, '63	5,013	3,714	92014	Del Mar	3,124	...
72956	Van Buren, '65	7,805	6,413	95838	Del Paso Heights-Robla	11,458	...
72476	Walnut Ridge, '67	3,679	3,106	93618	Dinuba	6,103	4,971
71671	Warren	6,752	2,615	95620	Dixon	2,970	1,714
72390	West Helena, '65	9,482	6,107	90240	Downey	82,505	...
72301	West Memphis, '66	23,909	9,112	91010	Duarte	18,962	...
72396	Wynne, '65	6,014	4,142	96025	Dunsmuir	2,873	2,256
CALIFORNIA				93219	Earlhart	2,897	2,162
95350	Airport (Stanislaus Co.)	3,689	...	90022	East Los Angeles	104,270	...
94501	Alameda	63,855	64,430	93257	East Porterville	3,538	...
94706	Albany	14,801	17,590	90603	East Whittier	19,884	...
91801	Alhambra	51,807	51,359	92020	El Cajon	37,611	5,600
93901	Alisal	16,473	16,711	92243	El Centro, '66	19,280	12,590
91001	Altadena	40,568	...	94530	El Cerrito	22,137	18,011
96101	Alturas	2,819	2,819	*91731	El Monte City	13,163	8,101
95116	Alum Rock	18,942	...	94520	El Monte (uninc.)	4,186	2,502
*92803	Anaheim	101,184	14,556	93446	El Paso de Robles	6,677	4,835
96007	Anderson	4,492	...	93030	El Rio	6,966	1,376
94509	Andover (A), '67	23,631	11,051	90245	El Segundo	14,219	8,011
91006	Aradida	41,005	23,066	94608	Emeryville	2,686	2,889
95621	Arcata	5,253	3,729	92024	Enclinitas	2,786	...
95825	Arcata-Arcade	73,352	...	96001	Enterprise	4,916	...
93120	Arroyo Grande	3,291	1,723	92025	Escondido	16,377	6,544
90701	Artesia	9,993	...	95501	Eureka	28,137	23,658
93203	Arvin, '61	5,440	5,007	93221	Exeter	4,264	...
93422	Atascadero	5,983	3,443	94930	Fairfax	5,813	4,078
				94533	Fairfield	14,968	3,118
				95350	Fairview	3,586	...

ZIP Code	Place	1960	1950
CALIFORNIA—Continued			
92028	Fallbrook	4,814	1,735
93223	Farmersville	3,101	
93015	Fillmore	4,808	3,884
93622	Firebaugh, '62	2,627	821
90001	Florence-Graham	38,164	
95630	Folsom	3,925	1,690
92335	Fountain	14,059	
93268	Ford City	3,926	4,347
95437	Fort Bragg	4,433	3,826
95540	Fortuna	3,523	1,762
92708	Fountain Valley, '65	13,099	
95019	Freedom	4,206	2,765
94536	Fremont	43,790	
*93721	Fresno	133,929	91,669
*92631	Fullerton	56,180	13,958
*90247	Gardena	35,943	14,405
92610	Garden Grove	84,238	
92620	Gilroy	7,248	
92509	Glen Avon Hts.	7,416	4,951
*91209	Glendale	119,442	95,702
91740	Glendora, '66	29,513	3,988
95945	Grass Valley	4,876	5,283
95948	Groveland	3,343	3,054
93433	Grover City	5,210	
93434	Guadalupe	2,614	2,429
93230	Hagginwood	11,469	
93230	Hanford	10,133	10,028
90250	Hawthorne, '64	3,366	
90250	Hawthorne	36,036	16,136
*94543	Hayward	72,700	14,272
95448	Healdsburg, '65	5,132	3,258
92343	Hemet, '64	7,943	3,386
90254	Hermosa Beach	16,115	11,826
91745	Hillgrove	14,669	
94010	Hillsborough	7,554	3,552
95023	Hollister	4,071	4,903
92250	Holtville, '66	3,538	2,472
92646	Huntington Bch. (A), '67	94,377	5,237
92645	Huntington Pk.	29,920	29,450
92252	Imperial, '66	3,271	1,759
92032	Imperial Beach	17,773	
92201	Indio	9,745	5,300
*90306	Inglewood	63,390	46,185
93630	Kerman, '64	2,545	1,563
93930	King City, '66	3,060	2,347
93631	Kingsburg	3,093	2,310
91011	La Canada-Flintridge	18,338	
94549	Lafayette	7,114	
92651	Laguna Beach	9,288	6,661
93031	La Habra, '64	35,253	4,961
92330	Lakeland Village	3,539	
90712	Lakewood	67,126	
92041	La Mesa	30,441	10,946
90638	La Mirada	22,444	
93241	Lamont	6,177	3,571
93534	Lancaster	26,012	3,594
90620	La Palma (A) '67	4,661	622
*91744	La Puente	24,723	
94939	Larkspur	5,710	2,905
92644	La Verne	6,516	4,198
90280	Lawdale	21,740	
92045	Lemon Grove	19,348	
93245	Lemoore	2,561	2,153
90304	Lennox	31,224	
92046	Leucadia	5,665	
95648	Lincoln	3,197	2,410
93247	Linda	6,129	
95953	Lindsay	5,397	5,060
94550	Live Oak	3,518	
94550	Livermore	16,058	4,364
95240	Lodi, '66	27,018	13,798
94717	Lomita	14,983	
93436	Lompoc	17,415	5,520
*90501	Long Beach	344,168	250,767
90720	Los Alamitos, '65	8,197	
94022	Los Altos	19,696	
94022	Los Altos Hills	3,412	
*90053	Los Angeles	2,479,015	1,970,358
93635	Los Banos, '64	9,943	3,868
95030	Los Gatos	9,036	
92062	Lyndwood	31,614	25,823
90282	Maclean	2,686	
93637	Madera	14,430	10,497
90266	Manhattan Beach, '62	34,513	17,330
95336	Manteca	8,242	3,804
93933	Marina	3,310	
94553	Martinez	9,604	8,268
94553	Martinez East	3,958	
95901	Marysville	9,553	7,826
90270	Maywood	14,588	13,292
93023	McInerney Oaks	3,513	2,446
90263	Merceda, '61	3,086	
94025	Merced Park	13,587	
95340	Merced	20,068	15,278
94030	Millbrae	15,873	8,972
94941	Mill Valley	10,411	7,331
95035	Milpitas	6,572	
91752	Mira Loma	3,982	1,555
*95350	Modesto	36,585	17,389
91016	Moureeville	27,079	20,186
91763	Murderdale	13,546	
90640	Monterey, '65	40,613	21,735
93910	Monterey, '66	25,436	16,250

ZIP Code	Place	1960	1950
CALIFORNIA—Continued			
91754	Monterey Park	37,821	20,395
93021	Moorpark	2,902	1,146
95037	Morgan Hill, '63	4,068	1,627
93442	Morro Bay	3,692	1,659
94040	Mountain View	30,889	6,563
95926	Mulberry	2,643	2,645
94558	Napa	27,170	12,579
92050	National City	32,771	21,199
92363	Needles	4,690	4,051
94560	Newark	9,884	
91321	Newhall	4,705	2,527
95360	Newman, '64	2,558	1,815
92660	Newport Beach	26,564	12,120
91760	Norco, '66	12,808	1,584
95660	North Highlands	21,271	
95815	North Sacramento (A)	16,346	6,029
95380	North Turlock	2,345	1,586
90650	Norwalk	88,739	
94947	Novato	17,881	3,496
95361	Oakdale	4,980	4,064
*94615	Oakland	367,548	384,575
92054	Oceanside, '66	31,824	12,881
93023	Ojai	4,495	2,519
95961	Oliverhurst	4,835	3,588
91761	Ontario	46,617	22,872
95060	Opal Cliffs	3,825	
*92666	Orange, '65	67,206	10,027
93646	Orange Cove	6,886	2,395
94563	Orinda	4,712	
94563	Orinda Village	5,568	
95963	Orland	2,534	2,067
95965	Oroville	6,115	5,387
93030	Oxnard, '64	58,269	21,567
94044	Pacific	20,995	
93050	Pacific Grove, '66	12,208	9,623
93550	Palmdale	11,522	
92262	Palm Springs	13,468	7,660
*94301	Palo Alto	52,287	25,775
90274	Palo Verde Estates	9,264	1,963
95969	Paradise Butte	8,268	
95350	Paradise Stanislaus	5,616	4,426
90723	Paramount	27,249	
*91102	Pasadena	116,407	104,577
95363	Patterson, '63	2,429	
92370	Perris	2,950	1,807
94952	Petaluma	14,035	10,315
90660	Pico Rivera	49,150	
94611	Piedmont	11,117	10,132
94564	Pittsburg	6,064	1,147
94565	Pittsburg West	19,062	12,763
92670	Placentia	5,861	1,682
95667	Placerville, '65	4,997	3,749
94523	Pleasant Hill	23,844	5,686
94566	Pleasanton	4,203	2,244
*91766	Pomona	67,157	35,405
93257	Porterville	7,991	6,904
93041	Port Hueneme	11,067	3,024
93534	Quartz Hill	3,325	
95971	Quincy-East Quincy	2,283	
95670	Rancho Cordova	7,429	
96080	Red Bluff	7,202	4,905
96001	Redding	12,773	10,256
92373	Redlands	26,829	18,429
90277	Redondo Beach	46,986	25,226
*94061	Redwood City	46,290	25,544
93654	Reedley	5,850	4,135
92376	Rialto	18,567	3,156
*94802	Richmond	71,854	99,545
93555	Ridgecrest	5,099	2,028
95662	Rio Del	13,222	1,862
94571	Rio Vista	2,616	1,831
95367	Riverbank	2,788	2,662
*92502	Riverside	84,332	46,764
94928	Rohnert, '65	344	
90274	Rolling Hills Estates	3,941	
95401	Roseland	4,510	1,552
91770	Rosemead	15,476	
95678	Roseville	13,421	8,723
94957	Ross	2,551	2,179
*94901	Ryan's Ranch	3,684	727
94574	Sacramento (A), '64	23,712	137,572
93901	Salinas	2,722	2,297
94960	San Anselmo	28,957	13,917
*92402	San Bernardino	11,584	9,188
94066	San Bruno	91,922	63,058
	San Buenaventura (See Ventura)	29,063	12,478
94070	San Carlos	21,370	14,371
92672	San Clemente, '64	13,167	2,008
*92101	San Diego	573,222	334,387
91773	San Dimas, '65	12,520	
91773	San Fernando	16,093	12,992
94101	San Francisco	740,316	775,357
91755	San Gabriel	22,561	20,343
93657	Sanger, '65	9,627	6,400
92383	San Jacinto	2,553	1,778
*95113	San Jose	204,196	95,280
92675	San Juan Capistrano		
	(A) '67	2,551	1,120
*94577	San Leandro	65,962	27,542
94580	San Lorenzo	23,773	
94501	San Luis Obispo	20,437	14,180

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
CALIFORNIA—Continued				COLORADO—Continued			
91108	San Marino	13,658	11,230	81501	Grand Junction	18,694	14,504
*94401	San Mateo	69,870	41,782	80631	Greeley	26,314	20,354
94806	San Pablo	19,687	14,476	81230	Gunnison	3,477	2,770
94901	San Rafael	20,460	13,848	80906	Hayward	11,065	2,849
*92702	Santa Ana	100,350	45,533	80026	Lafayette	2,612	2,090
*93102	Santa Barbara	58,768	44,854	81050	La Junta	8,026	7,712
*90650	Santa Clara	58,880	11,702	80215	Lakewood	19,338	13,338
90560	Santa Cruz	25,596	21,970	80223	Lamar	7,397	6,820
90670	Santa Fe Springs	16,342	.....	81054	Las Animas	4,402	4,081
93454	Santa Maria	20,027	10,440	80461	Leadville	4,008	.....
*90406	Santa Monica	83,249	71,595	80120	Littleton	13,670	3,378
93060	Santa Paula	13,279	11,049	80501	Longmont	11,489	8,099
*95401	Santa Rosa, '65	41,615	17,902	80537	Loveland	9,734	6,773
.....	Saratoga	6,450	2,362	80829	Mantou Spgs.	3,626	2,580
95070	Sausalito	14,861	.....	81144	Monte Vista	3,385	3,272
94965	Seal Beach	5,331	4,828	81401	Montrose	5,044	4,964
90740	Seaside, '66	6,994	3,553	81501	Orchard Mesa	4,956	.....
95472	Sebastopol	20,917	.....	81003	Pueblo	91,181	63,685
93662	Selma, '66	2,473	2,601	81067	Rocky Ford	4,020	4,087
93263	Shafter, '64	5,312	5,964	81201	Salida	4,560	4,553
94565	Shore Acres	3,093	2,207	80911	Security	9,017	.....
91024	Sierra Madre	9,732	7,273	80110	Sheridan	3,559	1,715
90806	Signal Hill	4,627	4,040	80751	Sterling	10,751	7,534
93960	Soledad, '66	3,715	2,441	80229	Thornton	11,353	.....
95476	Sonoma, '65	3,351	2,015	81082	Trinidad	10,691	12,204
95370	Sonoma	2,725	2,448	81089	Walsenburg	5,071	5,596
91733	South El Monte	4,850	.....	80030	Westminster	13,850	1,686
90240	South Gate	53,831	51,116	80033	Wheat Ridge	21,619	.....
95705	South Lake Tahoe, '65	14,427	.....	CONNECTICUT			
95350	South Modesto	3,463	.....	See Note on Page 605			
95965	South Oroville	3,704	.....	06401	Ansonia	19,810	18,706
95404	South Park	3,261	1,837	06001	Avon	5,273	3,171
91030	South Pasadena	19,706	16,935	06103	Beacon Falls	2,886	2,067
.....	South Sacramento	.....	.....	06801	Bethel	5,624	4,145
.....	Fruitridge	16,443	.....	06037	Bethel (town)	8,200	5,104
94080	South San Francisco	39,418	19,351	06002	Bloomfield	11,240	7,470
91777	South San Gabriel	26,213	.....	06040	Bolton	13,613	8,746
95991	South Yuba	3,200	.....	06005	Branford	2,933	1,279
80680	Stanton	11,163	.....	06042	Bridgeport	16,610	10,944
*95202	Stockton (A) '67	97,080	70,853	06046	Bridgewater	156,748	158,709
92388	Sunnymead	3,384	.....	06010	Bristol	45,499	35,961
*94086	Sunnyvale	52,898	9,829	06804	Brookfield	3,405	1,688
96130	Susanville, '65	6,912	5,338	06234	Brooklyn	3,312	2,652
93268	Taft	3,822	3,707	06085	Burlington	2,790	1,846
93268	Taft Heights	2,661	2,176	06019	Canter	4,783	3,613
93561	Tehachapi, '65	3,838	1,685	06110	Cheshire	4,072	1,826
91780	Temple City	31,838	.....	06013	Chester (town)	13,383	6,295
91360	Thousand Oaks	2,934	1,243	06412	Chester	2,520	1,920
*96507	Torrance	100,991	22,241	06413	Clinton	2,693	.....
95376	Tracy (A) '67	14,443	8,410	06415	Clinton (town)	4,166	2,466
93274	Tulare	13,824	12,445	06415	Colechester	4,648	3,007
95300	Turlock	9,166	6,235	06340	Conning Towers	3,457	.....
95482	Ukiah	9,000	6,120	06238	Coventry	6,356	4,043
94587	Union City	6,618	.....	06416	Cromwell	2,889	1,541
91786	Upland	15,918	9,203	06810	Cromwell (town)	6,780	4,286
95688	Vacaville	10,898	3,109	06810	Danbury	22,928	22,067
94590	Valejo	60,877	26,038	06239	Danbury (town)	30,382	30,337
93001	Ventura	29,114	16,534	06139	Danielson	4,642	4,564
92392	Victorville, '64	9,655	.....	06820	Darien	18,437	11,637
93277	Visalia	15,791	11,749	06417	Deep River	2,968	2,570
92083	Vista, '65	19,625	1,705	06418	Derby	12,132	10,259
94598	Walnut Creek, '65	23,328	2,420	06422	Durham	3,096	1,804
.....	Walnut Heights	5,080	.....	06423	East Haddam	3,637	2,554
95250	Wasco	6,841	5,592	06424	East Hampton	5,403	4,000
95076	Watsonville	13,293	11,572	06108	East Hartford	43,977	29,933
96094	Weed	3,223	2,739	06512	East Haven	21,388	12,212
91790	West Covina, '64	60,329	4,499	06333	East Lyme	6,782	3,870
.....	West Hollywood	28,870	.....	06425	Easton	3,407	2,165
92683	Westminster, '63	44,859	.....	06029	East Windsor	7,500	4,859
*90605	Whittier	33,663	23,433	06030	Enfield	31,464	15,464
95490	Willits	3,410	2,691	06426	Essex	4,057	3,491
95988	Willows	4,139	3,019	06430	Fairfield	46,183	30,489
93286	Woodlake	2,623	2,525	06032	Farmington	10,813	7,026
95695	Woodland	13,524	9,386	06810	Germantown	2,893	1,598
94061	Woodside	3,592	.....	06033	Glastonbury	14,497	8,818
96097	Yreka City	4,759	3,227	06035	Granby	4,968	2,693
95991	Yuba City	11,507	7,861	06830	Greenwich	53,793	40,835
COLORADO				06431	Griswold	6,472	5,728
81101	Alamosa	6,205	5,354	06340	Groton	10,111	7,036
80002	Arvada	19,242	2,359	06437	Groton (town)	29,937	21,896
80010	Aurora	48,548	11,241	06438	Gulford	7,913	5,092
80302	Boulder	37,718	19,999	06448	Haddam	3,466	2,636
80601	Brighton	7,055	4,836	06511	Hamden	41,056	29,715
80020	Broomfield Hts.	4,535	.....	*06101	Hartford	182,178	177,397
80723	Brush	3,621	2,431	06796	Harwinton	3,344	1,858
*81212	Canon City	8,973	6,345	06351	Jewett City	3,603	3,702
*80901	Colorado Spgs.	70,194	45,472	06113	Killingly	11,298	10,015
80022	Commerce City	8,970	.....	06335	Ledyard	5,395	1,749
81321	Cortez	6,764	2,680	06739	Litchfield	6,264	4,964
81625	Craig	3,983	3,080	06113	Mason	4,567	3,078
81416	Delta	3,832	4,097	06010	Manchester	42,102	34,116
*80201	Denver	493,887	415,786	06250	Mansfield	10,008	.....
80022	Derby (Annexed to Commerce City in 1962)	10,124	2,840	06450	Meriden	51,850	44,088
81301	Durango	10,530	7,459	06762	Middlebury	4,785	3,318
80214	Edgewater	4,314	2,580	06455	Middlefield	3,255	1,983
80110	Englewood	33,398	16,869	06457	Middletown	33,250	29,711
81226	Florence	2,821	2,773	06460	Milford	41,662	26,870
80521	Fort Collins	25,027	14,937	06468	Monroe	6,402	2,892
80701	Fort Morgan	7,379	5,315	06353	Montville	7,759	4,766
81601	Glenwood Spgs.	3,437	2,412	06354	Moosup	2,760	2,909
80401	Golden	7,118	5,238	06355	Morningside Park	3,181	.....
						2,536	2,266

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
CONNECTICUT—Continued				FLORIDA—Continued			
06770	Naugatuck	19,511	17,455	32233	Atlantic Beach	3,125	1,604
*06051	New Britain	32,201	73,726	33823	Auburndale	5,595	3,763
06840	New Canaan	13,466	8,001	33825	Avon Park	6,073	4,612
06810	New Fairfield	3,355	1,236	33830	Bartow	12,849	8,650
06057	New Hartford	3,033	2,395		Bar Harbor Islands	3,249	2,296
*06510	New Haven '67	141,752	164,443	33430	Belle Glade	11,273	7,210
06111	Newington	17,664	9,110	33152	Biscayne Park	2,911	2,009
06320	New London	34,182	30,551	33432	Boca Raton	6,961	992
06776	New Milford	3,023	2,673	33435	Boynton Beach	10,467	2,542
	New Milford (town)	8,318	5,799	33505	Bradenton	19,380	13,604
06470	Newtown	11,373	7,448	33505	Bradenton South	3,400	
06357	Niantic	2,788	1,746	33512	Brooksville	3,301	1,818
06471	North Branford	2,771	2,017	32505	Brownsville	38,417	
06473	North Canaan	2,836	2,647	33035	Carol City	21,749	
	North Haven	15,935	9,444	33505	Cedar Hammock	3,089	1,101
06854	Norwalk	67,775	49,461	32324	Chattahoochee	9,699	8,473
06360	Norwich	38,506	37,633	32428	Chilney	3,158	2,959
06371	Old Lyme	3,068	2,141	*33515	Clearwater	34,653	15,581
06475	Old Saybrook	5,274	2,499	32711	Clermont	3,313	2,168
06477	Orange	8,547	3,032	33440	Clewiston	3,114	2,499
06483	Orford	3,292	2,037	32922	Cocoa	12,294	4,245
02891	Pawcatuck	4,389	5,261	32931	Cocoa Beach (A) '67	9,576	246
06374	Plainfield	8,365	8,071	32922	Cocoa West	3,975	
06062	Plainville	13,149	9,994	33501	Combee Settlement	2,697	
06479	Plantsville	2,193	1,536	*33130	Coral Gables	34,793	19,837
06782	Plymouth	8,981	6,771	32536	Crescent View	2,467	5,003
06480	Portland	5,587		33157	Cutler Ridge	7,005	
	Portland (town)	7,496	5,186	33525	Dade City	4,759	3,806
06360	Preston	4,992	1,775	33004	Dania	7,065	4,510
06712	Prospect	4,367	1,896	*32014	Daytona Beach	37,395	30,187
06260	Putnam	6,952	8,181	33441	Deerfield Beach	9,573	2,088
	Putnam (town)	8,412	9,304	32433	De Funiak Spgs.	5,282	3,077
06875	Redding	3,359	2,037	32720	De Land	10,775	8,652
06877	Ridgefield	2,954	2,347	33444	Delray Beach	12,230	6,312
06066	Ridgefield (town)	8,165	1,356	33528	Dunedin	8,444	3,202
06067	Rockville	9,475	8,016	32935	Eau Gallie	12,500	
06068	Saltisbury	7,404	5,108	33880	Eloise	3,506	1,554
06483	Seymour	3,309	3,132	33533	Englewood	2,877	
06484	Shelton	10,100	7,832	32726	Eustis	6,189	4,005
06070	Simsbury	18,190	12,694	32034	Fernandina Bch.	7,276	544
	Simsbury (town)	2,745	1,771	33030	Florida City	4,114	1,547
06071	Somers	10,138	4,822	*33301	Fort Lauderdale	83,648	36,328
06488	Southbury	3,702	2,631	33841	Fort Meade	4,014	2,803
06238	South Coventry	5,186	3,828	*33901	Fort Myers	22,523	13,105
06489	Southington	3,568	1,611	33450	Fort Pierce	25,256	13,502
	Southington (town)	8,952	5,055	32548	Fort Walton Bch.	12,147	2,463
06074	South Windsor	22,797	13,061	33843	Frostproof	2,664	2,329
	Sprague	9,460	4,066	32601	Gainesville	29,711	26,861
06075	Stafford	2,509	2,320	32601	Gainesville North	4,290	
06076	Stafford Springs	7,476	6,471	32601	Gainesville West	2,725	
*06904	Stamford	3,322	3,396	32960	Gifford	3,509	1,459
06378	Stonington	92,713	74,293	33170	Goulds	5,121	
06268	Storrs	13,969	11,801	32043	Green Cove Spgs.	4,233	3,291
06497	Stratford	6,054		33737	Gulftport	9,730	3,702
06078	Suffield	45,012	33,428	33844	Haines City	9,135	5,630
06786	Terryville	6,779	4,895	33009	Hallandale	10,483	3,886
06787	Thomaston	5,219			Hialeah	5,471	
	Thomaston (town)	3,579		*33010	Hialeah	66,975	19,676
06277	Thompson	5,850	4,896	32017	Holy Hill	4,182	3,232
06081	Tolland	6,217	5,585	*33020	Hollywood	35,237	14,561
06790	Torrington	2,950	1,659	33030	Homestead	9,152	4,573
06611	Trumbull	30,045	27,820	33934	Immokalee	3,224	
06086	Vernon	20,379	8,641	*32201	Jacksonville	201,030	204,517
06492	Wallingford	16,961	10,115	32250	Jacksonville Beach	12,049	6,430
06793	Washington	29,920	16,976	33580	Kensington Park	2,969	
*06701	Waterbury	2,603	2,227	33040	Key West	33,956	26,433
06385	Waterbury	10,130	10,471	32741	Kissimmee	6,845	4,310
06795	Waterford	15,391	9,100	32055	Lake City	9,465	7,571
06516	West Hartford	14,837	10,699		Lake Hollywood	3,172	
06388	West Haven	62,382	44,402	*33801	Lakeland	41,350	30,851
06880	West Mystic	43,002	32,010	33403	Lake Park	3,589	489
06880	Westport	3,268	2,362	33853	Lake Wales	6,346	6,821
06109	Wethersfield	4,039	1,988	33460	Lake Worth	20,758	11,777
06226	Willimantic	20,955	11,667	33460	Lantana	5,021	773
06897	Willton	20,561	12,533	33540	Largo	5,302	1,547
06094	Winchester	13,881	13,586	32748	Leesburg	11,172	7,395
06280	Windsor	8,026	14,558	33030	Leisure City	3,001	
06096	Windsor Locks	10,496	10,535	32060	Live Oak	6,544	4,064
06098	Winsted	15,884	15,884	32444	Lynn Haven	3,078	1,787
06098	Winsted	16,973	11,833	32069	Macedonny	2,671	1,177
06098	Winsted	19,467	11,833	33708	Madeira Beach	3,943	916
06716	Wolcott	11,411	5,221	32340	Madison	3,239	3,150
06525	Woodbridge	8,136	8,781	32751	Maitland	3,570	889
06281	Woodstock	8,899	3,553	33063	Margate	2,646	
		5,182	2,822	32446	Marianna	7,152	5,845
		3,177	2,271	32901	Melbourne	11,982	4,223
DELAWARE					Memphis	2,647	
19901	Dover '67	14,814	6,223	32952	Merritt Island	3,554	
19805	Elsmere	7,319	5,314	*33101	Miami	291,688	249,276
19956	Laurel	2,709	2,700	33139	Miami Beach	63,145	46,282
19958	Lewes '67	2,661	2,904	33153	Miami Shores	5,085	
19963	Lewes '67	5,702	5,179	33166	Miami Springs	11,229	5,108
19711	Newark '67	19,393	6,731	32570	Milton	4,108	2,040
19720	New Castle '67	4,632	3,966	33020	Miramar	5,485	
19973	Seaford '67	4,999	4,087	32757	Mount Dora	3,756	3,028
19977	Smyrna	3,241	2,346	33860	Mulberry	2,922	2,024
*19899	Wilmington '67	85,690	110,356	33910	Naples	4,655	1,465
DISTRICT OF COLUMBIA				33031	Naranja	2,509	
*20013	Washington	763,956	802,178	32250	Neptune Beach	2,868	1,767
FLORIDA				33552	New Port Richey	3,520	1,512
32320	Apalachicola	3,099	3,222	32069	New Smyrna Beach	8,781	5,775
32703	Apopka	3,578	2,254	32578	Neeville	4,517	2,497
33821	Arcadia	5,889	4,764	33161	North Miami	28,708	10,734

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
FLORIDA—Continued				GEORGIA—Continued			
33160	North Miami Beach	21,405	2,129	30207	Convers	2,881	2,003
33403	North Palm Beach	2,684		31015	Cordele	10,609	9,462
.....	North Peninsula	3,476		30531	Cornelia	2,936	2,424
33307	Oakland Park	5,321	1,295	30209	Covington	8,167	5,192
32670	Ocala	11,741	1,998	31744	Cuthbert	4,300	4,025
32761	Ocoee	2,628	1,370	30533	Dalhousie	2,604	
33472	Okeechobee	2,947	1,849	30720	Dalton	17,868	15,968
33054	Opa-Locka	9,810	5,271	31742	Dawson	5,062	4,411
32073	Orange Park	2,624	1,502	30030	Decatur	22,026	21,635
*32802	Orlando	88,135	52,367	31520	Dock Junction	5,417	4,160
32074	Ormond Beach (A) '67	13,028	3,418	31745	Donalsonville	2,621	2,569
33476	Pahokee	4,709	4,472	30040	Doraville	4,437	472
32077	Palatka	11,028	9,176	31533	Douglas	8,736	7,428
32901	Palm Bay	2,808		30134	Douglasville	4,462	3,400
33180	Palm Beach	6,055	3,886	31095	Dublin	13,814	10,232
33561	Palm Beach	5,556	4,103	31023	Eastman	5,118	3,597
33460	Palm Springs	2,503		30544	East Point	35,633	21,080
32401	Panama City	33,275	25,814	31024	Eatonville	3,122	2,749
32401	Parker	2,669		30635	Elberton	7,107	6,772
*32501	Pensacola	56,752	43,479	30060	Fair Oaks	7,969	3,131
33157	Perrine	6,424	2,859	31750	Fitzgerald	8,781	8,130
32347	Perry	8,030	2,797	30050	Forrest Park	14,201	2,653
33565	Pinecliff Park	10,848	2,924	31029	Forsyth	3,697	3,125
33314	Plantation	4,772		31030	Fort Valley	8,310	6,820
33566	Plant City	15,711	9,230	30501	Gainesville	16,523	11,936
*33060	Pompano Beach	15,992	5,682	31408	Garden City	5,451	1,557
33950	Port Charlotte	3,197		30427	Glennville	2,791	2,327
32456	Port St. Joe	4,217	2,752	30642	Greensboro	2,773	2,688
33950	Punta Gorda	3,157	1,015	30223	Griffin	21,735	13,082
32351	Quincy	8,874	6,505	30054	Hapeville	10,082	8,560
33158	Richmond Heights	4,311		30643	Hartwell	4,599	2,964
33404	Riviera Beach	13,046	4,065	31036	Hawkinsville	3,967	3,342
32955	Rockledge	3,481	1,347	31539	Hazlehurst	3,699	2,687
33505	Rosedale	4,085		31501	Hebardville	2,758	1,113
32084	St. Augustine	14,734	13,555	31313	Hinesville	3,174	1,217
32769	St. Cloud	4,353	3,001	30230	Hogansville	3,658	3,769
*33737	St. Petersburg	181,298	96,738	31634	Homerville	2,634	1,787
33706	St. Petersburg Beach	6,268	722	30233	Jackson	2,545	2,053
33508	Sanford	4,617		31545	Jesup	7,304	4,605
32777	Sanford	19,175	11,935	30236	Jonesboro	3,014	1,741
*33580	Sarasota	34,083	18,896	30728	La Fayette	5,588	
33870	Sebring	6,939	5,006	30240	La Grange	23,632	25,025
33143	South Miami	9,846	4,809	30245	Lawrenceville	3,804	2,932
32018	South Peninsula	3,741		30147	Lindale-Silver Creek	2,800	3,234
32401	Springfield	4,628	1,084	30436	Lyons	3,219	2,799
32091	Starke	4,806	2,944	31055	McTae	2,738	1,904
33494	Stuart	4,791	2,912	30059	Mableton	7,127	
.....	Sunnyland	4,761		*31202	Macon (A)	122,876	70,252
33154	Surfside	3,157	1,852	30650	Madison	2,680	2,489
*32301	Tallahassee (A)	58,022	27,237	31816	Manchester	4,115	4,036
*33602	Tampa	274,700	124,681	30060	Maricopa	25,565	20,687
33589	Tarpon Springs	6,768	4,323	30066	Maricopa East	5,535	
32778	Tavares	12,224	1,763	31034	Midway-Hardwick	16,909	14,774
33617	Temple Terrace	3,812	433	31061	Milledgeville	11,117	8,835
33905	Tice	4,377	1,133	30442	Millen	3,633	3,449
32780	Titusville, '66	27,998	2,604	30655	Monroe	6,826	4,542
33740	Treasure Island	3,506		31063	Montezuma	3,744	2,921
32580	Valparaiso	5,975	1,047	31768	Moultrie	15,764	11,639
33595	Venice	3,444	727	31639	Nashville	4,070	3,414
32960	Vero Beach	8,849	4,746	30263	Newnan	12,169	8,218
32507	Warrington	16,752	13,570	30319	North Atlanta	12,661	5,930
33873	Wauchula	2,872	2,872	31774	Ocala	3,217	2,697
.....	West End	3,124	1,662	31779	Palm Bay	4,609	
.....	West Miami	5,296	4,043	31069	Perry	6,032	3,849
*33401	West Palm Beach	56,218	43,162	31407	Port Wentworth	3,705	
33880	West Palm Haven	5,050	2,326	31643	Quitman	5,071	4,769
.....	Westwood Lakes	22,517		30153	Rockmart	3,938	3,821
33305	Wilton Manor	8,257	883	30161	Rome	32,226	20,615
33803	Winston	3,323	1,870	30741	Rossville	4,665	3,892
32787	Winter Garden	5,513	3,503	30075	Roswell	2,983	2,123
33880	Winter Haven	16,277	8,605	31558	St. Marys	3,272	1,348
32789	Winter Park	17,162	8,250	31522	St. Simons	3,199	
33599	Zephyrhills	2,887	1,826	31082	Sandersville	5,425	4,440
GEORGIA				31401	Savannah	149,245	119,638
31620	Adel	4,321	2,776	30060	Smyrna	19,157	2,005
*31701	Albany	55,890	31,152	30458	Statesboro	8,356	6,007
31510	Alma	3,515	2,588	30747	Summerville	4,706	3,973
30161	Alto Park	2,526	1,195	30401	Swainsboro	5,943	4,300
31709	Americus	13,472	11,360	30467	Sylvania	3,469	2,939
31714	Ashburn	3,201	2,188	31791	Sylvester	3,610	2,623
30601	Athens, '63	41,039	25,180	30176	Tallapoosa	2,744	2,826
*30304	Atlanta	487,455	331,314	30286	Thomaston	9,336	6,580
*30901	Augusta	70,626	71,508	31792	Thomasville	18,246	14,424
31717	Bainbridge	12,714	7,562	30824	Thomson	4,522	3,449
30204	Barnesville	4,919	4,185	31794	Tifton	9,903	6,831
31513	Baxley	4,268	3,409	30577	Toccoa	7,303	6,781
31723	Blakely, '65	5,190	3,234	31601	Valdosta	30,632	20,046
.....	Bloomfield Gardens	4,381		30474	Vidalia	7,569	5,819
30110	Bremen	3,132	2,299	30180	Villa Rica	3,450	1,703
31520	Brunswick	21,703	17,954	31093	Warner Robins	18,633	7,986
30518	Buford	4,168	3,812	30673	Washington	4,440	3,802
31728	Carroll	7,577	4,492	31501	Waycross	20,944	18,999
30701	Calhoun	3,357	3,241	30830	Waynesboro	5,359	4,461
31730	Camilla	4,753	3,745	31833	West Point	4,610	4,079
30117	Carrollton	10,973	7,753	30680	Winder	5,555	4,604
30120	Cartersville	8,668	7,270	HAWAII			
30125	Cedartown	9,340	9,470	96701	Aiea	11,826	3,714
30005	Chamblee	6,635	3,445	96706	Ewa	3,257	3,429
30417	Claxton	2,672	1,923	96712	Halawa	2,504	2,142
31014	Cochran	4,714	3,357	96720	Hilo	25,966	27,198
30337	College Park	23,469	14,535	*96813	Honolulu	294,194	248,034
*31902	Columbus	116,779	79,611	96732	Kahului	4,223	6,368
30529	Commerce	3,551	3,351	96734	Kailua, Lanikai	25,622	7,740

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
HAWAII—Continued				ILLINOIS—Continued			
96744	Kaneohe	14,414	3,208	61832	Central Park	2,676	2,489
96746	Kapaa	3,439	3,177	62206	Centreville	12,769	
96761	Lahaina	3,423	4,025	61820	Champaign	49,583	39,563
96766	Lihue	3,908	3,870	61920	Charleston, '66	13,611	9,164
96792	Lualualei-Mali	5,045	1,528	62233	Cherter, '65	5,300	5,389
96792	Nanaku	2,745	2,002	60607	Chicago	3,550,404	3,620,062
96784	Puunene	3,054		60411	Chicago Heights	8,331	24,551
96786	Wahiawa	15,512	8,369	60415	Chicago Ridge (A), '67	8,338	883
96791	Waialua	2,689	2,602	61523	Chillicothe	3,054	2,767
96792	Waianae-Makaha	6,844	1,000	62822	Christopher	2,854	3,545
96793	Waiuku	6,969	7,424	60650	Cicero	69,130	67,544
96795	Waimanalo	3,011	868	60514	Clarendon Hills	5,885	2,437
IDAHO				61727	Clinton	7,355	5,945
83201	Alameda	10,660	4,694	60416	Coal City	2,852	2,220
83211	American Falls, '64	2,602	1,874	62234	Collinsville	14,217	11,862
83221	Blackfoot, '66	8,839	5,180	62236	Columbia	3,174	2,179
*83701	Boise City (A), '66	72,090	34,393	62018	Cottage Hills	3,976	3,357
83317	Buhl	3,059	2,870	60684	Country Club Hills, '66	5,858	
83313	Burley, '66	8,262	5,924	60525	Countryside, '64	2,626	
83605	Caldwell (A)	12,698	10,487	60435	Crest Hill	5,887	
83814	Coeur d'Alene	14,291	12,198	60445	Crestwood, '63	3,918	730
83703	Collister	5,436		60417	Crete, '64	3,788	2,298
83817	Emmett	3,727	3,067	61610	Creve Coeur, '67	6,742	5,499
83337	Franklin	7,222		60014	Crystal Lake (A), '67	12,493	4,823
83330	Gooding	2,750	3,099	61832	Danville	41,856	37,864
83530	Grangeville	3,642	2,544	*62521	Decatur	78,004	66,266
83401	Idaho Falls, '66	35,711	19,218	60015	Deerfield, '66	17,245	3,288
83338	Jerome	4,761	4,523	60115	De Kalb, '66	29,099	11,708
83837	Kellogg	5,061	4,913	60016	Des Plaines, '65	51,779	14,964
83501	Lewiston	12,691	12,985		Dixmoor	3,076	1,327
	Lewiston Orchards	9,680		61021	Dixon	10,565	11,523
83254	Montpelier	3,146	2,685	60419	Dolton, '65	22,557	5,558
83843	Moscow, '66	13,793	10,593	60515	Downers Grove (A), '67	25,948	11,886
83647	Mountain Home, '62	10,075	1,887	62239	Du Quoin	2,937	2,239
83704	Mountain View	4,898	3,084	62832	Du Quoin	6,558	7,147
83651	Nampa	18,897	16,185	60420	Dwight	3,086	2,843
83544	Ordnoff, '67	3,193	2,471	62024	East Alton	7,630	7,290
83661	Payette	4,451	4,032	60411	East Chicago Heights, '65	4,715	1,548
83201	Pocatello	28,534	26,131	61244	East Collins	16,732	13,913
83263	Preston	3,640	4,045	61611	East Peoria	12,310	8,698
83440	Rexburg, '66	7,025	4,253	*62201	East St. Louis	81,712	82,295
83350	Rupert	4,153	3,098	62025	Edwardsville (A), '67	10,750	8,776
83445	St. Anthony	2,700	2,695	62401	Elmhurst	8,172	6,892
83867	Salmon	2,967	2,645	62930	Eldorado	3,573	4,500
83864	Sandpoint	4,355	4,265	60120	Elgin	49,447	44,223
83274	Shelley	2,672	1,856	60007	Elk Grove Village (A), '67	16,905	
83276	Soda Springs (A), '67	3,456	2,424	60126	Elmhurst, '63	40,329	21,273
83301	Twin Falls, '66	20,893	17,600	60635	Elmwood Park	23,866	18,801
83672	Weiser	4,208	3,961	61530	Eureka	2,538	2,367
83705	Whitney	13,603		*60204	Evansston	79,283	73,641
ILLINOIS				60642	Evergreen Park, '67	26,552	10,531
61410	Abingdon	3,466	3,300	61739	Fairbury	2,937	2,433
60101	Addison (A), '67	20,232	813	62837	Fairfield	6,362	5,576
61231	Aledo	3,080	2,919	62201	Fairmont City	2,688	2,284
60102	Algonquin, '63	2,692	1,223	61531	Farmington	2,831	2,651
62207	Alorton	3,282	2,547	62839	Flora	5,331	5,255
60658	Alsip, '67	8,776	1,228	60422	Flossmoor, '65	5,921	1,804
62002	Alton	43,047	32,550	60130	Forest Park	14,452	14,960
62906	Anna	4,280	4,380	60020	Fox Lake (A), '67	4,336	2,238
60002	Antioch, '65	2,778	1,307	60131	Franklin Park (A), '67	20,455	8,899
*60004	Arlington Heights (A), '67	62,775	1,761	61032	Freeport (A)	26,802	22,467
*60504	Aurora	67,715	50,576	61254	Fulton	3,387	2,706
60010	Barrington, '65	6,525	4,209	60030	Gages Lake	3,395	
61609	Bartonville	7,253	2,437	61036	Galena	4,410	4,648
60510	Batavia (A), '67	8,131	5,838	61401	Galesburg	37,243	31,425
62618	Beardstown	6,294	6,081	61434	Galva	3,060	2,886
62220	Bellville (A), '67	40,680	32,721	61254	Geneseo (A), '67	5,761	4,325
60104	Bellwood, '65	22,821	8,746	60134	Geneva, '66	8,573	5,139
61008	Beldenville (A), '67	13,049	9,422	60135	Genoa, '65	2,862	532
60106	Bensenville, '65	12,212	3,754	60936	Georgetown	3,544	3,294
62812	Benton	7,023	7,848	61846	Gibson City	3,453	3,029
60162	Berkeley, '64	6,326	7,082	62033	Glen Dale	3,569	4,105
60402	Berwyn	54,224	51,280	60021	Glen Ellyn	17,472	6,980
62010	Bethalto, '66	5,404	2,115	60137	Glen Ellyn, '67	20,503	9,524
61701	Bloomington, '65	37,791	34,163	60025	Glenview, '66	23,521	6,142
60406	Blue Island, '66	21,986	17,622	60425	Glenwood (A), '67	4,894	762
60914	Bourbonnais	3,336	1,598	62040	Granite City (A), '67	39,850	29,465
60915	Bradley, '65	9,381	5,699	60030	Grayslake, '65	4,347	1,970
62230	Breese, '66	2,810	2,181	61241	Green Rock, '67	2,853	
60455	Bridgeview, '66	9,273	1,393	62246	Greenview	4,569	4,079
60153	Broadview, '63	9,638	5,196	62341	Hamilton, '66	2,516	1,776
60618	Brookfield	20,429	15,472	60103	Hanover Park, '65	6,620	
60090	Buffalo Grove, '63	3,429		62037	Harrisburg	9,147	10,999
61422	Bushnell	3,710	3,317	60033	Harvard, '65	5,019	3,464
62206	Cahokia	15,829	794	60426	Harvey, '65	33,230	20,683
62914	Calro	9,348	12,123		Harwood Heights, '65	8,808	655
60409	Calumet City, '67	29,517	15,799	62644	Havana	4,363	4,379
60643	Calumet Park, '65	10,037	2,500	60429	Hazel Crest, '64	8,907	2,129
61520	Canton	13,588	11,297	62948	Herrin	9,474	9,331
62901	Carbondale, '64	18,531	10,921	60457	Hickory Hills, '65	6,946	
62626	Carlinville	5,440	5,116	62249	Highland (A), '67	5,637	4,283
62231	Carlyle, '66	3,193	2,669	60035	Highland Park, '65	30,054	16,808
62821	Carmi	6,152	5,574	60040	Hillside	4,469	3,813
60187	Carol Stream, '62	2,514		62049	Hillsboro	4,232	4,141
60110	Carpentersville	17,424	1,523	60162	Hillside, '64	9,404	2,131
62016	Carrollton	2,558	2,437	60521	Hinsdale (A), '65	14,738	8,676
62918	Cartersville	2,643	2,716	60172	Hoffman Estates, '65	15,896	
62321	Carthage	3,325	3,214	60456	Hometown	7,479	
60013	Cary, '66	3,839	943	60430	Homewood, '66	17,399	5,887
62420	Casey	2,890	2,734	60942	Hoopeston	6,606	5,992
62232	Caseyville, '65	2,856	1,209	60143	Itasca (A), '67	4,339	1,274
62801	Centralla	13,904	13,863	62650	Jacksonville	21,690	20,387

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
ILLINOIS—Continued				ILLINOIS—Continued			
62052	Jerseyville	7,420	5,792	60544	Plainfield '67	2,646	2,183
62951	Johnson City	3,891	4,479	60545	Plano, '64	4,059	2,154
*60431	Joliet	66,780	51,601	61064	Polo	2,551	2,242
60458	Justice, '65	5,252	854	61764	Pontiac	8,435	7,562
60901	Kankakee	27,666	25,556	60469	Posen	4,517	1,795
60043	Kenilworth	2,959	2,789	61356	Princeton, '67	6,771	5,765
61443	Kenwaukee	16,324	16,821	62301	Quincy (A)	44,693	41,450
61448	Knoxville	2,560	2,209	61866	Rantoul, '66	27,533	6,387
60525	La Grange (A), '67	12,002	12,002	60627	Riverdale, '67	15,517	5,840
60525	La Grange Park '63	16,430	6,176	60305	River Forest	12,695	10,823
60044	Lake Bluff, '64	4,435	2,000	60071	River Grove, '66	11,111	4,839
60045	Lake Forest, '65	13,345	7,819	60546	Riverside	9,750	9,153
60102	Lake In the Hills (A) '67	2,926	2,046	60472	Robbins	7,511	4,766
60047	Lake Zurich, '66	3,851	850	62454	Robinson	7,226	6,407
60438	Lansing, '67	23,143	8,682	61068	Rochelle, '64	7,554	5,449
61301	La Salle	11,897	12,088	61071	Rock Falls (A), '67	10,439	7,983
62439	Lawrenceville (A)	6,136	6,328	*61101	Rockford, '64	132,109	92,927
62254	Lebanon (A), '67	3,494	2,417	61201	Rock Island	51,863	48,710
60439	Lemont, '64	4,034	2,757	60008	Rolling Meadows (A) '67	17,654	.....
61542	Lewistown	2,603	2,630	60441	Romeoville, '63	6,358	1,447
60043	Libertyville, '65	9,241	5,425	60172	Roselle, '63	4,827	1,038
62656	Lincoln, '65	17,364	13,364	60018	Rosemont (A) '67	3,457	978
60645	Lincolnwood, '65	13,546	3,072	62024	Rosewood Heights	1,576	1,376
60532	Lisle, '64	5,037	.....	60073	Round Lake Beach	5,011	1,892
62056	Litchfield	7,330	7,208	60073	Round Lake Park, '64	2,921	1,336
60441	Lockport, '64	8,785	4,955	62681	Rushville	2,819	2,682
60148	Lombard (A), '67	31,314	9,817	60174	St. Charles, '65	11,158	6,709
60041	Long Lake	3,502	2,637	62881	Salem	6,165	6,157
61111	Loves Park, '64	10,891	5,366	60548	Sandwich, '65	4,500	3,029
60534	Lyons, '64	10,891	6,120	60411	Sauk, '61	5,774	.....
60050	McHenry (A), '67	5,943	2,080	61074	Savanna	5,190	5,058
62859	McLeansboro	2,261	3,008	60172	Schaumburg, '66	6,454	.....
61455	Macomb, '65	16,094	10,592	60176	Schiller Park, '64	8,610	1,381
62060	Madison	6,861	7,963	62565	Shelbyville	4,821	4,462
60152	Manero	3,568	2,726	62565	Silvis (A), '67	5,052	3,055
62959	Marion	11,274	10,459	60076	Skokie, '67	70,175	14,332
60426	Markham, '64	14,595	2,753	61080	South Beloit	3,781	3,221
61554	Marquette Heights	2,517	.....	60411	South Chicago Heights	4,043	2,912
61341	Marselles	4,647	4,514	60177	South Elgin, '65	3,589	1,220
62441	Marshall	3,270	2,960	60473	South Holland, '66	17,758	3,247
62258	Mascoutah, '66	4,664	3,009	62650	South Jacksonville, '65	2,654	797
60443	Matteson, '65	3,898	1,211	62286	Sparta	3,452	3,576
61938	Matteson	19,088	17,547	*62701	Springfield	83,271	81,628
60163	Maywood, '65	28,256	27,473	61362	Spring Valley	5,371	4,916
*60160	Maywood Park	13,366	13,366	62088	St. Charles	4,228	4,047
61342	Mendota, '65	6,714	5,129	60475	Steger	4,432	4,217
60655	Merrionette Pk., '66	2,621	1,101	61081	Sterling, '67	16,482	12,817
62960	Metropolis	7,339	6,093	60402	Stickney	6,239	3,317
60445	Midlothian, '65	11,789	3,216	60165	Stone Park, '63	4,242	1,414
61264	Milan, '64	3,941	1,737	60103	Streamwood, '65	10,252	.....
61265	Moline	42,705	37,397	61364	Streator	16,868	16,469
60954	Monmouth	2,949	2,644	61951	Sullivan	3,946	3,470
61462	Monmouth	10,372	10,193	60501	Summit	10,374	8,957
60538	Montgomery, '65	2,744	773	62221	Swansea	3,018	1,816
61856	Monticello, '65	3,511	2,611	60178	Sycamore	9,961	5,912
60450	Morris	7,935	6,926	62568	Taylorville, '67	8,801	9,188
61270	Morris	3,153	1,331	60476	Toronton, '63	3,607	1,217
61550	Morton, '66	8,248	3,693	61832	Tilton	2,598	1,838
60053	Morton Grove (A), '67	26,954	3,926	60477	Tinley Park, '66	8,750	2,326
62863	Mount Carmel	8,594	8,732	61953	Tuscola	3,875	2,960
61054	Mount Morris	3,075	2,709	61801	Urbana	27,294	22,834
60056	Mt. Prospect, '66	30,202	4,009	62471	Vandalia	5,537	5,471
62864	Mount Vernon	15,566	15,600	62090	Venice	5,380	6,226
60060	Mundelein (A), '67	15,617	3,189	60181	Villa Park, '65	25,697	8,821
62966	Murphysboro, '65	9,393	9,241	62690	Virden	3,309	3,206
60540	Naperville, '66	18,734	7,013	60555	Warrenville	3,134	1,891
62263	Nashville, '66	2,805	2,432	61571	Washington	5,919	4,285
62446	Newton	2,780	2,780	62276	Washington Park	6,601	5,840
60648	Niles (A), '67	32,073	3,587	62298	Waterloo	3,739	2,821
61761	Normal (A), '67	23,213	9,772	60970	Watseka	5,219	4,235
.....	.....	.....	.....	60084	Wauconda, '66	5,343	1,173
60542	North Aurora, '66	4,734	921	60085	Waukegan	55,719	3,946
60062	Northbrook (A), '67	19,169	3,348	60153	Westchester	18,092	4,308
60064	North Chicago	22,938	8,628	60185	West Chicago, '66	8,174	3,973
60093	Northfield	4,005	1,426	60118	West Dundee (A), '67	2,900	1,948
60164	North Lake, '64	14,115	4,361	60558	Western Springs, '66	13,233	6,364
60547	North Riverside, '62	8,401	3,230	62896	West Frankfort	9,027	11,384
60521	Oak Brook, '66	2,546	.....	60901	West Kankakee	3,197	2,784
60452	Oak Forest, '66	11,107	1,556	60559	Westmont (A), '67	8,245	3,402
60453	Oak Lawn (A), '67	64,580	8,751	61933	Westview	3,496	3,197
*60302	Oak Park, '66	61,538	63,529	60183	Wheaton, '66	28,333	11,838
62269	O'Fallon, '66	5,295	3,022	60090	Wheeling, '64	11,756	9,916
61348	Oglesby	4,918	3,922	62092	White Hall	3,012	3,082
62450	Olney	8,780	8,612	60480	Willow Springs, '66	3,158	1,314
60461	Olympia Fields, '65	2,578	160	60091	Wilmette, '65	31,685	18,162
61061	Oregon	3,732	3,205	60481	Wilmington, '67	4,183	3,354
60462	Orland Park, '64	4,509	788	60190	Winfield, '66	3,265	714
61350	Ottawa	19,408	16,957	60093	Winnetka	13,368	12,105
60067	Palatine, '65	19,146	4,079	60096	Winthrop Harbor, '66	4,427	1,762
60463	Palos Heights	3,775	.....	60097	Wonder Lake	3,543	1,077
60465	Palos Hills, '65	5,303	.....	60191	Wood Dale (A), '67	7,872	1,850
62537	Paris	6,432	6,178	60515	Woodridge, '66	5,263	.....
61914	Paris	9,824	9,460	62093	Wood River	11,693	10,995
60466	Park Forest, '65	31,324	8,138	60098	Woodstock, '66	9,910	7,192
60068	Park Ridge (A), '67	40,125	16,602	60182	Worth, '67	11,702	1,472
60957	Paxton	4,370	3,795	60099	Zion, '64	14,106	8,950
61554	Pekin, '64	29,624	21,858	INDIANA			
*61601	Peoria	103,162	111,856	46001	Alexandria	5,552	5,147
61613	Peoria Heights	7,064	5,425	*46011	Anderson (A), '67	70,020	46,820
61354	Peru, '66	11,443	8,653	46012	Anderson East Side	3,778	.....
60420	Phoenix	4,203	3,606	46703	Angola, '66	5,234	5,081
62274	Pineknayville	3,085	3,289	47915	Attica	4,341	3,962
62363	Pittsfield	4,059	3,564				

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
INDIANA—Continued				INDIANA—Continued			
46706	Auburn (A), '67	6,958	5,879	46563	Plymouth	7,558	6,704
47001	Aurora, '62	4,756	4,780	46368	Portage, '65	16,490	16,490
47102	Austin	3,838	2,906	46369	Porter, '65	3,193	1,190
47006	Batesville	3,349	3,194	47371	Portland	6,999	7,064
47421	Bedford (A), '67	13,479	12,562	47570	Princeton	7,906	7,673
46107	Beech Grove, '64	12,632	5,685	47978	Rensselaer	4,740	4,072
46711	Berne	2,644	2,272	47374	Richmond	44,149	39,539
47512	Bicknell	3,378	4,277	46975	Rochester	4,883	4,673
47401	Bloomington, '65	42,058	28,163	47872	Rockville	2,756	2,467
46714	Bluffton (A)	7,052	6,076	46173	Rushville	7,264	6,761
46801	Boonville (A), '67	5,408	5,092	47167	Salem	4,546	3,271
47834	Brazil	8,853	8,434	46375	Schererville, '67	3,347	1,457
46506	Bremen	3,062	2,664	47170	Scottsburg, '66	4,806	2,953
47012	Brookville, '63	2,603	2,538	47172	Sellersburg, '64	3,007	1,664
46112	Brownsville, '66	5,121	1,578	47274	Seymour	11,629	9,629
47327	Cambridge City	2,589	2,559	46176	Shelbyville, '66	14,744	11,734
46032	Carmel, '66	3,023	1,009	*46624	South Bend	132,445	115,911
46303	Cedar Lake, '66	7,494	3,907	46224	Speedway, '65	11,319	5,498
47111	Charles town, '64	5,571	4,785	47460	Spencer	2,557	2,394
46017	Chesterton, '66	2,588	1,086	47882	Sullivan	4,979	5,423
46304	Chesterton, '66	5,058	3,175	47586	Tell City, '65	7,715	5,735
47130	Clarksville, '64	9,089	5,905	*47808	Terre Haute	72,500	64,214
47842	Clinton	5,843	6,462	46072	Tipton	5,604	5,633
46725	Columbia City	4,803	4,745	47390	Union City	4,047	3,572
47201	Columbus, '63	24,782	18,370	46383	Valparaiso, '65	16,938	12,028
47331	Connorsville	17,698	15,550	47591	Vincennes, '65	20,061	18,831
47112	Corydon	2,701	1,944	46992	Wabash, '66	13,448	10,621
47932	Covington	2,759	2,255	46580	Warsaw	7,234	6,625
47933	Crawfordsville, '66	14,766	12,851	47501	Washington (A), '67	11,230	10,887
46410	Crown Point (A), '67	10,095	7,539	47906	West Lafayette, '65	17,731	11,873
46122	Danville	3,287	2,802	47885	West Terre Haute	3,006	3,357
46733	Decatur (A), '67	8,508	7,271	46394	Whiting	8,137	9,669
46923	Delphi	2,517	2,530	47394	Winchester	5,742	5,467
47336	Dunkirk	3,117	3,048				
46311	Dyer	3,993	1,556	IOWA			
46312	East Chicago	57,669	54,263	52531	Albia	4,582	4,838
46405	East Gary	9,309	5,635	50511	Algona, '66	5,977	5,415
46124	Elkhart	3,664	3,283	50010	Ames, '65	34,826	22,898
46514	Elkhart	40,374	35,646	52205	Anamosa	4,616	3,910
46326	Elwood	11,793	11,793	50021	Ankeny, '65	5,910	1,229
*47708	Evansville, '66	144,463	128,636	50022	Atlantic	6,890	6,480
46928	Fairmount	3,080	2,646	50023	Audubon, '67	3,808	3,008
*46802	Fort Wayne (A), '67	172,594	133,607	52208	Belle Plaine	2,923	2,056
46041	Frankfort	15,802	15,028	50421	Belmond	2,506	2,169
46131	Franklin, '66	11,292	7,316	52722	Bettendorf, '65	17,264	5,132
46738	Garrett, '66	4,725	4,291	52537	Bloomfield	2,771	2,688
*46401	Gary	178,320	133,911	50036	Boone	12,468	12,164
46933	Gas City (A), '67	5,249	3,787	52601	Burlington, '65	33,285	30,613
46526	Goshen	13,718	13,003	52730	Camanche, '65	3,055	814
46135	Greencastle	8,506	6,888	51401	Carroll, '65	8,481	6,231
47025	Greendale	2,861	2,018	50613	Cedar Falls, '65	26,016	14,334
46140	Greenfield	9,049	6,159	*52401	Cedar Rapids, '65	103,545	72,296
47240	Greensburg	7,492	6,619	52544	Cedarville, '65	6,629	7,625
46142	Greenwood	7,169	3,066	50049	Chariton	5,042	5,302
46319	Griffith, '64	12,810	4,470	50616	Charles City, '65	10,419	10,309
*46325	Hammond	111,698	87,594	51012	Cherokee	7,724	7,705
47348	Harford City	8,053	7,253	51632	Clarinda, '66	5,714	5,086
46322	Highland, '67	23,474	5,878	50525	Clarion	3,232	3,150
46342	Hobart, '66	20,875	10,244	50428	Clear Lake, '66	6,301	4,977
46952	Home Corner	2,636	3,950	52732	Cinton, '65	33,331	30,379
47542	Huntingburg	4,146	4,056	52240	Coralville, '65	3,390	977
46750	Huntington	16,185	15,079	51501	Council Bluffs, '66	52,957	45,429
*46950	Indianapolis (A)	491,360	427,173	52031	Cresco, '65	3,878	3,878
*47546	Jasper, '63	7,910	5,215	50801	Creston, '66	8,149	8,127
47130	Jeffersonville, '66	20,060	14,685	*52801	Davenport, '66	95,796	74,549
46755	Kendallville	6,665	6,119	52101	Decorah, '66	7,054	6,060
46534	Knox	3,458	3,034	51442	Denison, '66	6,780	4,554
46901	Kokomo	47,197	38,672	*50318	Des Moines, '66	206,739	177,965
*47904	Lafayette, '66	45,214	35,568	52742	De Witt, '66	3,680	2,644
46350	La Porte, '66	21,917	20,414	52001	Dubuque, '66	62,853	49,671
46226	Lawrence	10,103	1,951	52040	Dyersville, '66	3,270	2,416
47025	Lawrenceburg	5,004	4,806	50533	Eagle Grove	4,381	4,176
46052	Lebanon	9,533	7,631	50627	Elkora	3,225	3,225
46771	Lebanon	2,535	2,375	50535	Elmhurst, '66	3,824	3,760
47441	Lebanon	5,446	5,973	51334	Estherville, '66	8,092	6,719
46947	Logansport	21,106	21,031	50707	Evansdale	5,738	3,571
47553	Logansport	2,858	2,424	52556	Fairfield, '66	11,587	7,299
46356	Lowell, '65	3,063	1,448	50436	Forest City, '66	3,329	2,766
47250	Madison (A), '67	11,857	7,506	50501	Fort Dodge, '66	29,654	25,115
46952	Marion	37,854	30,081	52627	Fort Madison	15,247	14,954
46151	Martinsville (A)	8,476	5,991	51534	Glenwood	4,783	4,664
46360	Michigan City	36,653	28,395	50112	Grinnell (A), '67	8,199	6,828
46544	Mishawaka	33,361	32,913	50441	Hampton	4,501	4,432
47445	Mitchell	3,442	3,245	51537	Harlan, '66	4,775	3,915
47960	Monticello	4,035	3,467	51023	Hawarden	2,544	2,625
46158	Mooreville	3,856	2,264	50548	Humboldt, '66	4,497	3,219
47620	Mount Vernon, '67	6,201	6,150	50644	Independence	5,498	4,865
*47302	Muncie	68,603	58,479	50125	Indianola, '66	8,281	5,145
46321	Munster, '67	14,612	4,753	52240	Iowa City, '66	40,467	27,212
46550	Nappanee	3,895	3,393	50126	Iowa Falls	6,322	4,900
47150	New Albany, '64	38,218	29,346	50129	Jefferson	4,570	4,326
47362	New Castle	20,349	18,271	52632	Keokuk	16,316	16,144
46774	New Haven (A), '67	5,060	2,336	50138	Knoxville, '66	8,521	7,625
46184	New Whiteland	3,488	3,488	51031	Le Mars, '65	7,847	5,844
46080	Noblesville	7,566	6,667	52057	Manchester, '66	4,811	987
*46962	North Manchester (A), '67	5,612	3,477	52060	Maquoketa	5,909	4,307
47265	North Vernon	4,307	3,488	52302	Marion, '65	15,267	5,916
47560	Oakland City	3,016	3,539	50158	Marshalltown	22,521	19,821
47454	Paoli	2,754	2,575	50401	Mason City, '66	30,711	27,980
46970	Peru	14,453	13,308	51555	Missouri Valley	3,567	3,546
47567	Petersburg, '67	2,741	3,035	52310	Monticello	3,190	2,888
46168	Plainfield	5,460	2,585	52641	Mount Pleasant	7,339	5,843

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
KENTUCKY—Continued				LOUISIANA—Continued			
42276	Russellville.	5,861	4,529	70301	Thibodaux.	13,403	7,730
42027	St. Matthews, '64.	10,796		71373	Viadalla.	4,313	1,641
42164	Scottsville.	3,324	2,060	70586	Ville Platte.	7,512	6,633
40065	Shelbyville.	4,525	4,403	70668	Vinton.	2,987	2,597
40416	Shively, '64.	18,180	2,401	71062	Viriana.	2,426	
42501	Somersett.	2,112	7,097	70591	Weslaco.	3,332	2,416
41017	South Fort Mitchell.	4,086	3,142	70669	Westlake.	3,311	1,871
40172	Valley Station.	10,553		71291	West Monroe.	15,215	10,302
40383	Versailles.	4,060	2,760	70094	Westwego.	9,815	8,328
40769	Williamsburg.	3,478	3,348	71483	Winnfield.	7,022	5,629
40390	Willmore.	2,773	2,337	71295	Winnsboro.	4,437	3,555
40391	Winchester.	10,187	9,226	70791	Zachary.	3,268	1,542
LOUISIANA				MAINE			
70510	Abbeville.	10,414	9,338	<i>See Note on Page 605</i>			
71301	Alexandria.	40,379	34,913	04210	Auburn.	24,449	23,134
71301	Alexandria SW.	2,782		04330	Augusta.	21,680	20,913
70422	Amite City.	3,316	2,804	04401	Bangor.	38,912	31,558
70788	Anandale.	2,827		04609	Bar Harbor.	3,807	3,864
71001	Arcaadia.	2,547	2,241	04580	Bath.	10,717	10,644
70714	Baker.	4,823	762	04915	Belfast.	6,140	5,960
71220	Bastrop.	15,193	12,769	03901	Berwick.	2,738	2,166
*70821	Baton Rouge.	152,419	125,629	04005	Biddeford.	19,255	20,836
70360	Bayou Canoe.	3,173	2,212	04412	Brewer.	9,009	6,862
70342	Berwick.	3,850	2,19	04009	Bridgton.	2,707	2,950
70427	Bogalusa.	22,423	12,798	04011	Brunswick.	4,444	
71010	Bossier City.	32,776	15,470		Brunswick (town).	15,797	10,906
70517	Breaux Bridge.	3,303	2,492	04416	Bucksport.	3,466	3,120
71322	Bunkle.	5,188	4,666	04619	Calais.	4,223	4,589
70041	Buras-Triumph.	4,908	1,799	04843	Camden.	3,523	3,270
70525	Church Point.	3,606	2,897		Camden (town).	3,988	3,670
70433	Covington.	6,754	5,113	04107	Cape Elizabeth.	5,505	3,816
70526	Crowley.	15,617	12,781	04736	Caribou.	8,305	4,500
70360	Daigville.	5,906	4,809		Caribou (town).	12,464	9,923
71232	Delhi.	2,514	1,861	04021	Cumberland.	2,765	2,030
70726	Denham Springs.	5,991	2,053	04930	Dexter.	2,726	2,809
70633	De Quincy.	3,928	3,837		Dexter (town).	3,951	4,126
70634	De Ridder.	7,188	5,799	04426	Dover-Foxcroft.	4,173	4,218
70846	Donaldsonville.	6,082	4,150	04631	Eastport.	2,537	3,123
70535	Eunice.	11,326	8,184	03903	Eliot.	3,133	2,509
71241	Farmerville.	2,727	2,173	04605	Ellsworth.	4,444	3,936
71334	Ferriday.	4,563	3,847	04937	Fairfield.	3,766	3,776
70538	Franklin.	8,673	6,144		Fairfield (town).	5,829	5,811
70438	Franklinton.	3,141	2,342	04105	Falmouth.	5,976	4,342
70357	Golden Meadow.	3,097		04938	Farmington.	2,749	
70357	Gonzales.	3,252	1,642		Farmington (town).	5,000	4,077
70601	Goosport.	12,778	8,318	04742	Fort Fairfield.	3,082	3,521
71245	Grambling.	3,144			Fort Fairfield (town).	5,876	5,791
70053	Gretna.	21,967	13,813	04743	Fort Kent.	2,787	3,001
70401	Hammond.	10,563	8,010		Fort Kent (town).	4,761	5,343
70123	Harahan.	9,275	3,394	04032	Freeport.	4,055	3,280
71038	Haynesville.	3,031	3,040	04345	Gardiner.	6,897	6,649
70360	Houma (A).	29,772	11,505	04088	Gorham.	5,767	4,742
70360	Houma.	29,772	11,505	04347	Hallowell.	3,169	3,404
70544	Jeanerette.	5,568	4,692	04444	Hampden.	4,583	3,608
70121	Jefferson Heights.	19,353		04730	Houlton.	5,976	6,029
70546	Jennings.	12,777	9,663		Houlton (town).	5,259	8,377
71251	Jonesboro.	3,848	3,007	04239	Jay.	3,247	3,102
70548	Kaplan.	5,267	4,562	04043	Kennebunk.	2,804	
70062	Kenner.	17,037	5,535		Kennebunk (town).	4,551	4,273
70444	Kentwood.	2,607	2,417	03904	Kittery.	8,051	6,692
70501	Lafayette, '63.	50,312	33,541		Kittery (town).	10,689	8,380
70501	Lafayette SW.	6,682		04240	Lewiston.	40,804	40,974
70549	Lake Arthur.	3,541	2,849	04750	Limestone.	13,102	2,427
70601	Lake Charles.	63,392	41,272	04457	Lincoln.	3,616	2,548
71254	Lake Providence.	5,781	4,123		Lincoln (town).	4,541	4,030
70468	Laplace.	2,542	2,352	04252	Libon Falls.	2,640	2,155
70373	Larose.	2,796	1,286	04250	Lisbon.	5,042	
71446	Leesville.	4,689	4,670	04254	Livermore Falls.	2,882	3,015
70071	Lutcher.	3,274	2,198		Livermore Falls (town).	3,343	3,359
70554	Mamou.	2,928	2,254	04652	Lubeck.	2,684	2,973
71052	Mansfield.	5,839	4,440	04654	Machias.	2,614	2,063
71449	Many.	3,164	1,681	04756	Madawaska.	4,035	2,975
71351	Marksville.	4,257	3,635		Madawaska (town).	5,507	4,900
71055	Minden.	12,785	9,787	04950	Madison.	2,761	2,554
71201	Monroe.	52,219	38,572		Madison (town).	3,935	3,639
70380	Morgan City.	13,540	9,759	04257	Mexico.	3,951	3,821
70561	Natchitoches.	13,540	9,914		Mexico (town).	5,043	
70560	New Iberia.	29,062	16,467	04462	Millinocket.	7,318	5,755
*70113	New Orleans.	627,525	570,445		Millinocket (town).	7,453	5,890
70760	New Roads.	3,965	2,818	04463	Mtlo.	2,756	2,898
70079	Noroo.	4,682		04260	New Gloucester.	3,047	2,628
71101	North Shreveport.	7,701		04268	Norway.	2,654	2,687
71463	Oakdale.	6,618	5,598		Norway (town).	3,733	3,811
70570	Opelousas.	17,417	11,659	04963	Oakland.	3,075	2,679
70392	Patterson.	2,923	1,938	04064	Old Orchard Beach.	4,431	4,593
71360	Pineville.	7,636	6,423		Old Orchard Beach (town).	4,580	4,707
70764	Plaquemine.	8,689	5,547	04468	Old Town.	6,626	8,261
70454	Ponchartroula.	4,727	4,090	04473	Orono.	3,234	3,634
70767	Port Allen.	5,026	3,097		Orono (town).	8,341	7,504
70083	Port Sulphur.	2,868		04474	Orrington.	2,539	1,895
70894	Raceland.	3,666	2,025	04271	Paris.	3,601	4,358
70578	Rayne.	8,634	6,485	04967	Pittsfield.	3,232	3,012
71269	Rayville.	4,052	3,138		Pittsfield (town).	4,010	3,909
70084	Reserve.	5,297	4,465	*04101	Portland.	72,566	77,634
71270	Ruston.	13,991	10,372	04769	Presque Isle.	12,886	9,954
70582	St. Martinville.	6,468	4,614	04841	Rockland.	8,769	9,234
71301	Saintown.	4,008		04276	Rumford.	7,233	7,888
*71102	Shreveport, '66.	167,556	127,206		Rumford (town).	10,005	9,054
70458	Stidell.	6,356	3,464	04072	Saco.	10,515	10,324
71075	Springhill.	6,437	3,383	04073	Sanford.	10,936	11,094
70663	Sulphur.	11,429	5,996		Sanford (town).	14,362	15,177
71282	Tallulah.	9,413	7,758	04074	Scarborough.	6,418	4,600

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
MAINE—Continued				MASSACHUSETTS—Continued			
04976	Skowhegan	6,667	6,183	01002	Amesbury (town)	10,787	10,851
	Skowhegan (town)	7,661	7,422		Amherst	10,806	7,900
03908	South Berwick	3,112	2,646		Amherst (town)	13,718	10,856
04106	South Portland	22,788	21,866	01810	Andover	17,134	12,437
04861	Thomaston	2,780	2,810	02174	Arlington	49,953	44,353
04086	Topsham	3,818	2,626	01430	Ashburnham	2,758	2,603
04785	Van Buren	3,589	3,732	01721	Ashland	7,779	3,500
04572	Van Buren (town)	4,679	5,094	01331	Athol	10,161	9,708
	Waldoboro	2,882	2,536		Athol (town)	11,637	11,554
04901	Waterville	18,669	18,287	02703	Attleboro	27,118	23,809
04473	Webster	4,747	..	01501	Auburn	18,047	8,840
04090	Wells	3,528	2,321	02322	Ayer	4,301	2,666
04092	Westbrook	13,820	12,284	01432	Ayer	3,323	3,107
04294	Wilton	3,274	3,455		Ayer (town)	14,927	5,740
	Windham	4,498	3,434	02630	Barnstable	13,465	10,480
04901	Winslow	3,640	2,916	01005	Barre	3,479	3,406
	Winslow (town)	5,891	4,413	01730	Bedford	10,969	5,234
04364	Winthrop	3,537	3,026	01007	Belchertown	5,186	4,487
04096	Yarmouth	2,913	2,189	02019	Beltingham	6,774	4,100
	Yarmouth (town)	3,517	2,669	02178	Belmont	28,715	27,381
03909	York	4,663	3,256	01915	Belverly	36,108	28,884
MARYLAND				01821	Billerica	17,867	11,101
21001	Aberdeen	9,679	2,944	01504	Blackstone	5,130	5,068
*21401	Annapolis	23,355	10,047	*02109	Boston	697,197	801,444
	Arbutus-Halethorpe-Relay	22,402	..	02532	Bourne	14,011	4,720
*21233	Baltimore	939,024	949,708	02184	Braintree	31,069	23,161
21014	Bel Air	4,300	2,578	02324	Bridgewater	4,296	3,445
20014	Bethesda	56,527	..		Bridgewater (town)	10,276	9,512
20710	Bladensburg	3,103	2,899	*02401	Brockton	72,813	62,860
20722	Brentwood	3,693	3,523	02146	Brockline	54,044	57,589
21716	Brunswick	3,555	3,752	02103	Burlington	12,852	3,250
21613	Cambridge	12,239	10,351	*02138	Cambridge	107,716	120,740
20027	Capitol Heights	8,138	2,729	02021	Camton	12,771	7,465
21025	Carrollton	3,385	..	01507	Charlton	3,685	3,136
21228	Catonsville	37,372	..	02633	Chatham	15,130	9,407
21620	Chestertown	3,602	3,143	01824	Chelmsford	33,749	38,912
20785	Cheverly	5,223	3,318	02150	Chelsea	61,553	49,211
21030	Cockeysville	2,582	..	01510	Clinton	12,848	12,287
20740	College Park '66	25,444	11,170	02025	Cohasset	2,748	2,009
21817	Crisfield	3,540	3,658		Cohasset (town)	5,840	3,731
21501	Cumberland	33,415	37,679	01742	Concord	3,188	2,299
20028	District Heights	7,524	1,735		Concord (town)	12,517	8,623
21222	Dundalk	82,428	..	01226	Dalton	6,436	4,772
21601	Easton	6,337	4,836	01923	Danvers	21,922	15,720
21921	Elkton	9,989	5,245	02714	Dartmouth	14,607	11,155
21221	Essex	35,205	..	02026	Dedham	23,869	18,457
20021	Forest Heights	3,524	1,125	01342	Deerfield	3,338	3,086
21701	Frederick	21,744	18,142	02638	Dennetts	3,727	2,499
21532	Frostburg	6,722	6,876	02715	Dighton	3,769	2,950
20760	Gaithersburg	3,847	1,755	02030	Dorver	2,846	1,722
21136	Glyndon Reisterstown	4,216	..	01826	Dracut	13,674	8,666
20770	Greenbelt	7,479	7,074	01570	Dudley	6,510	5,261
21740	Hagerstown	36,660	36,260	02332	Duxbury	4,727	3,167
21740	Havre de Grace	4,256	2,153	02333	East Bridgewater	6,139	4,412
21078	Havre de Grace	8,519	7,809	01027	Easthampton	12,326	10,694
20031	Hillcrest Heights	15,205	..	01027	East Longmeadow	10,294	8,881
*20781	Hyattsville	15,168	12,308	02334	Easton	9,078	6,244
20787	Langley Park	11,510	..	02149	Everett	43,544	45,982
21227	Lansdowne-Baltimore-Highlands	13,134	..	02719	Fairhaven	14,339	12,764
20810	Laurel	8,503	4,482	*02722	Fall River	99,942	111,963
21502	LaVale-Narrows Park	4,031	..	02540	Falmouth	3,308	2,713
20653	Lexington Park	7,039	..		Falmouth (town)	13,037	8,662
21204	Loch Raven	23,278	..	01420	Fitchburg	43,021	42,691
21220	Middle River	10,825	..	02035	Foxborough	3,169	2,774
20822	Mount Rainier	9,855	10,989		Foxborough (town)	10,136	7,030
21206	Overlea	10,355	..	01701	Framingham	44,526	28,086
21117	Owings Mills	3,810	..	02038	Franklin	6,391	5,348
21234	Parkville-Carney	27,236	..		Franklin (town)	10,630	8,033
21208	Pikesville	18,737	..		Freestown	3,039	2,104
21851	Pocomoke City	3,329	3,191	01440	Gardner	19,038	19,581
20840	Riverdale	4,389	5,530	01830	Georgetown	3,755	2,411
21123	Riviera Beach	4,902	1,849	01930	Gloucester	25,789	25,167
*20850	Rockville	26,090	6,934	01519	Grafton	10,627	8,281
21801	Salisbury	16,302	15,141	01033	Granby	4,221	1,861
20027	Seat Pleasant	5,365	2,255	01230	Great Barrington	2,943	3,913
21146	Seyers Park-Round Bay	3,728	1,059		Great Barrington (town)	6,624	6,712
*20907	Silver Spring	66,348	..	01301	Greenfield	14,389	15,075
21219	Sparrows Point-Fort Howard-Edgemere	11,775	..		Greenfield (town)	17,690	17,349
21207	Stoneleigh-Rodgers Forge	15,645	..	01450	Groton	3,804	2,849
20023	Suitland-Silver Hills	10,300	..	01830	Groveland	3,297	2,340
20012	Takoma Park	16,799	13,341	01035	Hadley	3,099	2,639
21093	Timonium-Lutherville	12,265	..	01982	Hamilton	5,488	2,764
21204	Towson	19,090	..	02339	Hanover	5,923	3,289
20782	University Park	3,098	2,205	02341	Hanson	4,370	3,864
21562	Westernport	3,559	3,431	01451	Harvard	2,563	3,983
21157	Westminster	6,123	6,140	02645	Harwich	3,747	2,649
20902	Weston	54,635	..	01830	Haverhill	46,346	47,280
21207	Woodlawn-Rockdale-Millford Mills	19,254	..	02043	Hingham	15,378	10,665
MASSACHUSETTS				02313	Holbrook	10,104	4,004
See Note on Page 605				01520	Holden	10,115	8,753
02351	Abington	10,607	7,152	01736	Holliston	6,222	5,975
01720	Acton	7,238	3,510	01040	Holyoke	52,689	54,661
02743	Adams	5,755	4,401		Hopedale	2,904	2,797
01226	Adams (town)	12,391	12,034	01748	Hopedale (town)	3,987	3,479
01001	Agawam	11,949	..		Hopkinton	2,754	1,829
01913	Amesbury	9,625	9,711		Hopkinton (town)	4,932	3,486
				01749	Hudson	7,897	..
					Hudson (town)	9,666	8,211
				02045	Bull	7,055	3,379
				02601	Hyannis	5,139	4,235
				01938	Ipswich	4,617	4,952
					Ipswich (town)	8,544	6,895

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
MASSACHUSETTS—Continued				MASSACHUSETTS—Continued			
02360	Kingston	4,302	3,461	02771	Seekonk	11,214	5,993
02346	Lakerville	3,209	2,066	02771	Seekonk	8,399	6,104
01523	Lancaster	3,958	3,601	02067	Sharon	5,888	2,815
01237	Lanesborough	2,933	2,069		Sharon (town)	10,070	4,847
01840	Lawrence	70,933	80,536	01464	Shirley	5,202	4,271
01238	Lee	3,078	2,847	01545	Shrewsbury	16,622	10,594
	Lee (town)	5,271	4,820	01876	Silver Lake	4,654	2,024
01524	Leicester	8,177	6,029	02725	Somerset	12,996	8,566
01240	Lenox	4,253	3,627	02143	Sonerville	94,697	102,351
01453	Leominster	27,929	24,075	01777	Southborough	3,996	2,798
01463	Lexington	5,691	17,335	01550	Southbridge	15,848	16,748
01773	Lincoln	5,613	2,427		Southbridge (town)	16,523	17,519
01460	Littleton	5,109	2,349	01075	South Hadley	14,956	10,145
01106	Longmeadow	10,565	6,508	01077	Southwick	5,139	2,855
*01852	Lowell	92,107	97,249	01562	Spencer	5,593	5,259
01056	Ludlow	13,805	8,660		Spencer (town)	7,838	7,027
01462	Lunenburg	6,334	3,906	*01101	Springfield	174,463	162,399
*01903	Lynn	94,478	99,738	01564	Sterling	3,193	2,166
01940	Lynnfield	8,398	3,927	02180	Stoneham	17,821	13,229
02148	Malden	57,676	59,804	02072	Southington	16,328	11,146
01944	Manchester	3,942	2,868	01775	Stowe	7,517	7,107
02048	Mansfield	4,764	4,808	01566	Sturbridge	3,604	2,805
	Mansfield (town)	7,773	7,184	01776	Sudbury	7,447	2,596
01945	Marblehead	18,521	13,765		Sutton	3,638	3,102
02738	Marion	2,381	2,250	01907	Swampscott	13,294	11,580
01752	Marlborough	18,819	15,756	02777	Swansea	9,916	6,121
02050	Marshfield	6,748	3,267	02780	Taunton	41,132	40,109
02739	Mattapoisett	3,117	2,265	01468	Templeton	5,371	4,757
01754	Maynard	7,695	6,978	01876	Temksbury	15,902	7,505
02052	Medfield	6,021	4,549	01080	Three Rivers	3,082	2,359
02155	Medford	66,113	66,113	01983	Topsfield	3,351	1,372
02053	Methuen	5,163	3,744	01469	Townsend	3,650	2,817
01676	Melrose	29,619	26,988	01376	Turner Falls	4,917	5,179
01570	Merrim Village	3,099	3,118	01879	Tyngsborough	3,302	2,059
01860	Merrimack	3,261	2,804	01568	Upton	3,127	2,656
01844	Methuen	23,114	24,477	01569	Uxbridge	3,377	7,007
02346	Middleborough	6,003	5,889		Uxbridge (town)	7,789	7,007
	Middleborough (town)	11,065	10,164	01880	Wakefield	24,295	19,633
01949	Middleton	3,718	2,916	02081	Walpole	14,068	9,109
01757	Milford	13,722	14,396	02154	Waltham	55,413	47,187
	Milford (town)	16,749	15,442	01082	Ware	6,650	6,217
01527	Milbury	8,347	8,347		Ware (town)	7,517	7,107
02054	Millis	4,374	2,551	02571	Wareham	9,461	7,569
	Millis-Chequod	2,588	1,419	01083	Warren	3,383	3,406
02186	Milton	26,375	22,395	02172	Watertown	39,092	37,329
01057	Monson	6,712	6,125	01778	Wayland	10,444	4,407
01351	Montague	7,836	7,812	01570	Webster	12,072	12,160
01908	Nahant	3,960	2,679		Webster (town)	13,680	13,194
02554	Nantucket	2,804	2,901	02181	Wellesley	26,071	20,549
	Nantucket (town)	3,559	3,484	01984	Wenham	2,798	1,644
01760	Natick	28,831	19,835	01581	Westborough	4,011	3,443
02192	Needham	25,793	16,313		Westborough (town)	9,999	9,999
*01740	New Bedford	102,440	109,189	01583	West Boylston	5,526	2,570
01950	Newbury	2,519	1,994	02379	West Bridgewater	5,061	4,059
01950	Newburyport	14,004	14,111	01085	Westfield	26,302	20,962
01246	New Marlborough	1,083	989	01886	Westford	6,261	4,262
02158	Newton	92,384	81,994	01473	Westminster	4,022	2,768
02056	Norfolk	3,471	2,704	02193	Weston	8,261	5,026
01247	North Adams	19,905	21,567	02790	Westport	6,641	4,989
01060	Northampton	30,058	29,063	01089	West Springfield	24,924	20,438
01845	North Andover	10,908	8,435	02090	Westwood	10,354	5,837
02760	North Attleborough	14,777	12,146	02181	Weymouth	48,177	32,690
01532	Northborough	2,545	2,442	01888	Whitinsville	5,102	5,662
	Northborough (town)	6,687	3,122	02382	Whitman	10,485	8,413
01534	Norbridge	10,800	10,476	01095	Wibraham	7,387	4,003
01535	North Brookfield	2,615	2,599	01267	Williamstown	5,428	5,015
	North Brookfield (town)	3,616	3,444		Williamstown (town)	7,322	6,194
02360	North Plymouth	3,467		01887	Wilmington	12,475	7,039
01864	North Reading	8,331	4,402	01475	Winchendon	3,839	4,019
02060	North Scituate	3,421			Winchendon (town)	6,237	6,585
02766	Norton	6,818	4,401	01890	Winchester	19,376	15,599
02061	Norwell	5,207	2,515	02152	Wintthrop	20,308	19,496
02062	Norwood	24,087	16,030		Woburn	31,214	20,492
01364	Orange	2,889	4,048	*01601	Worcester	186,587	203,486
	Orange (town)	3,154	5,894	02093	Wrentham	6,685	5,341
01540	Oxford	6,985	3,238	02675	Yarmouth	5,504	3,297
	Oxford (town)	9,282	5,851	MICHIGAN			
01069	Palmer	3,888	3,440	49221	Adrian	20,347	18,393
	Palmer (town)	10,358	9,533	49224	Albion	12,749	10,406
01960	Peabody	32,202	22,645	48001	Algonac	3,190	2,639
02359	Pembroke	4,919	2,579	49010	Allegan	4,821	4,801
01463	Pepperell	4,336	3,460		Allen Park	37,494	12,329
01201	Pittsfield	57,879	53,348	48801	Alma	8,978	8,341
02762	Plainville	3,810	2,088	49707	Alpena	14,682	13,135
02360	Plymouth	6,488	10,540	*48103	Ann Arbor	67,340	48,251
	Plymouth (town)	14,445	13,608	48413	Bad Axe	2,998	2,973
02657	Provincetown	3,346	3,745	*49015	Battle Creek	44,169	48,666
	Provincetown (town)	3,389	3,795	48706	Bay City	53,604	52,523
02169	Quincy	87,409	83,835	48809	Belding	4,887	4,436
02368	Randolph	18,900	9,982	49022	Benton Harbor	19,136	18,769
02767	Rainham	4,150	2,426		Benton Heights	6,112	6,160
01867	Reading	19,259	14,006		Beverly Hills	23,275	17,931
02769	Rehoboth	4,953	3,700	49011	Bessemer	3,304	3,509
02151	Revere	40,000	36,763	48009	Beverly Hills	8,633	6,736
02376	Rockland	13,119	8,960	49307	Big Rapids	8,686	6,736
01966	Rockport	3,511	2,911	*48010	Birmingham	25,525	15,467
	Rockport (town)	4,616	4,231	49228	Blissfield	2,653	2,365
01960	Rouley	2,783	1,768	49712	Bozette	2,797	3,028
01543	Rutland	3,253	3,056	49017	Brownlee Park	3,307	5,224
01970	Salem	39,211	41,880	49107	Buchanan	5,347	5,224
01950	Salisbury	3,154	2,695	49601	Cadillac	10,112	10,425
01906	Saugus	20,666	17,162	48728	Caro	3,534	3,464
02066	Scituate	3,229	1,457				

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
MICHIGAN—Continued				MICHIGAN—Continued			
48015	Center Line	10,164	7,659	48047	New Baltimore	3,159	2,043
49720	Charlevoix	2,751	2,695	49868	Newberry	2,612	2,802
48813	Charlotte	7,657	6,606	49120	Niles	13,842	13,145
49721	Cheboygan	5,859	5,687	49445	North Muskegon	3,855	2,424
48118	Chelsea	3,355	2,580	48167	Northville	3,967	3,240
48616	Chesaning	2,770	2,264	49870	Norway	3,171	3,258
48017	Clawson	14,700	5,106	48500	Novi	6,390	.....
49036	Coldwater	8,880	8,594	48237	Oak Park	36,632	5,267
48817	Corunna	2,764	2,355	49078	Osgo	4,142	3,990
48423	Davison	3,761	1,745	48867	Owosso	17,006	15,948
*48120	Dearborn	112,007	94,994	49079	Paw Paw	2,970	2,382
*48233	Detroit	1,670,144	1,849,568	49038	Paw Paw Lake	3,518	1,625
49047	Dowagiac	7,208	6,542	49770	Petoskey	6,138	6,468
48429	Durand	3,312	3,194	49080	Plainwell	3,125	2,767
48021	East Detroit	45,756	21,461	48069	Pleasant Ridge	3,807	3,594
49506	East Grand Rapids	10,924	6,403	48170	Plymouth	8,766	6,637
48823	East Lansing	30,198	20,325	*48056	Pontiac	82,233	73,681
48197	East Lawn	17,652	4,127	48062	Port Huron	36,084	35,725
48827	Eaton Rapids	4,052	3,509	48875	Portland	3,330	2,807
48229	Ecorse	17,328	17,948	48062	Richmond	2,667	2,025
49829	Essexville	15,391	15,170	48218	River Rouge	18,147	20,549
48732	Essexville	4,590	3,167	48192	Riverview	7,237	1,432
48024	Farmington	7,998	4,134	48063	Rochester	5,431	4,279
48430	Fenton	6,881	2,325	49779	Rogers City	4,722	3,873
48220	Ferrisburgh	6,142	4,226	48065	Romeo	3,327	2,985
49049	Ferrisburgh	31,347	29,675	49441	Roosevelt Park	2,578	1,254
48134	Flat Rock	2,590	1,454	48066	Roseville	50,195	15,816
*48502	Flint	4,696	1,931	*48067	Royal Oak	80,612	46,998
48433	Flushing	196,730	163,143	*48601	Saginaw	98,265	92,918
48026	Fraser	3,727	1,379	48079	St. Clair	4,538	4,098
49412	Freeport	8,024	3,056	*48080	St. Clair Shores	76,657	19,823
48135	Garden City	38,017	9,012	49781	St. Ignace	3,334	2,946
49735	Gaylord	2,568	2,271	48879	St. Johns	5,629	4,954
49837	Gladstone	5,267	4,531	49085	St. Joseph	11,755	10,223
49417	Grand Haven	11,066	9,536	48880	St. Louis	3,868	3,347
48837	Grand Ledge	5,165	4,506	49783	Sault Ste. Marie	18,722	17,912
*49501	Grand Rapids (A), '63	202,379	176,515	48075	Southfield	31,501	.....
49418	Grandville	7,975	2,022	48192	Southgate	29,104	.....
48838	Greenville	7,440	6,668	49090	South Haven	6,149	5,629
48236	Grosse Pointe	6,631	6,283	48161	South Monroe	2,919	2,275
48236	Grosse Pointe Farms	12,172	9,410	49345	Sparta	2,749	2,327
48230	Grosse Pointe Park	15,457	13,075	49015	Springfield	4,605	.....
48236	Grosse Pointe Woods	18,580	10,381	49015	Springfield Place	5,136	.....
48212	Hamtramck	34,137	43,355	49091	Starels	8,915	7,786
49930	Hancock	5,022	5,223	48473	Swartz Creek	3,068	.....
48236	Harper Woods	19,995	.....	49286	Tecumseh	7,045	4,020
49058	Hastings	6,375	6,096	49093	Three Rivers	7,092	6,765
48030	Hazel Park	25,631	17,770	49684	Traverse City	18,432	16,974
48203	Highland Park	38,063	46,393	48183	Trenton	18,439	6,222
49242	Holland	7,629	7,297	48054	Troy	19,058	.....
49423	Holland	24,757	15,858	48768	Vassar	2,680	2,530
48442	Holly	3,269	2,663	49968	Wakenfield	3,231	3,344
48442	Holt	4,818	.....	48088	Walled Lake	3,550	.....
49931	Houghton	3,393	3,829	*48089	Warren	89,246	7,727
48843	Howell	4,861	4,353	48184	Wayne (A)	19,071	9,409
49247	Hudson	2,546	2,773	49464	White Lake	2,590	1,819
49426	Hudsonville	2,649	1,101	48031	White Lake-Seven Harbors	2,748	1,385
48070	Huntington Woods	8,745	4,949	49442	Wolf Lake	2,525	1,591
48141	Inkster	39,097	16,728	48192	Wyandotte	43,519	36,846
48846	Ionia	6,754	6,412	49509	Wyoming (A)	50,145	.....
49801	Iron Mountain	9,299	9,679	48197	Ypsilanti	20,957	18,302
49935	Iron River	3,754	4,048	49464	Zeeland	3,702	3,075
49938	Ironwood	10,345	11,466	MINNESOTA			
49849	Ishpeming	8,557	8,962	56007	Albert Lea, '65	18,454	18,545
48847	Ithaca	2,611	2,377	56308	Alexandria	6,713	6,319
*49201	Jackson	50,720	51,088	55303	Anoka, '65	11,529	7,396
*49001	Kalamazoo	82,089	57,704	55112	Arden Hills, '65	4,436	.....
48033	Keego Harbor	2,761	.....	56704	Aurora	2,499	1,371
49801	Kingsford	5,084	5,038	55912	Austin	27,908	23,100
48035	Lake Orion	2,698	2,385	55706	Babbitt	2,587	.....
48850	Lakeview	10,384	.....	55163	Bayport	3,205	2,502
*48924	Lansing (A)	113,058	92,129	56601	Bendji	9,955	10,001
48446	Lapeer	6,140	6,143	56215	Benson	3,678	3,398
48075	Lathrup Village	3,556	.....	.....	Blaine	15,544	.....
49913	Laurium	3,058	3,211	55120	Bloomington, '65	66,542	.....
49017	Level Park-Oak Park	3,017	1,364	56013	Blue Earth	4,200	3,843
48116	Lincoln Park	58,933	29,310	56401	Brainerd	12,898	12,637
*48150	Livonia	66,702	17,534	56520	Breckenridge	4,335	3,623
49331	Lowell	2,445	2,191	55129	Brooklyn Center, '65	30,108	4,284
49431	Ludington	9,421	9,506	.....	Brooklyn Park, '65	14,785	.....
48071	Madison Heights	33,343	.....	55378	Burnsville, '65	10,721	5,883
49660	Manistee	8,324	8,642	55921	Caledonia	2,563	2,243
49834	Manistique	4,875	5,086	55005	Cambridge	2,728	1,790
48039	Marine City	4,344	2,702	55317	Chanhausen (A), '67	4,112	244
49855	Marquette	19,824	17,202	55318	Chaska, '65	3,268	2,008
49068	Marshall	6,736	5,777	55719	Chisholm	7,114	6,861
48040	Marysville	4,065	2,534	55014	Circle Pines, '65	3,678	.....
48854	Mason	1,522	3,514	55720	Cloquet	9,013	7,685
48122	Melvindale	13,099	9,483	55121	Columbia Heights, '65	23,283	8,175
49858	Menominee	11,289	11,151	55433	Coon Rapids, '65	26,112	7,352
49254	Michigan Center	4,611	3,012	56716	Crookston	8,546	2,777
48610	Midland	27,779	14,285	56441	Crosby	2,829	.....
48160	Nilan	3,616	2,768	55128	Crysan, '65	29,089	5,713
48042	Milford	2,323	1,924	55391	Deephaven	3,286	8,823
48161	Monroe	21,067	17,027	56501	Detroit Lakes, '65	5,978	5,787
48033	Mount Clemens	34,844	2,890	*55801	Duluth	106,884	104,511
48158	Mount Pleasant	14,875	11,393	56721	East Grand Forks, '65	7,898	5,049
48858	Mount Pleasant	4,228	4,339	.....	Eden Prairie, '65	5,456	1,221
49862	Munising	46,385	48,429	55424	Edina, '65	35,302	9,744
49443	Muskegon	19,552	18,828	55731	Ely	5,438	5,474
49444	Muskegon Heights	6,126	6,472				
49866	Negaunee	6,126	6,472				

ZIP Code	Place	1960	1950	Zip Code	Place	1960	1950
MINNESOTA—Continued				MISSISSIPPI—Continued			
55734	Eveleth	5,721	5,872	39038	Belzoni	4,142	4,071
56031	Fairmont	9,745	8,193	*39530	Ridox	44,053	37,425
55153	Falcon Heights	9,927	3,884	38829	Booneville	3,480	3,295
56537	Faribault	16,926	16,028	39601	Brookhaven	9,885	7,801
56537	Fergus Falls	13,733	12,917	39046	Canton	9,707	7,840
55025	Forest Lake, '65	2,809	1,120	38921	Charleston	2,528	2,929
55432	Fridley, '65	24,789	3,796	38614	Clarksdale	21,105	16,539
55741	Gilbert	2,591	2,247	38732	Cleveland	10,172	6,747
44336	Glencoe	3,216	2,801	39056	Clinton	3,438	2,255
56334	Greenwood	2,631	2,666	39429	Columbia	6,114	6,723
55427	Golden Valley, '65	21,248	5,551	39701	Columbus	24,771	17,172
55744	Grand Rapids	7,265	6,019	38834	Corinth	11,453	9,785
56241	Granite Falls, '65	2,511	2,011	39059	Crystal Springs	4,496	3,676
55033	Hastings, '65	10,771	6,560	39532	D'iberville	3,005	1,429
55746	Hibbing	17,731	16,276	39063	Durant	2,617	2,311
55343	Hopkins, '65	12,187	7,595		East Side	4,318	1,215
55750	Hoyt Lakes	3,186		39437	Ellisville	4,592	3,579
55350	Hutchinson	6,207	4,690	39074	Forest	3,917	2,874
56649	International Falls	6,778	6,269	38701	Greenville	41,502	29,936
56143	Jackson	3,370	3,313	38701	Greenville North	2,416	
55947	La Crescent	2,624	1,229	38930	Greenwood	20,436	18,061
55041	Lake City	3,494	3,457	38901	Grenada	7,914	7,388
56058	Le Sueur	3,310	2,713	39501	Gulport	30,204	22,659
	Lino Lakes, '65	3,103		39401	Hattiesburg	34,989	29,474
55355	Litchfield	5,040	4,608	39083	Hazlehurst, '63	4,206	3,397
55117	Little Canada	3,512		38748	Hollandale	2,646	2,346
56345	Little Falls	7,551	6,717	38635	Holly Springs	5,621	3,276
56156	Luverne	4,249	3,650	38851	Houston	2,577	1,664
56001	Mankato, '65	28,454	18,809	38751	Indianola	6,714	4,369
	Maple Grove, '65	3,653		*39205	Jackson	144,422	98,271
55109	Maplewood, '65	21,438		39090	Kosciusko	6,800	6,753
56258	Marshall, '65	7,363	5,923	38944	Lafayette	27,889	25,038
55118	Mendota Heights, '65	5,778		38756	Land	6,295	4,736
*55401	Minneapolis	482,872	521,718	39095	Lexington	2,839	3,198
55343	Minnetonka, '65	30,992		39560	Long Beach	4,770	2,703
56265	Montevideo	5,693	5,459	39339	Louisville	5,066	5,282
56560	Moonhead, '65	26,964	14,870	39648	McComb	12,020	10,401
56267	Morris	4,199	3,811	39111	Magee, '63	2,917	
55364	Mound, '65	5,992	2,061		Marks	2,572	2,209
	Mounds View	6,416		39301	Meridian	49,374	41,893
55112	New Brighton, '65	10,890	2,218	39562	Mississippi City	4,169	
	New Hope, '65	11,620		39563	Moss Point	6,631	3,782
56071	New Prague	2,533	1,915	39120	Natchez	23,791	22,740
56073	New Ulm, '65	12,587	9,348	38652	New Albany	5,151	3,680
55057	Northfield	8,707	7,487	39345	Newton	3,178	2,912
56001	North Mankato, '65	6,618	4,788	39564	Ocean Springs	5,025	3,058
55109	North St. Paul, '65	10,531	4,248	38860	Okolona	2,622	2,167
	Orono	5,643		38655	Oxford	5,283	3,956
56278	Ortonville	2,674	2,577	39567	Pascagoula	17,155	10,805
55369	Osseo, '65	2,726	738	39571	Pass Christian	3,881	3,383
55060	Owatonna, '65	14,776	10,191	39208	Pearl	5,081	
56470	Park Rapids	3,047	3,027	39465	Peoria	4,007	2,148
56164	Pipestone	5,324	5,296	39355	Philadelphia	5,017	4,472
	Plymouth, '65	13,064		39466	Picayune (A), '67	10,709	6,707
55810	Proctor	2,963	2,693	38863	Pontotoc (A), '67	3,510	2,108
55066	Red Wing	10,528	10,645	39151	Port Clinton	2,861	2,920
56283	Redwood Falls	4,285	3,813	38663	Ripley	2,668	2,383
55423	Richfield, '65	46,444	17,502	38668	Senatobia	3,259	2,108
55422	Robbinsdale	16,311	17,289	39759	Starkville	9,041	7,107
55901	Rochester, '65	47,797	29,855	38801	Tupelo	17,221	11,527
55113	Roseville, '65	29,581	6,437	38677	University	3,597	
55414	St. Anthony, '65	7,170	1,406	39180	Violsburg	29,130	27,918
56301	St. Cloud, '65	37,746	28,410	38965	Wading River	3,206	3,213
56081	St. James	4,174	3,861	39367	Waynesboro	3,892	3,442
55416	St. Louis Park, '65	48,021	22,644	39501	West Gulfport	3,323	
*55101	St. Paul	313,411	311,349	39773	West Point	8,550	6,432
55071	St. Paul Park, '65	5,111	2,438	38967	Winona	4,282	3,441
56082	St. Peter	4,844	7,754	39194	Yazoo City	11,236	9,746
56378	Sauk Centre	3,573	3,140	MISSOURI			
56379	Sauk Rapids, '65	4,570	3,410	65605	Aurora	4,683	4,153
55379	Shakopee, '65	6,294	3,185	63011	Ballwin	5,710	
55112	Shoreview, '65	8,480		63137	Bellevue	13,650	
55331	Shorewood	3,197		63121	Bel-kidge	4,395	1,116
55614	Silver Bay	3,723		64012	Belton	4,897	1,233
56085	Sleepy Eye	3,492	3,278	63134	Berkeley	18,676	5,268
55075	South St. Paul, '65	24,429	15,909	64424	Bethany	2,771	2,714
56087	Springfield	2,701	2,574	64015	Blue Springs	2,555	1,068
55433	Spring Lake Park, '65	5,148		65613	Bolivar	3,512	3,482
55975	Spring Valley	2,628	2,467	63628	Bonne Terre	3,119	3,533
56479	Staples	2,706	2,782	65233	Boonville	3,719	3,533
55082	Stillwater	8,310	7,674	63334	Bowling Green	7,686	
56701	Thief River Falls	7,151	6,926	63114	Breckenridge Hills	6,299	4,063
56175	Tracy	2,862	3,020	63144	Brentwood	12,250	7,504
55616	Two Harbors	4,695	4,400	63042	Bridgeton	7,820	202
55792	Virginia	14,034	12,486	64628	Brookfield	5,694	5,810
55981	Wabasha	2,500	2,468	64730	Butler	3,791	3,333
56482	Wadena	4,381	3,958	65018	California	2,788	2,627
56093	Waseca, '65	6,102	4,927	64429	Camden	3,674	3,570
55391	Wayzata	3,219	1,791	63435	Canton	2,562	2,490
56097	Wells	2,897	2,475	63701	Cape Girardeau	24,947	21,578
55118	West St. Paul, '65	15,144	7,955	64633	Carrollton	4,554	2,380
55110	White Bear Lake, '65	19,410	3,646	64836	Carthage	11,264	11,188
56101	Wilmar	9,417	9,410	63830	Caruthersville	8,643	8,614
56101	Windom	3,691	3,165	65240	Centralla	3,200	2,460
55987	Winona, '65	26,771	25,031	63740	Chaffee	2,862	3,134
56187	Winthrop	9,015	7,923	63834	Charleston	5,911	5,501
				64601	Chillicothe	9,236	8,694
				63105	Clayton	15,245	16,035
				64735	Clinton	6,925	6,075
				65201	Columbia	36,650	31,974
				63126	Crestwood	11,106	1,645
				63141	Creve Coeur	5,122	2,040
39730	Aberdeen	6,450	5,290				
38821	Amory	6,474	4,990				
38606	Batesville	3,284	2,463				
39520	Bay St. Louis	5,073	4,621				

ZIP Code	Place	1960	1950
MISSOURI—Continued			
63019	Crystal City	3,678	3,499
63135	Dellwood	4,720	
63020	De Soto	5,804	5,357
63131	Des Peres	4,362	1,172
63841	Dexter	5,169	
63845	East Prairie	3,449	3,033
65026	Eldon	3,158	2,766
64744	Eldorado Springs	2,884	2,618
63024	Ellisville	2,732	628
64024	Excelsior Springs	6,473	5,888
63640	Farmington	5,618	4,490
65248	Fayette	3,294	3,144
63135	Ferguson (A)	22,952	11,573
63028	Festus	7,021	5,199
63601	Flat River	4,515	5,308
63031	Florissant	38,166	3,737
63645	Fredericktown	3,484	3,696
63131	Frontenac	3,089	1,099
65251	Fulton	11,131	10,052
64118	Gladstone	14,502	
63122	Glendale	7,048	4,930
64030	Grandview	6,027	1,556
63133	Hanley Hills	3,308	2,219
63401	Hannibal	20,028	20,444
64701	Harrisonville	3,510	2,530
63851	Hayti	3,737	3,302
63042	Hazelwood	6,045	336
65041	Hermann	2,536	2,523
64037	Higginsville	3,428	5,991
63121	Hillsdale	2,788	2,902
*64050	Independence (A)	84,771	36,963
63755	Jackson (A)	5,070	3,707
65101	Jefferson City	28,228	25,099
63136	Jennings	19,965	15,282
64801	Joplin	38,958	38,711
*64108	Kansas City	475,539	456,622
63857	Kennett	9,098	8,685
63140	Kinloch	6,501	5,957
63501	Kirksville	13,123	11,110
63122	Kirkwood	29,421	18,640
63124	Ladue	5,386	9,466
64759	Lamar	3,608	3,233
65536	Lebanon	8,220	6,808
64063	Lees Summit	8,267	2,554
64067	Lexington (A)	5,140	5,074
64068	Liberty	8,909	4,709
63353	Louisiana	4,286	4,389
63552	Macon	4,547	4,152
63863	Maiden	5,007	3,396
63143	Maplewood	12,552	13,416
64658	Marceline	2,872	3,172
63340	Marshfield (A)	11,142	8,851
64468	Maryville (A)	7,746	6,834
65265	Mexico	12,889	11,623
65270	Moberly	13,170	13,115
63136	Moline Acres (A)	3,733	99
65708	Monett	5,359	4,771
65711	Mountain Grove	3,176	3,106
64850	Ncosho	7,452	5,790
64772	Nevada (A)	10,518	8,009
63869	New Madrid	2,867	2,726
63121	Normandy	4,452	2,306
64116	North Kansas City	5,657	3,886
63121	Northwoods	4,701	1,602
63366	O'Fallon	8,770	789
63132	Olivette	8,257	1,761
63114	Overland	22,763	11,566
63069	Pacific	2,795	1,985
63133	Pagedale	5,106	3,866
63461	Palmyra	2,933	2,295
63775	Perryville	5,117	4,591
63120	Pine Lawn	5,943	6,425
64080	Pleasant Hill	2,689	2,200
63901	Poplar Bluff	15,926	15,064
63873	Portageville	2,505	2,662
63864	Potosi	2,565	2,359
64133	Raytown	17,083	
64085	Richmond	4,604	4,299
63117	Richmond Heights	15,622	15,045
63137	Riverview	3,706	
63119	Rock Hill	6,523	3,847
65401	Rolla	11,132	9,354
63074	St. Ann (A)	15,654	4,557
63301	St. Charles	21,189	14,314
63077	St. Clair	2,711	1,779
63114	St. John	7,342	2,499
*64502	St. Joseph	79,873	78,388
*63155	St. Louis	750,026	856,796
63670	Ste. Genevieve	3,432	3,992
65560	Salem	3,870	3,611
65301	Sedalia	23,874	20,354
63119	Shrewsbury	4,730	3,382
63801	Sikeston	13,765	11,640
65349	Slater	2,767	2,836
*65801	Springfield	95,865	66,731
64054	Sugar Creek	2,663	1,858
63080	Sullivan (A)	4,368	3,019
63127	Sunset Hills	3,525	
64683	Trenton	6,262	6,157
63084	Union	2,917	2,917
63130	University City	51,249	39,892
63088	Valley Park	3,452	2,956
63382	Vandalia	3,055	2,624

ZIP Code	Place	1960	1950
MISSOURI—Continued			
64093	Warrensburg	9,689	6,857
63090	Washington	7,961	6,850
64870	Webb City	6,740	6,919
63119	Webster Groves	28,990	23,390
63112	Wellston	7,979	9,226
63385	Wentzville	2,742	1,327
65775	West Plains	5,836	4,918
65360	Windsor	2,714	2,429
63134	Woodson Terrace	6,048	616
MONTANA			
59711	Anaconda	12,054	11,254
*59101	Billings	52,851	31,834
59715	Bozeman	13,361	11,325
59701	Butte	27,877	33,251
59701	Centerville-Dublin Gulch	3,398	1,825
59425	Conrad	2,665	1,865
59427	Cut Bank	4,539	3,721
59722	Deer Lodge	4,581	3,779
59725	Dillon	3,690	3,268
59701	Floral Park	4,079	
59230	Glasgow	6,398	3,821
59330	Glendive	7,058	5,254
59101	Great Falls	55,244	39,211
59840	Hamilton	2,475	2,678
59034	Hardin	2,789	2,306
59501	Harve	10,740	8,086
59601	Helena	20,227	17,581
59001	Kalispell	10,151	9,737
59044	Laurel	4,601	3,662
59457	Lewistown	7,408	5,573
59923	Libby	2,828	2,401
59047	Livingston	8,229	7,683
59301	Miles City	9,665	9,243
59801	Missoula	27,090	22,485
59801	Missoula S.W.	3,817	
59072	Roundup	2,842	2,856
59474	Shelby	4,017	3,058
59270	Sidney	4,564	3,987
59711	Silver Bow Park	4,798	
59937	Whitefish	3,965	3,268
59201	Wolf Point	3,585	2,557
NEBRASKA			
69301	Allamore	7,845	7,891
68305	Auburn	3,229	3,122
68811	Aurora	2,576	2,455
68310	Beatrice	11,432	11,133
68005	Bellevue, '66	17,496	3,858
68008	Blair	4,931	4,815
68822	Broken Bow	3,482	3,396
69337	Chadron	5,079	4,687
68601	Columbus	12,476	8,884
69130	Cozad	3,184	2,910
68333	Crete	3,546	3,692
68352	Fairbury	5,572	6,395
68355	Falls City	5,598	6,203
68025	Fremont (A) '67	22,317	14,762
69341	Gering	4,585	3,543
69138	Gothamburg	3,050	2,877
68801	Grand Island	25,742	22,682
68901	Hastings	21,412	20,211
68949	Holdrege	5,226	4,381
68847	Kearney	14,210	12,115
69145	Kimball	4,384	2,048
68128	La Vista, '66	3,507	
68850	Lexington	5,572	5,068
*68501	Lincoln	128,521	98,884
69001	McCook	8,301	7,678
68043	Millard, '66	5,270	391
68410	Nebraska City	7,252	6,872
68700	Norfolk	13,400	11,335
69101	North Platte	17,181	15,133
69153	Ogallala	4,250	3,456
*68102	Omaha	301,598	251,117
68763	O'Neill	3,181	3,027
64086	Papillion, '66	4,079	1,304
68048	Plattsmouth	6,244	4,871
68051	Ralston	2,977	1,300
68661	Scuyler	3,066	2,883
69361	Scottsbluff	13,777	12,858
68434	Seaward	3,128	3,128
69162	Sidney	8,004	4,912
68776	South Sioux City	7,200	5,557
68978	Superior	2,935	3,227
69201	Valentine	2,875	2,700
68066	Wahoo	3,610	3,128
68787	Wayne	4,217	3,595
68788	West Point	2,921	2,658
68467	York	6,173	6,178
NEVADA			
89005	Boulder City	4,059	
89701	Carson City	5,163	3,082
89801	Elko	6,298	5,393
89301	Ely	4,018	3,558
89406	Fallon	2,734	2,400
89415	Hawthorne	2,838	
89015	Henderson	12,525	
89101	Las Vegas	64,406	24,625
89051	North Las Vegas	18,422	3,875
*89501	Reno	51,470	32,497
89431	Sparks	16,618	8,203
89445	Winnemucca	3,453	2,847

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
NEW HAMPSHIRE <i>See Note on Page 605</i>				NEW JERSEY—Continued			
03102	Bedford	3,636	2,176	*07011	Clifton	82,084	64,511
03570	Berlin	17,821	16,615	07624	Closter	7,767	3,376
03603	Charlestown	2,576	2,077	08108	Collingswood	17,370	15,800
03613	Claremont	12,811	12,311	07626	Cranford	26,424	18,602
03301	Concord	28,991	27,988	07622	Cresskill	7,261	3,534
03818	Conway	4,298	4,109	07627	Demarest	4,231	1,784
03038	Derry	6,987	5,826	07801	Dover	13,034	11,174
03820	Dover	19,131	15,874	07628	Dumont	18,882	13,013
03824	Durham	4,688	4,172	08812	Dunellen	6,840	6,291
	Durham (town)	5,504	4,770	07017	East Orange	77,259	79,340
03833	Exeter	5,896	4,977	07407	East Paterson	19,344	15,386
	Exeter (town)	7,243	5,664	07073	East Rutherford	7,769	7,438
03835	Farmington	3,287	3,454	07724	Eatontown	10,334	3,044
03235	Franklin	6,742	6,552	07020	Edgewater	4,113	3,952
03045	Goffstown	7,230	5,038	08817	Edson	44,799	16,348
03581	Gorham	3,039	2,639	08215	Egg Harbor City	4,416	3,833
03842	Hampton	3,281	1,617	*07208	Elizabeth	107,698	112,817
	Hampton (town)	5,379	2,842	07630	Emerson	6,849	1,744
03755	Hanover	5,649	4,992	07631	Englewood	26,057	23,145
	Hanover (town)	7,329	6,253	0/632	Englewood Cliffs	2,913	966
03765	Haverhill	3,127	3,357		Ewing	26,628	16,840
03106	Hooksett	3,713	2,792	07701	Fair Haven	5,678	3,560
03051	Hudson	3,651	2,382	07410	Fair Lawn	36,421	23,885
	Hudson (town)	5,876	4,183	07022	Fairview	9,999	8,661
03452	Jaffrey	3,210	2,911	07023	Fanwood	7,963	3,228
03431	Keele	17,562	15,638	08322	Flemington	3,232	3,058
03426	Laconia	15,288	14,745	08518	Florence	4,155	1,815
03584	Lancaster	3,138	3,113	07932	Florham Park	7,222	2,385
03766	Lebanon	9,299	8,495	07024	Fort Lee	21,815	11,648
03561	Littleton	3,355	3,819	07416	Franklin	3,624	3,864
	Littleton (town)	5,003	4,817	07417	Franklin Lakes	3,316	2,021
*03105	Manchester	88,282	82,732	07728	Freehold	9,140	7,550
03054	Merrimack	2,989	1,908	07026	Garfield	29,253	27,550
03055	Milford	3,916	3,269	07027	Garwood	5,426	4,622
	Milford (town)	4,863	4,159	08027	Gibbstown	2,820	2,546
03060	Nashua	39,096	39,069	08038	Glassboro	10,253	5,867
03857	Newmarket	2,745	2,172	07028	Gloucester	3,322	7,636
	Newmarket (town)	3,153	2,709	07452	Glen Rock	12,896	145
03773	Newport	3,222	3,062	08030	Gloucester City	15,511	14,857
	Newport (town)	5,458	5,131	07093	Guttenberg	5,118	5,566
05905	Northumberland	2,586	2,779	*07601	Hackensack	30,521	29,219
03076	Pelham	2,605	1,317	07840	Hackettstown	5,276	3,894
	Pembroke	3,514	3,094	08108	Haddon	17,099	12,379
03458	Peterborough	2,963	2,556	08033	Haddonfield	13,201	10,495
03865	Plattsboro	2,915	2,082	08035	Haddon Heights	9,260	7,287
03864	Plainfield	3,210	3,039	07508	Haledon	6,161	6,204
03801	Portsmouth	26,900	18,330	08037	Hamilton	65,035	41,156
03867	Rochester	15,927	13,776	07640	Harrington Park	9,854	8,811
03870	Rye	3,244	1,982	07029	Harrison	11,743	13,490
03079	Salem	9,210	4,805	07604	Hasbrouck Heights	13,046	9,181
03079	Salem Depot	2,523	1,637	07641	Haworth	3,215	1,612
03878	Somersworth	8,529	6,927	07506	Hawthorne	17,735	14,816
	Swansey	3,626	2,806	08904	Highland Park	11,049	9,721
03608	Walpole	2,825	2,536	07732	Highlands	3,536	2,959
03038	West Derry	4,468	2,581	08520	Hightstown	4,317	4,127
03894	Wolfeboro	2,689	2,581	07642	Hillsdale	5,734	4,127
				07205	Hillsdale	23,300	21,007
NEW JERSEY				07030	Hoboken	49,441	50,676
08201	Absecon	4,320	2,355	07423	Hoboken	3,988	2,254
07401	Allendale	4,092	2,409	07843	Hopatcong	3,391	1,173
07712	Asbury Park	17,366	17,094	07111	Irvington	59,739	59,201
*08401	Atlantic City	59,544	61,657	08831	Jamesburg	2,853	2,307
07716	Atlantic Highlands	4,119	3,083	*07303	Jersey City	276,101	299,017
08106	Audubon	10,440	9,531		Keansburg	6,854	5,559
08007	Barrington	7,943	2,651	07032	Kearny	37,472	39,952
07602	Bayonne	74,215	77,203	07033	Kenilworth	8,379	4,922
08722	Beachwood	5,762	2,761	08307	Keypress	6,440	4,350
07109	Belleville	35,005	32,019	07405	Kinnelon	2,780	1,518
08030	Bellmawr	11,853	5,213	08733	Lakehurst	4,647	1,873
07719	Belmar	5,190	4,636	08701	Lake Mohawk	13,004	9,970
07823	Belvidere	2,636	2,406	08530	Lakewood	4,269	4,477
07621	Bergenfield	27,203	17,647	07605	Lambertville	8,384	7,378
08009	Berlin	3,578	2,339		Leonia		
07924	Bernardsville	5,515	3,956		Levittown (See Wiltwybor)		
08010	Beverly	3,400	3,084	07035	Lincroft Park	6,048	3,376
07003	Bloomfield	51,867	49,307	07036	Linden	39,931	30,644
07403	Bloomfieldale	5,293	3,251	08021	Lindenvold	7,335	3,479
07603	Bogota	7,965	7,662	08262	Llewellyn	11,925	11,925
07005	Bonton	7,981	7,163	07424	Little Falls	9,730	6,405
08505	Bordentown	4,974	5,497	07643	Little Ferry	6,175	4,955
08805	Bound Brook	10,263	8,374	07739	Little Silver	5,202	2,595
07720	Bradley Beach	4,204	3,911	07039	Livingston	23,124	9,932
08302	Bridgeton	20,966	18,378	07644	Lodi	23,502	15,392
08730	Brielle	2,619	1,328	07740	Long Branch	26,228	23,090
08203	Brigantine	4,201	1,267	07071	Lyndhurst	21,867	19,980
08030	Brooklawn	2,504	2,262	07940	Madison	15,122	10,417
08310	Buena	3,243	2,640	08049	Magnolia	4,199	3,583
08712	Burlington	12,687	12,051	08736	Manasquan	10,022	3,788
07405	Butler	5,414	4,030	08835	Manville	10,995	8,597
07006	Caldwell	6,942	6,270	08052	Maple Shade	12,947	6,560
*08101	Camden	117,159	124,555	07040	Maplewood	23,977	25,201
08204	Cape May	4,477	3,607	08402	Margate City	9,474	4,715
07072	Carlstadt	6,042	5,591	07747	Matawan	5,097	3,739
07008	Carteret	20,502	13,030	07607	Maywood	11,460	8,667
07009	Cedar Grove	14,603	8,022	08055	Medford Lakes	2,876	461
07928	Chatham	9,517	7,391	08109	Merchantville	4,075	4,183
08034	Cherry Hill (formerly Delasatre)	31,522	10,385	08846	Metuchen	14,041	9,879
07066	Clark	12,192	4,432	08846	Middlesex	10,520	5,913
08312	Clark	4,711	3,023	07743	Midland Park	39,675	16,203
08021	Clementon	3,766	3,191	07041	Millburn	7,543	5,164
07010	Cliffside Park	17,642	17,116	08850	Milltown	18,799	14,506

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
NEW JERSEY—Continued				NEW JERSEY—Continued			
08332	Millville	19,096	16,041	07670	Tenafly	14,264	9,651
*07042	Montclair	43,129	43,927	08753	Toms River	6,062	2,517
07645	Montvale	3,699	1,856	07512	Totowa	10,897	6,045
07074	Moonachie	3,052	1,775	*08609	Trenton	114,167	128,009
07950	Morris Plains	4,703	2,707	07083	Union	51,499	38,004
07960	Morris town	17,712	17,124	07735	Union Beach	5,862	3,636
07016	Mountain Lakes	4,037	2,806	07087	Upper City	52,180	55,537
07092	Mountainside	6,325	2,046	07458	Upper Saddle River	3,570	706
08059	Mt. Ephraim	5,447	4,449	08406	Vernon City	8,658	8,158
08060	Mt. Holly	13,271	8,206	07044	Vineland	13,752	10,921
08063	National Park	3,380	2,419	08360	Wallington	37,685	8,355
07753	Neptune	21,487	13,613	07463	Waldwick	10,495	3,963
07753	Neptune City	4,013	3,073	07055	Wallington	9,261	8,910
07857	Netcong	2,765	2,284	07712	Wanamassa	3,928	2,512
*07102	Newark	405,220	438,776	07465	Wanaque	7,126	4,222
*08901	New Brunswick	40,139	38,811	07882	Washington	5,723	4,802
07646	New Hanover	28,628	18,168	07060	Watchung	3,312	1,818
07974	New Milford	18,810	6,606	07470	Wayne	29,353	11,822
07724	New Providence	10,243	3,380	07087	Weehawken	13,504	14,830
07860	New Shrewsbury	7,313		07719	West Belmar	2,511	2,058
07860	Newton	6,563	5,781	07006	West Caldwell	8,314	4,666
07032	North Arlington	17,477	15,970	07090	Westfield	31,447	21,933
07047	North Bergen	42,387	41,560	07764	West Long Branch	5,337	2,739
07006	North Caldwell	4,163	1,781	07093	West New York	35,547	37,683
08225	Northfield	5,849	3,498	07052	West Orange	39,895	28,605
07508	North Haledon	6,026	3,550	07424	West Paterson	7,602	3,931
07060	North Plainfield	16,993	12,766	08093	Westville	4,951	4,731
08540	North Princeton	4,506	1,721	07675	Westwood	9,046	6,766
07647	Northvale	2,892	1,455	07885	Wharton	5,006	3,853
08260	North Wildwood	3,598	3,158	08260	Wildwood	4,690	5,475
07648	Norwood	2,852	1,792	08260	Wildwood Crest	3,011	1,772
07110	Nutley	20,513	26,992	08094	Williamstown	2,722	2,632
07755	Oakhurst	4,374	2,388	08046	Willingboro, '67	33,656	2,417
07436	Oakland	9,446	1,817	08270	Woodbine	78,846	35,758
08107	Oaklyn	4,778	4,889	07095	Woodbridge	12,455	10,931
08226	Ocean City	7,618	6,040	08096	Woodbury	2,742	1,420
07757	Oceanport	4,937	7,588	07680	Woodcliff Lake	3,128	2,776
07649	Oradell	7,487	3,656	08107	Wood-Lynne	7,964	6,283
*07050	Orange	35,789	38,037	07075	Wood-Ridge	2,942	2,345
07650	Palisades Park	11,943	9,635	08098	Woodstown	4,864	1,190
08065	Palmyra	7,036	5,028	08562	Wrightstown	11,205	5,590
07652	Parsippany	23,238	6,903	NEW MEXICO			
07656	Park Ridge	6,389	3,189	88310	Alamogordo	21,723	6,783
07054	Parsippany-Troy Hills	25,557	15,290	*87101	Albuquerque	201,189	96,815
07055	Passaic	53,963	57,702	88210	Artesia	12,000	8,244
*07510	Paterson	143,663	139,336	87410	Aztec	4,137	885
08066	Paulsboro	8,121	7,842	87002	Belen	5,031	4,495
08110	Pennsauken	33,711	22,767	87004	Bernalillo	2,574	1,922
08069	Penns Grove	6,176	6,669	88220	Carlsbad	25,541	17,975
08861	Perth Amboy	38,007	41,330	88415	Clayton	3,314	3,515
08865	Phillipsburg	18,502	18,919	88101	Clovis	23,713	17,318
08021	Pine Hill	3,939	2,546	88030	Deming	6,764	5,672
08071	Pittman	8,644	6,960	88231	Eunice	3,531	2,352
*07060	Plainfield	45,350	42,366	87301	Farmington	22,786	3,637
08232	Pleasantville	15,172	11,938	87020	Gallup	14,089	9,133
08742	Point Pleasant	10,872	4,009	87020	Grants	10,274	2,251
08742	Point Pleasant Beach	3,783	2,900	88030	Hobbs	26,275	13,875
07442	Pompton Lakes	9,445	4,654	88252	Jalisco	3,051	2,047
08540	Princeton	11,890	12,230	88001	Las Cruces	29,367	12,325
07649	Prospect Park	5,201	5,242	87701	Las Vegas (city)	7,790	7,494
*07065	Rahway	27,699	21,290	87701	Las Vegas (town)	6,028	6,269
07446	Ramsey	9,522	4,670	88045	Lordsburg	3,436	3,525
08869	Raritan (Somerset Co.)	6,137	5,131	87544	Los Alamos	12,584	9,934
07701	Raritan (Monmouth Co.)	15,334	2,763	88260	Longmont	9,660	3,134
07657	Red Bank	12,482	12,743	88130	Montezuma	9,668	8,112
07657	Ridgefield	10,788	8,112	87740	Raton	8,146	8,241
07660	Ridgefield Park	12,701	11,993	88201	Roswell	39,593	25,738
*07450	Ridgewood	25,391	17,481	87501	Santa Fe	33,394	27,998
07456	Ringwood	4,182	1,752	88061	Silver City	6,972	7,022
07457	Riverdale	2,596	1,352	87801	Socorro	5,271	4,334
07661	River Edge	13,264	9,204	88070	State College	4,387	
08075	Riverside	8,474	7,199	88047	Mesilla Park	4,269	4,563
08077	Riverton	3,324	2,761	88401	Tucumcari	8,143	8,419
07662	Rochelle Park	6,119	4,483	88352	Tularosa	3,200	1,642
07666	Rockaway	5,413	3,812	87327	Zuni Pueblo	3,585	2,563
08554	Rockling	3,274		NEW YORK			
07068	Roseland	2,804	2,019	14001	Akron, '66	2,786	2,481
07203	Roselle	21,032	17,681	*12201	Albany	129,726	134,990
07204	Roselle Park	12,546	11,537	14411	Albion	5,182	4,855
07760	Rumson	6,405	4,044	14004	Alden, '66	2,694	1,252
08078	Runnemede	8,396	4,217	14802	Alfred, '65	3,303	2,053
*07070	Rutherford	20,473	17,411	13210	Amsterdam	8,675	6,164
07682	Saddle Brook	10,834	7,955	14006	Angola, '66	2,550	1,936
08079	Salem	8,941	9,050	10502	Ardsley, '65	4,486	1,744
08872	Sayreville	22,553	10,338	12603	Arlington	8,317	5,374
07076	Scotch Plains	18,491	9,069	14011	Attica	2,758	2,676
07094	Seaucus	12,154	9,750	13021	Auburn	35,249	36,722
07701	Shrewsbury	3,228	1,613	14414	Avon	2,772	2,412
08083	Somerdale	4,439	1,417	11702	Babylon, '67	12,885	6,015
08244	Somers Point	4,804	2,480	11510	Baldwin	30,204	
08876	Somerville	12,458	11,571	13027	Baldwinsville, '65	6,076	4,495
08879	South Amboy	8,422	8,422	12020	Ballston Spa, '66	4,814	4,937
08880	South Bound Brook	3,626	2,905	14020	Barbavia, '66	18,210	17,749
07079	South Orange	16,175	15,230	14810	Barnesville	6,166	5,196
07080	South Plainfield	17,879	8,608	11709	Bayville, '65	4,988	1,981
08882	South River	13,397	11,308	12508	Beacon	13,922	14,012
08884	Spotswood	5,788	2,325	11710	Bellmore	12,784	
07081	Springfield	14,467	7,214				
07762	Spring Lake Heights	2,922	2,008				
08084	Stratford	4,308	1,356				
07901	Summit	23,677	17,929				
07666	Teaneck	42,085	33,772				

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
NEW YORK—Continued				NEW YORK—Continued			
11713	Bellport, '66.	2,774	.....	11740	Greenlawn.....	5,422	1,000
11714	Bethpage-Old Bethpage.	20,515	.....	11944	Greenport.....	2,608	3,028
*12901	Blinghanton, '66.	69,435	80,674	11743	Halesite.....	2,857	.....
14219	Blasdell, '66.	3,786	3,127	14075	Hamburg, '66.	9,493	6,938
11715	Blue Point, '64.	2,676	.....	14075	Hamburg-Lake Shore.	11,527	.....
11717	Brentwood, '64.	22,923	2,803	13346	Hamilton, '66.	3,499	3,507
10510	Briarcliff Manor, '65.	3,735	2,494	14221	Harris Hill.....	3,944	.....
11718	Brightwaters, '64.	3,389	2,336	10706	Hastings-on-Hudson, '65.	9,777	7,565
14420	Brookport, '64.	6,058	4,748	10927	Haverstraw, '66.	7,293	5,818
10708	Bronxville, '65.	6,735	6,778	*11550	Hempstead, '65.	37,192	29,135
	Brookville, '65.	2,601	337	14467	Henrietta NE.....	6,403	.....
*14205	Buffalo, '66.	481,453	580,132	13350	Herkimer.....	9,396	9,400
13316	Camden.....	2,694	2,407	*11801	Hicksville.....	50,405	.....
13317	Canajoharie.....	2,681	2,761	12528	Highland.....	2,931	3,035
14424	Canandaigua, '65.	10,058	8,332	10928	Highland Falls, '67.	4,602	3,930
13032	Canastota, '65.	4,971	4,458	11741	Holbrook, '64.	4,786	.....
14823	Canisteo.....	2,731	2,625	13077	Homer.....	3,622	3,244
13617	Canton, '67.	5,570	4,379	12090	Horsick Falls.....	4,023	4,297
13619	Carthage.....	4,216	4,420	14843	Hornell.....	13,907	15,049
12414	Catskill.....	5,825	5,392	14845	Horseheads, '65.	7,854	3,606
14850	Cayuga Heights, '67.	3,374	1,131	12534	Hudson.....	1,075	11,639
13035	Cazenovia, '65.	2,476	.....	12339	Hudson Falls.....	7,752	7,236
11516	Cedarhurst, '65.	6,824	6,051	11743	Huntington.....	11,255	9,324
11720	Centerport, '65.	10,921	.....	11746	Huntington Station.	23,438	9,924
11934	Center Moriches, '64.	3,010	1,761	13357	Ilion.....	10,199	9,363
11721	Centerport.....	3,628	.....	11696	Inwood.....	10,362	.....
14225	Cheektowago-Northwest.	52,362	.....	10533	Irrington, '65.	5,686	3,657
	Southwest.	12,766	.....	11558	Island Park, '65.	4,713	2,031
13037	Chittenango, '65.	3,479	1,307	14851	Ithaca.....	28,799	20,257
14433	Clyde, '66.	2,735	2,492	14701	Jamestown.....	41,818	43,354
12043	Cobleskill, '67.	4,060	3,208	11753	Jericho.....	10,795	.....
12047	Cohoes.....	20,129	21,272	13790	Johnson City, '66.	20,442	19,249
	Colonia, '66.	8,453	2,068	12095	Johnstown.....	10,390	10,923
11725	Commack.....	9,613	.....	14217	Kenmore, '66.	21,146	20,066
13326	Coopersburg.....	5,513	2,727	11754	Kings Park, '64.	5,673	10,960
11726	Coplaque, '66.	17,584	.....	11024	Kings Point, '65.	5,826	2,445
12822	Corinth, '64.	3,184	3,161	12401	Kingston.....	29,260	28,817
14830	Corning.....	17,085	17,684	14218	Lackawanna, '66.	28,717	27,658
12518	Cornwall, '67.	3,127	2,211	10512	Lake Carmel.....	2,735	1,055
12518	Cornwall SW.....	2,824	.....	12946	Lake Placid.....	2,998	2,999
13045	Cortland.....	19,181	18,152	11779	Lake Ronkonkoma, '64.	7,951	.....
10521	Coxsackie.....	2,849	2,722	11040	Lake Success, '65.	3,124	3,24
10250	Croton-on-Hudson, '66.	7,039	4,837	14751	Lakeview, '67.	4,168	3,013
12929	Dannemora.....	4,835	4,122	14086	Lancaster, '66.	13,408	8,665
14437	Dansmora.....	5,460	5,253	10538	Larchmont, '65.	6,860	6,330
11729	Deer Park, '64.	24,700	.....	11559	Lawrence, '65.	5,813	4,681
13753	Delhi, '65.	2,664	1,841	14482	Le Roy.....	4,662	4,721
14043	Depew, '66.	18,309	7,217	11756	Levittown.....	65,276	.....
10522	Dobbs Ferry, '65.	10,076	6,265	14092	Lewiston, '67.	3,337	1,626
13329	Dodgeville.....	3,058	3,204	12754	Liberty.....	4,704	4,658
14048	Dunkirk.....	18,205	18,007	14223	Lincoln Park.....	2,707	1,527
14052	East Aurora, '66.	6,796	5,962	11757	Lindenhurst, '67.	25,790	8,644
11576	East Hills, '65.	8,441	2,547	13365	Little Falls.....	8,935	9,841
11758	East Massapequa.....	14,779	.....	13088	Liveston, '65.	3,308	2,933
11554	East Meadow.....	46,036	.....		Lloyd Harbor, '67.	3,124	945
11743	East Neck.....	3,779	.....	14094	Lockport, '67.	25,616	25,133
11731	East Northport, '64.	8,381	3,842		Locust Grove.....	11,558	.....
14445	East Patchogue, '67.	6,883	.....	11561	Long Beach, '64.	28,490	15,586
11518	East Rockaway, '65.	11,708	7,970	10716	Lovellville.....	3,616	3,671
13057	East Syracuse, '66.	4,623	4,766	11563	Lynbrook, '65.	20,784	17,314
11596	East Williston, '65.	2,872	1,734	14489	Lyons, '66.	4,397	4,217
14226	Egbertsville.....	4,807	.....	12953	Malone.....	8,737	9,501
12428	Ellenville.....	5,003	4,225	11565	Malverne, '65.	9,899	8,086
*14901	Elmira.....	46,517	49,716	10543	Mamaroneck, '65.	19,074	15,016
14903	Elmira Heights, '65.	5,105	5,009	13104	Mammoth, '64.	2,781	.....
14904	Elmira SE.....	6,688	.....	11050	Manhasseten, '65.	2,738	1,819
11003	Elmont.....	30,138	.....	11758	Massapequa.....	32,900	.....
10623	Elmsford, '65.	4,031	3,147	11762	Massapequa Park, '65.	21,886	2,334
13760	Endicott, '67.	17,473	20,050	13662	Massena.....	15,478	13,137
13760	Endicott, '67.	17,904	20,050	11951	Mastic Beach, '64.	3,607	1,079
14450	Fairport, '67.	5,793	5,267	(X)	Mastic Shirley, '64.	4,494	.....
12601	Fairview.....	8,626	1,721	12118	Mechanicville, '66.	6,189	7,385
14733	Falconer.....	3,343	3,292	14103	Medina.....	6,681	6,179
11735	Farmingdale, '65.	7,637	4,492	12204	Menands, '66.	2,919	.....
11738	Farmingville, '64.	2,842	.....	11566	Merrick.....	18,749	.....
13066	Fayette, '64.	4,702	2,624	10940	Middletown, '67.	21,549	22,586
*11001	Floral Park, '65.	17,762	14,582	11501	Mineola, '65.	22,052	14,831
11050	Flower Hill, '65.	4,748	4,948	13407	Mohawk, '66.	3,533	3,196
12828	Fort Edward.....	3,737	3,797	10950	Monroe, '67.	3,885	1,753
13339	Fort Plain.....	2,809	2,935	12701	Monticello.....	5,222	4,223
13340	Frankfort.....	3,872	3,844	10549	Mount Kisco, '65.	6,941	5,907
11010	Franklin Square.....	32,483	.....	14510	Mount Morris.....	3,250	3,450
14063	Freeonia, '65.	9,388	7,095	*10550	Mount Vernon, '65.	72,018	71,899
11520	Freeport, '65.	38,429	24,680		Munsey Park, '65.	2,905	2,043
13069	Fulton.....	14,261	13,922	11767	Nesconset, '64.	2,628	.....
11530	Garden City, '65.	24,661	14,486	14513	Newark, '66.	11,676	10,295
11040	Garden City Park-Hericks	15,364	.....	12550	Newburgh, '67.	27,171	31,956
14454	Geneseo, '66.	4,415	2,838	11040	New Hyde Park, '65.	10,916	7,349
14456	Geneva.....	17,286	17,144	12561	New Paltz, '65.	4,161	2,285
11542	Glen Cove, '65.	25,048	15,130	10802	New Rochelle, '65.	75,206	59,725
12801	Glens Falls.....	18,580	19,610	*12550	New Windsor.....	4,041	2,754
12078	Gloversville.....	21,741	23,634	*10451	New York.....	7,781,984	7,891,957
10924	Goshen, '67.	4,133	3,311	*11051	Bronx.....	1,424,815	1,451,277
13642	Gouverneur.....	4,946	4,916	*11201	Brooklyn.....	2,627,319	2,738,175
14070	Gowanda.....	3,352	3,289	*10001	Manhattan.....	1,698,281	1,960,101
12832	Granville.....	2,715	2,826	* (Q)	Queens.....	1,809,578	1,550,849
11020	Great Neck, '65.	10,306	7,759	*10301	Richmond.....	221,991	191,555
11021	Great Neck Estates, '65.	3,384	2,464				
11021	Great Neck Plaza, '65.	5,456	4,246				
12183	Green Island.....	3,533	4,016				

(Q) There are 4 Zip Codes for Queens; 11101 for L. I. City; 11691 for Far Rockaway; 11351 for Flushing and 11431 for Jamaica.

(X) Mastic 11950; Shirley 11967.

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
NEW YORK—Continued				NEW YORK—Continued			
13417	New York Mills.....	3,788	3,366	14569	Warsaw.....	3,653	3,713
*14302	Niagara Falls, '67.....	88,286	90,872	10990	Warwick, '67.....	3,261	2,674
11710	North Bellmore.....	19,639	.....	12188	Waterford, '66.....	2,749	2,968
11566	North Merrick.....	12,976	.....	13165	Waterloo.....	5,098	4,438
11040	North New Hyde Park.....	17,929	.....	13601	Watertown.....	33,306	34,350
10803	North Pelham, '65.....	5,322	5,046	12189	Watervliet.....	13,917	15,197
11768	Northport, '67.....	6,848	3,859	14891	Watkins Glen.....	2,813	3,052
13212	North Syracuse, '67.....	8,395	3,356	14892	Waverly.....	5,950	6,037
10591	North Tarrytown, '65.....	8,600	8,740	14580	Webster, '64.....	3,617	1,773
14120	North Tonawanda, '67.....	35,994	24,731	14895	Wellsville.....	5,967	6,402
11580	North Valley Stream.....	12,339	.....	11704	West Babylon, '64.....	9,633	.....
13815	Norwich.....	9,175	8,816	11590	Westby, '65.....	14,611	7,112
10960	Nyack, '66.....	5,400	5,889	14905	West Elmira.....	5,763	5,833
11572	Oceanside.....	30,448	.....	14787	Westfield.....	3,878	3,663
13669	Ogdenburg.....	16,122	16,166	12801	West Glens Falls.....	2,725	1,665
14760	Olean.....	21,868	22,884	10993	West Haverstraw, '66.....	6,770	3,099
13421	Oneida.....	11,677	11,325	11552	West Hempstead.....	.....	.....
13820	Oneonta, '66.....	14,531	13,564	.....	Lakeview.....	24,783	.....
14127	Orchard Park, '66.....	3,506	2,054	14224	West Seneca.....	23,138	.....
10562	Oswego, '65.....	21,241	16,098	12887	Whitehall.....	4,016	4,457
13126	Oswego.....	22,155	22,647	*10602	White Plains, '65.....	50,040	43,466
10527	Owego, '66.....	5,439	5,350	13492	Whitesboro, '65.....	4,745	3,902
14870	Painted Post.....	2,577	2,405	14221	Williamsburg, '66.....	6,559	4,649
14522	Palmyra, '66.....	3,486	3,034	11586	Williston Park, '65.....	8,675	7,505
11772	Patchogue, '66.....	9,678	7,361	11588	Woodmere.....	14,011	.....
10566	Peekskill, '65.....	18,504	17,731	11798	Wyandanch, '64.....	10,952	.....
10803	Pelham Manor, '65.....	6,285	5,306	*10701	Yonkers, '65.....	201,573	152,798
14527	Penn Yan.....	5,770	5,481	10598	Yorktown.....	3,576	.....
14530	Perry.....	4,629	4,533	13405	Yorkville, '65.....	3,581	3,528
.....	Plainedge.....	21,973	.....	NORTH CAROLINA			
11803	Plainville.....	27,710	.....	27910	Ahoskie.....	4,583	3,579
12901	Plattsburgh, '64.....	21,090	17,738	28001	Albemarle.....	12,261	11,798
10570	Pleasantville, '65.....	6,361	4,861	27203	Asheboro.....	9,449	7,701
13673	Port Chester, '65.....	24,755	23,970	*28801	Asheville.....	60,192	53,000
12460	Port Ewen.....	2,622	1,885	28513	Ayden.....	3,108	2,282
11777	Port Jefferson, '66.....	4,440	.....	28706	Balfour.....	3,805	1,939
12771	Port Jervis, '67.....	8,601	9,372	28516	Beaufort.....	2,922	3,212
11050	Port Washington.....	15,657	.....	28012	Belmont, '66.....	4,718	5,330
13676	Potsdam, '65.....	8,673	7,491	28016	Bessemer City, '66.....	4,271	3,961
*12601	Poughkeepsie.....	38,330	41,023	28303	Bonnie Doone.....	4,481	.....
12113	Ravena, '65.....	2,718	2,006	28607	Boone.....	3,686	2,973
12144	Rensselaer.....	10,506	10,856	28712	Brevard.....	4,857	3,908
11901	Riverhead.....	5,830	4,892	27315	Burlington.....	33,199	24,560
*14603	Rocheater, '64.....	305,849	332,488	28716	Canton.....	5,068	4,906
*11570	Rockville Centre, '65.....	26,413	22,362	27511	Cary, '66.....	5,331	1,416
11778	Rocky Point, '64.....	2,848	.....	27514	Chapel Hill.....	12,573	9,177
15440	Rome, '67.....	46,177	41,682	*28202	Charlotte.....	201,564	134,042
11779	Runkoma.....	4,220	1,334	28021	Cherryville, '66.....	4,056	3,492
11575	Rosevelt.....	12,853	.....	27520	Clayton, '66.....	2,965	2,229
11576	Roslyn, '65.....	2,515	1,612	28328	Clinton.....	7,461	4,414
12303	Rotterdam.....	16,871	.....	*28025	Concord.....	17,799	16,486
10580	Rye, '65.....	15,232	11,721	28032	Cramerton.....	3,123	3,211
11780	St. James, '64.....	4,688	1,390	28034	Dallas, '66.....	3,501	2,454
14779	Salamanca.....	8,480	8,861	28036	Davidson.....	2,573	.....
11754	San Remo.....	11,996	.....	27288	Draper, '66.....	3,255	3,629
12983	Saranac Lake.....	6,421	6,913	28334	Dunn, '66.....	7,487	6,316
12866	Saratoga Springs, '66.....	17,288	15,473	*27701	Durham.....	78,302	71,311
12477	Saugerties, '65.....	4,353	3,907	28301	East Fayetteville.....	2,797	.....
*10883	Scarsdale, '65.....	18,345	13,156	28052	East Gastonia.....	3,326	3,733
*12305	Schenectady.....	81,682	91,785	28379	East Rockingham.....	3,211	.....
12302	Scotia.....	7,812	7,812	28401	East Wilmington.....	5,520	1,623
11579	Sea Cliff, '65.....	5,774	4,568	27932	Edenton.....	4,458	4,468
11783	Seaford.....	14,718	.....	27909	Elizabeth City.....	14,062	12,685
13148	Seneca Falls, '67.....	7,646	6,634	28621	Elkin.....	3,868	2,842
13461	Sherill.....	2,922	2,236	27823	Enfield.....	2,978	2,361
13838	Sidney.....	5,157	4,815	28339	Erwin.....	3,183	3,344
14136	Silver Creek.....	3,310	3,068	27825	Farmville.....	3,997	2,942
13152	Skaneateles.....	2,921	2,331	*28301	Fayetteville, '64.....	51,022	34,715
14212	Sloan, '66.....	5,493	4,698	28301	Fayetteville North.....	3,071	.....
10974	Sloatsburg, '66.....	2,805	2,018	28043	Forest City.....	6,556	4,971
13204	Solvay, '66.....	8,551	7,868	27526	Fuquay Springs, '66.....	3,420	1,992
11968	Southampton, '66.....	4,833	4,042	27529	Garner, '66.....	4,282	1,180
11735	South Farmingdale.....	16,318	14,409	28052	Gastonia, '66.....	45,429	23,069
12801	South Glens Falls, '66.....	7,084	1,274	27530	Goldboro.....	28,873	21,454
.....	South Huntington.....	3,977	3,102	27533	Gramham.....	7,723	5,029
*10960	South Nyack, '66.....	1,377	.....	28636	Granville Falls.....	2,844	.....
11590	South Westbury.....	11,977	.....	*27401	Greensboro, '66.....	131,711	74,389
14559	Spencerport, '64.....	2,676	1,595	28345	Greenville.....	22,860	16,724
10977	Spencer Valley, '66.....	12,892	4,500	28345	Hamlet, '66.....	4,810	5,061
14111	Springville, '66.....	4,137	3,322	27536	Henderson.....	12,740	10,996
11536	Stewart Manor, '65.....	2,514	1,879	28739	Hendersonville.....	5,911	6,103
11790	Stony Brook.....	3,548	.....	28601	Hickory.....	19,328	14,755
10980	Stony Point.....	3,330	1,438	28601	Hickory East.....	3,274	.....
10901	Suffern, '66.....	6,121	4,010	*27260	High Point, '66.....	61,396	30,073
.....	Syracuse.....	210,038	220,583	25310	Jacksonville.....	13,491	3,960
10591	Tarrytown, '65.....	11,250	8,585	28081	Kannapolis.....	34,647	28,418
11021	Thomaston, '65.....	2,045	.....	27284	Kernersville.....	3,391	.....
12823	Ticonderoga.....	3,568	3,517	28086	Kings Mountain, '66.....	8,256	7,206
14150	Tonawanda, '66.....	21,946	14,617	28501	Kinston.....	24,819	18,336
14150	Tonawanda (uninc.).....	83,771	.....	28352	Laurinburg.....	8,242	7,134
*12180	Troy.....	67,492	72,311	27288	Leaksville, '66.....	6,084	4,015
10707	Tuckahoe, '65.....	6,237	5,991	28645	Lenoir.....	10,257	7,888
12986	Tupper Lake.....	5,200	5,141	27292	Lexington.....	16,093	13,571
11553	Uniondale.....	20,041	.....	28092	Lincolnton.....	5,699	5,423
*13503	Utica.....	100,410	101,531	28601	Longview (A).....	3,290	2,291
11580	Valley Stream, '65.....	38,591	26,854	27549	Louisburg.....	2,862	2,545
.....	Vernon Valley.....	5,998	.....	28098	Lowell, '66.....	3,048	2,813
.....	Victory Heights.....	2,528	1,557	28358	Lumberton.....	15,305	9,146
*12555	Walden, '67.....	5,079	4,559	28752	Marion.....	3,340	2,740
13856	Walton.....	3,845	3,947	2854	Midway Park.....	1,164	3,703
11793	Wataugh.....	34,172	.....	28110	Monroe, '66.....	10,913	10,140
12590	Wappingers Falls, '65.....	4,816	3,490	.....	.....	.....	.....

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
NORTH CAROLINA—Continued				OHIO—Continued			
28115	Mooreville	6,918	7,121	45817	Bluffton	2,591	2,423
28557	Morehead City	5,583	5,144	43402	Bowling Green	13,574	12,005
28655	Morganton	9,186	8,311	44141	Bridgeville	5,435	2,664
27030	Mount Airy	7,055	7,197	43912	Bridgeton	3,824	4,309
28120	Mount Holly, '66	5,120	2,241	44141	Broadview Heights	6,209	2,276
28365	Mount Olive	4,673	3,732	44109	Brooklyn	10,733	6,307
27355	Murfreesboro	2,643	2,140	44142	Brook Park	12,856	2,616
28560	New Bern	15,717	15,812	45309	Brookville	3,184	1,908
28658	Newton	6,658	6,039	44212	Brownswick	11,725	.....
28012	North Belmont	8,328	3,948	43506	Bryan	7,361	6,365
28659	North Wilkesboro	4,197	4,379	44820	Bucyrus	12,276	10,327
*28301	Owens	5,207	.....	43907	Cadiz	3,259	3,020
27565	Oxford	6,978	6,685	43725	Cambridge	14,562	14,739
27962	Plymouth	4,666	4,486	44405	Campbell	13,406	12,482
28376	Raefford	3,058	2,030	44406	Cantelero	3,252	4,465
*27601	Raleigh, '66	105,722	65,679	*44701	Canton	113,631	116,912
28377	Red Springs	2,767	2,245	43316	Carey	3,722	3,260
27320	Reidsville, '66	14,036	11,708	44615	Carrollton	2,786	2,658
.....	Richmond Hill	2,943	2,303	45822	Celina	7,659	5,703
27870	Rosanoke Rapids	13,320	8,156	45459	Centerville	3,490	827
28379	Rockingham, '66	5,748	3,356	44022	Chagrin Falls	3,458	3,085
27801	Rocky Mount	32,147	27,697	44024	Chardon	3,154	2,478
27573	Roxboro	5,147	4,321	45211	Cheviot	10,701	9,944
28139	Rutherfordton	3,392	3,146	45601	Chillicothe	24,957	20,133
28144	Sallsbury	21,297	20,102	*45202	Cincinnati	502,550	503,991
27330	Sanford, '66	12,573	10,013	43113	Circleville	1,059	743
27874	Scotland Neck	2,974	2,733	*44101	Cleveland, '65	810,858	914,808
27876	Selma, '66	3,197	2,639	44118	Cleveland Heights	61,813	59,141
28150	Shelby, '66	16,941	15,508	43110	Clyde	4,826	4,083
27344	Sliter City	4,455	2,501	46638	Coal Grove	2,961	2,492
27577	Smithfield, '66	6,315	5,574	45828	Coldwater	2,766	2,217
28387	Southern Pines	5,198	4,272	44408	Columbiana	4,164	3,369
*28301	South Fayetteville	3,411	3,428	*43216	Columbus	471,316	375,901
28052	South Gastonia	3,762	6,465	44030	Conneaut	10,557	10,230
28144	South Sallsbury	3,065	.....	43812	Coshocton	13,106	11,675
28159	Spencer	2,904	3,242	44827	Crestline	4,621	4,614
28160	Spindale	4,082	3,891	43731	Crooksville	2,958	2,960
27258	Spray, '66	4,618	.....	44221	Cuyahoga Falls	47,922	29,195
27258	Spring Lake	4,110	.....	*45401	Dayton	262,332	243,872
28390	Spring Lake	2,504	2,250	45236	Deer Park	8,423	7,241
28377	Spruce Pine	4,504	.....	43512	Defiance	14,553	11,265
28677	Statesville	19,844	16,901	43015	Delaware	13,282	11,804
27886	Tarboro	8,411	8,120	45833	Delphos	6,961	6,220
27360	Thomasville	15,190	11,154	44621	Dennison	4,158	4,432
28690	Valdese	2,941	2,736	44622	Dover	11,300	9,832
28170	Wadesboro	3,744	3,408	44004	East Ashtabula	1,179	2,390
27587	Wake Forest, '66	2,681	3,704	44112	East Cleveland	37,991	40,047
27889	Washington, '66	10,150	9,698	44094	Eastlake	12,467	7,486
28786	Waynesville	6,159	5,295	43920	East Liverpool	22,306	24,217
28025	West Concord	5,511	.....	44413	East Palestine	5,232	5,195
28472	Whiteville	4,683	4,238	45320	Eaton	5,034	4,242
27892	Williamston	6,924	4,075	45216	Elmwood Place	3,813	4,113
28401	Wilmington	44,013	45,043	44035	Elyria	43,782	30,307
27893	Wilson	28,753	23,010	44117	Euclid	62,998	41,396
*27101	Winston-Salem	111,135	87,811	45324	Fairborn	19,453	7,847
NORTH DAKOTA				45014	Fairport	4,734	.....
58501	Bismarck (A), '67	33,134	18,640	44077	Fairport	4,267	4,519
58318	Bottineau (A), '67	2,767	2,268	44126	Fairview Park	14,624	9,311
58301	Devils Lake, '66	6,670	6,427	45840	Findlay	30,344	23,845
58601	Dickinson, '66	11,666	7,469	44830	Postoria	15,732	14,351
58202	Fargo, '66	49,572	39,256	45005	Franklin	7,917	5,388
58237	Grafton, '66	7,064	4,901	43420	Fremont	17,573	16,537
58201	Grand Forks, '64	38,230	26,836	43020	Gahanna	2,717	5,996
58401	Jamestown, '66	15,580	10,697	43313	Gallion	12,650	9,925
58554	Mandan	10,525	7,298	45631	Gallipolis	8,775	7,871
58701	Minot, '62	33,477	22,034	44125	Garfield Heights	38,455	2,662
58368	Rugby	2,972	2,907	44041	Geneva	5,677	4,718
<i>Southwest Fargo (see West Fargo)</i>				45121	Georgetown	2,674	2,200
58072	Valley City, '66	8,104	6,851	45327	Germantown	3,399	2,478
58075	Wahpeton, '64	6,453	5,125	43431	Gibsonburg	2,540	2,281
58078	West Fargo (A) '67	4,340	1,032	44420	Girard	12,997	10,113
58801	Williston	11,666	7,378	45246	Glendale	2,823	2,402
OHIO				43212	Golf Manor	4,448	3,603
45810	Ada	3,918	3,640	43212	Grandview Heights	8,270	7,659
*44309	Akron	290,351	274,605	43023	Granville	2,868	2,633
44601	Alliance	28,362	26,161	45123	Greenfield	5,422	4,862
.....	Amberley	2,951	885	45215	Greenhills	5,407	3,005
44001	Amherst	6,750	3,542	45331	Greenville	10,585	8,559
44805	Ashtabula	17,419	14,287	48123	Grove City	8,107	2,339
44904	Ashtabula (A)	24,944	23,966	*45011	Hamilton	72,354	57,951
45701	Athens	16,670	11,680	45030	Harrison	3,878	1,943
44202	Aurora	4,049	571	43055	Heath, '65	6,066	.....
44011	Avon	6,002	2,773	43526	Hicksville	3,116	2,629
44012	Avon Lake	9,403	4,342	44124	Highland Heights	2,929	762
44203	Barberton	33,805	27,820	43026	Hilliard	5,633	5,610
43713	Barnesville	4,425	4,665	45132	Hillsboro	5,474	5,126
44140	Bay	14,489	6,917	44425	Hubbard	7,137	4,560
44122	Beachwood	6,089	1,073	44839	Huron	5,197	2,515
44014	Bedford	15,223	9,105	44131	Independence	6,868	3,105
44014	Bedford Heights	5,275	.....	.....	Indian Hill	4,526	2,090
43906	Bellaire	14,502	12,573	45638	Ironton	15,745	16,333
43311	Bellefontaine	11,424	10,232	45640	Jackson	6,980	6,504
44811	Bellevue	8,286	6,906	44047	Jefferson	2,774	1,647
45714	Belpre	5,418	2,451	43031	Jennings	2,881	1,220
44017	Berea	16,592	12,051	44240	Kent	17,836	12,418
43209	Bexley	14,319	12,378	45129	Kentonia	8,747	8,475
45107	Blanchester	2,944	2,109	44425	Kettering	54,462	.....
.....	Blue Ash	8,341	.....	44250	Lakemore	2,765	2,463
.....	.....	.....	.....	44638	Lakewood	4,181	3,432
.....	.....	.....	.....	44107	Lakewood	66,154	68,071
.....	.....	.....	.....	43130	Lancaster	29,916	24,180
.....	.....	.....	.....	45036	Lebanon	5,993	4,618
.....	.....	.....	.....	44431	Leetonia	2,543	2,565

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
OHIO—Continued				OHIO—Continued			
*45808	Lima..	51,037	50,246	44131	Seven Hills..	5,708	1,350
45215	Lincoln Heights (uninc.)..	8,004		43947	Shadyside..	5,028	4,433
44332	Lincoln Heights..	7,798	5,581	44120	Shaker Heights..	36,460	28,222
44332	Lisbon..	3,579	3,293	45241	Sharonville, 62..	6,457	1,318
45215	Lockland..	5,292	5,736	44438	Sharon West..	3,365	
43138	Logan..	6,417	5,972	44054	Sheffield Lake..	6,884	2,381
43140	London..	6,379	5,222	44875	Shelby..	9,106	7,971
44052	Lorain..	66,932	51,202	45365	Sidney..	14,663	11,491
44842	Loudonville..	2,611	2,523	44221	Silver Lake..	2,655	1,040
44641	Louisville..	5,116	3,801	45236	Silverton..	6,682	4,827
45140	Loveland..	2,008	2,149	44139	Solon..	6,333	2,570
44124	Lyndhurst..	18,805	7,359	44121	South Euclid..	27,569	15,432
44437	McDonald..	2,727	1,858	45065	South Lebanon..	2,720	1,291
45243	Madeira..	6,744	2,689	45246	Springdale..	3,556	
*49001	Mansfield..	47,325	43,564	*45501	Springfield..	82,723	78,508
44901	Mansfield SE..	2,961		43952	Steubenville..	32,495	35,872
44137	Maple Heights..	31,667	15,586	44224	Stow..	12,194	
45227	Mariemont..	4,120	3,514	44136	Strongsville..	8,504	3,504
45750	Marletta..	16,847	16,006	44471	Struthers..	15,631	11,941
43302	Marion..	37,079	33,817	43560	Sylvania..	5,187	2,433
43935	Martins Ferry..	11,919	13,220	44278	Tallmadge..	10,246	5,821
43049	Marysville..	4,952	4,256	44883	Tiffin..	21,478	18,952
45040	Mason..	4,797	1,196	45371	Tiffin City..	4,267	3,304
44646	Massillon..	31,236	29,594	*43601	Toledo..	318,003	303,616
44438	Masury..	2,512	2,151	43964	Toronto..	7,780	7,253
43537	Maumee..	12,063	5,548	45067	Trenton..	3,064	987
45042	Mayfield..	2,747	1,926	45426	Trotwood..	4,992	1,066
44124	Mayfield Heights..	13,478	5,807	45373	Troy..	13,685	10,661
44256	Medina..	8,235	5,097	44087	Twinsburg..	4,098	
44060	Mentor..	4,354	2,383	44683	Unrichsville..	6,201	6,614
44060	Mentor-on-the-Lake..	3,290	1,413	*4118	University Heights..	16,641	11,566
45342	Miamisburg..	9,893	6,329	43221	Upper Arlington..	28,486	9,024
44130	Middleburg Heights..	7,282	2,299	43351	Upper Sandusky..	4,941	4,397
45760	Middletown..	3,373	3,446	43078	Urbana..	10,461	9,335
45042	Middletown..	42,115	33,695	44043	Vandalia..	6,342	927
45150	Milford..	4,131	2,448	45891	Van Wert..	11,323	10,364
44654	Millersburg..	3,101	2,398	44089	Vermillion, 61..	5,220	2,214
44657	Minerva..	3,333	3,280	44281	Wadsworth..	10,635	7,966
43938	Mingo Junction..	4,987	4,464	45895	Wapakoneta..	6,756	5,797
44260	Mogadore..	3,851	1,818	*44483	Warren..	59,648	49,856
45242	Montgomery..	3,075	579	44122	Warrensville Heights..	10,609	4,126
43543	Montpelier..	4,131	3,867	43160	Washington..	12,388	10,560
45439	Moraine, 65..	5,455		43567	Wauseon..	4,311	3,494
43338	Mount Gilead..	2,788	2,351	45690	Waverly..	3,830	1,679
45231	Mount Healthy..	6,553	5,533	44060	Wellington..	3,599	2,992
43050	Mount Vernon..	13,446	12,185	45692	Wellington..	5,728	5,691
43545	Napoleon..	6,739	5,335	43968	Wellsville..	7,117	7,854
45764	Nelsonville..	4,834	4,845	45449	West Carrollton (A) 67..	7,337	2,876
43055	Newark..	41,790	34,275	43081	Westerville..	7,011	4,112
45662	New Boston..	3,984	4,754	44145	Westlake..	12,906	4,912
44105	Newburg Heights..	3,512	3,689	45383	West Milton..	2,972	2,101
45344	New Carlisle..	4,107	1,640	45662	West Portsmouth..	3,100	2,613
43832	Newcomerstown..	4,273	4,514	45694	Wheelersburg..	2,682	1,013
43764	New Lexington..	4,514	4,233	43213	Whitehall..	20,818	4,877
44665	New Philadelphia..	14,241	12,948	44092	Wickliffe..	15,760	5,002
45157	New Richmond..	2,534	1,960	44890	Willard..	5,457	4,744
44444	Newton Falls..	5,038	4,451	44904	Willoughby..	15,058	5,602
44446	Niles..	19,545	16,773	44904	Willoughby Hills..	4,241	
45872	North Baltimore..	3,011	2,771	44094	Willoughby Hills..	18,749	3,677
44720	North Canton..	7,727	4,032	45177	Wilmington..	3,815	7,387
45239	North College Hill..	12,035	7,921	44284	Windham..	3,777	3,968
44070	North Olmsted..	16,290	6,604	43952	Wintersville..	3,597	1,950
44035	North Ridgeville..	8,057		45245	Withamsville..	2,811	
44133	North Royalton..	9,290	3,939	45215	Woodlawn..	3,007	1,335
44857	Norwalk..	12,900	9,775	43793	Woodsfield..	2,956	2,410
45212	Norwood..	34,580	35,001	44691	Wooster..	17,046	14,005
43449	Oak Harbor..	2,903	2,370	43085	Worthington..	9,239	2,141
45319	Oakwood City..	10,493	6,991	45215	Wyoming..	7,736	5,582
44014	Oakwood Village..	3,283		43385	Xenia..	20,445	12,877
44074	Oberlin..	8,198	7,062	45387	Yellow Springs..	4,167	2,896
45042	Onelda-Rolling Mill Park..	6,504		*44501	Youngstown..	166,680	168,330
44862	Ontario..	3,049		43701	Zanesville..	39,077	40,517
43616	Oregon..	13,319					
44667	Orrville..	6,511	5,153				
45875	Ottawa..	3,245	2,962				
43606	Ottawa Hills..	3,870	2,333				
45056	Oxford..	7,828	6,944				
44077	Painesville..	16,116	14,432				
44129	Parma..	82,845	28,897				
44130	Parma Heights..	18,100	3,901				
45879	Paulding..	12,936	2,352				
44124	Pepper Pike..	2,217	874				
43551	Perrysburg..	5,519	4,006				
45356	Piqua..	19,219	17,447				
44514	Poland..	2,766	1,652				
45769	Pomeroy..	3,345	3,656				
43452	Port Clinton..	6,870	5,541				
45662	Portsmouth..	33,637	36,798				
44266	Ravenna..	10,918	9,857				
45215	Reading..	12,832	7,832				
43068	Reynoldsburg..	7,793	7,24				
44143	Richmond Heights..	5,068	891				
44270	Rittman..	5,410	3,810				
44116	Rocky River..	18,097	11,237				
.....	Roseland..	8,204					
43460	Rossford..	4,406	3,963				
45217	Saint Bernard..	6,778	7,066				
43950	Saint Clairsville..	3,865	3,040				
45885	Saint Marys..	7,737	6,208				
44460	Salem..	13,854	12,754				
44870	Sandusky..	31,989	29,375				
44878	Sandusky South..	4,72					
44672	Sebring..	4,439	4,045				

OKLAHOMA

74820	Ada..	14,347	15,995
73521	Altus..	21,225	9,735
73717	Alva..	6,258	6,505
73006	Anadarko..	6,299	6,184
73401	Ardmore..	20,184	17,890
74525	Ark City..	2,877	2,653
74003	Bartlesville..	27,893	19,228
73008	Bethany..	12,342	5,705
74631	Blackwell..	9,688	9,199
74010	Bristow..	4,795	5,400
74012	Broken Arrow..	5,928	3,262
74834	Chandler..	2,524	2,724
74426	Checotah..	2,614	2,638
73018	Chickasha..	14,866	15,842
74017	Claremore..	6,639	5,494
74020	Cleveland..	2,519	2,464
73601	Clinton..	9,617	7,555
74021	Collinsville..	2,526	2,261
74023	Cushing..	8,414	8,414
73115	Del City..	12,934	2,504
74029	Dewey..	3,994	2,513
74030	Drumright..	4,190	5,028
73533	Duncan..	20,009	15,325
74701	Durant..	10,467	10,541
74034	Edmond..	8,577	6,062
73644	Elk City..	8,196	7,986
73036	El Reno..	11,015	10,991
73701	Enid..	38,859	36,017

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
OKLAHOMA—Continued				OREGON—Continued			
73542	Frederick	5,879	5,467	97459	North Bend	7,512	6,099
73044	Guthrie	9,502	10,113	97913	Nyssa	2,611	2,525
73942	Guyton	5,768	4,718	97914	Ontario	5,101	4,465
73438	Haidton	2,898	2,578	97045	Oregon City	7,996	7,652
73453	Henryetta	6,551	7,987	97045	Oswego	8,906	3,316
73651	Hobart	5,132	5,380	97801	Pendleton	17,434	11,774
74848	Holdenville	5,712	6,192	*97208	Portland	372,676	373,628
73550	Hollis	3,006	3,089	97754	Prineville	3,263	3,233
74035	Hominy	2,866	2,702	97756	Redmond	3,340	2,956
74743	Hugo	6,287	5,984	97467	Reedsport	2,998	2,288
74745	Idabel	4,967	4,671	97470	Roseburg	11,467	8,390
73750	Kingfisher	3,249	3,345	97051	Saint Helens	5,022	4,711
73501	Lawton	61,697	34,757	*97301	Salem	49,142	43,140
73052	Lindsay	4,258	3,021	97302	Salem Heights	10,770	2,351
74501	McAlester	17,419	17,878	97188	Seaside	3,877	3,886
73446	Madill	3,084	2,791	97381	Silverton	3,081	3,146
73554	Mangum	3,950	4,271	97477	Springfield	19,616	10,807
73055	Marlow	4,027	3,399	97386	Sweet Home	3,353	3,603
74354	Miami	12,869	11,801	The Dalles (See Dalles Cnty)			
73110	Midwest City	36,058	10,166	97141	Tillamook	4,244	3,685
73060	Moore (A) '67	16,649	1,783	97391	Toledo	3,053	2,323
74401	Muskogee	38,059	37,289	97068	West Linn	3,933	2,945
73632	New Cordell	3,589	2,920	97071	Woodburn	3,120	2,395
73116	Nichols Hills	4,897	2,606	PENNSYLVANIA			
73069	Norman	33,412	27,006	19001	Ablington '66	62,033	28,988
74013	Nowata	4,163	3,665	19018	Aldan, '66	4,998	3,430
74859	Okemah	4,836	3,454	15001	Altoona	26,369	26,132
*73102	Oklahoma City	324,253	243,504	*18101	Allentown	108,347	106,756
74447	Okmulgee	15,951	18,317	16601	Altoona	69,407	77,177
73075	Pauls Valley	6,856	6,896	19002	Amber	6,765	4,565
74056	Pawhuska	5,414	5,331	15003	Ambridge	13,865	16,429
73077	Perry	5,210	5,137	17003	Annyville	4,264	3,699
74360	Picher	2,553	3,961	15613	Apollo	2,694	3,015
74601	Ponca City	24,411	20,180	18403	Archbald	5,471	6,304
74953	Poteau	4,428	4,776	15068	Arnold	9,437	10,263
74063	Prattville	2,530	2,530	17921	Ashland	5,237	6,192
74361	Pryor Creek	6,476	4,486	18706	Ashley	4,258	5,243
73080	Purcell	3,729	3,546	15215	Aspinwall	3,727	4,084
74955	Sallisaw	3,351	2,855	19014	Aston, '66	12,783	5,576
74063	Sand Springs	7,754	6,994	18810	Athens	4,515	4,480
74066	Sapulpa	14,282	13,031	15202	Avalon	6,859	6,463
73862	Sayre	2,913	3,362	18641	Avoca	3,562	4,040
74868	Shawnee	11,461	11,863	15005	Baden	6,109	3,732
74801	Shawnee	24,326	22,948	Baldwin (borough)			24,489
74070	Skiatook	2,503	2,534	Baldwin (township)			3,004
74040	Stillwater	4,307	20,238	18013	Bangor	5,766	6,050
73086	Sulphur	7,737	4,389	15714	Barnesboro	3,035	3,442
74464	Tahlequah	5,840	4,750	15009	Beaver	6,160	6,360
74873	Tecumseh	2,630	2,275	15010	Beaver Falls	16,240	17,375
73120	The Village	12,118		15522	Bedford	3,696	3,521
74653	Tonkawa	3,415	3,643	16823	Bellefonte	6,088	5,651
*74101	Tulsa	261,685	182,740	15202	Bellevue	11,412	11,604
74301	Vinita	6,027	5,518	15202	Ben Avon	2,553	2,465
74467	Wagoner	4,469	4,395	15314	Bentleyville	3,160	3,295
73572	Walters	2,825	2,743	18603	Berwick	13,363	14,010
73123	Wart Acres	7,135	2,373	15507	Bethel	22,650	11,324
73723	Watonga	3,252	3,249	*18015	Bethlehem	75,408	66,340
73096	Weatherford	4,499	3,529	19508	Birdsboro	3,025	3,158
74884	Wewoka	5,954	6,747	15717	Blairsville	4,930	5,000
73801	Woodward	7,747	5,915	18447	Blakely	6,374	6,828
73098	Wynnewood	2,509	2,423	17815	Bloomsburg	10,655	10,633
73099	Yukon	3,076	1,990	15009	Borough	2,917	2,750
OREGON				19512	Boyetown	4,067	4,074
97321	Albany	12,926	10,115	15014	Brackenridge	5,697	6,178
97601	Altamont	10,811	9,419	15104	Braddock	11,337	16,488
75202	Ashland	9,119	7,739	16701	Brentwood	15,061	17,364
97103	Astoria	11,239	12,331	15227	Brentwood	13,706	12,535
73103	Baker	9,956	9,471	15045	Bridgeport	5,306	5,827
97470	Barnes	5,076		15017	Bridgeville	7,112	5,650
97005	Beaverton	5,937	2,512	19007	Bristol (borough)	12,364	12,710
97701	Bend	11,936	11,409	Bristol (township)			59,298
97415	Brookings	2,637		15824	Brockway	2,563	2,650
97720	Burns	3,523	3,093	19015	Brookhaven	5,280	1,042
74240	Cool Bay	7,084	6,223	15825	Brookville	4,620	4,274
74728	Coquille	4,730	3,523	15417	Brownsville	6,055	7,643
97330	Corvallis	16,207	16,207	17009	Burham	2,795	2,954
97424	Cottage Grove	3,895	3,581	18001	Butler	20,975	23,482
97335	Dallas	5,072	4,791	15419	California	5,978	2,831
97058	Dallas City	10,493	7,676	17011	Camp Hill	8,559	5,934
97420	Empire	3,781	2,261	15317	Canonsburg (A)	12,910	12,072
*97401	Eugene	50,977	35,879	18407	Carbondale	13,595	16,296
97116	Forest Grove	5,628	4,343	17013	Carlisle	16,623	16,812
97301	Four Corners	4,743	1,284	15106	Carlisle	11,887	12,105
97027	Gladstone	3,854	2,434	15234	Castle Shannon	11,386	5,459
97526	Grants Pass	10,118	8,116	18032	Catsaqua	5,062	4,923
97430	Gresham	9,119	7,739	16701	Centerville	5,088	5,088
97302	Hayesville	4,568	4,697	17201	Chambersburg	17,670	17,212
97338	Hermiston	4,402	3,804	15022	Charlottesville	8,148	9,872
97123	Hillsboro	8,232	5,142	19380	Chatwood	3,621	1,572
70031	Hood River	3,657	3,701	19012	Cheltenham	35,990	22,854
97303	Kelzer	5,288		19013	Chester (township)	63,658	66,039
97601	Klamath Falls	16,949	15,875	19013	Chester (uninc.)	3,602	3,547
97850	La Grande	9,014	8,635	15024	Cheswick	2,734	1,534
97630	Lakeview	3,260	2,831	Churchill			3,428
97355	Lebanon	5,858	5,873	15025	Clarton	18,389	10,652
97128	McMinnville	7,656	6,635	16214	Clarksville	4,493	7,409
97201	Medford	24,425	17,305	18411	Clerks Summit	3,693	2,940
97862	Milton-Freewater	4,110		18530	Clearfield	9,270	9,357
97222	Milwaukie	9,099	5,253	19018	Clifton Heights	8,005	7,549
97458	Myrtle Point	2,856	2,033	18218	Coaldale	3,949	5,318
97132	Newberg	4,204	3,946	19320	Coatsville	12,971	13,826
97365	Newport	5,344	3,241	19023	Collingdale	10,268	8,443

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
PENNSYLVANIA—Continued				PENNSYLVANIA—Continued			
17512	Columbia	12,075	11,993	15205	Ingram	4,730	4,236
19023	Colwyn	12,074	2,143	15642	Jewett	4,270	4,228
15425	Connellsville	13,284	13,293	15644	Jefferson	16,565	16,172
19428	Conshohocken	10,259	10,922	15344	Jenkintown	8,280	5,130
18037	Coplay	3,701	2,994	19046	Jermyn	2,567	2,535
15108	Coraopolis	9,643	10,498	18433	Jersey Shore	5,613	5,595
16407	Corry	7,744	7,911	17740	Jim Thorpe	5,945	4,567
16915	Coudersport	2,889	3,210	18229	Johnsonburg	4,966	4,730
15205	Crafton	8,418	8,066	15845	Johnstown	53,949	63,232
16630	Cresson	2,659	2,569	*15901	Kane	5,380	5,706
16833	Curwensville	3,231	3,332	16735	Kenhorst	2,815	2,551
15902	Dale	2,807	3,310	18348	Kennett Square	4,355	3,699
18612	Dallas	3,615	3,304	17704	Kingston	20,261	21,069
17713	Dallastown	6,889	6,994	16201	Kittanning	6,793	7,731
17821	Danville	14,059	13,154	17834	Kulpmont	4,288	5,199
19023	Darby	13,560	3,454	19530	Kutztown	3,312	3,110
15627	Derry	3,426	3,752	*17601	Lancaster (city)	61,055	63,774
18519	Dickson City	7,738	8,948	17601	Lancaster (township)	10,020	6,859
15033	Donora	11,131	12,186	19446	Lansdale	12,612	9,762
15216	Dormont	13,098	13,405	19050	Lansdowne	12,601	12,169
19335	Downingtown (boro.) '67	7,248	4,948	18232	Lansford	9,559	7,487
18901	Doylestown	5,917	5,262	18704	Larksville	4,390	6,360
15034	Dravosburg	3,458	3,786	15650	Latrobe	11,932	11,811
15801	Du Bois	15,117	14,497	19608	Laureldale	4,051	3,585
18512	Dunmore	18,917	20,305	15068	Lawrence Park	4,403	4,154
16641	Dupont	3,669	4,107	17042	Lebanon	30,045	28,156
15110	Duquesne	15,019	17,620	15656	Leechburg	3,545	4,042
18642	Duryea	5,626	6,655	18235	Lehighton	6,318	6,565
15909	East Conemaugh	3,334	4,101	17043	Lemoine	4,662	4,605
15030	East Deer	2,865	3,185	17837	Lewisburg	5,523	5,268
17701	East Faxon	3,641	3,527	17044	Lewistown	12,640	13,894
19050	East Lansdowne	3,224	3,171	16930	Liberty	3,624	1,900
15137	East McKeesport	3,470	3,171	17543	Lititz	5,987	5,568
18042	Easton	31,955	35,632	17340	Littlestown	2,756	2,635
15112	East Pittsburgh	4,122	5,259	17745	Lock Haven	11,748	11,381
18301	East Stroudsburg	7,274	4,086	15068	Lower Merion	11,952	2,938
15931	Ebensburg	4,111	4,086	19047	Lower Southampton	57,420	49,455
15005	Economy	5,925	3,014	18709	Luzerne	5,118	6,176
19013	Eddystone	3,006	5,292	17048	Lykens	2,627	2,755
15218	Edgewood (borough)	5,124	5,292	16045	Lyndora	3,232	4,260
17872	Edgewood (uninc.)	3,399	6,686	18237	McAdoo	3,560	4,260
18704	Edwardsville	5,711	6,686	(Y)	McChesneytown-Loyalhanna	3,138	3,141
15037	Elizabeth	2,597	2,615	15057	McDonald	3,141	3,543
17022	Elizabethtown	6,780	5,083	15136	McKeesport	45,489	51,502
16117	Ellwood City	12,413	12,945	15136	McKees Rocks	13,185	16,241
18049	Elmira	3,397	3,646	17344	McSherrystown	2,839	2,510
15834	Emporium	3,397	3,128	17948	Mahanoy City	6,536	10,934
15202	Emsworth	3,341	7,027	17545	Manheim	4,790	4,246
17522	Ephrata	7,688	7,027	16933	Mansfield	2,678	2,657
*16501	Erie	138,440	130,803	19061	Marcus Hook	3,299	3,843
15223	Etna	5,519	6,750	19008	Marple	19,722	4,799
18643	Exeter	4,747	5,130	17053	Marysville	2,680	2,158
15538	Fairhope-Arnold City	2,803	3,540	15461	Masonstown	4,730	4,550
17872	Fairview-Ferndale (uninc.)	4,067	13,644	16335	Meadville	16,671	18,972
18615	Falls	29,082	2,619	17056	Meachantsburg	8,123	6,786
16121	Farrell	13,793	2,619	*19063	Media	5,803	5,726
15905	Ferndale	2,417	2,338	16137	Mercer	2,800	2,397
19522	Fleetwood	9,008	1,909	15552	Meyersdale	2,901	3,337
19032	Florence '64	5,440	5,352	17057	Middletown (borough)	11,182	9,184
16226	Ford City	2,651	3,122	19047	Middletown (township)	26,936	4,987
18421	Forest City	8,796	6,301	15059	Midland	6,425	6,491
15221	Forest Hills	6,431	6,173	17080	Millcreek, '66	32,081	17,037
18704	Forty Fort	5,428	5,456	17061	Millersburg	2,984	2,861
15215	Fox Chapel	3,302	1,721	17551	Millersville, '66	5,353	2,551
17931	Frankville	5,654	6,541	15209	Millvale	6,624	7,287
16323	Franklin	9,586	10,006	17347	Milton	7,972	8,578
15042	Freedom	2,896	3,000	19554	Minersville	6,006	7,783
18224	Freetland	5,068	5,909	15061	Monaca	8,394	7,415
16641	Gallitzin	2,783	3,102	15062	Monessen	17,424	17,896
15904	Geistown	3,188	2,148	15063	Monongahela	8,388	8,922
17325	Gettysburg	7,960	7,046	15146	Monroeville	22,446	2,214
17935	Girardville	2,958	3,864	17754	Montoursville	5,211	3,293
15045	Glassport	8,418	8,707	18507	Moosic	4,243	3,965
18617	Glen Lyon	4,173	3,921	19067	Morrisville	7,790	6,787
19036	Glenolden (borough) '67	8,229	6,450	17851	Mount Carmel	10,760	14,222
17225	Greencastle	2,988	2,861	17552	Mount Joy	3,292	3,006
15601	Greensburg	17,353	16,923	15210	Mount Lebanon	35,361	26,604
15220	Green Tree	5,226	2,818	15210	Mount Oliver	5,980	6,646
16125	Greenville	8,765	9,210	19606	Mount Pleasant	3,574	3,635
16127	Grove City	8,368	7,411	15866	Mount Pleasant	6,107	5,883
19526	Hamburg	3,747	3,805	17066	Mount Union	4,091	4,690
17331	Hanover	15,538	14,048	17758	Muncy	2,830	2,756
16037	Harmony	5,106	4,501	15120	Munhall	17,312	16,437
*17105	Harrisburg	79,697	89,544	17067	Myerstown	3,268	3,050
15065	Harrison	15,710	15,116	18634	Nanticoke	15,601	20,160
19040	Hatboro	7,315	4,788	15943	Nanty-Glo	4,608	5,425
19041	Haverford	54,019	39,641	19072	Narberth	5,109	5,407
18201	Hazleton	32,056	35,491	18064	Nazareth	6,209	5,830
18055	Hellertown	6,716	5,435	18240	Neshanic	2,714	6,173
15601	Hempfield, '64	33,036	22,463	19086	Nether Providence	10,370	9,535
17033	Hershey	6,851	2,799	15086	New Brighton	8,390	4,834
17034	Highspire	2,999	6,483	16101	New Castle	4,790	4,834
15102	Hillcrest	3,541	6,483	17070	New Cumberland	9,257	6,204
16648	Holidaysburg	6,475	6,483	15067	New Eagle	2,670	2,316
16001	Homeacre	3,508	5,662	17557	New Holland	3,425	2,602
15120	Homestead	7,502	5,662	15063	New Kensington	23,485	25,146
18431	Honesdale	5,569	5,662	*19401	Norristown	38,925	38,126
17036	Hummelstown	4,474	3,789	18067	Northampton	8,866	9,332
16652	Huntingdon	7,234	7,330	(Y)	McChesneytown 15650; Loyalhanna 15661		
15701	Indiana	13,005	11,743				

ZIP Code	Place	1960	1950
PENNSYLVANIA—Continued			
15012	North Belle Vernon.....	3,148	3,147
15104	North Braddock.....	13,204	14,724
18032	North Catasauqua.....	2,805	2,629
16428	North East.....	4,217	4,247
17857	Northumberland.....	4,156	4,207
15035	North Versailles.....	13,583	9,821
19454	North Wales.....	3,673	2,998
19072	Northwood.....	6,729	5,246
15139	Oakmont.....	2,764	2,764
16101	Oakwood.....	3,803	2,267
16301	Old City.....	17,692	19,581
18518	Old Forge.....	8,928	9,749
15472	Oliver.....	3,015	2,180
18447	Olyphant.....	5,684	7,047
19363	Oxford.....	3,376	3,091
18042	Palmer Heights.....	2,597	
18071	Palmerton.....	5,942	6,646
17077	Palmvra.....	6,999	5,910
19365	Parkesburg.....	2,759	2,611
17321	Parkville.....	4,516	3,299
16668	Patton.....	2,880	3,148
18072	Pen Argyl.....	3,693	3,878
17103	Penbrook.....	3,671	3,691
15235	Penn Hills '66.....	59,317	25,280
18944	Perkasie.....	4,650	4,358
*19104	Philadelphia.....	2,002,512	2,071,605
16866	Phillipsburg.....	3,872	3,988
19160	Phoenixville.....	13,797	12,932
15140	Pittsford.....	5,583	5,557
*15210	Pittsburgh.....	604,332	676,806
*18640	Pittston.....	12,407	15,012
15236	Pleasant Hills.....	8,573	3,808
15239	Plum, '66.....	17,910	
18651	Plymouth.....	10,401	13,021
16342	Polk.....	3,574	4,004
15946	Portage.....	3,933	4,371
16743	Port Allegany.....	2,742	2,519
17965	Port Carbon.....	2,775	3,024
15133	Port Vue.....	6,635	4,756
19454	Pottstown.....	29,584	22,589
17901	Pottsville.....	23,650	23,640
19076	Prospect Park, '67.....	7,049	5,834
15707	Punxsutawney.....	8,505	8,969
18951	Quakertown.....	6,305	5,673
19087	Radnor.....	21,697	14,709
15104	Rankin.....	5,164	6,941
*19603	Reading.....	98,177	109,320
17356	Red Lion.....	5,594	5,119
17704	Renovo.....	3,816	3,751
17356	Reserve.....	3,379	3,553
15851	Reynoldsville.....	3,158	3,569
15853	Ridgway.....	6,387	6,244
15853	Ridley.....	35,738	17,212
19078	Ridley Park.....	7,387	4,921
16673	Roaring Spring.....	2,937	2,771
15074	Rochester.....	5,952	7,197
19111	Rockledge.....	2,587	2,261
16323	Rocky Grove.....	3,168	3,111
15853	Ross.....	25,952	15,744
17970	Royersford.....	3,969	3,862
17970	St. Clair.....	5,159	5,586
15857	St. Marys.....	8,065	7,846
18840	Sayre.....	7,917	7,735
17972	Schuylkill Haven.....	6,470	6,597
15683	Scott.....	19,094	8,686
15683	Scottdale.....	6,244	6,249
*18503	Scranton.....	111,443	125,536
17870	Selinsgrove.....	3,948	3,514
15143	Sewickley.....	6,157	5,836
15144	Shaler.....	24,939	16,430
17872	Shawmokin.....	16,674	16,879
16146	Sharon.....	25,267	26,454
19079	Sharon Hill '67.....	7,464	5,464
15215	Sharpsburg.....	6,096	7,296
16150	Sharpville.....	6,061	5,414
17976	Shenandoah.....	11,073	15,704
19607	Shillington.....	5,639	5,059
17257	Shippensburg.....	6,138	5,722
18080	Slatington.....	4,316	4,343
15667	Slippery Rock.....	2,563	2,294
15507	Somers.....	6,347	7,936
18964	Souderton.....	5,381	4,521
15601	South Greensburg.....	3,058	2,980
15905	Southmont.....	2,857	2,278
15401	South Uniontown.....	3,603	3,425
15601	S.W. Greensburg.....	3,264	3,144
17707	S. Williamsport.....	6,972	6,364
15775	Spangler.....	2,658	3,013
19475	Spring City.....	3,162	3,258
15144	Springdale.....	5,602	4,939
19064	Springfield (Del. County).....	26,733	10,917
19118	Springfield (Montgomery County).....	20,652	11,403
17422	Spring Garden.....	11,387	8,338
16801	State College, '64.....	27,584	17,227
17092	Steelton.....	11,266	12,574
19464	Stowe.....	11,730	12,210
19465	Stowe (uninc.).....	2,765	2,524
15363	Strabane.....	3,036	2,861
18367	Stroudsburg.....	6,070	6,361
18850	Summit Hill.....	4,924	4,386
17801	Sunbury.....	13,687	15,370
18847	Susquehanna Depot.....	2,591	2,646

ZIP Code	Place	1960	1950
PENNSYLVANIA—Continued			
19081	Swarthmore.....	5,753	4,825
15218	Swissvale.....	15,089	16,349
18704	Swyersville.....	6,751	7,795
18252	Tamaqua.....	10,173	11,508
15084	Tarentum.....	8,232	9,540
18517	Taylor.....	6,148	7,176
18969	Telford.....	2,763	2,042
18512	Throop.....	4,732	5,861
16354	Titusville.....	8,356	8,923
18848	Towanda.....	4,293	4,069
16085	Trafford.....	4,330	3,965
17581	Trevorton.....	2,597	2,545
15145	Turtle Creek.....	10,607	12,363
16886	Tyrone.....	7,792	8,214
16438	Union City.....	3,819	3,911
15401	Uniontown.....	17,942	20,471
19015	Uppland.....	4,343	4,081
19082	Upper Darby.....	93,158	84,951
19090	Upper Moreland, '66.....	23,857	8,936
15690	Vandergrift.....	8,742	9,524
15147	Verona.....	4,032	4,325
18974	Warminster.....	15,994	7,127
16365	Warren.....	14,505	14,519
15301	Washington.....	23,445	26,280
15301	Washington West.....	3,951	
17268	Waynesboro.....	10,427	10,334
15370	Waynesburg.....	5,188	5,514
18255	Weatherly.....	2,591	2,622
16901	Wellsboro.....	4,369	4,215
16510	Westleyville.....	3,534	3,411
19380	West Chester.....	15,705	15,168
18201	West Hazleton.....	6,278	6,988
15120	West Homestead.....	4,155	3,257
15122	West Milford.....	27,889	17,385
15905	Westmont.....	6,573	4,410
15089	West Newton.....	3,982	3,619
19401	West Norriton.....	8,342	4,879
18643	West Pittston.....	6,998	7,230
19602	West Reading.....	4,938	5,072
15229	West View.....	8,079	7,581
18044	West Wyoming.....	3,166	2,863
17404	West York.....	5,526	5,756
15236	Whitehall.....	16,075	7,342
15131	White Oak.....	9,047	6,159
*18701	Wilkes-Barre (city).....	63,551	76,826
18701	Wilkes-Barre (Twpn.).....	4,319	5,267
15145	Wilkins.....	8,272	4,261
15221	Wilkinsburg.....	30,066	31,418
17701	Williamsport.....	41,967	45,047
15148	Wilmerding.....	4,349	5,325
15025	Wilson.....	8,465	8,159
15963	Windber.....	6,994	8,010
18403	Winton.....	5,456	6,280
18644	Wyoming.....	4,127	4,511
19610	Wyomissing.....	5,044	
19050	Yeadon.....	11,610	11,068
*17405	York.....	54,504	59,953
15697	Youngwood.....	2,813	2,720
16063	Zellenople.....	3,284	2,981

RHODE ISLAND

See Note on Page 605

Special census of state was taken Oct. 1, 1965.

(New totals appear in 1960 column)

02806	Barrington.....	16,390	8,246
02809	Bristol.....	15,716	12,320
02863	Burrillville.....	9,682	8,774
02863	Central Falls.....	18,677	23,550
02813	Charlestown.....	2,586	1,598
02816	Coxeury.....	19,577	9,869
02910	Cranston.....	71,913	55,060
02864	Cumberland.....	23,839	12,842
02818	East Greenwich.....	8,223	4,923
02914	East Providence.....	44,828	35,871
02822	Ezette.....	2,987	2,870
02833	Glocester.....	7,142	6,686
02833	Hopkinton.....	4,674	3,672
02835	Jamestown.....	2,567	2,068
02919	Johnston.....	19,547	12,725
02881	Kingston.....	4,454	2,156
02865	Lincoln.....	14,600	11,270
02840	Middletown.....	19,562	7,382
02882	Narragansett.....	5,043	2,838
02840	Newport.....	35,901	37,564
02840	Newport East.....	2,891	
02852	North Kingstown.....	23,015	14,810
02852	North Providence.....	21,206	13,927
02852	North Smithfield.....	8,716	6,726
02859	Pascoag.....	2,987	
*02860	Pawtucket.....	77,538	81,436
02871	Portsmouth.....	10,664	6,578
*02904	Providence.....	187,061	248,674
02871	Scituate.....	6,180	3,995
02871	Smithfield.....	12,031	6,690
02871	South Kingstown.....	14,405	10,148
02878	Tiverton.....	10,966	5,659
02879	Waketield-Peacedale.....	5,606	5,224
02879	Warren.....	8,249	8,513
02886	Warrick.....	77,637	43,028
02891	Westerly.....	10,050	8,415

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
RHODE ISLAND—Continued				SOUTH DAKOTA—Continued			
02893	Westerly (town)	15,711	12,380	57101	Stout Falls	65,466	52,696
02892	West Warwick	21,915	19,096	57262	Sisseton	3,218	2,871
02895	Wickford	3,074	2,437	57783	Spearfish	3,682	2,775
02895	Woonsocket	46,678	50,211	57785	Sturgis	4,839	3,471
SOUTH CAROLINA				57069	Vermillion	6,102	5,337
29620	Abbeville	5,436	5,395	57201	Watertown	14,077	12,699
29801	Alben	11,243	7,083	57580	Winner	3,705	3,252
29801	Alben South	2,980		57078	Yankton	9,279	7,709
29810	Allendale	2,602		TENNESSEE			
29621	Anderson	3,114	2,474	37701	Alcoa	6,395	6,355
29510	Andrews	41,316	19,770	37303	Athens	12,103	8,618
29303	Barnberg	2,995	2,702	37205	Belle Meade	3,082	2,831
29812	Barnwell	3,081	2,954	38314	Bemis	3,127	3,248
29006	Batesburg	4,565	2,005	38008	Bolivar	17,582	16,771
29922	Beaufort	3,806	3,169	38012	Bristol	5,424	4,711
29627	Belton	6,298	5,081	28320	Camden	2,774	2,029
29512	Bennettsville	5,106	3,371	*37401	Chattanooga	130,009	131,041
29010	Bishopville	6,963	5,140	37010	Clarksville (A) '67	35,657	16,246
29628	Calhoun Falls	3,586	3,076	37311	Cleveland	16,196	12,605
29020	Camden	2,355	2,396	37716	Clinton	4,943	3,712
29033	Cayce, '66	6,842	6,086	38401	Columbia	17,624	10,911
*29401	Charleston (A)	9,490	3,294	38501	Cooksville	7,805	6,924
29520	Cheraw	75,940	70,174	38019	Covington	5,298	4,379
29706	Chester	5,171	4,836	38555	Crossville	4,668	2,291
29325	Cilinton	6,906	6,893	37321	Dayton	3,500	3,191
29710	Clover	7,937	7,168	37055	Dickson	3,428	3,508
*29201	Columbia	3,500	3,276	37214	Donelson	17,195	17,665
29526	Conway	97,433	86,914	38021	Dyersburg	12,499	10,885
29532	Darlington	8,563	6,073	37801	Eagleton Village	5,068	
29042	Denmark	6,710	6,619	37112	East Ridge '67	20,260	9,645
29536	Dillon	3,213	2,814	37443	Elizabethton	10,896	10,751
29640	Dasley	6,173	5,171	37650	Erwin	3,210	3,387
29824	East Gaffney	8,283	4,289	37331	Etowah	3,223	3,261
29501	Edgefield	4,779	2,518	37334	Fayetteville	6,804	5,447
29206	Forest Acres (A) '67	2,876	2,518	37018	Fontana City	10,365	
29715	Fort Mill	27,208	22,513	37066	Franklin	6,677	5,475
29440	Gaffney (A)	5,594	3,240	37066	Gallatin	7,901	5,107
29055	Georgetown	3,315	3,204	37072	Goodlettsville	3,163	
*29602	Greenville	11,448	8,123	37743	Greeneville	11,759	8,721
29646	Greenwood (A)	12,261	6,004	37748	Harriman	5,931	6,389
29651	Greer	3,030	3,533	38310	Henderson	2,691	2,532
29550	Hartsville (A)	66,188	58,161	38343	Humboldt	8,182	7,326
29654	Honea Path	18,861	13,806	38301	Jackson	26,527	30,207
29556	Kingsree	8,967	5,050	37760	Jefferson City	4,550	3,633
29580	Lake City	8,762	5,658	37601	Johnson City	31,187	27,864
29720	Lancaster	3,453	2,840	37660	Kingsport	26,314	19,571
29720	Lancaster Mills	3,847	3,621	37901	Knoxville	111,827	124,709
29660	Liberty	6,059	5,112	37766	La Follette	6,204	5,797
29012	Manning	7,999	7,159	38464	Lawrenceburg	8,042	5,412
29571	Marion	3,274	8,658	37087	Lebanon	10,512	7,913
29464	Mount Pleasant	2,657	2,291	37771	Leicester City	4,979	5,159
29574	Mullins	3,917	2,775	37091	Lexington	6,338	5,164
29577	Myrtle Beach	7,174	6,834	38351	Lexington	3,943	3,566
29108	Newberry (A)	5,116	1,857	38570	Livingston	2,817	2,082
29811	North Augusta	4,229	4,916	37774	Loudon	3,812	3,567
29115	Orangeburg	7,834	3,315	37665	Lynn Gardens	5,261	
29730	Rock Hill	9,109	7,546	38201	McKenzie	3,780	3,774
29301	Saxon	10,348	3,659	37110	McKinnisville	9,013	7,577
29678	Seneca	13,852	15,322	37115	Madison	13,583	2,311
29646	Shantown	20,404	24,502	37355	Manchester, '66	4,750	4,082
*29301	Spartanburg	3,917	3,088	38237	Martin	10,318	7,742
29438	Summerville	5,227	3,649	37801	Maryville	5,365	3,900
29150	Sunter	7,064	5,828	38101	Memphis (A) '67	536,585	398,000
29379	Union	2,520	3,712	38358	Milan	5,288	1,968
29691	Walhalla	44,352	36,795	38053	Millington	6,059	4,696
29488	Walterboro	3,633	3,312	37814	Morristown	21,267	13,019
29692	Ware Shoals	23,062	20,185	38474	Mount Pleasant	2,921	2,931
29169	West Columbia	10,491	9,730	37202	Murfreesboro	18,991	13,652
29303	Whitmore	3,431	3,104	37821	Nashville	170,874	174,307
29697	Williamston	5,417	4,616	37040	New Providence	7,282	3,892
29553	Williston	2,671	3,032	37204	Oak Hill	4,451	1,825
29180	Winnabow	6,410	1,543	37830	Oak Ridge, '64	29,696	
29385	Woodruff	2,663	3,006	38212	Paris	9,325	8,826
29715	York	2,502	1,611	37211	Providence	3,840	
		3,721	2,782	38478	Pulaski	6,616	5,762
		2,729	896	37415	Red Bank-White Oak, '66	11,737	
		3,479	3,267	38063	Ripley	3,782	3,318
		3,679	3,831	37854	Rockwood	5,345	4,272
		4,181	4,181	37837	Rogersville	3,121	2,515
				38372	Savannah	4,415	1,698
				37862	Seymour	2,899	1,620
				37160	Shelbyville	10,466	9,156
				37377	Signal Mountain	3,113	1,766
				37167	Smyrna	3,612	1,514
				38068	South Fulton, '66	2,688	2,119
				37748	South Harriman	2,884	2,761
				37380	South Pittsburg	4,110	2,573
				38583	Sparta	4,510	4,299
				37172	Springfield	9,221	6,506
				37874	Sweetwater	4,145	4,199
				37419	Tiftona	3,526	
				38382	Trenton	4,225	3,868
				38372	Tullahoma, '65	13,657	7,562
				38261	Union City	8,337	7,665
				37185	Waverly	2,830	1,892
				37665	West View Park	7,222	
				38116	Whitehaven	13,894	1,311
				37398	Winchester	4,760	3,974
SOUTH DAKOTA							
57101	Aberdeen	23,073	21,051				
57717	Belle Fourche	4,087	3,540				
57006	Brookings	10,558	7,764				
57013	Canton	2,511	2,530				
57325	Chamberlain	2,598	1,912				
57732	Deadwood	3,045	3,288				
57532	Fort Pierre	2,649	951				
57747	Hot Springs	4,943	5,030				
57350	Huron	14,180	12,788				
57754	Lead	6,211	6,422				
57042	Madison	5,120	5,153				
57252	Milbank	3,500	2,982				
57301	Mitchell	12,555	12,553				
57601	Nobridge	4,391	3,753				
57501	Pierre	10,088	5,715				
57701	Rapid City	42,399	25,310				
57469	Redfield	2,952	2,655				

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
TENNESSEE—Continued				TEXAS—Continued			
37211	Woodbine-Radnor- Glenduff	14,485		78539	Edinburg	18,706	12,383
(Z)	Woodmont-Green Hills- Glendale	23,161		77957	Edna	5,038	3,855
TEXAS				77437	El Campo	7,700	6,237
*79604	Ablene	90,368	45,570	76360	Electra	4,759	4,970
78516	Alamo	4,121	3,017	78621	Elgin	3,511	3,168
78209	Alamo Heights	7,552	8,000	*79910	El Paso	276,687	130,485
78332	Alice	20,861	16,449	78543	Elsa	3,847	3,179
79830	Alpine	4,740	5,261	75119	Ennis	9,877	7,815
77511	Alvin	5,643	3,761	79838	Fabens	3,134	3,099
*79105	Amarillo	137,969	74,246	78355	Falfurrias	6,515	6,712
79714	Andrews	11,135	3,291	75231	Farmers Branch	13,441	915
77515	Angleton	2,312	3,399	79235	Floydada	3,769	3,210
79501	Anson	2,890	2,708	75703	Forest Hill	3,221	1,519
78336	Aransas Pass	6,956	5,396	79735	Fort Stockton	6,373	4,444
76010	Arlington	44,775	7,692	*76101	Fort Worth	356,268	278,778
75751	Athens	7,086	5,194	78624	Fredericksburg	4,629	3,854
75551	Atlanta	4,076	3,782	77511	Freeport	11,619	6,012
*78710	Austin	186,545	132,459	78357	Freer	2,724	2,280
76020	Azle	2,969		76340	Gainesville	13,083	11,246
75149	Baich Springs	6,821	5,302	77547	Galena Park	10,852	7,186
76821	Ballinger	5,043	3,176	77550	Galveston	67,175	66,568
75602	Bastrop	3,001	4,427	75040	Garland	38,501	10,571
77414	Bay City	11,656	9,427	76528	Gatesville	4,626	3,856
77520	Baytown	28,159	22,983	78626	Georgetown	5,218	4,951
*77704	Beaumont	119,175	94,014	78942	Giddings	2,821	2,532
76021	Bedford	2,706		77644	Gilmer	4,312	4,096
78102	Beeville	13,811	9,348	75647	Gladewater	5,742	5,305
77401	Bellaire	19,872	10,173	78629	Gonzales	5,829	5,659
76705	Bellmead	5,127		76046	Graham	8,505	6,742
76513	Belton	8,163	6,246	75050	Grand Prairie	31,386	14,584
76126	Benbrook	3,254	617	76051	Grapevine	2,821	1,524
76932	Big Lake	2,668		75401	Greenville	19,087	14,727
79720	Big Spring	31,230	17,286	77619	Groves	17,304	
78343	Bishop	3,722	2,731	77964	Hallettsville	2,808	2,000
75418	Bonham	7,357	7,049	76117	Haltom City	23,133	5,760
79047	Borger	20,911	18,059	76531	Hamilton	3,106	3,077
76230	Bowie	4,566	4,544	79520	Hamlin	3,791	3,569
76825	Brady	5,338	5,944	78550	Harlingen	41,207	23,229
76024	Breckenridge	6,273	6,610	79521	Haskell	4,016	3,836
77833	Brenham	7,740	6,941	78361	Henderson	5,072	4,722
77611	Bridge City	4,677	2,049	75652	Henderson	3,987	4,302
76026	Bridgeport	3,218	6,161	76365	Henrietta	3,062	2,813
79316	Brownfield	10,286	36,066	79045	Herrford	7,652	5,207
78520	Brownsville	48,040	20,182	75205	Highland Park	10,411	11,405
76801	Brownwood	16,974	20,182	77562	Highlands	4,336	2,723
77801	Bryan	27,542	18,101	76645	Hillsboro	7,402	8,363
76354	Burkburnett	7,621	4,555	77563	Hitchcock	5,216	
76520	Cameron	5,640	5,052	78861	Hondo	4,992	4,188
79015	Canyon	5,864	4,364	*77002	Houston	938,219	596,163
78834	Carrizo Springs	5,699	4,316	77346	Huntsville	11,999	9,820
75006	Carrollton	4,242	1,610	76053	Hurst	10,165	
75633	Carthage	5,262	4,750	78362	Inglefield	3,022	
78213	Castle Hills	2,622		76367	Iowa Park	3,295	2,110
75935	Center	4,510	4,323	75060	Irving	45,985	2,621
76201	Childress	6,399	7,619	77029	Jacinto City	9,547	6,856
76437	Cisco	4,499	5,230	76056	Jacksboro	3,816	2,951
75426	Clarksville	3,851	4,353	75766	Jacksonville	9,590	8,607
76031	Cleburne	15,381	12,905	75951	Jasper	4,889	4,403
77327	Cleveland	5,838	5,183	75657	Jefferson	3,082	3,164
77531	Clute City	4,501		78116	Karnes City	2,683	2,585
75211	Cockrell Hill	3,104	2,207	75142	Kaufman	3,087	2,714
76834	Coleman	6,371	6,530	78119	Kenedy	4,301	4,234
77840	College Station	11,396	7,925	79745	Kermit	10,465	6,912
79512	Colorado City	6,457	6,774	78028	Kerrville	8,901	7,691
78934	Columbia	3,656	2,875	75662	Kilgore	10,092	9,638
76442	Comanche	3,415	3,840	76514	Killeen	23,377	7,045
75428	Commerces	5,789	5,889	78363	Kingsville	25,297	16,898
77301	Conroe	9,192	7,298	75145	Kleburg	3,572	
76522	Copperas Cove	4,567	1,052	78539	La Feria	3,047	2,952
*78403	Corpus Christi	167,690	108,287	78945	La Grange	3,623	2,733
75110	Corpus	20,344	19,211	77566	Lake Jackson	9,651	2,897
78014	Cottulla	3,960	4,418	76135	Lake Worth Village	3,849	3,091
79731	Crane	3,796	2,154	77568	La Marque	3,833	2,351
75835	Crockett	5,356	5,932	79331	Lamesa	13,969	
78539	Crystal City	9,101	7,198	76550	Lampasas	12,438	10,704
77954	Cuero	7,338	7,498	75116	Lancaster	5,061	4,869
75638	Dainingerfield	3,133	1,668	77571	La Porte	7,501	2,632
79022	Dalhart	5,160	5,918	78040	Laredo	4,512	4,429
*75221	Dallas	679,684	434,462	77573	League City	60,678	51,910
75735	Dayton	3,367	1,820	79336	Levelland	2,622	1,341
76234	Decatur	3,563	2,922	75067	Lewisville	10,153	8,264
77536	Deer Park	4,865	736	77575	Liberty	3,965	3,616
78840	Del Rio	18,612	14,211	79339	Littlefield	6,127	4,163
75020	Denison	22,748	17,504	77351	Livingston	7,236	6,540
76201	Denton	26,844	21,372	78643	Llano	3,398	2,865
79323	Denver City	4,302	1,555	78644	Lockhart	2,656	2,954
78016	Devine	4,522	6,782	75601	Longview	6,084	5,573
75941	Diboll	2,506	2,391	*79408	Lubbock	40,050	24,502
77539	Dickinson	4,715	2,704	75901	Lufkin	128,691	71,747
79027	Dimmitt	2,935	1,461	78648	Luling	17,641	15,135
78537	Donna	7,522	7,171	78501	McAllen	4,412	4,297
77018	Donnybrook Place	2,537		79757	McCamy	35,411	20,067
79029	Dumas	4,877	6,127	78657	McGregor	3,375	3,429
75116	Duncanville	3,774	841	75069	McKinney	4,642	2,661
77434	Eagle Lake	3,565	2,787	79843	Marfa	13,763	10,560
78552	Eagle Pass	12,094	7,276	76661	Marlin	2,799	3,803
76448	Eastland	3,292	3,626	75670	Marshall	6,918	7,099
78538	Edcouch	2,814	2,925	78368	Mathis	23,846	22,327
				79245	Memphis	6,075	4,050
				78570	Mercedes	3,332	3,810
				75149	Mesquite	10,943	10,081
						27,526	1,696

(Z) Woodmont-Green Hills 37215; Glendale 37204.

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
VIRGINIA				WASHINGTON—Continued			
24210	Abingdon.....	4,758	4,709	98902	Firecrest.....	3,565	1,459
*24213	Alexandria.....	91,023	61,787	98902	Fruitvale.....	3,345	3,345
24247	Altavista.....	3,229	3,332	98620	Goldendale.....	2,536	1,907
*22210	Arlington Co. (uninc.).....	163,401	135,449	98930	Grandview.....	3,366	2,503
23005	Ashland.....	2,773	2,610	98550	Hoguliam.....	10,762	11,123
24055	Bassetts.....	3,148	3,421	98626	Kelso.....	8,379	7,345
24523	Bedford.....	5,921	4,061	99336	Kennewick.....	14,244	10,106
24219	Big Stone Gap.....	4,688	5,173	98031	Kent.....	9,017	3,278
24060	Blacksburg.....	7,070	3,358	98033	Kirkland.....	6,025	4,713
23824	Blackstone.....	3,659	3,536	98501	Lacey.....	6,630	.....
24605	Bluefield.....	4,235	4,212	98632	Longview.....	23,349	20,339
24201	Bristol.....	17,144	15,954	98264	Lynden.....	2,542	2,161
24416	Buena Vista.....	6,300	5,214	98036	Lynnwood.....	7,207	.....
22901	Charlottesville.....	20,427	25,969	98270	Marysville.....	3,117	2,259
23924	Chase City.....	3,207	2,519	99022	Medical Lake.....	4,765	4,488
*23320	Chesapeake (A).....	73,647	.....	98337	Moses Lake.....	11,299	2,679
24073	Christiansburg.....	3,653	2,967	98043	Mountlake Terrace.....	9,122	.....
24422	Clifton Forge.....	5,268	5,795	98273	Mount Vernon.....	7,921	5,230
24078	Collinsville.....	3,586	.....	98310	Navy Yard City.....	3,341	3,030
23834	Colonial Heights.....	9,587	6,077	98148	Normandy Park.....	3,224	.....
24426	Covington.....	11,062	5,860	98277	Oak Harbor (A) '67.....	4,812	1,193
24541	Danville.....	46,577	35,006	98501	Olympia.....	18,273	15,819
23847	Emporia.....	5,535	5,664	98341	Onak.....	4,068	3,791
23863	Etrick.....	2,948	3,030	99214	Opportunity.....	12,465	.....
22030	Fairfax.....	13,585	1,946	99344	Othello.....	2,669	526
*22046	Falls Church.....	10,192	7,535	99301	Pasco.....	14,522	10,228
23901	Farmville.....	4,293	4,375	99301	Pasco West.....	2,894	.....
23851	Franklin.....	7,264	4,670	98201	Pinehurst.....	3,989	.....
22401	Fredericksburg.....	13,639	12,158	98362	Port Angeles.....	12,653	11,233
22630	Front Royal.....	7,949	8,115	98366	Port Orchard.....	2,778	2,320
24333	Galax.....	5,254	5,248	98368	Port Townsend.....	5,074	6,888
*23869	Hampton.....	89,258	5,966	99350	Frosser.....	2,763	2,636
*23869	Harrisonburg (A).....	12,842	10,810	99163	Pullman.....	12,937	12,022
23860	Hopewell.....	17,895	10,219	98371	Puyallup.....	12,063	10,010
22075	Leesburg.....	2,869	1,703	98848	Quincy.....	3,269	800
24450	Lexington.....	7,537	5,976	98577	Raymond.....	3,301	4,114
22835	Luray.....	3,014	2,731	98055	Renton.....	18,453	16,039
*24504	Lynchburg.....	54,790	47,727	99352	Richland.....	23,548	.....
22110	Manassas.....	3,555	1,804	98310	Rocky Point-Marine Drive.....	2,733	467,591
22110	Manassas Park.....	5,342	6,982	*98101	Seattle.....	557,087	2,229
24354	Marton.....	8,385	17,251	98284	Sedro-Woolley.....	3,705	3,299
24112	Martinsville.....	18,798	2,520	98942	Sela.....	2,824	2,229
24124	Narrows.....	2,508	42,358	98584	Shelton.....	5,651	5,045
*23607	Newport News.....	113,662	213,513	98270	Shoules.....	3,159	1,973
*23501	Norfolk.....	304,869	1,593	98290	Snohomish.....	3,894	3,094
.....	N. Virginia Beach.....	2,587	4,315	98902	South Broadway.....	3,661	3,229
24273	Norton.....	5,013	2,571	*99210	Spokane.....	181,608	161,721
22960	Orange.....	2,955	35,051	98390	Sumner.....	3,156	2,816
23803	Petersburg.....	36,750	2,636	98944	Sunnyside.....	6,208	4,194
23434	Pleasant Hills.....	2,636	4,278	*98402	Tacoma.....	147,979	143,673
23362	Poquoson.....	144,773	80,039	98948	Tappanish.....	5,667	5,265
23705	Portsmouth.....	10,469	9,202	98501	Tumwater.....	3,885	3,885
23705	Pulaski.....	10,783	9,026	98660	Vancouver.....	32,464	41,664
24141	Radford.....	9,371	4,648	99362	Walla Walla.....	24,536	24,102
24641	Richlands.....	4,963	230,310	98951	Wapato.....	3,137	3,185
*23219	Richmond.....	219,958	91,921	98671	Washougal.....	2,672	1,577
*24001	Roanoke.....	97,110	6,823	98801	Wenatchee.....	16,726	13,072
24153	Salem.....	16,058	2,678	99403	West Clarkston-Highland.....	2,851	1,920
24370	Saltville.....	2,844	6,057	98801	West Wenatchee.....	2,518	2,690
.....	Seatack.....	3,120	2,153	98901	Yakima.....	43,284	38,456
24592	South Boston.....	5,974	.....	WEST VIRGINIA			
23970	South Hill.....	2,569	1,347	25801	Berkley.....	18,642	19,397
22150	Springfield.....	10,783	2,029	25015	Belle.....	2,559	.....
24401	Staunton.....	22,232	3,629	26031	Benwood.....	2,850	3,485
23434	Suffolk.....	12,609	5,309	24701	Bluefield.....	19,256	21,506
24651	Tazewell.....	3,000	1,797	26330	Bridgeport.....	4,199	2,414
22172	Triangle.....	2,948	12,357	26201	Buckhannon.....	6,386	6,016
22180	Vienna.....	11,440	7,335	*25301	Charleston.....	85,796	73,501
24179	Vinton.....	3,432	6,835	25414	Charles Town.....	3,329	3,035
*23458	Virginia Beach (A).....	85,218	1,574	25315	Chesapeake.....	2,699	2,566
22186	Warrenton.....	3,522	5,513	26334	Chester.....	3,787	3,787
22980	Waynesboro.....	16,632	.....	26301	Clarksburg.....	28,112	32,014
22980	Williamsburg.....	5,632	.....	25064	Dunbar.....	11,006	8,032
22601	Winchester.....	15,110	.....	26241	Elkins.....	8,307	9,121
24293	Wise.....	2,614	.....	26554	Fairmont.....	27,477	29,346
24382	Wytheville.....	5,634	.....	26037	Follansbee.....	4,052	4,435
WASHINGTON				26354	Crafton.....	5,791	7,365
98520	Aberdeen.....	18,741	19,653	25951	Hinton.....	5,197	5,780
98221	Anacortes.....	8,414	6,919	*25701	Huntington.....	83,627	86,353
98002	Auburn.....	11,933	6,497	25530	Kenova.....	4,577	4,320
98004	Bellevue.....	12,809	34,112	26726	Keyser (A).....	7,041	6,347
98225	Bellingham.....	34,688	27,678	25637	Kingwood.....	2,530	2,186
98310	Bremerton.....	28,922	2,705	25601	Logan.....	4,185	5,079
98321	Buckley.....	2,968	4,725	26040	McMechen.....	2,599	3,518
98233	Burlington.....	2,968	8,657	26582	Mannington.....	2,996	3,241
98607	Camas.....	5,666	5,639	25315	Marmet.....	2,500	2,515
98331	Centralla.....	8,586	2,797	25401	Martinsburg.....	15,179	15,621
98532	Chehalis.....	5,199	5,617	25136	Montgomery.....	3,000	3,484
99004	Cheney.....	3,173	3,057	26505	Morgantown.....	22,487	25,525
99403	Clarkston.....	6,209	3,174	26041	Moundsville.....	15,163	14,772
99111	Colfax.....	2,860	3,033	25637	Mt. Gay.....	3,366	.....
99324	College Place.....	4,031	2,970	26155	New Martinsville.....	5,607	4,084
99114	Colville.....	3,806	8,430	25143	Nitro.....	6,894	3,314
98323	Dayton.....	2,913	.....	25901	Oak Hill.....	4,711	4,518
98020	Edmonds.....	8,016	.....	26159	Paden City.....	3,137	2,588
98926	Ellensburg.....	8,625	.....	26101	Parkersburg.....	44,797	29,684
98310	Ennetal.....	2,539	.....	25551	Point Pleasant.....	5,785	4,596
*98022	Enumclaw.....	3,269	.....	24740	Princeton.....	8,393	8,279
98823	Ephrata.....	6,548	.....				
98201	Everett.....	40,304	33,849				
98901	Fairview.....	2,755	3,309				

634 U. S. Population—Places of 2,500 with Zip Codes; Birth Certificate

ZIP Code	Place	1960	1950	ZIP Code	Place	1960	1950
WEST VIRGINIA—Continued				WISCONSIN—Continued			
26164	Ravenswood	3,410	1,175	54751	Menomonie	8,624	8,245
26261	Richwood	4,110	5,321	53092	Mequon	8,543	8,543
25271	Ripley	2,756	1,813	54452	Merrill	9,451	8,951
25177	Saint Albans	15,163	9,870	53552	Middleton	4,410	2,110
26431	Shinnston	2,724	2,793	53202	Milwaukee	741,324	637,392
25303	S. Charleston	19,180	16,686	53716	Monona	8,178	2,544
25276	Spencer	2,660	2,587	53566	Monroe	8,050	7,037
25926	Sprague	3,073	2,626	53150	Muskego, 64	10,947	12,437
26101	Vienna	9,381	6,020	54956	Neenah	18,057	2,663
24892	War	3,006	3,992	54456	Neillsville	2,728	2,352
26062	Weirton	28,201	24,005	51457	Nekoosa	15,788	4,922
24801	Welch	5,313	6,603	53151	New Berlin	5,288	2,886
26070	Wellsburg	5,514	5,787	54961	New London	3,316	2,291
26452	Weston	8,754	8,945	54017	New Richmond	2,549	2,866
26505	Westover	4,749	4,318	54935	North Fond du Lac	11,548	5,345
26003	Wheeling	53,400	58,891	53151	Oak Creek, 65	6,882	5,055
24986	White Sulphur Springs	2,676	2,643	53004	Oconomowoc	45,110	2,561
25661	Williamson	6,746	8,624	54153	Oconomowoc	2,919	3,315
26187	Williamstown	2,632	2,001	54650	Onalaska	4,475	2,779
WISCONSIN				54901	Oshkosh	5,128	4,543
54201	Algoma	3,855	3,384	54552	Park Falls	7,822	7,334
54409	Anigo	9,691	9,902	53511	Perrygo Place	5,984	4,755
54911	Appleton	48,441	34,010	54157	Peshigo	6,649	5,392
54806	Ashland	10,132	10,446	53818	Platteville	89,144	71,193
53913	Baraboo	7,660	7,264	53073	Plymouth	4,371	4,072
.....	Bayside	3,181	.....	53901	Portage	8,700	8,774
53916	Beaver Dam	13,118	11,867	53074	Port Washington	7,303	6,898
53511	Beloit, 62	35,199	29,590	53821	Prairie du Chien	4,105	2,677
54923	Berlin	4,838	4,693	53950	Reedsburg	6,080	5,893
54615	Black River Falls	3,195	2,824	54501	Rhinclander	17,837	16,564
54724	Bloomer	2,834	2,556	54868	Rice Lake	5,555	4,833
53805	Boscobel	2,608	2,347	53581	Richland Center	7,353	7,054
53005	Brookfield	19,812	.....	54971	Ripon	4,008	2,263
53209	Brown Deer	11,280	.....	54022	River Falls	33,563	35,325
53105	Burlington	5,810	4,780	54474	Rothschild	2,507	897
53012	Cedarburg	5,191	2,810	53207	St. Francis	3,448	3,534
53014	Chilton	2,578	2,367	54476	Schofield	10,065	1,452
54729	Chippewa Falls	11,708	11,088	54169	Shawano	3,038	1,948
54929	Clintonville	4,778	4,657	53081	Sheboygan	6,103	5,894
53925	Columbus	3,467	3,250	53085	Sheboygan Falls	46,747	42,365
53110	Cudahy	17,975	12,182	53211	Shorewood	4,061	3,599
53115	Delavan	4,846	4,007	53172	South Milwaukee	12,990	16,199
54115	De Pere	10,045	8,146	54401	S.W. Wausau	20,307	12,855
53533	Dodgeville	2,911	2,532	54656	Sparta	4,105	2,677
54701	Eau Claire	37,987	36,058	54481	Stevens Point	6,080	5,893
53534	Edgerton	4,000	3,507	53589	Stoughton	17,837	16,564
53121	Elkhorn	3,586	2,935	54235	Sturgeon Bay	5,555	4,833
53122	Elm Grove	4,904	.....	53592	Sun Prairie	7,353	7,054
53536	Evansville	2,858	2,531	53880	Superior City	4,008	2,263
54935	Fond du Lac, 66	34,180	29,936	53992	Tienville	33,563	35,325
53538	Fort Atkinson	7,908	6,280	54660	Tomah	2,507	897
.....	Fox Point	7,315	2,585	54487	Tomahawk	3,448	3,534
53132	Franklin	10,006	.....	54241	Two Rivers	12,393	10,243
.....	Glendale, 61	10,432	.....	54665	Viroqua	3,826	3,795
53024	Grafton	3,748	1,489	53091	Watertown	13,943	12,417
53430	Green Bay	62,888	52,735	53186	Waukesha, 66	36,330	21,233
53129	Greendale	6,843	2,752	54981	Waupaca	3,984	3,921
53220	Greenfield	17,636	.....	53963	Waupun	7,935	6,725
53140	Hales Corners	5,549	.....	54401	Wausau	31,943	30,414
53027	Hartford	5,627	4,549	53213	West Allis	56,923	33,324
53032	Horicon	2,996	2,664	53214	West Allis	68,157	42,959
.....	Howard	3,485	.....	53095	West Bend	5,043	5,429
54016	Hudson	4,325	3,435	.....	West Milwaukee	9,869	6,849
54534	Hurley	2,763	3,034	53217	Whitefish Bay	18,390	14,665
53545	Janesville	35,164	24,899	53190	Whitewater, 65	10,353	5,101
53549	Jefferson	4,548	3,625	54494	Wisconsin Rapids	15,042	13,496
53130	Kaukauna	10,096	8,337	WYOMING			
53140	Kenosha	10,096	8,337	82834	Buffalo	2,907	2,674
54216	Kewaunee	5,368	5,436	82601	Casper	38,930	23,673
53042	Kiel	2,772	2,129	82001	Cheyenne	43,505	31,935
54136	Kimberly	5,322	3,179	82414	Cody	4,338	3,872
54601	La Crosse	47,575	47,535	82652	Douglas	2,822	2,544
54848	Ladysmith	3,584	3,924	82930	Evanston	4,901	3,863
53147	Lake Geneva	4,929	4,300	82716	Gillette	3,580	2,191
53551	Lake Mills	2,951	2,516	82935	Green River	3,497	3,187
53813	Lancaster	3,703	3,266	82520	Lander	4,182	3,349
54140	Little Chute	5,099	4,132	82070	Laramie	17,520	15,581
53703	Madison, 64	157,844	96,056	82701	Newcastle	4,345	3,395
54220	Nantitowoc, 66	33,215	27,598	82435	Powell	4,740	3,504
54143	Narrette	13,329	14,178	82301	Rawlins	8,968	7,415
54449	Nashville	14,153	12,394	82501	Riverton	6,845	4,142
53948	Mauston	3,531	3,171	82901	Shoreland	10,371	10,857
53050	Mayville	3,607	3,010	82143	Thermopolis	11,651	11,500
54451	Medford	3,260	2,799	82240	Torrington	3,955	2,870
54952	Menasha	14,647	12,385	82401	Worldand	4,188	3,247
53051	Menomonee Falls	18,276	2,469			5,806	4,202

Do You Need A Birth Certificate?

Although a birth certificate is of great value in situations requiring documentation of date and place of birth, such as qualifying for Social Security or Medicare benefits, in obtaining a passport or in qualifying for certain jobs, many Americans do not possess such a certificate and may not be able to obtain one because the birth was not recorded or because records are not available.

In most instances a transcript from early census records is acceptable as a substitute for a birth certificate. The Bureau of the Census maintains a special office and a staff of trained researchers especially to provide this service.

to cover the cost.

You may obtain an application form at your local Social Security Office or from the Personal Census Service Branch, Bureau of the Census, Pittsburg, Kan. 66762. Your application form should be accompanied by a check or money order in the amount of \$4 for a regular search, or \$5 for an expedited search.

Transcripts from a regular search of census records usually are available within 4 to 6 weeks; from an expedited search in about 2 weeks.

Applications should be made by the person him-

Population and Area of Counties, Census of 1960

WITH NAMES OF COUNTY SEATS OR COURT HOUSES, LAND AREA IN SQUARE MILES

Source: Bureau of the Census

There are 3,071 counties and parishes in the United States and 59 county equivalents making a total of 3,130. The county equivalents include 34 independent cities in Virginia, 1 in Maryland and 1 in Missouri; the District of Columbia; and the parts of Yellowstone National Park in each of 3 states—Idaho, Montana and Wyoming. Also included are 13 election districts in Alaska. It should be noted, however, that the 1950 and 1960 censuses list 24 election districts in Alaska; the number was reduced as of Dec. 7, 1961. Land areas revised in 1967.

Where special censuses were taken after April 1, 1960, the year taken appears after the name of the county. The population total for the state does not reflect the change except in Rhode Island.

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
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ALABAMA

(67 counties, 50,851 sq. mi. land, pop., 3,299,740)

Autauga.....	599	Prattville.....	18,739
Barrow.....	1,578	Bay Minette.....	49,088
Barbour.....	899	Clayton.....	24,700
Bibb.....	625	Centreville.....	14,357
Blount.....	640	Oneonta.....	25,449
Bullock.....	615	Union Springs.....	13,462
Burr.....	773	Crenshaw.....	24,560
Calhoun.....	611	Aniston.....	95,878
Chambers.....	599	Lafayette.....	37,828
Cherokee.....	600	Centre.....	16,303
Chilton.....	699	Clanton.....	25,693
Choctaw.....	918	Butler.....	17,870
Clarke.....	1,238	Grove Hill.....	25,738
Clay.....	603	Ashland.....	12,400
Cleburne.....	574	Hedlin.....	10,911
Coffee.....	574	Etta.....	30,583
Colbert.....	596	Tusculum.....	46,906
Concuch.....	850	Evergreen.....	17,762
Coosa.....	650	Rockford.....	10,726
Covington.....	984	Andalusia.....	35,631
Crenshaw.....	611	Luverne.....	14,909
Cullman.....	743	Cullman.....	45,572
Dale.....	559	Ozark.....	31,066
Dallas.....	976	Selma.....	56,667
De Kalb.....	778	Fort Payne.....	41,417
Elmore.....	643	Wetumpka.....	30,524
Escambia.....	662	Brewton.....	33,511
Etowah.....	555	Gadsden.....	96,980
Fayette.....	627	Fayette.....	16,148
Franklin.....	644	Russellville.....	21,988
Geneva.....	577	Geneva.....	22,310
Greene.....	640	Eutaw.....	13,600
Hale.....	662	Greensboro.....	19,537
Henry.....	565	Abbeville.....	15,286
Houston.....	577	Dothan.....	50,718
Jackson.....	1,079	Scottsboro.....	36,681
Jefferson.....	1,116	Birmingham.....	634,864
Lamar.....	605	Vernon.....	14,271
Lauderdale.....	662	Florence.....	61,622
Lawrence.....	685	Moulton.....	24,501
Lee.....	612	Opelika.....	49,754
Limestone.....	515	Athens.....	36,513
Lowndes.....	715	Hayneville.....	15,417
Macon.....	616	Tuskegee.....	26,717
Madison.....	803	Huntsville.....	173,245
Marengo.....	978	Anders.....	27,098
Marion.....	743	Hamilton.....	21,837
Marshall.....	571	Guntersville.....	48,018
Mobile.....	1,240	Mobile.....	314,301
Monroe.....	1,032	Monroeville.....	22,372
Montgomery.....	790	Montgomery.....	169,210
Morgan.....	075	Decatur.....	60,454
Perry.....	734	Marion.....	17,358
Pickens.....	887	Carrollton.....	21,852
Pike.....	673	Pray.....	25,987
Randolph.....	581	Wedowee.....	19,177
Russell.....	639	Phenix City.....	46,351
St. Clair.....	640	Ashville & Pell City.....	25,388
Shelby.....	798	Columbiana.....	32,132
Sumter.....	915	Livingston.....	20,041
Talladega.....	750	Talladega.....	65,495
Tallapoosa.....	705	Dadeville.....	35,007
Tuscaloosa.....	1,338	Tuscaloosa.....	109,047
Walker.....	808	Jasper.....	54,211
Washington.....	1,066	Chattom.....	15,372
Wilcox.....	899	Camden.....	18,739
Winston.....	633	Dothan Springs.....	14,858

ALASKA

24 Election Districts. (See top of page.)
(566,432 sq. mi. land; pop. 1960, 226,167)

District	Land Area Sq. Mi.	Pop. 1960
Aleutian Islands.....	14,583	6,011
Anchorage.....	2,225	82,833
Barrow.....	57,544	2,133
Bethel.....	19,642	5,537
Bristol Bay.....	36,196	1,022
Cordova-McCarthy.....	15,540	1,759
Fairbanks.....	28,253	43,412
Juneau.....	3,515	9,745
Kenai-Cook Inlet.....	11,808	6,095
Ketchikan.....	5,269	10,070
Kobuk.....	42,978	3,560
Kodiak.....	7,467	7,174
Kuskokwim.....	56,976	2,301
Lynn Canal-Icy Suits.....	10,158	2,945
Nome.....	24,968	6,091

District	Land Area Sq. Mi.	Pop. 1960
Palmer-Wasilla-Talkeetna.....	23,545	5,188
Prince of Wales.....	3,485	1,772
Seward.....	3,193	2,956
Sitka.....	3,196	6,690
Upper Yukon.....	84,138	1,619
Valdez-Chitina-Whittier.....	19,421	2,844
Wade Hampton.....	16,770	3,128
Wrangell-Petersburg.....	6,249	4,181
Yukon-Koyukuk.....	71,313	4,097

Court Houses. Anchorage, Fairbanks, Juneau and Nome.

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
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ARIZONA

(14 counties, 113,663 sq. mi. land; pop., 1,302,161)

Apache.....	11,171	Saint Johns.....	30,438
Cochise, '66.....	6,256	Bisbee.....	56,410
Cochonino.....	18,562	Flagstaff.....	41,857
Gila.....	4,748	Globe.....	25,745
Graham.....	4,618	Safford.....	14,045
Greenlee.....	1,879	Clifton.....	11,509
Maricopa.....	9,238	Phoenix.....	663,510
Mohave.....	13,227	Kingman.....	7,736
Navajo.....	9,910	Holbrook.....	37,994
Pima.....	9,240	Tucson.....	265,660
Pinal, '65.....	5,586	Florence.....	62,805
Santa Cruz.....	1,246	Nogales.....	10,808
Yavapai.....	8,091	Prescott.....	29,912
Yuma, '65.....	9,991	Yuma.....	55,833

ARKANSAS

(75 counties, 52,175 sq. mi. land; pop., 1,786,279)

Arkansas.....	1,015	De Witt & Stuttgart.....	23,355
Ashley.....	928	Hamburg.....	24,220
Baxter.....	537	Mountain Home.....	9,913
Benton.....	886	Bentonville.....	36,272
Boone.....	593	Harrison.....	16,116
Bradley.....	651	Warren.....	14,029
Calhoun.....	629	Hampton.....	5,991
Carroll.....	634	Berryville and Eureka Spgs.....	11,284
Chicot.....	642	Lake Village.....	18,990
Clark.....	878	Arkadelphia.....	20,950
Clay.....	639	Corning & Pigott.....	21,258
Cleburne.....	554	Heber Springs.....	9,059
Cleveland.....	601	Rison.....	6,944
Columbia.....	768	Magnolia.....	26,400
Conway.....	561	Morrilton.....	15,430
Craighead.....	716	Jonesboro and Lake City.....	47,303
Crawford.....	596	Van Buren.....	21,318
Crittenden.....	608	Marion.....	47,564
Cross.....	625	Wynne.....	19,551
Dallas.....	672	Fordyce.....	10,522
Desha.....	736	Arkansas City.....	20,770
Drew.....	832	Monticello.....	15,213
Faulkner.....	641	Conway.....	24,303
Franklin.....	613	Charleston and Ozark.....	10,213
Fulton.....	608	Salem.....	6,657
Garland.....	658	Hot Spgs. Nat'l Park.....	46,697
Grady.....	631	Sherrill.....	8,294
Greene.....	579	Paragould.....	25,198
Hempstead.....	736	Hope.....	19,661
Hot Spring.....	621	Malvern.....	21,893
Howard.....	600	Nashville.....	10,878
Independence.....	752	Batesville.....	20,048
Izard.....	574	Lebanon.....	6,766
Jackson.....	629	Newport.....	22,843
Jefferson.....	873	Pine Bluff.....	81,373
Johnson.....	673	Clarksville.....	12,421
Lafayette.....	523	Lewisville.....	11,030
Lawrence.....	590	Powhatan & Walnut Ridge.....	17,267
Lee.....	608	Marianna.....	21,001
Lincoln.....	563	Star City.....	14,447
Little River.....	541	Ashdown.....	9,211
Logan.....	718	Booneville & Paris.....	15,957
Lonoke.....	796	Lonoke.....	24,551
Madison.....	832	Yellville.....	9,068
Madison.....	1,024	Yellville.....	6,041
Miller.....	623	Texarkana.....	31,686
Mississippi.....	904	Blytheville and Osceola.....	70,174
Monroe.....	607	Clarendon.....	17,327
Montgomery.....	775	Mount Ida.....	5,370
Nevada.....	616	Prescott.....	10,700
Newton.....	822	Jasper.....	5,963
Ouachita.....	736	Camden.....	31,641
Perry.....	551	Perryville.....	4,927
Phillips.....	686	Helena.....	43,997

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
ARKANSAS—Continued				COLORADO—Continued			
Pike.....	600	Murfreesboro.....	7,864	Delta.....	1,154	Delta.....	15,602
Poinsett.....	760	Harrisburg.....	30,834	Denver.....	68	Denver.....	493,887
Polk.....	860	Mena.....	11,981	Dolores.....	1,026	Dove Creek.....	2,196
Pope.....	812	Russellville.....	21,177	Douglas.....	843	Castle Rock.....	4,816
Prairie.....	661	Des Arls and De Valls Bluff.....	10,515	Eagle.....	1,682	Eagle.....	4,677
Pulaski.....	765	Little Rock.....	242,980	Elbert.....	1,864	Kiowa.....	3,708
Randolph.....	647	Pocahontas.....	12,520	El Paso.....	2,157	Colorado Springs.....	143,742
St. Francis.....	635	Forrest City.....	33,303	Fremont.....	1,567	Anon City.....	20,196
Saline.....	724	Benton.....	28,956	Garfield.....	2,997	Glenwood Spgs.....	12,017
Scott.....	898	Waldron.....	7,297	Gilpin.....	148	Central City.....	3,685
Searcy.....	664	Marshall.....	8,124	Grand.....	1,851	Fort Sulphur Spgs.....	3,587
Sebastian.....	527	Fort Smith and Greenwood.....	66,685	Gunnison.....	3,236	Gunnison.....	5,477
Sevier.....	585	De Queen.....	10,156	Hinsdale.....	1,054	Lake City.....	208
Sharp.....	598	Evening Shade & Hardy.....	6,319	Huerfano.....	1,574	Walsenburg.....	7,867
Stone.....	608	Mountain View.....	6,291	Jackson.....	1,622	Walden.....	1,758
Union.....	1,050	El Dorado.....	49,518	Jefferson.....	785	Golden.....	127,520
Van Buren.....	699	Clinton.....	7,228	Kiowa.....	1,767	Eads.....	2,425
Washington.....	962	Fayetteville.....	55,797	Lake.....	2,171	Burlington.....	6,957
White.....	1,041	Searcy.....	32,745	Lamar.....	379	Leadville.....	7,101
Woodruff.....	591	Aukusta.....	13,954	Las Animas.....	2,611	Fort Collins.....	19,225
Yell.....	929	Danville and Dardanelle.....	11,940	Lincoln.....	4,794	Trinidad.....	53,343

CALIFORNIA

(53 counties, 166,587 sq. mi. land; pop. 15,717,274)

Alameda.....	733	Oakland.....	908,209
Alpine.....	23	Markieville.....	397
Amador.....	593	Jackson.....	9,909
Butte.....	1,668	Oroville.....	82,030
Calaveras.....	1,032	San Andreas.....	10,209
Colusa.....	1,152	Colusa.....	12,075
Contra Costa.....	733	Martinez.....	409,030
Del Norte.....	1,007	Crescent City.....	17,771
El Dorado '65.....	1,726	Placerville.....	43,805
Fresno.....	5,985	Fresno.....	365,915
Glenn.....	1,319	Willows.....	17,245
Humboldt.....	3,586	Eureka.....	104,892
Imperial.....	24	El Centro.....	78,019
Inyo.....	10,130	Independence.....	11,643
Kern.....	8,152	Bakersfield.....	201,981
Kings.....	1,396	Hanford.....	40,951
Lake.....	1,261	Lakeport.....	13,780
Lassen, '65.....	4,561	Susana Valley.....	17,053
Los Angeles.....	4,069	Los Angeles.....	6,038,771
Madera.....	2,145	Madera.....	40,468
Marin.....	520	San Rafael.....	146,820
Mariposa.....	1,155	Mariposa.....	5,064
Mendocino.....	3,511	Ukiah.....	51,059
Merced.....	4,097	Alturas.....	5,300
Modoc.....	3,027	Bridgeport.....	2,213
Mono.....	3,324	Salinas.....	224,316
Napa.....	787	Napa.....	65,800
Nevada.....	975	Nevada City.....	20,911
Orange.....	782	Santa Ana.....	703,925
Placer.....	1,132	Auburn.....	56,968
Plumas.....	2,569	Quincy.....	11,620
Riverside.....	7,176	Riverside.....	306,191
Sacramento.....	975	Sacramento.....	502,178
San Benito.....	2,130	Merced.....	15,306
San Bernardino.....	20,119	San Bernardino.....	503,396
San Diego.....	4,262	San Diego.....	1,033,011
San Francisco.....	45	San Francisco.....	740,316
San Joaquin.....	1,415	Stockton.....	249,989
San Luis Obispo.....	3,184	San Luis Obispo.....	81,044
San Mateo.....	447	Redwood City.....	444,387
Santa Barbara.....	2,738	Santa Barbara.....	168,062
Santa Clara.....	1,300	San Jose.....	612,315
Santa Cruz.....	140	Santa Cruz.....	84,219
Shasta.....	3,791	Chico.....	59,468
Sierra.....	2,263	Downville.....	2,247
Siskiyou.....	6,264	Yreka.....	32,885
Solano.....	826	Fairfield.....	131,597
Sonoma, '65.....	1,604	Santa Rosa.....	176,398
Stanislaus.....	1,511	Modesto.....	137,294
Sutter.....	603	Yuba City.....	33,380
Tehama.....	2,981	Red Bluff.....	25,305
Trinity.....	3,192	Weaverville.....	9,706
Tulare.....	4,841	Visalia.....	168,403
Tuolumne.....	2,279	Sonoma.....	14,401
Ventura.....	1,863	Ventura.....	195,118
Yolo.....	1,028	Woodland.....	65,727
Yuba.....	640	Marysville.....	33,859

COLORADO

(63 counties, 103,787 sq. mi. land; pop., 1,765,947)

Adams.....	1,245	Brighton.....	121,214
Alamosa.....	719	Alamosa.....	10,000
Arapahoe.....	815	Littleton.....	113,426
Archuleta.....	1,863	Ventura Springs.....	2,629
Baca.....	2,563	Springfield.....	6,319
Bent.....	1,519	Las Animas.....	7,419
Boulder.....	748	Boulder.....	74,254
Chaffee.....	1,038	Salida.....	8,208
Cheyenne.....	1,772	Cheyenne Wells.....	2,794
Clear Creek.....	391	Georgetown.....	2,794
Conchos.....	1,288	Conchos.....	8,428
Costilla.....	1,212	San Luis.....	4,219
Crowley.....	802	Ordway.....	3,978
Custer.....	737	Vestilife.....	1,305

Delta.....	1,154	Delta.....	15,602
Denver.....	68	Denver.....	493,887
Dolores.....	1,026	Dove Creek.....	2,196
Douglas.....	843	Castle Rock.....	4,816
Eagle.....	1,682	Eagle.....	4,677
Elbert.....	1,864	Kiowa.....	3,708
El Paso.....	2,157	Colorado Springs.....	143,742
Fremont.....	1,567	Anon City.....	20,196
Garfield.....	2,997	Glenwood Spgs.....	12,017
Gilpin.....	148	Central City.....	3,685
Grand.....	1,851	Fort Sulphur Spgs.....	3,587
Gunnison.....	3,236	Gunnison.....	5,477
Hinsdale.....	1,054	Lake City.....	208
Huerfano.....	1,574	Walsenburg.....	7,867
Jackson.....	1,622	Walden.....	1,758
Jefferson.....	785	Golden.....	127,520
Kiowa.....	1,767	Eads.....	2,425
Kit Carson.....	2,171	Burlington.....	6,957
Lake.....	379	Leadville.....	7,101
La Plata.....	1,681	Durango.....	19,225
Larimer.....	2,611	Fort Collins.....	53,343
Las Animas.....	4,794	Trinidad.....	19,983
Lincoln.....	2,593	Hugo.....	5,310
Logan.....	1,822	Sterling.....	20,302
Mesa.....	3,303	Grand Junction.....	50,715
Mineral.....	921	Creede.....	424
Moffat.....	4,743	Craig.....	7,061
Montezuma.....	2,094	Cortez.....	14,024
Montrose.....	2,238	Montrose.....	18,286
Morgan.....	1,278	Fort Morgan.....	21,192
Otero.....	1,251	La Junta.....	24,128
Ouray.....	500	Ouray.....	1,601
Park.....	2,002	Fairplay.....	1,822
Phillips.....	680	Holyoke.....	4,440
Pitkin.....	973	Aspen.....	2,381
Prowers.....	1,621	Lamar.....	13,296
Pueblo.....	2,405	Pueblo.....	118,707
Rio Blanco.....	3,263	Meeker.....	6,150
Rio Grande.....	915	Del Norte.....	11,160
Routt.....	2,330	Steamboat Spgs.....	5,900
Saguache.....	4,143	Saguache.....	4,473
San Juan.....	391	Silverton.....	2,944
San Miguel.....	1,283	Telluride.....	2,944
Sedgwick.....	544	Julesburg.....	4,242
Summit.....	611	Breckenridge.....	2,073
Teller.....	553	Cripple Creek.....	2,495
Washington.....	2,526	Akron.....	6,625
Weid.....	4,002	Greeley.....	72,344
Yuma.....	2,379	Wray.....	8,912

CONNECTICUT

(8 counties, 4,870 sq. mi. land; pop., 2,655,234)

Fairfield.....	627	Bridgeport.....	653,589
Hartford.....	739	Hartford.....	689,555
Litchfield.....	930	Litchfield.....	119,858
Middlesex.....	372	Middletown.....	88,865
New Haven.....	605	New Haven.....	660,315
New London.....	667	Norwich.....	185,745
Tolland.....	416	Rockville.....	68,737
Windham.....	516	Putnam.....	68,572

DELAWARE

(5 counties, 1,982 sq. mi. land; pop., 446,292)

Kent.....	594	Dover.....	81,530
New Castle.....	438	Wilmington.....	366,298
Sussex.....	950	Georgetown.....	78,586

DISTRICT OF COLUMBIA

(61 counties, 64,186 sq. mi. land; pop., 793,966)

FLORIDA			
(67 counties, 54,186 sq. mi. land; pop., 4,961,560)			
Alachua.....	916	Gainesville.....	74,074
Baker.....	585	Macclenny.....	7,363
Bay.....	747	Panama City.....	67,131
Bradford.....	294	Bradford.....	12,146
Brevard.....	1,011	Titusville.....	12,146
Broward.....	1,219	Fort Lauderdale.....	353,948
Calhoun.....	561	Blountstown.....	7,122
Charlotte.....	703	Punta Gorda.....	12,591
Clarus.....	560	Inverness.....	9,265
Clay.....	593	Green Cove Spgs.....	19,355
Collier.....	2,006	Naples.....	15,753
Colombia.....	734	Lake City.....	20,677
Dade.....	2,042	Miami.....	935,017
De Soto.....	618	Gretna.....	11,683
Dixie.....	692	Cocoa.....	11,111
Duval.....	766	Jacksonville.....	455,111
Escambia.....	665	Pensacola.....	173,820
Flagler.....	487	Bunnell.....	4,766
Franklin.....	536	Apalachicola.....	6,575
Gadsden.....	512	Quincy.....	41,949
Gilchrist.....	346	Fronton.....	2,868
Glades.....	753	Moore Haven.....	2,350
Gulf.....	565	Wahitatenka.....	9,937
Hamilton.....	514	Jasper.....	7,705
Hendry.....	629	Wauvula.....	12,370
Hendry.....	1,187	La Belle.....	8,119
Hernando.....	484	Brooksville.....	11,205
Hill.....	1,041	Sterling.....	21,348
Holmes.....	1,038	Tampa.....	397,788
Indian River.....	182	Romney.....	10,844
Jackson.....	507	Vero Beach.....	25,309
Jackson.....	935	Marianna.....	36,208
Jefferson.....	605	Monticello.....	9,543

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
FLORIDA—Continued				GEORGIA—Continued			
Lafayette.....	549	Mayo.....	2,589	Greene.....	403	Greensboro.....	11,193
Lake.....	961	Tavares.....	57,383	Gwinnett.....	437	Lawrenceville.....	43,541
Lee.....	785	Fort Myers.....	54,539	Habersham.....	282	Clarksville.....	18,116
Leon.....	670	Tallahassee.....	71,225	Hall.....	378	Gainesville.....	49,739
Levy.....	1,083	Bronson.....	10,364	Hancock.....	478	Sparta.....	9,979
Liberty.....	839	Bristol.....	3,138	Haralson.....	285	Buchanan.....	14,543
Madison.....	703	Bradson.....	14,151	Harris.....	463	Hamilton.....	11,667
Manatee.....	739	Bradenton.....	69,168	Hart.....	256	Hartwell.....	15,229
Marion.....	1,599	Ocala.....	51,616	Heard.....	302	Franklin.....	5,333
Martin.....	556	Stuart.....	16,932	Henry.....	331	McDonough.....	17,619
Monroe.....	1,034	Key West.....	47,921	Houston.....	380	Perry.....	39,154
Nassau.....	650	Fernandina Beach.....	17,189	Irwin.....	372	Ocala.....	9,211
Okaloosa.....	944	Crestview.....	61,175	Jackson.....	337	Jefferson.....	18,499
Okeechobee.....	777	Okeechobee.....	6,424	Jasper.....	373	Monticello.....	6,135
Orange.....	910	Orlando.....	263,540	Jeff Davis.....	331	Hazlehurst.....	8,941
Osceola.....	1,310	Kissimmee.....	19,029	Jefferson.....	530	Lowville.....	17,468
Palatka Beach.....	2,023	Palatka Beach.....	228,106	Jenkins.....	351	Millen.....	9,148
Palmdale.....	742	Dade City.....	36,785	Johnson.....	313	Wrightsville.....	8,048
Pinellas.....	265	Clearwater.....	374,665	Jones.....	402	Gray.....	8,468
Polk.....	1,861	Bartow.....	195,139	Lamar.....	181	Barnesville.....	10,240
Putnam.....	779	Palatka.....	32,212	Landier.....	177	Lakeland.....	5,097
St. Johns.....	605	Saint Augustine.....	30,034	Laurens.....	810	Dublin.....	32,313
St. Lucie.....	584	Fort Pierce.....	39,294	Lee.....	355	Leesburg.....	6,204
Santa Rosa.....	1,032	Milton.....	29,547	Liberty.....	514	Hinesville.....	14,487
Sarasota.....	587	Sarasota.....	76,895	Lincoln.....	193	Lincolnton.....	5,906
Seminole.....	305	Sanford.....	54,947	Long.....	402	Ludowick.....	3,574
Sumter.....	555	Vishnell.....	11,860	Lowndes.....	507	Valdosta.....	49,270
Suwannee.....	666	Live Oak.....	14,961	Lumpkin.....	292	Dalhousie.....	7,241
Taylor.....	1,051	Perry.....	13,168	McDuffie.....	253	Thomson.....	12,627
Union.....	241	Lake Butler.....	6,043	McIntosh.....	426	Darien.....	6,364
Volusia.....	1,062	De Land.....	125,319	Macon.....	403	Oglethorpe.....	13,170
Wakulla.....	601	Crawfordville.....	5,257	Madison.....	281	Danielsville.....	11,246
Walton.....	1,053	De Funiak Spgs.....	15,576	Marion.....	365	Buena Vista.....	5,477
Washington.....	585	Chipley.....	11,249	Meriwether.....	499	Greenville.....	19,756
GEORGIA				Miller.....	287	Colquhoun.....	6,904
(159 counties; 58,197 sq. mi. land; pop., 3,945,116)				Mitchell.....	506	Camilla.....	19,852
Appling.....	513	Baxley.....	13,246	Monroe.....	398	Forsyth.....	10,495
Atkinson.....	318	Pearson.....	6,188	Montgomery.....	237	Mount Vernon.....	6,284
Bacon.....	293	Alma.....	8,359	Morgan.....	356	Madison.....	10,280
Baker.....	355	Newton.....	4,543	Murray.....	342	Chatsworth.....	10,447
Baldwin.....	255	Milledgeville.....	3,064	Muscogee.....	220	Columbus.....	158,623
Banks.....	231	Bona.....	6,497	Newton.....	217	Covington.....	20,999
Barnesville.....	47	Winder.....	14,485	Oconee.....	186	Watkinsville.....	6,304
Bartow.....	461	Cartersville.....	28,267	Oglethorpe.....	435	Lexington.....	7,926
Ben Hill.....	255	Fitzgerald.....	13,633	Paulding.....	318	Dallas.....	13,101
Berrien.....	468	Nashville.....	12,038	Peach.....	115	Fort Valley.....	13,346
Bibb.....	254	Macon.....	141,249	Pickens.....	225	Jasper.....	8,903
Bleckley.....	219	Cochran.....	9,642	Pierce.....	342	Blackshear.....	9,678
Brantley.....	447	Nahunta.....	5,891	Pike.....	230	Zebulon.....	7,138
Brooks.....	490	Quitman.....	15,292	Polk.....	312	Cedartown.....	28,015
Bryan.....	443	Fleming.....	6,226	Polk.....	312	Cedartown.....	28,015
Bulloch.....	685	Statesboro.....	24,263	Putnam.....	340	Watkinsville.....	8,204
Burke.....	831	Waynesboro.....	20,596	Quitman.....	171	Georgetown.....	2,432
Butts.....	185	Jackson.....	8,976	Rabun.....	368	Clayton.....	7,456
Calhoun.....	289	Morgan.....	7,341	Randolph.....	436	Cuthbert.....	11,078
Camden.....	653	Woodbine.....	9,975	Richmond.....	325	Augusta.....	135,801
Candler.....	250	Metter.....	6,672	Rockdale.....	128	Conyers.....	10,572
Carroll.....	495	Carrollton.....	36,451	Schley.....	162	Ellaville.....	3,256
Catoosa.....	167	Ringsgold.....	21,101	Screven.....	651	Sylvania.....	14,919
Charlton.....	796	Folkston.....	5,813	Seminole.....	246	Danalsville.....	6,802
Chatam.....	445	Savannah.....	188,299	Spalding.....	201	Giraffa.....	35,404
Chattahoochee.....	255	Summerville.....	19,954	Stephens.....	180	Toccoa.....	18,391
Chattahoochee.....	317	Summerville.....	19,954	Stewart.....	463	Lumpkin.....	7,371
Cherokee.....	415	Canton.....	23,001	Sumter.....	489	Americus.....	24,652
Clarke.....	125	Athens.....	45,363	Taliaferro.....	390	Talbot.....	7,167
Clay.....	224	Fort Gaines.....	4,551	Taliaferro.....	195	Crawfordville.....	5,370
Clayton.....	149	Jonesboro.....	46,365	Tattnall.....	490	Reidsville.....	15,837
Clinch.....	797	Homerville.....	6,545	Taylor.....	403	Butler.....	8,311
Cobb.....	343	Marietta.....	114,174	Telfair.....	440	McRae.....	11,715
Coffee.....	612	Douglas.....	21,953	Terrell.....	329	Dawson.....	12,742
Colquitt.....	563	Monticello.....	34,048	Thomas.....	541	Thomasville.....	34,319
Columbia.....	290	Orting.....	13,423	Tift.....	266	Tifton.....	23,487
Coke.....	233	Adel.....	11,822	Tombs.....	368	Lyons.....	16,837
Coweta.....	442	Newnan.....	28,893	Towns.....	166	Hiwassee.....	4,538
Crawford.....	315	Knoxville.....	5,816	Treuten.....	194	Soperton.....	5,874
Dade.....	168	Trenton.....	8,666	Troup.....	446	La Grange.....	47,189
Dawson.....	211	Dawsonville.....	3,590	Turner.....	293	Ashburn.....	8,439
Decatur.....	575	Bainbridge.....	25,203	Twiggs.....	364	Jeffersonville.....	7,935
De Kalb.....	269	Decatur.....	256,782	Union.....	309	Blairsville.....	6,510
Dodge.....	498	Eustan.....	16,483	Upson.....	334	Thomaston.....	23,800
Dooly.....	394	Vienna.....	11,474	Walker.....	445	La Fayette.....	45,264
Dougherty.....	324	Albany.....	75,660	Walton.....	330	Monroe.....	20,481
Douglas.....	202	Douglasville.....	16,741	Ware.....	912	Waycross.....	34,219
Early.....	525	Blakely.....	13,151	Warren.....	284	Warrenton.....	7,360
Echols.....	425	Statenville.....	1,876	Washington.....	674	Wadsworthville.....	18,593
Effingham.....	480	Springfield.....	10,144	Ware.....	165	Jesup.....	15,921
Elbert.....	358	Elberton.....	17,843	Webster.....	196	Preston.....	3,247
Emanuel.....	686	Swainsboro.....	17,815	Wheeler.....	306	Alamo.....	5,342
Evans.....	186	Claxton.....	6,522	White.....	243	Cleveland.....	6,935
Fannin.....	394	Birdsge.....	13,620	Whitfield.....	281	Dalton.....	42,109
Fayette.....	199	Fayetteville.....	8,199	Wilcox.....	383	Abbeville.....	7,905
Floyd.....	514	Rome.....	69,130	Wilkes.....	468	Washington.....	10,961
Forsyth.....	218	Cumming.....	12,170	Wilkinson.....	458	Irwinville.....	9,250
Franklin.....	269	Carnesville.....	13,274	Worth.....	579	Sylvester.....	16,682
Fulton.....	530	Atlanta.....	556,326	HAWAII			
Gilmer.....	439	Ellijay.....	8,922	(5 counties; 6,485 sq. mi. land; pop., 632,772)			
Glascock.....	143	Gibson.....	2,672	Hawaii.....	4,021	Hilo.....	61,332
Glynn.....	412	Brunswick.....	41,954	Honolulu.....	598	Honolulu.....	500,409
Gordon.....	358	Calhoun.....	19,228	Kalaupapa.....	14	Kalaupapa.....	279
Grady.....	466	Cairo.....	18,010	Kauai.....	623	Lihue.....	28,176
				Maul.....	1,159	Waluku.....	42,576

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
IDAHO (44 counties, 82,677 sq. mi. land; pop., 667,191)				ILLINOIS—Continued			
Ada.....	1,043	Boise.....	93,460	Lee.....	729	Dixon.....	38,791
Adams.....	1,371	Council.....	2,978	Livingston.....	1,043	Pontiac.....	40,344
Bannock.....	1,122	Pocatello.....	49,342	Logan.....	622	Lincoln.....	33,656
Bear Lake.....	984	Paris.....	7,148	McDonough.....	582	Macomb.....	28,928
Benewah.....	788	Saint Maries.....	6,036	McHenry.....	611	Woodstock.....	84,210
Bingham.....	2,084	Blackfoot.....	28,218	McLean.....	1,173	Bloomington.....	83,877
Blaine.....	2,647	Hailey.....	4,598	Macon.....	576	Decatur.....	118,257
Boise.....	1,910	Idaho City.....	1,646	Macoupin.....	872	Carlinville.....	43,524
Bonner.....	1,732	Idaho Falls.....	15,587	Madison.....	731	Edwardsville.....	224,689
Bonneville.....	1,336	Idaho Falls.....	46,906	Marion.....	580	Salem.....	39,349
Boundary.....	1,275	Bonners Ferry.....	5,809	Marshall.....	395	Lacon.....	13,334
Butte.....	2,239	Arco.....	3,498	Massac.....	246	Metropolis.....	15,193
Camas.....	1,051	Fairfield.....	917	Menard.....	246	Petersburg.....	9,438
Canyon.....	578	Caldwell.....	57,662	Mercer.....	556	Aledo.....	17,119
Caribou.....	1,746	Soda Springs.....	5,976	Monroe.....	380	Waterloo.....	15,507
Cassia.....	2,544	Burley.....	16,121	Montgomery.....	706	Hillsboro.....	31,244
Clark.....	1,751	Dubois.....	915	Morgan.....	565	Jacksonville.....	36,571
Clearwater.....	2,521	Orofino.....	8,548	Moultrie.....	345	Sullivan.....	13,635
Custer.....	4,929	Challis.....	2,996	Ogle.....	757	Oregon.....	38,106
Elmore.....	3,048	Mountain Home.....	16,719	Peoria.....	624	Peoria.....	159,044
Franklin.....	664	Preston.....	8,457	Perry.....	443	Pinckneyville.....	19,184
Fremont.....	1,806	Saint Anthony.....	8,679	Platt.....	433	Marionville.....	14,960
Gem.....	555	Emmett.....	9,127	Pike.....	829	Pittsfield.....	20,532
Gooding.....	720	Gooding.....	9,544	Pope.....	351	Golconda.....	4,461
Idaho.....	8,516	Grangeville.....	13,542	Pulaski.....	204	Mound City.....	10,490
Jefferson.....	1,096	Rigby.....	11,672	Putnam.....	166	Hennepville.....	4,570
Jerome.....	595	Jerome.....	11,712	Randolph.....	594	Chester.....	29,988
Kootenai.....	1,249	Coeur d'Alene.....	29,556	Richland.....	364	Olney.....	16,299
Latah.....	1,080	Moscow.....	21,170	Rock Island.....	420	Rock Island.....	150,991
Lemhi.....	4,580	Salmon.....	5,835	St. Clair.....	670	Bellevue.....	262,509
Lewis.....	476	Nepre.....	4,423	Saline.....	384	Harrisburg.....	26,227
Lincoln.....	1,203	Shoshone.....	3,686	Sangamon.....	380	Springfield.....	146,539
Madison.....	473	Rexburg.....	9,417	Schuyler.....	434	Rushville.....	8,746
Minidoka.....	750	Rupert.....	14,394	Scott.....	251	Winchester.....	6,377
Nez Perce.....	844	Lewiston.....	27,662	Shelby.....	772	Shelbyville.....	23,404
Oneida.....	1,191	Malad City.....	3,603	Stark.....	291	Toulon.....	8,152
Owyhee.....	7,641	Murphy.....	6,375	Stephenson.....	568	Freeport.....	46,207
Payette.....	402	Payette.....	12,363	Tazewell.....	653	Pekin.....	99,759
Power.....	1,413	American Falls.....	4,111	Union.....	414	Jonesboro.....	17,615
Shoshone.....	2,609	Wallace.....	20,876	Vermilion.....	898	Danville.....	96,176
Teton.....	457	Driggs.....	2,639	Wabash.....	221	Mt. Carmel.....	14,047
Twin Falls.....	1,947	Twin Falls.....	4,842	Warren.....	542	Donmouth.....	21,587
Valley.....	3,676	Cascade.....	3,663	Washington.....	622	Nashville.....	13,569
Washington.....	1,462	Weiser.....	8,378	Wayne.....	715	Fairfield.....	19,008
Yel'stone Nat. Park (part).....	58			White.....	501	Carmel.....	19,373
				Whiteside.....	690	Morrison.....	59,887
				Will.....	845	Joliet.....	191,617
				Williamson.....	427	Marion.....	46,117
				Winnebago.....	520	Rockford.....	209,765
				Woodford.....	537	Eureka.....	24,579

ILLINOIS

(102 counties, 55,877 sq. mi. land; pop., 10,081,168)

Adams.....	866	Quincy.....	68,467
Alexander.....	224	Cairo.....	16,061
Bond.....	383	Greenville.....	14,060
Boone.....	283	Belvidere.....	20,326
Brown.....	307	Mount Sterling.....	6,210
Bureau.....	868	Princeton.....	37,594
Calhoun.....	259	Iduna.....	5,933
Carroll.....	468	Mount Carroll.....	19,307
Cass.....	370	Virginia.....	14,539
Champaign.....	1,000	Urbana.....	132,436
Christian.....	709	Taylorville.....	37,207
Clark.....	505	Marshall.....	16,546
Clay.....	461	Louisville.....	15,815
Clinton.....	498	Carlyle.....	24,029
Coles.....	507	Charleston.....	42,860
Cook.....	954	Chicago.....	5,129,725
Crawford.....	442	Robinson.....	20,751
Cumberland.....	342	Tokio.....	9,930
De Kalb.....	636	Sycamore.....	51,714
De Witt.....	399	Clinton.....	17,253
Douglas, '64.....	420	Tuscola.....	19,281
Du Page.....	331	Wheaton.....	313,459
Edgar.....	628	Paris.....	22,550
Edwards.....	225	Albion.....	7,940
Elmhurst.....	482	Elmhurst.....	23,107
Fayette.....	718	Vandalia.....	21,946
Ford.....	486	Paxton.....	16,606
Franklin.....	434	Easton.....	39,281
Fulton.....	328	Lewistown.....	41,657
Gallatin.....	438	Shawneetown.....	7,638
Greene.....	543	Carrollton.....	17,460
Grundy.....	432	Morris.....	22,350
Hamilton.....	435	McLeansboro.....	10,010
Hancock.....	797	Carthage.....	24,574
Hardin.....	183	Elizabethtown.....	5,879
Henderson.....	381	Ogawka.....	8,237
Henry.....	826	Cambridge.....	49,317
Itasca.....	1,122	Watseka.....	33,562
Jackson.....	603	Murphysboro.....	42,151
Jasper.....	495	Newton.....	11,346
Jefferson.....	574	Mount Vernon.....	32,315
Jersey.....	374	Jerseyville.....	17,023
Jo Daviess.....	614	Galena.....	21,821
Johnson.....	345	Vienna.....	6,928
Kane.....	516	Geneva.....	208,246
Kankakee.....	680	Kankakee.....	92,063
Kendall.....	320	Yorkville.....	17,540
Knox.....	728	Galesburg.....	61,280
Lake.....	424	Waukegan.....	283,658
La Salle.....	1,153	Ottawa.....	110,800
Lawrence.....	374	Lawrenceville.....	18,540

INDIANA

(92 counties, 36,189 sq. mi. land; pop., 4,662,498)

Adams.....	345	Decatur.....	24,643
Allen.....	670	Fort Wayne.....	232,196
Bartholomew.....	402	Columbus.....	48,198
Benton.....	409	Fowler.....	14,312
Blackford.....	167	Hartford City.....	14,792
Boone.....	427	Lebanon.....	27,343
Brown.....	324	Nashville.....	7,024
Carroll.....	374	Delphi.....	16,934
Cass.....	415	Logansport.....	40,931
Clark, '64.....	384	Jeffersonville.....	66,453
Clay.....	344	Brazil.....	24,207
Clinton.....	407	Frankfort.....	30,765
Crawford.....	312	English.....	8,379
Daviess.....	430	Cashport.....	26,636
Dearborn.....	306	Lawrenceburg.....	2,874
Decatur.....	370	Greensburg.....	20,019
De Kalb.....	366	Auburn.....	28,271
Delaware.....	398	Muncie.....	110,938
Dubois.....	443	Jasper.....	27,463
Elkhart.....	468	Goshen.....	106,790
Fayette.....	215	Connersville.....	21,151
Floyd, '64.....	149	New Albany.....	53,008
Fountain.....	397	Covington.....	18,706
Franklin.....	394	Bloomington.....	17,015
Fulton.....	467	Rockport.....	2,874
Gibson.....	498	Princeton.....	29,949
Grant.....	421	Marion.....	79,741
Greene.....	549	Bloomfield.....	26,427
Hamilton.....	401	Noblesville.....	40,142
Hancock.....	305	Greenfield.....	26,665
Harrison.....	479	orydon.....	19,207
Hendricks.....	417	Danville.....	40,896
Henry.....	400	New Castle.....	48,899
Howard.....	29	Kokomo.....	69,709
Huntington.....	390	Huntington.....	33,814
Jackson.....	200	Brownstown.....	30,535
Jasper.....	562	Rensselaer.....	18,842
Jay.....	380	Portland.....	22,572
Jefferson.....	366	Madison.....	24,061
Jennings.....	377	Vernon.....	1,726
Johnson.....	315	Franklin.....	43,704
Knox.....	516	Vincennes.....	11,561
Kosciusko.....	510	Warsaw.....	40,373
Lagrange.....	381	Lagrange.....	17,380
Lake.....	511	Crown Point.....	513,269
La Porte.....	667	Porter.....	65,119
Lawrence.....	159	Hartford.....	36,564
Madison.....	454	Anderson.....	125,819

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
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INDIANA—Continued

Marion.....	400	Indianapolis.....	697,567
Marshall.....	443	Plymouth.....	32,443
Martin.....	345	Shoals.....	10,608
Miami.....	380	Peru.....	38,000
Monroe.....	410	Bloomington.....	59,225
Montgomery.....	507	Crawfordsville.....	32,089
Morgan.....	406	Martinsville.....	35,875
Newton.....	413	Kentland.....	13,570
Ohio.....	432	Marion.....	28,162
Orange.....	37	Rising Sun.....	4,165
Owen.....	405	Paoli.....	16,877
Parke.....	390	Spencer.....	11,400
Parke.....	451	Rockville.....	14,804
Perry.....	384	Cannelton.....	17,232
Pike.....	335	Petersburg.....	12,797
Porter.....	425	Valparaiso.....	60,279
Posey 67.....	412	Mount Vernon.....	21,418
Pulaski.....	433	Winamac.....	12,547
Putnam.....	490	Arcencastle.....	23,927
Randolph.....	457	Winchester.....	28,434
Ripley.....	442	Versailles.....	20,641
Rush.....	409	Rushville.....	20,393
St. Joseph.....	466	South Bend.....	238,614
Scott.....	193	Scottsburg.....	14,643
Shelby.....	409	Shelbyville.....	34,093
Spencer.....	396	Rockport.....	16,074
Starke.....	310	Knox.....	17,911
Steuben.....	309	Amelia.....	17,134
Sullivan.....	443	Sullivan.....	21,721
Switzerland.....	221	Vevay.....	7,092
Tippacanoe.....	508	Lafayette.....	89,122
Tipton.....	261	Tipton.....	15,856
Union.....	168	Liberty.....	6,457
Vanderburgh.....	241	Evansville.....	165,794
Vermillion.....	263	Newport.....	17,683
Vigo.....	415	Terre Haute.....	108,458
Wabash.....	421	Wabash.....	32,605
Warren.....	316	Audubonport.....	8,549
Warrick.....	568	Boonville.....	23,577
Washington.....	618	Salem.....	17,819
Wayne.....	405	Richmond.....	74,039
Wells.....	368	Bluffton.....	21,220
White.....	497	Monticello.....	19,709
Whitley.....	437	Columbia City.....	20,954

IOWA

(99 counties; 56,048 sq. mi. land; pop.; 2,767,537)

Adair.....	569	Greenfield.....	10,893
Adams.....	426	Corning.....	7,468
Allamakee.....	636	Vaukon.....	15,982
Appanoose.....	523	Centerville.....	16,015
Audubon.....	448	Audubon.....	10,919
Baird.....	718	Vinton.....	23,412
Black Hawk.....	568	Waterloo.....	122,482
Boone.....	573	Boone.....	28,037
Bremer.....	439	Waverly.....	21,108
Buchanan.....	568	Independence.....	22,293
Buena Vista.....	572	Storm Lake.....	21,189
Butler.....	582	Allison.....	17,467
Calhoun.....	571	Rockwell City.....	15,923
Carroll.....	574	Carroll.....	23,341
Cass.....	558	Hawley.....	17,919
Cedar.....	523	Tipton.....	17,791
Cerro Gordo.....	575	Mason City.....	49,894
Cherokee.....	573	Cherokee.....	18,598
Chickasaw.....	505	New Hampton.....	15,034
Clarke.....	429	Osceola.....	8,222
Clay.....	570	Spencer.....	18,504
Clayton.....	779	Elkader.....	21,962
Clinton.....	693	Clinton.....	55,060
Crawford.....	716	Denison.....	18,569
Dallas.....	547	Wells.....	24,123
Decatur.....	509	Bloomfield.....	9,199
Delaware.....	571	Leon.....	10,539
Des Moines.....	571	Manchester.....	18,483
Dickinson.....	408	Burlington.....	44,605
Dubuque.....	380	Spirit Lake.....	12,574
Emmett.....	612	Dubuque.....	80,048
Fayette.....	394	Estherville.....	14,871
Floyd.....	728	West Union.....	25,581
Franklin.....	583	Charles City.....	21,102
Fremont.....	528	Hampton.....	15,472
Greene.....	522	Sidney.....	10,282
Grundy.....	569	Jefferson.....	14,379
Guthrie.....	501	Grundy Center.....	14,132
Hamilton.....	569	Guthrie Center.....	13,607
Hancock.....	577	Webster City.....	20,032
Hardin.....	570	Garner.....	14,604
Harrison.....	573	Elkader.....	22,533
Henry.....	696	Logan.....	17,600
Howard.....	440	Mount Pleasant.....	18,187
Humboldt.....	47	Harmon.....	12,734
Ida.....	435	Dakota City.....	13,136
Iowa.....	431	Ida Grove.....	10,269
Jackson.....	584	Narengo.....	16,396
Jasper.....	644	Maquoketa.....	20,754
Jefferson.....	734	Newton.....	35,282
Johnson.....	436	Fairfield.....	15,518
Jones.....	619	Iowa City.....	53,663
Keokuk.....	385	Anamosa.....	20,693
Kossuth.....	579	Sikouney.....	15,492
	979	Algona.....	25,314

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
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IOWA—Continued

Lee.....	527	Fort Madison.....	44,207
		and Keokuk.....	44,207
Linn.....	717	Cedar Rapids.....	136,899
Louisa.....	403	Wapello.....	10,290
Lucas.....	434	Chariton.....	10,923
Lyon.....	588	Rock Rapids.....	14,468
Madison.....	564	Winterset.....	12,295
Mahaska.....	572	Oskaioosa.....	23,602
Marion.....	567	Knoxville.....	25,886
Marshall.....	574	Marshalltown.....	37,984
Mills.....	447	Glenwood.....	13,050
Mitchell.....	467	Osage.....	14,043
Monona.....	699	Onawa.....	13,916
Monroe.....	435	Albia.....	10,463
Montgomery.....	422	Red Oak.....	14,467
Muscatine.....	443	Muscatine.....	33,840
O'Brien.....	575	Primghar.....	18,840
Osceola.....	398	Sibley.....	10,064
Page.....	535	Clarinda.....	21,023
Palo Alto.....	561	Emmetsburg.....	14,736
Plymouth.....	863	Le Mars.....	23,906
Pocahontas.....	581	Pocahontas.....	14,234
Polk.....	594	Des Moines.....	266,315
Pottawattamie.....	963	Council Bluffs.....	83,102
Poweshiek.....	589	Montezuma.....	19,300
Ringgold.....	538	Mount Ayr.....	7,910
Sac.....	578	Sac City.....	17,007
Scott.....	454	Davenport.....	119,067
Shelby.....	587	Harlan.....	13,825
Sioux.....	766	Orange City.....	26,575
Story.....	568	Nevada.....	49,327
Tama.....	720	Toledo.....	21,413
Taylor.....	528	Bedford.....	10,288
Union.....	425	Creston.....	13,712
Van Buren.....	487	Keosauqua.....	9,778
Wapello.....	437	Ottumwa.....	46,126
Warren.....	572	Indianola.....	20,829
Washington.....	565	Washington.....	19,406
Wayne.....	532	Corydon.....	9,805
Webster.....	718	Fort Dodge.....	47,810
Winnebago.....	401	Forest City.....	13,099
Winneshek.....	688	Dorcas.....	21,651
Woodbury.....	871	Sioux City.....	107,849
Worth.....	400	Northwood.....	10,259
Wright.....	577	Clarion.....	19,447

KANSAS

(105 counties; 82,056 sq. mi. land; pop.; 2,178,611)

Allen.....	505	Iola.....	16,369
Anderson.....	577	Garnett.....	9,035
Atchison.....	427	Atchison.....	20,898
Barber.....	1,46	Medicine Lodge.....	8,713
Barton.....	894	Great Bend.....	39,268
Bourbon.....	639	Fort Scott.....	16,090
Brown.....	537	Hiawatha.....	13,229
Butler.....	1,442	El Dorado.....	38,395
Chase.....	774	Cottonwood Falls.....	3,921
Chautauqua.....	647	Sedan.....	5,956
Cherokee.....	586	Columbus.....	22,279
Cheyenne.....	1,027	Saint Francis.....	4,708
Clark.....	983	Ashtland.....	3,396
Clay.....	659	Clay Center.....	10,675
Clayton.....	1,11	Concordia.....	14,467
Coffey.....	656	Burlington.....	3,403
Comanche.....	800	Coldwater.....	3,271
Cowley.....	1,136	Winfield.....	37,861
Crawford.....	598	Girard.....	37,032
Decatur.....	899	Oberlin.....	5,778
Dickinson.....	855	Abilene.....	21,572
Doniphan.....	388	Troy.....	9,574
Douglas.....	571	Lawrence.....	43,720
Edwards.....	617	Kinsley.....	5,118
Elk.....	647	Howard.....	9,645
Ellis.....	900	Hays.....	21,270
Ellsworth.....	717	Ellsworth.....	7,677
Finney.....	1,301	Garden City.....	16,093
Ford.....	1,091	Dodge City.....	20,938
Franklin.....	577	Ottawa.....	19,548
Geary.....	400	Junction City.....	28,779
Gove.....	1,070	Gove.....	4,107
Graham.....	891	Hill City.....	5,586
Grant.....	371	Ulysses.....	5,269
Gray.....	872	Clamarron.....	4,380
Greely.....	883	Tribe.....	2,487
Greenwood.....	1,142	Eureka.....	11,253
Hamilton.....	992	Syracuse.....	3,144
Harper.....	801	Anthony.....	9,541
Harvey.....	540	Newton.....	25,865
Haskell.....	580	Sublette.....	2,990
Hodgeman.....	860	Jelmore.....	3,115
Jackson.....	656	Holton.....	10,309
Jefferson.....	550	Oskaioosa.....	11,252
Jewell.....	910	Mankato.....	14,417
Johnson.....	776	Olathe.....	143,792
Kearny.....	855	Lakin.....	3,108
Kingman.....	865	Kingman.....	9,958
Kiowa.....	720	Grensburg.....	4,626
Labette.....	651	Oswego.....	26,805
Lane.....	720	Dighton.....	3,060
Leavenworth.....	466	Leavenworth.....	48,524
Lincoln.....	726	Lincoln.....	5,550
Linn.....	606	Mound City.....	8,274

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
KANSAS—Continued				KENTUCKY—Continued			
Logan.....	1,073	Oakley.....	4,036	Harlan.....	469	Harlan.....	51,107
Lyon.....	852	Emporia.....	26,928	Harrison.....	308	Cynthiana.....	13,704
McPherson.....	896	McPherson.....	24,285	Hart.....	425	Munfordsville.....	14,119
Marion.....	959	Marion.....	15,143	Henderson.....	433	Henderson.....	33,539
Marshall.....	883	Marysville.....	15,598	Henry.....	289	New Castle.....	10,987
Meade.....	979	Meade.....	5,505	Hickman.....	246	Clinton.....	6,747
Miami.....	592	Paloa.....	19,884	Hopkins.....	553	Madisonville.....	38,458
Mitchell.....	716	Beloit.....	8,866	Jackson.....	337	McKee.....	10,677
Montgomery.....	649	Independence.....	45,007	Jefferson.....	375	Louisville.....	649,455
Morris.....	706	Council Grove.....	7,392	Jessamine.....	177	Nicholasville.....	13,625
Morton.....	728	Elkhart.....	3,354	Johnson.....	264	Paintsville.....	19,748
Nemaha.....	708	Seneca.....	12,897	Kenton.....	165	Independence.....	120,700
Neosho.....	587	Erie.....	10,455	Knox.....	356	Hindman.....	17,362
Ness.....	1,081	Ness City.....	5,470	Knox.....	373	Barbourville.....	25,258
Norton.....	880	Norton.....	8,035	Larue.....	260	Hodgenville.....	10,346
Osage.....	720	Lyndon.....	12,886	Laurel.....	446	London.....	24,901
Osborne.....	898	Osborne.....	7,606	Lawrence.....	425	Louisa.....	12,134
Ottawa.....	723	Minneapolis.....	6,779	Lee.....	210	Beattyville.....	7,420
Pawnee.....	755	Larned.....	10,254	Leslie.....	412	Hyden.....	10,941
Phillips.....	897	Phillipsburg.....	8,709	Letcher.....	339	Whitesburg.....	30,102
Pottawatomie.....	820	Westmoreland.....	11,957	Lewis.....	486	Vanceburg.....	13,115
Pratt.....	739	Pratt.....	12,122	Lincoln.....	340	Stanford.....	16,503
Rawlins.....	1,078	Atwood.....	5,272	Livingston.....	312	Smithland.....	7,029
Reno.....	1,262	Hutchinson.....	59,050	Lyon.....	563	Russellville.....	20,896
Republic.....	718	Belleville.....	9,768	McCracken.....	253	Eddyville.....	5,924
Rice.....	725	Lyons.....	13,909	McCreary.....	418	Whitely City.....	57,306
Riley.....	597	Manhattan.....	41,914	McLean.....	257	Kalbourn.....	12,483
Rooks.....	886	Stockton.....	9,734	Madison.....	446	Salersville.....	9,355
Rush.....	724	La Crosse.....	6,160	Magoffin.....	303	Salersville.....	33,482
Russell.....	897	Russell.....	11,348	Marion.....	313	Lebanon.....	16,857
Saline.....	720	Salina.....	54,715	Marshall.....	303	Benton.....	16,736
Scott.....	724	Scott City.....	5,228	Martin.....	231	Inez.....	10,201
Sedgewick.....	1,007	Wichita.....	343,231	Mason.....	238	Maysville.....	18,938
Seward.....	616	Liberal.....	15,980	Mason.....	238	Brandenburg.....	4,276
Shawnee.....	548	Topeka.....	141,286	Menifee.....	210	Frenchburg.....	14,596
Sheridan.....	893	Hoxie.....	4,267	Mercer.....	256	Harrodsburg.....	8,337
Sherman.....	1,055	Goodland.....	6,682	Metcalfe.....	296	Edmonton.....	11,739
Smith.....	893	Smith Center.....	7,776	Monroe.....	334	Thompsonville.....	13,461
Stafford.....	795	Smith John.....	7,451	Montgomery.....	204	Mount Sterling.....	11,056
Stanton.....	676	Johnson.....	2,108	Muhlenberg.....	481	Greenville.....	27,791
Stevens.....	731	Hugoton.....	4,400	Nelson.....	437	Barstow.....	22,168
Sumner.....	1,186	Wellington.....	25,316	Nicholas.....	204	Carlisle.....	6,677
Thomas.....	1,070	Colby.....	7,358	Ohio.....	596	Hartford.....	17,725
Trego.....	901	Wakeeney.....	5,473	Oldham.....	184	La Grange.....	13,388
Wabaunsee.....	792	Alma.....	6,648	Owen.....	351	Owenton.....	8,237
Wallace.....	911	Sharon Springs.....	2,069	Owsley.....	197	Boonville.....	5,389
Washington.....	891	Washington.....	10,739	Pendleton.....	270	Falmouth.....	9,968
Wichita.....	721	Leoti.....	2,765	Perry.....	313	Hazard.....	34,961
Wilson.....	574	Fredonia.....	13,077	Pike.....	786	Pikeville.....	68,264
Woodson.....	503	Yates Center.....	5,423	Powell.....	173	Stanton.....	6,674
Wyandotte.....	152	Kansas City.....	185,495	Pulaski.....	651	Somerset.....	34,403

KENTUCKY

(120 counties, 59,551 sq. mi. land; pop., 3,083,156)

Adair.....	393	Columbia.....	14,699
Allen.....	364	Scottsville.....	12,269
Anderson.....	206	Lawrenceburg.....	8,618
Ballard.....	259	Wickliffe.....	8,291
Barren.....	286	Glasgow.....	28,303
Bath.....	287	Owingsville.....	9,114
Bell.....	370	Pineville.....	35,336
Boone.....	249	Burlington.....	21,940
Bourbon.....	300	Paris.....	18,178
Boyd.....	160	Callettsburg.....	52,163
Boyle.....	183	Danville.....	21,257
Bracken.....	204	Brooksville.....	7,422
Breathitt.....	494	Jackson.....	15,490
Breckinridge.....	554	Hardinburg.....	14,734
Bullitt.....	300	Morgantown.....	15,726
Butler.....	44	Morgantown.....	9,586
Caldwell.....	357	Princeton.....	13,073
Calloway.....	384	Murray.....	20,972
Campbell.....	149	Alexandria.....	86,803
Carlisle.....	195	Bardwell.....	5,608
Carroll.....	130	Carrollton.....	7,978
Carter.....	402	Grayson.....	20,817
Casey.....	435	Liberty.....	14,327
Christian.....	725	Hopkinsville.....	56,904
Clark.....	259	Winchester.....	21,075
Clay.....	375	Manchester.....	20,748
Clinton.....	464	Albany.....	8,886
Crittenden.....	384	Albany.....	8,648
Cumberland.....	310	Burkesville.....	7,836
Davess.....	462	Owensboro.....	70,588
Edmonson.....	304	Brownsville.....	8,083
Elmore.....	240	Sandy Hook.....	6,330
Estill.....	260	Irvine.....	12,466
Fayette.....	280	Lexington.....	131,906
Fleming.....	350	Flemingsburg.....	10,890
Flower.....	399	Prestonsburg.....	41,642
Franklin.....	211	Frankfort.....	29,421
Fulton.....	203	Hickman.....	11,256
Gallatin.....	100	Warsaw.....	8,807
Garrard.....	236	Lancaster.....	9,747
Grant.....	249	Williamstown.....	9,489
Graves.....	560	Mayfield.....	30,021
Grayson.....	512	Letchfield.....	15,834
Green.....	282	Greensburg.....	11,249
Greenup.....	351	Greenup.....	29,248
Hancock.....	187	Hawesville.....	5,340
Hardin.....	616	Elizabethtown.....	67,789

Harlan.....	469	Harlan.....	51,107
Harrison.....	308	Cynthiana.....	13,704
Hart.....	425	Munfordsville.....	14,119
Henderson.....	433	Henderson.....	33,539
Henry.....	289	New Castle.....	10,987
Hickman.....	246	Clinton.....	6,747
Hopkins.....	553	Madisonville.....	38,458
Jackson.....	337	McKee.....	10,677
Jefferson.....	375	Louisville.....	649,455
Jessamine.....	177	Nicholasville.....	13,625
Johnson.....	264	Paintsville.....	19,748
Kenton.....	165	Independence.....	120,700
Knox.....	356	Hindman.....	17,362
Knox.....	373	Barbourville.....	25,258
Larue.....	260	Hodgenville.....	10,346
Laurel.....	446	London.....	24,901
Lawrence.....	425	Louisa.....	12,134
Lee.....	210	Beattyville.....	7,420
Leslie.....	412	Hyden.....	10,941
Letcher.....	339	Whitesburg.....	30,102
Lewis.....	486	Vanceburg.....	13,115
Lincoln.....	340	Stanford.....	16,503
Livingston.....	312	Smithland.....	7,029
Lyon.....	563	Russellville.....	20,896
McCracken.....	253	Eddyville.....	5,924
McCreary.....	418	Whitely City.....	57,306
McLean.....	257	Kalbourn.....	12,483
Madison.....	446	Salersville.....	9,355
Magoffin.....	303	Salersville.....	33,482
Marion.....	313	Lebanon.....	16,857
Marshall.....	303	Benton.....	16,736
Martin.....	231	Inez.....	10,201
Mason.....	238	Maysville.....	18,938
Mason.....	238	Brandenburg.....	4,276
Menifee.....	210	Frenchburg.....	14,596
Mercer.....	256	Harrodsburg.....	8,337
Metcalfe.....	296	Edmonton.....	11,739
Monroe.....	334	Thompsonville.....	13,461
Montgomery.....	204	Mount Sterling.....	11,056
Morgan.....	369	West Liberty.....	11,056
Muhlenberg.....	481	Greenville.....	27,791
Nelson.....	437	Barstow.....	22,168
Nicholas.....	204	Carlisle.....	6,677
Ohio.....	596	Hartford.....	17,725
Oldham.....	184	La Grange.....	13,388
Owen.....	351	Owenton.....	8,237
Owsley.....	197	Boonville.....	5,389
Pendleton.....	270	Falmouth.....	9,968
Perry.....	313	Hazard.....	34,961
Pike.....	786	Pikeville.....	68,264
Powell.....	173	Stanton.....	6,674
Pulaski.....	651	Somerset.....	34,403
Robertson.....	101	Mount Olivet.....	2,443
Rockcastle.....	311	Mount Vernon.....	12,334
Rowan.....	290	Morehead.....	12,808
Russell.....	238	Jamesstown.....	11,076
Scott.....	284	Georgetown.....	15,376
Shelby.....	383	Shelbyville.....	18,493
Simpson.....	239	Franklin.....	11,648
Spencer.....	193	Taylorville.....	5,680
Taylor.....	284	Campbellsville.....	16,285
Todd.....	376	Elkton.....	11,364
Trigg.....	459	Cadiz.....	8,870
Trimble.....	146	Hedford.....	5,102
Union.....	340	Morganfield.....	14,537
Warren.....	546	Howling Green.....	45,491
Washington.....	307	Springfield.....	11,168
Wayne.....	440	Monticello.....	14,700
Webster.....	33	Doswell.....	14,244
Whitley.....	459	Williamsville.....	25,815
Wolfe.....	229	Campton.....	6,534
Woodford.....	1937	Versailles.....	11,913

LOUISIANA*

(64 parishes, 45,165 sq. mi. land; pop. 3,267,023)

Acadia.....	663	Crowley.....	49,931
Allen.....	774	Oberlin.....	19,867
Ascension.....	301	Donaldsonville.....	27,927
Assumption.....	356	Napoleonville.....	17,991
Avoyelles.....	832	Marksville.....	37,606
Beauregard.....	1,184	De Ridder.....	19,191
Bossier.....	832	Acadia.....	16,726
Bossier.....	843	Hendon.....	57,22
Caddo.....	899	Shreveport.....	223,459
Calcasieu.....	1,105	Lake Charles.....	145,475
Caldwell.....	551	Columbia.....	9,004
Cameron.....	1,441	Cameron.....	6,909
Catahoula.....	742	Harrisonburg.....	11,421
Claborn.....	763	Homer.....	19,407
Concordia.....	718	Vidalia.....	20,467
De Soto.....	904	Mansfield.....	24,248
East Baton Rouge.....	663	Crowley.....	49,931
East Carroll.....	436	Lake Providence.....	14,433
East Feliciana.....	454	Clinton.....	29,198
Evangeline.....	669	Ville Platte.....	31,639
Franklin.....	618	Winnaboro.....	26,088
Grant.....	670	Colfax.....	13,330
Iberia.....	589	New Iberia.....	51,657
Iberville.....	627	Plaquemine.....	29,949
Jackson.....	582	Jonesboro.....	15,828

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
LOUISIANA—Continued				MASSACHUSETTS—Continued			
Jefferson	331	Gretna	208,769	Norfolk	394	Dedham	510,256
Jefferson Davis	658	Jennings	29,825	Plymouth	654	Plymouth	248,499
Lafayette	283	Lafayette	84,656	Suffolk	56	Boston	791,329
Lafourche	1,141	Thibodaux	55,381	Worcester	1,513	Worcester	583,228
La Salle	643	Jena	13,011				
Lincoln	469	Ruston	28,535				
Livingston	654	Livingston	26,974				
Madison	661	Tallulah	16,444				
Morehouse	804	De Cade	35,709				
Natchitoches	1,295	Natchitoches	35,553				
Orleans	205	New Orleans	627,525				
Ouachita	638	Monroe	101,663				
Plaquemines	1,030	Pointe à la Hache	22,545				
Pointe Coupee	563	New Roads	22,488				
Rapides	1,318	Alexandria	111,351				
Red River	406	Coushatta	9,978				
Richland	576	Rayville	23,824				
Sabine	1,029	Many	18,564				
St. Bernard	51	Chalmers	32,186				
St. Charles	285	Abbeville	21,219				
St. Helena	420	Greensburg	9,162				
St. James	253	Convent	18,369				
St. John the Baptist	250	Edgard	18,439				
St. Landry	932	Opelousas	81,493				
St. Martin	736	Saint Martinville	29,063				
St. Mary	624	Franklin	48,833				
St. Tammany	925	Covington	38,643				
Tangipahoa	807	Amite	59,434				
Texas	1,000	St. Joseph	11,796				
Terrebonne	1,368	Houma	60,771				
Union	1,908	Farmerville	17,624				
Vermilion	1,205	Abbeville	38,855				
Vernon	1,357	Leesville	18,301				
Washington	665	Franklinton	44,015				
Webster	615	Minden	39,701				
West Baton Rouge	203	Port Allen	14,796				
West Carroll	356	Oak Grove	14,177				
West Feliciana	405	Saint Francisville	12,995				
Winn	950	Winfield	16,034				
*Parishes and Parish Seats							
MAINE							
(16 counties, 30,933 sq. mi. land; pop., 969,265)							
Androscoggin	474	Auburn	86,312				
Aroostook	6,821	Houlton	106,064				
Cumberland	879	Portland	182,751				
Franklin	1,709	Farmington	20,069				
Hancock	1,537	Ellsworth	32,229				
Kennebec	832	Buxton	89,150				
Knox	369	Rockland	28,575				
Lincoln	454	Wiscasset	18,497				
Oxford	2,082	South Paris	44,345				
Penobscot	3,390	Bangor	126,346				
Piscataquis	3,903	Dover-Foxcroft	17,379				
Sagadahoc	257	Bath	22,793				
Somerset	3,894	Skowhegan	39,749				
Waldo	737	Belfast	22,632				
Washington	2,554	Machias	32,908				
York	1,001	Alfred	99,402				
MARYLAND							
(23 cos. 1 ind. city, 9,891 sq. mi. land; pop., 3,100,689)							
Allegany	428	Cumberland	84,169				
Anne Arundel	423	Annapolis	206,634				
Baltimore	598	Towson	492,428				
Calvert	217	Prince Frederick	15,826				
Caroline	321	Denton	19,462				
Carroll	436	Westminster	52,785				
Cecil	322	Elkton	48,408				
Charles	459	La Plata	32,572				
Dorchester	594	Cambridge	29,666				
Frederick	665	Frederick	71,930				
Garrett	659	Oakland	20,420				
Harford	453	Bel Air	76,722				
Howard	251	Ellicott City	36,152				
Kent	281	Chesertown	15,481				
Montgomery	496	Rockville	340,928				
Prince Georges	484	Upper Marlboro	357,395				
Queen Annes	375	Centreville	16,569				
St. Marys	237	Leonardtown	38,915				
Somerset	239	Princess Anne	19,623				
Talbot	261	Easton	21,578				
Washington	459	Hagerstown	91,219				
Wicomico	381	Salisbury	49,050				
Worcester	479	Snow Hill	23,733				
Independent City							
Baltimore	78		939,024				
MASSACHUSETTS							
(14 counties; 7,853 sq. mi. land; pop. 5,148,678)							
Barnstable	393	Barnstable	70,286				
Berkshire	941	Pittsfield	142,135				
Bristol	554	Taunton	398,488				
Dukes	104	Edgartown	5,829				
Essex	494	Salem	568,831				
Franklin	708	Springfield	54,864				
Hamden	626	Springfield	429,353				
Hampshire	525	Northampton	103,299				
Middlesex	825	Cambridge	1,238,742				
Nantucket	46	Nantucket	3,559				

MINNESOTA

(87 counties; 79,289 sq. mi. land; pop., 3,413,864)

Altkin	1,828	Altkin	12,162
Anoka	424	Anoka	85,916
Becker	1,297	Detroit Lakes	23,459
Beltrami	2,507	Bemidji	23,425
Benton	403	Red Lake	11,287
Big Stone	490	Ortonville	8,954
Blue Earth	737	Mankato	44,885
Brown	610	New Clm	27,676

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
MINNESOTA—Continued				MISSISSIPPI—Continued			
Carlton.....	862	Carlton.....	27,932	De Soto.....	476	Hernando.....	23,891
Carver.....	359	Chaska.....	21,358	Forrest.....	468	Hattiesburg.....	52,722
Cass.....	1,998	Walker.....	16,720	Franklin.....	568	Madville.....	9,286
Chippewa.....	582	Montevideo.....	16,320	George.....	481	Lucedale.....	11,098
Chicago.....	419	Center City.....	13,119	Greene.....	728	Leakesville.....	8,366
Clay.....	1,015	Moorhead.....	39,080	Grenada.....	431	Grenada.....	18,409
Clearwater.....	1,060	Bagley.....	8,861	Hancock.....	482	Bay Saint Louis.....	14,039
Cook.....	1,346	Grand Marais.....	3,877	Harrison.....	585	Gulfport.....	119,489
Cottonwood.....	636	Windom.....	16,166	Hinds.....	876	Jackson and Raymond.....	187,405
Crow Wing.....	995	Brainerd.....	32,134	Holmes.....	769	Lexington.....	27,036
Dakota.....	576	Hastings.....	78,303	Humphreys.....	121	Belzoni.....	19,033
Dodge.....	435	Mantorville.....	13,259	Issaquena.....	414	Mayersville.....	3,576
Douglas.....	617	Alexandria.....	21,313	Itawamba.....	541	Fulton.....	15,980
Faribault.....	711	Blue Earth.....	23,685	Jackson.....	736	Pascagoula.....	55,522
Pilmore.....	859	Preston.....	23,768	Jasper.....	683	Bay Springs and Pauding.....	16,909
Freeborn.....	701	Albert Lea.....	37,891	Jefferson.....	521	Fayette.....	10,142
Goodhue.....	753	Red Wing.....	33,035	Jefferson Davis.....	411	Prentiss.....	13,540
Grant.....	563	Elbow Lake.....	15,881	Jones.....	703	Ellisville & Laurel.....	59,512
Hennepin.....	567	Minneapolis.....	542,850	Kemper.....	757	De Kalb.....	12,277
Houston.....	565	Caldecott.....	16,584	Lafayette.....	668	Oxford.....	21,555
Hubbard.....	932	Park Rapids.....	9,902	Lamar.....	500	Purvis.....	13,675
Isanti.....	438	Cambridge.....	13,530	Lauderdale.....	721	Meridian.....	67,119
Itasca.....	2,633	Grand Rapids.....	38,006	Lawrence.....	433	Monticello.....	10,215
Jackson.....	696	Jackson.....	15,501	Leake.....	586	Carthage.....	18,660
Kanabec.....	524	Mora.....	9,007	Lee.....	455	Tupelo.....	40,589
Kandiyohi.....	783	Willmar.....	29,987	Leflore.....	592	Greenwood.....	47,142
Kittson.....	1,123	Hallock.....	8,343	Lowndes.....	586	Brookhaven.....	26,759
Koochiching.....	3,127	International Falls.....	18,190	Madison.....	508	Columbus.....	46,639
Lac qui Parle.....	768	Madison.....	13,330	Marion.....	751	Canton.....	32,904
Lake of the Woods.....	2,062	Two Harbors.....	13,702	Marshall.....	550	Columbia.....	25,233
Le Sueur.....	1,311	Baudette.....	4,304	Marshall.....	710	Holly Springs.....	21,503
Lincoln.....	440	Le Center.....	19,006	Monroe.....	769	Aberdeen.....	33,933
Lyon.....	531	Ivanhoe.....	9,651	Montgomery.....	403	Winona.....	13,320
McLeod.....	709	Marshall.....	22,655	Neshoba.....	588	Philadelphia.....	20,927
Mahnomen.....	488	Glencoe.....	21,401	Newton.....	580	Decatur.....	19,517
Marshall.....	563	Mahnomen.....	6,341	Noxubee.....	695	Macon.....	16,826
Martin.....	1,789	Warren.....	14,262	Okfuskee.....	454	Starkeville.....	26,175
Mekong.....	703	Fairmont.....	26,986	Panola.....	693	Batesville & Sardis.....	28,791
Mille Lacs.....	619	Litchfield.....	18,887	Pearl River.....	828	Poplarville.....	22,411
Morrison.....	1,127	Little Falls.....	26,631	Perry.....	653	New Augusta.....	8,745
Mower.....	703	Austin.....	48,198	Pike.....	109	Magnolia.....	35,063
Murray.....	708	Slayton.....	14,743	Pontotoc.....	501	Pontotoc.....	17,232
Nicollet.....	432	Saint Peter.....	23,196	Prentiss.....	418	Bonneville.....	17,949
Nobles.....	712	Worthington.....	23,365	Quitman.....	412	Marks.....	21,019
Norman.....	885	Ada.....	11,253	Rankin.....	780	Brandon.....	34,322
Olmsted.....	656	Rochester.....	65,532	Scott.....	615	Forest.....	21,187
Otter Tail.....	1,962	Fergus Falls.....	48,960	Sharkey.....	436	Rolling Fork.....	10,738
Pennington.....	622	Chief River Falls.....	12,468	Simmons.....	587	Mendenhall.....	20,451
Pine.....	1,414	Pipe City.....	17,004	Smith.....	642	Ridgely.....	14,303
Pipestone.....	2,013	Pikeston.....	13,005	Stone.....	448	Wicks.....	7,013
Polk.....	669	Greenwood.....	11,914	Sunflower.....	694	Indianola.....	45,750
Pope.....	155	Saint Paul.....	422,525	Tallahatchie.....	644	Charleston and Sumner.....	24,081
Ramsey.....	432	Red Lake Falls.....	5,830	Tate.....	405	Senatobia.....	18,138
Red Lake.....	874	Redwood Falls.....	21,718	Tippah.....	464	Ripley.....	15,093
Redwood.....	979	Olivia.....	23,249	Tishomingo.....	443	Iuka.....	13,889
Renville.....	496	Faribault.....	38,988	Tunica.....	458	Tunica.....	16,826
Rice.....	485	Luverne.....	11,864	Union.....	422	New Albany.....	18,904
Rock.....	1,676	Roseau.....	12,154	Walthall.....	403	Tylertown.....	13,512
Roseau.....	409	Ruth.....	231,588	Warren.....	581	Kicksburg.....	42,206
St. Louis.....	3,602	Shakopee.....	21,909	Washington.....	734	Greenville.....	78,638
Scott.....	433	Elk River.....	12,861	Wayne.....	527	Waynesboro.....	12,588
Sherburne.....	431	Gaylord.....	16,228	Webster.....	416	Walthall.....	10,580
Sibley.....	583	Saint Cloud.....	50,345	Wilkinson.....	674	Woodville.....	13,235
Stearns.....	1,342	Owatonna.....	25,029	Winston.....	606	Louisville.....	19,246
Steele.....	425	Morris.....	11,262	Yalobusha.....	488	Coffeeville and Water Valley.....	12,502
Stevens.....	558	Benson.....	14,936	Yazoo.....	938	Yazoo City.....	31,653
Swift.....	912	Long Prairie.....	23,119				
Todd.....	568	Wheaton.....	7,503				
Traverse.....	522	Waabasha.....	17,007				
Wabasha.....	556	Watena.....	12,199				
Wadena.....	415	Wadena.....	16,041				
Wasca.....	386	Stillwater.....	52,132				
Washington.....	433	Saint James.....	14,460				
Watsonwan.....	752	Breckenridge.....	10,650				
Wilkin.....	620	Winona.....	40,937				
Winona.....	674	Buffalo.....	29,945				
Wright.....							
Yellow Medicine.....	753	Granite Falls.....	15,523				
MISSISSIPPI				MISSOURI			
(88 counties; 47,358 sq. mi. land; pop., 2,178,141)				(114 cos.; 1 Ind. city, 69,046 sq. mi. land; pop., 4,319,815)			
Adams.....	449	Natchez.....	37,730	Adair.....	574	Kirksville.....	20,105
Alcorn.....	405	Corinth.....	25,282	Andrew.....	435	Savannah.....	11,062
Amite.....	729	Liberty.....	15,573	Atchison.....	549	Rockport.....	9,213
Attala.....	721	Kosciusko.....	21,355	Audrain.....	692	Mexico.....	26,079
Benton.....	412	Ashland.....	7,723	Barry.....	789	Cassville.....	18,921
Bolivar.....	923	Cleveland and Rosedale.....	54,464	Barton.....	594	Lamar.....	11,113
Calhoun.....	575	Pittsboro.....	15,941	Bates.....	841	Butler.....	15,905
Carroll.....	637	Carrollton & Valden.....	11,177	Benton.....	742	Warsaw.....	8,747
Chickasaw.....	506	Houston and Okolona.....	16,891	Bollinger.....	618	Marble Hill.....	9,167
Choctaw.....	417	Ackerman.....	8,133	Boone.....	683	Columbia.....	55,202
Claborn.....	489	Fort Gibson.....	19,845	Buchanan.....	404	Saint Joseph.....	90,581
Clarke.....	697	Quitman.....	16,163	Butler.....	714	Poplar Bluff.....	34,656
Clay.....	414	West Point.....	18,913	Caldwell.....	835	Kingsdon.....	8,840
Coahoma.....	569	Clarksdale.....	46,212	Camden.....	655	Cameron.....	23,558
Copiah.....	780	Hazlehurst.....	27,051	Cape Girardeau.....	576	Jackson.....	9,116
Covington.....	416	Collins.....	13,676	Carroll.....	691	Carrollton.....	42,020
				Carver.....	506	Van Buren.....	3,973
				Cass.....	698	Harrisonville.....	29,702
				Cedar.....	496	Stockton.....	9,185
				Charlton.....	759	Keytesville.....	12,720
				Christian.....	567	Ozark.....	12,459
				Clark.....	509	Katoka.....	8,725
				Clay.....	413	Liberty.....	87,474
				Columbia.....	420	Flattersburg.....	11,588
				Cole.....	385	Jefferson City.....	40,291
				Cooper.....	563	Boonville.....	15,448
				Crawford.....	760	Steelville.....	12,647

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
MISSOURI—Continued				MONTANA—Continued			
Dade.....	504	Greenfield.....	7,577	Deer Lodge.....	740	Anaconda.....	18,640
Dallas.....	537	Buffalo.....	9,344	Fallon.....	1,633	Baker.....	3,997
Davies.....	423	Gallatin.....	9,502	Fergus.....	2,242	Lewis and Clark.....	12,018
De Kalb.....	423	Maysville.....	7,226	Flathead.....	5,137	Kalispell.....	32,965
Dent.....	756	Salem.....	10,445	Gallatin.....	2,517	Bozeman.....	26,045
Douglas.....	809	Ava.....	9,653	Garfield.....	4,455	Jordan.....	1,981
Dunklin.....	543	Kennett.....	39,139	Glacier.....	2,964	Cut Bank.....	11,565
Franklin.....	932	Union.....	44,566	Golden Valley.....	1,176	Ryegate.....	1,203
Gasconade.....	520	Hermann.....	12,195	Granite.....	1,733	Phillipsburg.....	3,014
Gentry.....	488	Albany.....	8,793	Hill.....	2,927	Havre.....	18,653
Greene.....	677	Springfield.....	126,276	Jefferson.....	1,652	Boulder.....	4,297
Grundy.....	435	Trenton.....	12,222	Judith Basin.....	1,880	Stanford.....	3,083
Harrison.....	720	Bethany.....	11,603	Lake.....	1,494	Polson.....	13,104
Henry.....	737	Clinton.....	19,226	Lewis and Clark.....	3,476	Helena.....	28,006
Hickory.....	410	Hermitage.....	4,516	Liberty.....	1,439	Chester.....	2,624
Holt.....	464	Oregon.....	7,885	Lincoln.....	3,714	Libby.....	12,537
Howard.....	469	Fayette.....	10,859	McCone.....	2,607	Circle.....	3,321
Howell.....	920	West Plains.....	22,027	Madison.....	3,528	Virginia City.....	5,211
Iron.....	554	Ironton.....	8,041	Meagher.....	2,354	White Sulphur Springs.....	2,616
Jackson.....	603	Independence.....	622,732	Mineral.....	1,222	Superior.....	3,037
Jasper.....	642	Carthage.....	78,863	Missoula.....	2,512	Butte.....	44,663
Jefferson.....	687	Illsboro.....	46,377	Musselshell.....	1,887	Roundup.....	4,888
Johnson.....	826	Warrensburg.....	28,981	Park.....	2,626	Livingston.....	13,168
Knox.....	512	Edina.....	6,558	Petroleum.....	1,655	Winnett.....	894
Laclede.....	770	Lebanon.....	18,991	Phillips.....	5,213	Malta.....	6,027
Lafayette.....	634	Lexington.....	25,274	Pondera.....	1,645	Conrad.....	7,653
Lawrence.....	619	Mount Vernon.....	23,260	Powder River.....	3,288	Broadus.....	2,485
Lewis.....	505	Monticello.....	10,984	Powell.....	2,336	Deer Lodge.....	7,002
Lincoln.....	629	Troy.....	14,783	Prairie.....	1,730	Terry.....	2,318
Linn.....	624	Linn.....	16,815	Ravalli.....	2,382	Hamilton.....	12,341
Livingston.....	533	Chillicothe.....	11,798	Richland.....	2,075	Sioux Falls.....	10,504
McDonald.....	340	Pineville.....	1,791	Roosevelt.....	2,385	Wolf Point.....	11,731
Macon.....	814	Macon.....	16,473	Rosebud.....	5,037	Forsyth.....	6,187
Madison.....	496	Fredericktown.....	9,366	Sanders.....	2,778	Thompson Falls.....	6,880
Maries.....	526	Vienna.....	7,282	Sheridan.....	1,694	Plentywood.....	6,458
Marion.....	440	Palmyra.....	29,522	Silver Bow.....	715	Butte.....	46,454
Mercer.....	456	Princeton.....	5,750	Stillwater.....	1,794	Columbus.....	5,526
Miller.....	603	Tuscumbia.....	13,800	Sweet Grass.....	1,840	Big Timber.....	3,290
Mississippi.....	411	Charleston.....	20,695	Teton.....	2,294	Choteau.....	7,295
Monteague.....	411	California.....	10,500	Treasure.....	1,950	Shelby.....	7,942
Monroe.....	669	Paris.....	10,688	Valley.....	983	Hyslop.....	1,545
Montgomery.....	533	Montgomery City.....	11,097	Wheatland.....	4,974	Glaspow.....	17,080
Morgan.....	596	Versailles.....	9,476	Wibaux.....	1,420	Harlowton.....	3,026
New Madrid.....	679	New Madrid.....	31,350	Yellowstone.....	890	Wibaux.....	1,698
Newton.....	629	Neosho.....	30,093	Yel'stone Nat. Park (part).....	269	Billings.....	79,016
Nodaway.....	877	Maryville.....	22,215				
Oregon.....	784	Alton.....	9,845				
Osage.....	601	Linn.....	10,867				
Ozark.....	743	Gainesville.....	6,744				
Pemiscot.....	488	Caruthersville.....	38,035				
Perry.....	476	Perryville.....	14,642				
Pettis.....	679	Sedalia.....	35,120				
Phelps.....	677	Rolla.....	25,396				
Pike.....	681	Bowling Green.....	16,706				
Platte.....	420	Platte City.....	23,350				
Polk.....	642	Bolivar.....	13,753				
Pulaski.....	551	Waynesville.....	46,567				
Putnam.....	518	Unionville.....	6,999				
Rails.....	478	New London.....	8,078				
Randolph.....	484	Huntsville.....	22,014				
Ray.....	574	Warrenton.....	16,075				
Reynolds.....	819	Centerville.....	5,161				
Ripley.....	639	Doniphan.....	9,096				
St. Charles.....	561	St. Charles.....	52,970				
St. Clair.....	699	Osceola.....	8,421				
St. Francois.....	457	Farmingington.....	36,516				
St. Louis.....	497	Clayton.....	703,532				
Ste. Genevieve.....	500	Ste. Genevieve.....	12,116				
Saline.....	759	Marshall.....	25,148				
Schuyler.....	326	Lancaster.....	5,032				
Scotland.....	414	Perryville.....	6,484				
Scott.....	411	Benton.....	32,748				
Shannon.....	998	Eminence.....	7,087				
Shelby.....	502	Shelbyville.....	9,063				
Stoddard.....	837	Bloomfield.....	29,490				
Stone.....	463	Galena.....	8,176				
Sullivan.....	654	Millan.....	8,783				
Taney.....	626	Forsyth.....	10,238				
Texas.....	1,183	Houston.....	17,758				
Vernon.....	838	Nevada.....	20,540				
Warren.....	428	Warrenton.....	8,750				
Washington.....	760	Potosi.....	14,346				
Wayne.....	741	Greenville.....	8,638				
Webster.....	590	Marshfield.....	13,753				
Worth.....	267	Grant City.....	3,936				
Wright.....	684	Hartville.....	14,183				
Independent City.....							
St. Louis.....	61		750,026				

MONTANA

(68 counties, 145,803 sq. mi. land; pop., 674,767)

Beaverhead.....	5,560	Dillon.....	7,144
Big Horn.....	5,028	Hardin.....	10,007
Blaine.....	4,275	Chinook.....	8,091
Broadwater.....	1,193	Townsend.....	2,804
Carbon.....	2,067	Red Lodge.....	8,317
Carter.....	3,313	Ekalaka.....	2,493
Cascade.....	2,661	Great Falls.....	73,418
Chouteau.....	3,927	Fort Benton.....	7,348
Custer.....	3,756	Meles City.....	13,227
Daniels.....	1,443	Scobey.....	3,755
Dawson.....	2,370	Glendive.....	12,314
Deer Lodge.....	740	Anaconda.....	18,640
Fallon.....	1,633	Baker.....	3,997
Fergus.....	2,242	Lewis and Clark.....	12,018
Flathead.....	5,137	Kalispell.....	32,965
Gallatin.....	2,517	Bozeman.....	26,045
Garfield.....	4,455	Jordan.....	1,981
Glacier.....	2,964	Cut Bank.....	11,565
Golden Valley.....	1,176	Ryegate.....	1,203
Granite.....	1,733	Phillipsburg.....	3,014
Hill.....	2,927	Havre.....	18,653
Jefferson.....	1,652	Boulder.....	4,297
Judith Basin.....	1,880	Stanford.....	3,083
Lake.....	1,494	Polson.....	13,104
Lewis and Clark.....	3,476	Helena.....	28,006
Liberty.....	1,439	Chester.....	2,624
Lincoln.....	3,714	Libby.....	12,537
McCone.....	2,607	Circle.....	3,321
Madison.....	3,528	Virginia City.....	5,211
Meagher.....	2,354	White Sulphur Springs.....	2,616
Mineral.....	1,222	Superior.....	3,037
Missoula.....	2,512	Butte.....	44,663
Musselshell.....	1,887	Roundup.....	4,888
Park.....	2,626	Livingston.....	13,168
Petroleum.....	1,655	Winnett.....	894
Phillips.....	5,213	Malta.....	6,027
Pondera.....	1,645	Conrad.....	7,653
Powder River.....	3,288	Broadus.....	2,485
Powell.....	2,336	Deer Lodge.....	7,002
Prairie.....	1,730	Terry.....	2,318
Ravalli.....	2,382	Hamilton.....	12,341
Richland.....	2,075	Sioux Falls.....	10,504
Roosevelt.....	2,385	Wolf Point.....	11,731
Rosebud.....	5,037	Forsyth.....	6,187
Sanders.....	2,778	Thompson Falls.....	6,880
Sheridan.....	1,694	Plentywood.....	6,458
Silver Bow.....	715	Butte.....	46,454
Stillwater.....	1,794	Columbus.....	5,526
Sweet Grass.....	1,840	Big Timber.....	3,290
Teton.....	2,294	Choteau.....	7,295
Treasure.....	1,950	Shelby.....	7,942
Valley.....	983	Hyslop.....	1,545
Wheatland.....	4,974	Glaspow.....	17,080
Wibaux.....	1,420	Harlowton.....	3,026
Yellowstone.....	890	Wibaux.....	1,698
Yel'stone Nat. Park (part).....	269	Billings.....	79,016

NEBRASKA

(93 counties, 76,522 sq. mi. land; pop., 1,411,330)

Adams.....	562	Hastings.....	28,944
Antelope.....	853	Neligh.....	10,176
Arthur.....	704	Arthur.....	680
Banner.....	738	Harrisburg.....	1,269
Blaine.....	710	Brewster.....	1,016
Boone.....	683	Albion.....	9,134
Box Butte.....	1,065	Alliance.....	11,688
Boyd.....	538	Butte.....	4,513
Brown.....	1,216	Ainsworth.....	4,436
Buffalo.....	949	Kearney.....	26,296
Burt.....	483	Broken Bow.....	10,492
Butler.....	582	David City.....	10,312
Cass.....	555	Plattsmouth.....	17,821
Cedar.....	742	Hartington.....	13,368
Chase.....	890	Imperial.....	4,317
Cherry.....	5,971	Valentine.....	8,218
Cheyenne.....	1,186	Sidney.....	14,828
Clay.....	570	Clay Center.....	8,717
Colfax.....	406	Schuyler.....	9,595
Cuming.....	571	West Point.....	12,135
Custer.....	2,538	Broken Bow.....	10,492
Dakota.....	256	Dakota City.....	12,168
Dawes.....	1,386	Chadron.....	9,536
Dawson.....	975	Lexington.....	19,405
Deuel.....	436	Chappell.....	3,125
Dixon.....	475	Ponca.....	8,106
Dodge.....	528	Fremont.....	32,471
Douglas.....	335	Omaha.....	313,490
Dundy.....	921	Benkelman.....	3,570
Fillmore.....	577	Geneva.....	9,425
Franklin.....	578	Franklin.....	5,440
Frontier.....	962	Stockville.....	4,311
Furnas.....	722	Beaver City.....	7,711
Gage.....	858	Beatrice.....	26,818
Garden.....	1,678	Oshkosh.....	3,472
Garfield.....	569	Burwell.....	2,699
Gosper.....	464	Elwood.....	2,489
Grant.....	764	Hyannis.....	1,009
Greely.....	570	Greely.....	4,595
Hall.....	537	Grand Island.....	35,757
Hamilton.....	537	Aurora.....	8,714
Harlan.....	568	Alma.....	5,081
Hayes.....	711	Hayes Center.....	1,919
Hitchcock.....	712	Trenton.....	4,829
Holt.....	2,405	O'Neill.....	13,722
Hooker.....	722	Mullen.....	1,130
Howard.....	564	Saint Paul.....	6,541
Jefferson.....	577	Fairbury.....	11,620
Johnson.....	377	Tecumseh.....	6,281
Kearney.....	512	Minden.....	6,580
Keith.....	1,032	Ogallala.....	7,958

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
NEBRASKA—Continued			
Keya Paha....	768	Springview.....	1,672
Kimball.....	953	Kimball.....	7,975
Knox.....	1,107	Center.....	13,300
Lancaster....	845	Lincoln.....	155,272
Lincoln.....	2,522	North Platte....	28,491
Logan.....	570	Stapleton.....	1,108
Loup.....	574	Taylor.....	1,097
McPherson....	856	Tryon.....	735
Madison.....	573	Madison.....	25,145
Merriek.....	480	Central City....	8,363
Morrill.....	1,402	Bridgeport.....	7,057
Nance.....	439	Fullerton.....	5,635
Nemaha.....	400	Auburn.....	9,099
Nuckolls.....	579	Nelson.....	8,217
Otoe.....	619	Nebraska City..	16,503
Pawnee.....	433	Pawnee City....	5,356
Perkins.....	885	Grant.....	4,189
Phelps.....	544	Holdrege.....	9,800
Pierce.....	573	Pierce.....	8,722
Platte.....	667	Columbus.....	23,992
Polk.....	432	Oscar.....	7,210
Red Willow....	716	McCook.....	12,940
Richardson....	550	Falls City.....	13,903
Rock.....	1,009	Bassett.....	2,554
Saline.....	575	Wilber.....	12,542
Sarpy.....	239	Papillion.....	31,281
Saunders.....	759	Wahoo.....	17,270
Scotts Bluff..	726	Gering.....	33,809
Seward.....	571	Seward.....	13,581
Sheridan.....	2,462	Rushville.....	9,049
Sherman.....	571	Loup City.....	5,382
Sioux.....	2,063	Harrison.....	2,575
Stanton.....	431	Stanton.....	5,783
Thayer.....	577	Hebron.....	9,118
Thomas.....	716	Theftord.....	1,078
Thurston.....	388	Pender.....	7,237
Valley.....	569	Ord.....	6,590
Washington....	386	Blair.....	12,103
Wayne.....	443	Wayne.....	9,959
Webster.....	575	Red Cloud.....	6,224
Wheeler.....	576	Bartlett.....	1,297
York.....	577	York.....	13,724

NEVADA

(17 counties, 109,889 sq. mi. land, pop., 286,878)

Churchill.....	4,883	Fallon.....	8,452
Clark.....	7,874	Las Vegas.....	127,016
Douglas.....	723	Minden.....	3,481
Elko.....	17,162	Elko.....	12,011
Esmeralda....	3,570	Goldfield.....	619
Eureka.....	4,182	Eureka.....	767
Humboldt.....	9,702	Winnemucca....	5,708
Lander.....	5,821	Austin.....	1,566
Lincoln.....	10,649	Pioche.....	1,458
Lyon.....	2,010	Yerington.....	6,143
Mineral.....	3,765	Hawthorne.....	6,329
Nye.....	18,434	Stanton.....	4,874
Ormsby.....	141	Carson City....	8,063
Perishg.....	6,901	Lovelock.....	3,199
Storey.....	262	Virginia City..	568
Washoe.....	6,375	Reno.....	84,743
White Pine....	8,904	Ely.....	9,808

NEW HAMPSHIRE

(10 counties, 9,033 sq. mi. land, pop., 606,921)

Belknap.....	400	Laconia.....	23,912
Carroll.....	938	Ossipee.....	15,829
Cheshire.....	715	Keene.....	43,342
Cods.....	1,820	Lancaster.....	37,140
Grafton.....	1,732	Woodsville....	48,857
Hillsborough..	893	Nashua.....	178,161
Merrimack....	930	Concord.....	67,785
Rockingham..	891	Exeter.....	99,029
Strafford.....	376	Dover.....	59,799
Sullivan.....	539	Newport.....	28,067

NEW JERSEY

(21 counties, 7,552 sq. mi. land, pop., 6,066,783)

Atlantic.....	569	Mays Landing..	160,880
Bergen.....	234	Hackensack.....	780,255
Burlington....	819	Mount Holly..	224,499
Camden.....	221	Camden.....	392,035
Cape May.....	267	Cape May Court House	48,855
Cumberland....	500	Bridgeton.....	106,550
Essex.....	130	Newark.....	923,515
Gloucester....	329	Woodbury.....	134,810
Hudson.....	47	Jersey City....	610,744
Hunterdon....	434	Flemington....	51,107
Mercer.....	228	Trenton.....	266,392
Middlesex....	312	New Brunswick..	483,856
Monmouth....	476	Freehold.....	334,401
Morris.....	468	Morristown....	261,620
Osage.....	642	Toms River....	108,241
Passaic.....	193	Paterson.....	406,618
Salem.....	365	Salem.....	58,711
Somerset.....	307	Somerville....	143,913
Sussex.....	627	Newton.....	49,253
Union.....	103	Elizabeth.....	504,255
Warren.....	362	Dividere.....	63,220

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
NEW MEXICO			
(32 counties, 121,445 sq. mi. land, pop., 961,023)			
Bernalillo....	1,169	Albuquerque....	262,199
Caron.....	6,897	Reserve.....	2,773
Chaves.....	6,092	Roswell.....	57,649
Colfax.....	3,764	Raton.....	13,806
Curry.....	1,403	Clovis.....	32,691
De Baca.....	2,356	Fort Sumner..	2,991
Doña Ana....	3,804	Las Cruces....	59,948
Eddy.....	4,167	Carlsbad.....	50,783
Grant.....	3,970	Silver City....	18,700
Guadalupe....	2,998	Santa Rosa....	5,610
Harding.....	2,134	Mosquero.....	1,874
Hidalgo.....	3,447	Lordsburg....	4,961
Lea.....	4,393	Lovington....	53,429
Lincoln.....	4,858	Carriazo.....	7,714
Los Alamos....	108	Los Alamos....	13,037
Luna.....	2,957	Deming.....	9,839
McKinley....	5,453	Gallup.....	37,209
Mora.....	1,940	Mora.....	6,028
Otero.....	6,638	Alamogordo....	36,976
Quay.....	2,882	Tucumcari....	12,279
Rio Arriba....	5,853	Tierra Amarilla	24,193
Roosevelt....	2,454	Portales.....	16,198
Sandoval.....	3,714	Bernalillo....	11,201
San Juan.....	5,506	Aztec.....	53,306
San Miguel....	4,741	Las Vegas....	23,468
Santa Fe.....	1,905	Santa Fe.....	44,970
Sierra.....	4,166	Truth or Consequences	6,409
Socorro.....	6,603	Socorro.....	10,168
Taos.....	2,256	Taos.....	15,934
Torrance.....	3,346	Estancia.....	4,997
Union.....	3,816	Clayton.....	6,068
Valencia.....	5,656	Las Lunas....	39,085

NEW YORK

(62 counties, 47,869 sq. mi. land, pop., 10,782,804)

Albany.....	526	Albany.....	272,926
Allegany.....	1,047	Belmont.....	43,978
Bronx.....	41	Bronx.....	1,424,115
Broome.....	714	Binghamton....	212,661
Cattaraugus..	1,314	Little Valley..	80,187
Cayuga.....	698	Auburn.....	73,942
Chautauqua....	1,081	Mayville.....	145,377
Chemung.....	415	Elmira.....	98,706
Chenango.....	909	Norwich.....	43,243
Clinton.....	1,059	Plattsburgh....	72,722
Columbia.....	615	Hudson.....	47,322
Cortland.....	502	Cortland.....	41,113
Delaware.....	1,458	Delhi.....	43,540
Dutchess.....	813	Poughkeepsie..	176,008
Erie.....	1,058	Buffalo.....	1,064,688
Essex.....	1,823	Elizabethtown..	35,300
Franklin.....	1,674	Malone.....	44,712
Fulton.....	498	Johnstown....	51,304
Genesee.....	501	Batavia.....	53,994
Greene.....	653	Catskill.....	31,372
Hamilton.....	1,735	Lake Pleasant..	4,267
Herkimer.....	1,435	Herkimer.....	66,370
Jefferson.....	1,293	Watertown....	87,835
Kings.....	70	Brooklyn.....	2,627,319
Lewis.....	1,291	Loville.....	23,249
Livingston....	638	Gonesse.....	44,053
Madison.....	651	Campsville....	54,635
Monroe.....	671	Rochester.....	625,128
Montgomery..	408	Fonda.....	17,240
Nassau.....	289	Mitola.....	1,307,171
New York.....	28	New York.....	1,695,281
Niagara.....	532	Lockport.....	234,477
Oneida.....	1,223	Utica.....	264,101
Onondaga.....	794	Syracuse.....	423,028
Ontario.....	651	Canandaigua..	6,070
Orange.....	833	Goshen.....	209,141
Orleans.....	396	Albion.....	34,159
Oswego.....	964	Oswego.....	86,118
Otsego.....	1,013	Cooperstown..	51,942
Putnam.....	231	Cornell.....	41,811
Queens.....	108	Jamaica.....	180,578
Rensselaer....	665	Troy.....	112,583
Richmond....	58	Saint George..	221,991
Rockland.....	176	New City.....	191,611
St. Lawrence..	2,768	Canton.....	111,239
Saratoga.....	818	Ballston Spa..	101,345
Schenectady..	207	Schenectady....	152,896
Schoharie....	621	Schoharie....	22,616
Schuyler.....	330	Watkins Glen..	15,044
Seneca.....	330	Ovid & Waterloo	31,984
Steuben.....	1,119	Bath.....	97,691
Suffolk.....	929	Riverhead.....	666,781
Sullivan.....	980	Monticello....	45,272
Tioga.....	524	Owego.....	37,802
Tompkins....	182	Ithaca.....	66,104
Ulster.....	1,141	Kingston.....	118,804
Warren.....	887	Lake George..	44,002
Washington....	836	Hudson Falls..	48,476
Wayne.....	606	Lyons.....	67,989
Westchester..	411	White Plains..	854,198
Wyoming.....	288	Ward.....	34,794
Yates.....	343	Penn Yan.....	18,614

NORTH CAROLINA

(100 counties, 48,880 sq. mi. land; pop., 4,556,155)

Alamance.	434	Graham.	85,674
Alexander.	255	Waldersville.	15,625
Albany.	233	Warrenton.	7,737
Anson.	543	Waxboro.	24,962
Ashe.	427	Jefferson.	19,768
Avery.	247	Newland.	12,009
Beaufort, '66.	831	Washington.	36,143
Bertie.	693	Windsor.	24,350
Bladen, '66.	879	Elizabethtown.	26,605
Brunswick.	873	Southport.	20,278
Buncombe.	645	Asheville.	130,074
Burke.	180	Forestburg.	52,429
Cabarrus.	380	Concord.	68,137
Caldwell.	476	Lenoir.	49,552
Camden, '66.	239	Camden.	5,407
Carieret.	532	Beaufort.	30,940
Caswell.	435	Yanceyville.	19,917
Catawba.	406	Newton.	73,191
Chatham.	707	Pittsboro.	26,785
Cherokee.	454	Murphy.	16,335
Chowan.	180	Edenton.	17,220
Clay.	215	Hayesville.	5,526
Cleveland, '66.	466	Shelby.	69,372
Columbus.	939	Whiteville.	48,973
Craven.	725	New Bern.	58,773
Cumberland.	661	Fayetteville.	148,418
Currituck.	273	Currituck.	6,601
Dare.	388	Marion.	5,935
Davidson.	564	Lexington.	79,493
David.	246	Mocksville.	16,728
Deane, '65.	832	Kernsylville.	37,959
Durham.	299	Durham.	111,995
Edgecombe.	511	Tarboro.	54,226
Forsyth.	424	Winston-Salem.	189,428
Franklin.	494	Louisburg.	28,755
Gaston, '66.	358	Gastonia.	135,775
Gates.	343	Gatesville.	9,254
Graham.	289	Robbinsville.	6,432
Graulville.	542	Oxford.	33,110
Greene.	323	High Hill.	1,741
Gulford, '66.	651	Greensboro.	269,513
Halifax.	722	Halifax.	58,956
Harnett, '66.	606	Lillington.	49,189
Haywood.	543	Waynesville.	39,711
Henderson.	382	Hendersonville.	32,163
Hertford.	356	Winton.	26,718
Hoke.	326	Raeford.	16,356
Hyde, '66.	634	Swanquarter.	5,456
Iredell.	591	Steviesville.	62,526
Jackson.	495	Salisbury.	7,750
Johnston, '66.	795	Smithfield.	60,939
Jones, '65.	467	Trenton.	10,221
Lee, '66.	255	Sanford.	29,197
Lenoir.	391	Kinston.	55,276
Lincoln.	308	Lincolnton.	28,814
McDowell.	442	Marion.	26,742
Macon.	517	Franklin.	14,935
Madison.	456	Asheboro.	17,217
Martin, '66.	305	Williamston.	25,611
Mecklenburg.	542	Charlotte.	272,111
Mitchell.	220	Bakersville.	13,906
Montgomery.	488	Troy.	18,408
Moore.	760	Carthage.	36,733
Nash.	552	Nashville.	61,002
New Hanover.	194	Wilmington.	71,742
Northampton.	539	Jackson.	26,811
Onslow.	756	Jacksonville.	82,707
Orange.	385	Johnston.	42,970
Pamlico.	341	Bayboro.	9,850
Pasquotank.	229	Elizabeth City.	25,630
Pender, '66.	857	Burgaw.	17,372
Perquimans, '66	261	Hertford.	8,675
Person.	400	Roxboro.	26,394
Pitt.	656	Greenville.	69,942
Polk.	234	Columbus.	11,395
Randolph.	801	Asheboro.	61,495
Richmond, '66.	822	Rockingham.	37,399
Roxboro, '66.	944	Lumberton.	39,102
Rockingham, '66	572	Wentworth.	71,404
Rowan.	517	Salisbury.	82,817
Rutherford.	566	Rutherfordton.	45,091
Sampson.	963	Clinton.	48,013
Sanly.	399	Alemarle.	40,873
Scotland.	317	Laurinburg.	25,183
Stokes.	459	Danbury.	22,314
Surry.	537	Robson.	4,265
Swain.	530	Burgaw City.	8,387
Transylvania.	379	Brevard.	16,372
Tyrell.	399	Columbia.	4,520
Union, '66.	643	Monroe.	48,389
Vance.	239	Henderson.	32,002
Wake, '66.	864	Raleigh.	197,617
Warren, '66.	443	Warrenton.	17,591
Washington, '65	336	Plymouth.	13,937
Watauge.	326	Boone.	17,557
Wayne.	555	Waxboro.	32,659
Wicks.	703	Wilkesboro.	45,269
Wilson.	373	Wilson.	57,716
Yadkin.	335	Yadkinville.	22,804
Yancey.	311	Burnsville.	14,004

NORTH DAKOTA

(58 counties, 69,280 sq. mi. land; pop., 632,446)

Adams.....	989	Hettinger.....	4,449
Barnes.....	1,479	Valley City.....	16,719
Benson.....	1,403	Minnewaukan.....	9,435
Billings.....	1,139	Medora.....	1,513
Bottineau.....	1,677	Bottineau.....	11,315
Bowman.....	1,170	Bowman.....	4,154
Burke.....	1,119	Bowbells.....	5,886
Caughlin.....	1,625	Elsmarck.....	34,016
Cass.....	7,472	Elgin.....	6,486
Cavalier.....	1,512	Langdon.....	10,061
Dickey.....	1,143	Ellendale.....	8,147
Divide.....	1,300	Crosby.....	5,566
Dunn.....	1,992	Manning.....	6,350
Eddy.....	635	New Rockford.....	4,936
Emmons.....	1,503	Linton.....	8,462
Foster.....	645	Carrington.....	5,361
Golden Valley.....	1,014	Beach.....	3,100
Grand Forks.....	1,438	Grand Forks.....	48,671
Grant.....	1,666	Garson.....	6,548
Griggs.....	710	Cooperstown.....	5,023
Hettinger.....	1,134	Mott.....	6,317
Kidder.....	1,358	Steele.....	5,386
La Moure.....	1,136	La Moure.....	8,705
Logan.....	1,001	Napoleon.....	5,369
McHenry.....	1,879	Towner.....	11,099
McIntosh.....	992	Ashley.....	6,702
McKenzie.....	2,735	Wathford City.....	7,296
McLean.....	2,065	Washburn.....	14,030
Marcet.....	1,042	St. Cloud.....	8,805
Morton.....	1,920	Mandan.....	20,992
Mountrail.....	1,819	Stanley.....	10,077
Nelson.....	995	Lakota.....	7,034
Oliver.....	721	Center.....	2,610
Pembina.....	1,124	Cavalier.....	12,946
Pierce.....	1,038	Rugby.....	7,394
Ramsey.....	1,248	Devils Lake.....	13,443
Ransom.....	861	Liston.....	8,078
Reynolds.....	886	Glendon.....	4,698
Richland.....	1,444	Wahpeton.....	16,324
Rolette.....	913	Rolla.....	10,641
Sargent.....	853	Forman.....	6,856
Sheridan.....	989	McClusky.....	4,350
Sloux.....	1,103	Fort Yates.....	3,662
Slope.....	1,225	Amlund.....	1,893
Stark.....	1,316	Dickinson.....	18,451
Steelman.....	710	Pinkey.....	4,719
Stewart.....	2,264	Jamesstown.....	25,137
Towner.....	1,044	Wadena.....	5,624
Trail.....	861	Hillsboro.....	10,583
Walsh.....	1,286	Grafton.....	17,997
Ward.....	2,044	Minot.....	47,072
Wells.....	1,298	Fessenden.....	9,231
Williams.....	2,064	Williston.....	22,051

OHIO

(88 counties, 41,018 sq. mi. land; pop., 9,706,397)

Adams.....	588	West Union.....	19,982
Allen.....	410	Lima.....	103,691
Ashland.....	418	Ashland.....	38,771
Ashtabula.....	706	Jefferson.....	93,067
Athens.....	504	Athens.....	46,998
Auglaize.....	400	Wapakoneta.....	36,147
Bart.....	534	Saint Clairsville.....	38,824
Brown.....	491	Georgetown.....	25,178
Butler.....	471	Hamilton.....	199,077
Carroll.....	388	Carrollton.....	20,857
Champaign.....	433	Urbana.....	29,714
Clark.....	402	Springfield.....	131,440
Clermont.....	458	Batavia.....	80,530
Clinch.....	411	Wilmingtion.....	30,004
Columbia.....	535	Lebanon.....	107,475
Coshocton.....	403	Coshocton.....	32,224
Crawford.....	404	Bucyrus.....	46,775
Cuyahoga.....	456	Cleveland.....	1,647,895
Darke.....	605	Greenville.....	45,612
Defiance.....	410	Defiance.....	31,508
Delaware.....	440	Delaware.....	36,107
Erie.....	264	Sandusky.....	68,000
Fairfield.....	505	Lancaster.....	63,912
Fayette.....	404	Washington C. H.....	25,775
Franklin.....	537	Columbus.....	682,962
Fulton.....	407	Wauseon.....	20,301
Gallia.....	471	Gallipolis.....	26,120
Geauga.....	407	Chardon.....	47,573
Greene.....	416	Xenia.....	94,642
Guernsey.....	519	Cannabridge.....	38,579
Hamilton.....	414	Cincinnati.....	864,811
Hancock.....	538	Dayton.....	126,681
Harrison.....	403	Kenton.....	29,933
Hardin.....	403	Cadiz.....	17,695
Henry.....	416	Napoleon.....	25,392
Highland.....	551	Hillsboro.....	29,716
Hocking.....	420	Logan.....	20,168
Holmes.....	423	Millersburg.....	21,591
Huron.....	497	Norwalk.....	47,326
Jackson.....	420	Jackson.....	29,372
Jacksonson.....	411	Stromberg.....	99,701
Knox.....	523	Mount Vernon.....	38,808
Lake.....	232	Palmsville.....	148,700
Lawrence.....	456	Ironton.....	55,438
Licking.....	686	Newark.....	90,248

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court House	County Pop. 1960
OHIO—Continued				OKLAHOMA—Continued			
Logan.....	461	Bellefontaine.....	34,803	Osage.....	2,272	Pawhuska.....	32,441
Lorain.....	495	Elyria.....	217,500	Ottawa.....	464	Miami.....	28,301
Lucas.....	343	Toledo.....	456,931	Pawnee.....	561	Pawnee.....	10,884
Madison.....	464	London.....	26,454	Payne.....	694	Stillwater.....	44,231
Madison.....	419	Youngstown.....	300,180	Pittsburg.....	1,241	McAlester.....	34,360
Marion.....	405	Marion.....	60,221	Pontotoc.....	714	Ada.....	28,089
Medina.....	424	Medina.....	65,815	Pottawatomie.....	794	Shawnee.....	41,486
Meigs.....	434	Pomeroy.....	22,159	Pushmataha.....	1,423	Antlers.....	9,088
Mercer.....	454	Celina.....	22,539	Roger Mills.....	1,140	Cheyenne.....	9,088
Miami.....	407	Troy.....	72,901	Rogers.....	712	Claremore.....	20,614
Monroe.....	455	Woodsfield.....	15,268	Seminole.....	630	Wewoka.....	28,066
Montgomery.....	465	Dayton.....	527,080	Sequoyah.....	696	Sallisaw.....	18,001
Morgan.....	417	McConnelsville.....	12,717	Stephens.....	891	Duncan.....	37,990
Morrow.....	404	Mount Gilead.....	19,405	Texas.....	2,062	Guymon.....	14,162
Muskingum.....	663	Zanesville.....	79,159	Tillman.....	901	Frederick.....	14,654
Noble.....	399	Caldwell.....	10,982	Tulsa.....	573	Tulsa.....	346,038
Paulding.....	263	Fort Clinton.....	35,323	Wagoner.....	563	Wagoner.....	15,673
Perry.....	409	New Lexington.....	10,792	Washington.....	424	Barlesville.....	42,317
Pickaway.....	507	Circleville.....	35,855	Washita.....	1,009	Cordell.....	18,121
Pike.....	443	Waverly.....	19,880	Woods.....	1,298	Alva.....	11,932
Portage.....	504	Ravenna.....	91,798	Woodward.....	1,251	Woodward.....	13,902
Preble.....	427	Eaton.....	32,498				
Putnam.....	486	Ottawa.....	28,331				
Richland.....	497	Mansfield.....	117,701				
Ross.....	687	Chillicothe.....	61,215				
Sandusky.....	410	Fremont.....	56,486				
Scioto.....	609	Pecanum.....	81,216				
Seneca.....	551	Tiffin.....	33,576				
Shelby.....	409	Sidney.....	33,576				
Stark.....	573	Canton.....	340,315				
Summit.....	413	Akron.....	513,569				
Trumbull.....	620	Warren.....	208,526				
Tuscarawas.....	551	New Philadelphia.....	76,789				
Union.....	434	Marysville.....	22,853				
Van Wert.....	409	Van Wert.....	28,840				
Vinton.....	411	McArthur.....	10,274				
Warren.....	498	Lebanon.....	65,711				
Washington.....	637	Marletta.....	51,689				
Wayne.....	515	Wapakoneta.....	29,908				
Williams.....	421	Bryan.....	29,908				
Wood.....	618	Bowling Green.....	72,596				
Wyandot.....	406	Upper Sandusky.....	21,648				
OKLAHOMA				OREGON			
(77 counties, 68,984 sq. mi. land; pop., 2,938,284)				(36 counties, 96,209 sq. mi. land; pop., 1,768,987)			
Adair.....	570	Stillwell.....	13,112	Baker.....	3,068	Baker.....	17,295
Alfalfa.....	868	Cherokee.....	8,445	Benton.....	668	Corvallis.....	39,165
Atoka.....	991	Atoka.....	10,352	Clackamas.....	1,884	Oregon City.....	113,038
Beaver.....	1,790	Beaver.....	6,965	Clatsop.....	805	Astoria.....	27,380
Beckham.....	907	Sayre.....	17,782	Columbia.....	640	Saint Helens.....	22,379
Blaine.....	917	Watonga.....	12,077	Coos.....	1,604	Coquille.....	54,955
Bryan.....	889	Lawton.....	21,232	Crook.....	2,980	Truville.....	9,130
Caddo.....	1,275	Adair.....	28,623	Curry.....	1,627	Gold Beach.....	13,933
Canadian.....	897	El Reno.....	24,727	Deschutes.....	3,031	Bend.....	23,100
Carter.....	830	Ardmore.....	39,413	Douglas.....	5,063	Roseburg.....	68,458
Cherokee.....	756	Tahlequah.....	17,762	Gilliam.....	1,208	Candon.....	3,069
Choctaw.....	781	Hugo.....	15,637	Grant.....	4,531	Canyon City.....	6,744
Cimarron.....	1,843	Boise City.....	4,496	Harney.....	10,166	Burns.....	13,395
Cleveland.....	541	Norman.....	47,600	Hood River.....	2,812	Medford.....	73,962
Coal.....	526	Colgate.....	5,546	Jackson.....	1,793	Madras.....	7,130
Comanche.....	1,087	Lawton.....	90,803	Jefferson.....	1,625	Grants Pass.....	29,917
Cotton.....	651	Walters.....	8,031	Josephine.....	5,970	Klamath Falls.....	47,475
Craig.....	764	Vinita.....	10,303	Klamath.....	8,231	Lakeview.....	7,158
Creek.....	936	Wapula.....	21,040	Lane.....	4,562	Eugene.....	162,890
Custer.....	1,001	Arapahoe.....	13,198	Lincoln.....	984	Newport.....	21,635
Delaware.....	707	Jay.....	13,198	Linn.....	2,291	Albany.....	58,467
Dewey.....	1,018	Taloga.....	6,051	Malheur.....	9,561	Vale.....	22,764
Elbert.....	1,212	Arnett.....	5,457	Marion.....	1,166	Salem.....	120,888
Garfield.....	1,054	Enid.....	52,975	Morrow.....	2,060	Hoppper.....	4,871
Garvin.....	814	Pauls Valley.....	28,290	Multnomah.....	123	Portland.....	522,813
Grady.....	1,096	Chickasha.....	29,590	Polk.....	736	Dallas.....	26,523
Grant.....	1,007	Medford.....	8,140	Sherman.....	880	Moro.....	2,416
Greer.....	633	Mangum.....	8,877	Tillamook.....	1,115	Tillamook.....	18,955
Harrison.....	545	Holls.....	5,852	Umatilla.....	3,227	Pendleton.....	44,352
Harper.....	1,044	Edwina.....	5,956	Union.....	2,032	La Grande.....	18,180
Haskell.....	602	Strigler.....	9,121	Wallowa.....	3,175	Kentons.....	7,102
Hughes.....	807	Holdenville.....	15,144	Wasco.....	2,382	The Dalles.....	20,205
Jackson.....	810	Altus.....	29,730	Washington.....	716	Hillsboro.....	92,257
Jefferson.....	780	Waurika.....	8,192	Wheeler.....	1,707	Fossil.....	2,722
Johnston.....	638	Tishomingo.....	8,517	Yamhill.....	711	McMinnville.....	32,478
Kay.....	950	Newkirk.....	51,042				
Kingfisher.....	904	Kingfisher.....	10,635				
Kiowa.....	1,027	Hobart.....	14,825				
Latimer.....	737	Wilburton.....	7,738				
LeFlore.....	1,560	Poteau.....	29,106				
Lincoln.....	973	Cladwell.....	17,783				
Lodge.....	511	Guthrie.....	18,662				
Love.....	513	Marletta.....	5,862				
McClain.....	573	Purcell.....	12,740				
McCurtain.....	1,819	Idabel.....	25,851				
McIntosh.....	608	Faulsua.....	12,371				
Major.....	963	Fairview.....	7,808				
Marshall.....	366	Madill.....	7,263				
Mayes.....	675	Pryor.....	20,073				
Murray.....	428	Sulphur.....	10,622				
Muskogee.....	815	Muskogee.....	61,866				
Noble.....	713	Idabel.....	10,376				
Nowata.....	577	Nowata.....	10,848				
Okfuskee.....	637	Okanah.....	11,706				
Oklahoma.....	705	Oklahoma City.....	439,506				
Oklmulgee.....	700	Oklmulgee.....	36,945				

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
PENNSYLVANIA—Continued			
Luzerne.....	891	Wilkes-Barre.....	346,972
Lycoming.....	1,214	Williamsport.....	109,367
McKean.....	997	Smethport.....	54,517
Mercer.....	681	Mercer.....	127,519
Mifflin.....	431	Lewistown.....	44,348
Monroe.....	611	Stroudsburg.....	39,567
Montgomery.....	491	Norristown.....	516,682
Moutour.....	130	Danville.....	16,730
Northampton.....	373	Paston.....	201,412
Northumberland.....	454	Sunbury.....	104,138
Perry.....	550	New Bloomfield.....	26,582
Philadelphia.....	127	Philadelphia.....	2,002,512
Pike.....	545	Millrod.....	9,158
Porter.....	1,030	Coudersport.....	16,483
Schuylkill.....	783	Toxoville.....	173,027
Snyder.....	329	Middleburg.....	25,922
Somerset.....	1,084	Somerset.....	77,450
Sullivan.....	478	Laporte.....	6,251
Susquehanna.....	836	Montrose.....	33,137
Tioga.....	1,150	Wellsville.....	36,614
Union.....	318	Lewisburg.....	25,646
Venango.....	675	Franklin.....	65,295
Warren.....	910	Warren.....	45,582
Washington.....	857	Washington.....	217,271
Wayne.....	744	Honesdale.....	28,237
Westmoreland.....	1,023	Greensburg.....	352,629
Wyoming.....	396	Tunkhannock.....	16,813
York.....	911	York.....	238,336

RHODE ISLAND

(5 counties, 1,049 sq. mi. land; pop., 892,709 '65)

Bristol, '65.....	25	Bristol.....	41,855
Kent, '65.....	173	East Greenwich.....	128,856
Newport, '65.....	115	Newport.....	81,700
Providence, '65.....	416	Providence.....	569,117
Washington, '65.....	321	West Kingston.....	71,181

SOUTH CAROLINA

(46 counties, 50,280 sq. mi. land; pop., 2,382,594)

Abbeville.....	506	Abbeville.....	21,417
Alken.....	1,100	Alken.....	81,038
Allendale.....	418	Allendale.....	11,362
Anderson.....	775	Anderson.....	16,274
Bamberg.....	395	Bamberg.....	16,759
Barnwell.....	551	Barnwell.....	44,187
Beaufort.....	579	Beaufort.....	38,196
Berkeley.....	1,110	Moncks Corner.....	12,256
Calhoun.....	377	Saint Matthews.....	216,382
Charleston.....	939	Charleston.....	35,205
Cherokee.....	394	Gaffney.....	30,888
Chester.....	584	Chester.....	33,717
Chesterfield.....	792	Chesterfield.....	29,490
Clarendon.....	599	Manning.....	27,816
Colleton.....	1,049	Walterboro.....	52,928
Darlington.....	541	Darlington.....	30,584
Dillon.....	407	Dillon.....	24,383
Dorchester.....	569	Saint George.....	15,735
Edgefield.....	481	Edgefield.....	20,713
Fairfield.....	696	Winnsboro.....	84,438
Florence.....	805	Florence.....	34,798
Georgetown.....	812	Georgetown.....	209,776
Greenville.....	793	Greenville.....	44,346
Greenwood.....	446	Greenwood.....	17,425
Hampton.....	562	Hampton.....	68,247
Horry.....	1,154	Waycross.....	12,237
Jasper.....	652	Ridgeland.....	33,585
Kershaw.....	781	Camden.....	39,352
Lancaster.....	502	Lancaster.....	47,609
Laurens.....	711	Laurens.....	21,832
Lee.....	409	Bishopville.....	60,726
Lexington.....	717	Lexington.....	8,629
McCormick.....	360	McCormick.....	32,014
Marion.....	488	Marion.....	28,529
Marlboro.....	483	Bennettsville.....	29,416
Mauldin.....	635	Newberry.....	40,204
Oconee.....	670	Walhalla.....	68,559
Orangeburg.....	1,106	Orangeburg.....	46,030
Pickens.....	501	Pickens.....	200,102
Richland.....	748	Columbia.....	14,554
Saluda.....	444	Saluda.....	156,830
Spartanburg.....	831	Spartanburg.....	74,941
Sumter.....	672	Sumter.....	30,615
Union.....	514	Union.....	40,932
Williamsburg.....	935	Kingstree.....	78,760
York.....	684	York.....	

SOUTH DAKOTA

(67 counties, 75,966 sq. mi. land; pop., 680,514)

Aurora.....	709	Plankinton.....	4,749
Beadle.....	1,260	Huron.....	21,682
Bennett.....	1,181	Martin.....	3,053
Bon Homme.....	560	Tynar.....	9,239
Brookings.....	800	Brookings.....	20,046
Brown.....	1,674	Aberdeen.....	34,106
Brule.....	818	Chamberlain.....	6,319
Buffalo.....	482	Gannaville.....	1,547
Butte.....	2,250	Belle Fourche.....	8,592
Campbell.....	732	Mound City.....	3,531
Charles Mix.....	1,097	Lake Andes.....	11,785
Clark.....	964	Clark.....	7,134
Clay.....	405	Vermillion.....	10,810
Codington.....	687	Watertown.....	20,220

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
SOUTH DAKOTA—Continued			
Corson.....	2,470	McIntosh.....	5,798
Custer.....	1,557	Custer.....	4,906
Davidson.....	432	Mitchell.....	16,681
Day.....	1,030	Webster.....	10,516
Deuel.....	639	Clear Lake.....	6,782
Dewey.....	2,351	Timber Lake.....	5,257
Douglas.....	435	Armour.....	5,113
Edmunds.....	1,154	Ipswich.....	6,079
Fall River.....	1,743	Hot Springs.....	10,688
Faulk.....	996	Faulkton.....	4,397
Grant.....	681	Milbank.....	9,933
Gregory.....	997	Burke.....	7,399
Haakon.....	1,816	Philip.....	3,303
Hamlin.....	511	Hayti.....	6,303
Hand.....	1,432	Miller.....	6,712
Hanson.....	430	Alexandria.....	4,584
Harding.....	2,682	Buffalo.....	2,371
Hughes.....	748	Pierre.....	12,725
Hutchinson.....	815	Olivet.....	11,085
Hyde.....	863	Highmore.....	2,602
Jackson.....	808	Kadoka.....	1,985
Jerauld.....	527	Wessington Spgs.....	4,048
Jones.....	973	Murdo.....	2,066
Kingsbury.....	818	De Smet.....	9,227
Lake.....	567	Madison.....	11,764
Lawrence.....	800	Deadwood.....	17,075
Lincoln.....	576	Canton.....	12,371
Lyman.....	1,683	Kennebec.....	4,428
McCook.....	575	Salem.....	8,268
McPherson.....	1,147	Leola.....	5,821
Marshall.....	818	Britton.....	6,783
Meade.....	3,465	Sturgis.....	12,044
Mellette.....	1,306	White River.....	2,664
Miner.....	570	Howard.....	5,398
Minnehaha.....	813	Sioux Falls.....	86,575
Moody.....	523	Flandreau.....	8,810
Pennington.....	2,779	Rapid City.....	58,195
Perkins.....	2,860	Bison.....	5,977
Potter.....	869	Getsburg.....	4,926
Roberts.....	1,108	Sisseton.....	13,190
Sanborn.....	570	Woonsocket.....	4,641
Shannon.....	2,100	(Attached to Fall River).....	6,000
Spink.....	1,505	Redfield.....	11,706
Stanley.....	1,414	Fort Pierre.....	4,085
Sully.....	1,004	Onida.....	2,607
Todd.....	1,388	(Attached to Tripp).....	4,661
Tripp.....	1,620	Winner.....	8,761
Turner.....	612	Parker.....	11,159
Union.....	452	Elk Point.....	10,197
Walworth.....	718	Selby.....	8,097
Washabaugh.....	1,061	(Attached to Jackson).....	1,042
Yankton.....	519	Yankton.....	17,551
Ziebach.....	1,981	Dupree.....	2,495

TENNESSEE

(95 counties, 41,366 sq. mi. land; pop., 3,567,089)

Anderson.....	335	Clinch.....	60,032
Bedford.....	482	Shelbyville.....	23,150
Benton.....	392	Candor.....	10,662
Bledsoe.....	404	Pikeville.....	7,811
Blount.....	576	Maryville.....	5,525
Bradley.....	334	Cleveland.....	38,324
Campbell.....	451	Jacksboro.....	27,936
Cannon.....	271	Woodbury.....	8,537
Carroll.....	596	Huntingdon.....	23,476
Carter.....	348	Elizabethton.....	41,578
Cheatham.....	305	Ashland City.....	9,428
Chester.....	285	Henderson.....	9,569
Claborn.....	444	Cazwell.....	19,067
Clay.....	232	Cuba.....	6,549
Cocke.....	424	Newport.....	23,390
Coffee.....	434	Manchester.....	28,603
Crockett.....	269	Alamo.....	14,594
Cumberland.....	678	Crossville.....	19,135
Davidson.....	427	Nashville.....	399,743
Decatur.....	337	Decaturville.....	8,324
De Kalb.....	278	Smithville.....	10,774
Dickson.....	485	Charlotte.....	18,539
Dyer.....	529	Dyersburg.....	18,537
Fayette.....	704	Somerville.....	24,577
Fentress.....	498	Jamestown.....	13,288
Franklin.....	553	Winchester.....	25,528
Gibson.....	607	Trenton.....	44,699
Giles.....	619	Pulaski.....	22,410
Grainger.....	282	Rutledge.....	12,506
Greene.....	613	Greeneville.....	42,163
Grundy.....	358	Altamont.....	11,512
Hamblen.....	155	Morristown.....	33,992
Hamilton.....	530	Chattanooga.....	237,005
Hancock.....	230	Sneedville.....	7,757
Hardeman.....	656	Bolivar.....	21,517
Hardin.....	587	Savannah.....	17,397
Hawkins.....	450	Rogersville.....	30,468
Haywood.....	519	Brownsville.....	23,395
Henderson.....	515	Lexington.....	16,115
Henry.....	567	Paris.....	22,275
Hickman.....	611	Centerville.....	11,822
Houston.....	201	Erin.....	4,794
Humphreys.....	530	Waverly.....	11,511
Jackson.....	323	Gainesboro.....	9,233

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
TENNESSEE—Continued				TEXAS—Continued			
Jefferson.....	274	Dandridge.....	21,493	Cooke.....	905	Gainesville.....	22,560
Johnson.....	293	Mountain City.....	10,765	Coryell.....	1,043	Gatesville.....	23,961
Knox.....	583	Moxville.....	250,523	Cottle.....	900	Paducah.....	4,207
Lake.....	167	Tiptonville.....	9,572	Crane.....	795	Crane.....	4,699
Lauderdale.....	477	Ripley.....	21,844	Crockett.....	2,794	Ozona.....	4,209
Lawrence.....	634	Lawrenceburg.....	28,049	Crosby.....	911	Crosbyton.....	10,347
Lewis.....	285	Hohenwald.....	6,269	Culberson.....	3,851	Van Horn.....	2,794
Lincoln.....	580	Fayetteville.....	23,829	Dallam.....	1,484	Dalhart.....	6,302
Loudon.....	237	Loudon.....	23,757	Dallas.....	875	Dallas.....	951,527
McMinn.....	432	Athens.....	33,662	Dawson.....	902	Lamesa.....	19,185
McNairy.....	569	Selmer.....	18,085	Deaf Smith.....	1,510	Hereford.....	13,187
Macon.....	304	Lafayette.....	12,197	Delta.....	276	Cooper.....	5,860
Madison.....	560	Jackson.....	60,655	Denton.....	911	Denton.....	47,432
Marion.....	560	Jasper.....	21,036	De Witt.....	910	Cuero.....	20,683
Marshall.....	377	Paducah.....	16,859	Dickens.....	931	Dickens.....	4,963
Maury.....	614	Columbia.....	41,699	Dimmit.....	1,344	Carrizo Springs.....	10,095
Meigs.....	191	Decatur.....	5,160	Donley.....	905	Clarendon.....	4,449
Monroe.....	660	Madisonville.....	23,316	Duval.....	1,814	San Diego.....	13,398
Montgomery.....	539	Clarksville.....	55,645	Eastland.....	952	Eastland.....	19,526
Moore.....	124	Lynchburg.....	3,454	Ector.....	907	Odessa.....	90,995
Morgan.....	539	Warburg.....	14,304	Edwards.....	2,078	Rocky Springs.....	2,317
Obion.....	558	Union City.....	26,957	Ellis.....	950	Waxahatchie.....	43,395
Overtown.....	441	Livingston.....	14,661	El Paso.....	1,058	El Paso.....	314,970
Perry.....	411	Linden.....	5,273	Erath.....	1,085	Stephenville.....	16,236
Pickett.....	158	Byrdstown.....	4,431	Falls.....	764	Marlin.....	21,263
Polk.....	435	Benton.....	12,160	Fannin.....	905	Bonham.....	23,880
Putnam.....	465	Rocky Hill.....	29,236	Fayette.....	934	La Grange.....	20,384
Rhea.....	312	Dayton.....	15,863	Fisher.....	904	Roby.....	7,863
Roane.....	370	Kingston.....	39,133	Floyd.....	993	Floydada.....	12,689
Robertson.....	476	Springfield.....	27,335	Foard.....	676	Crowell.....	3,125
Rutherford.....	630	Murfreesboro.....	52,368	Fort Bend.....	869	Richmond.....	40,527
Scott.....	544	Huntsville.....	15,413	Franklin.....	865	Mount Vernon.....	5,101
Sequatchie.....	273	Dunlap.....	5,915	Freestone.....	865	Fairfield.....	12,525
Sevier.....	597	Sevierville.....	24,251	Frio.....	1,116	Pearsall.....	10,112
Shelby.....	755	Memphis.....	627,019	Gaines.....	1,489	Seminole.....	12,267
Smith.....	323	Carthage.....	12,059	Galveston.....	399	Galveston.....	140,364
Stewart.....	470	Dover.....	7,851	Garza.....	914	Post.....	6,611
Sullivan.....	413	Richfield.....	114,139	Gillespie.....	1,055	Fredericksburg.....	10,048
Sumner.....	534	Gallatin.....	36,217	Glasscock.....	863	Garden City.....	1,118
Tipton.....	459	Covington.....	28,563	Goliad.....	871	Goliad.....	5,429
Trousdale.....	114	Hartsville.....	4,914	Gonzales.....	1,056	Gonzales.....	17,845
Unicoi.....	185	Erwin.....	15,082	Gray.....	934	Pampa.....	31,535
Union.....	212	Maynardville.....	8,498	Grayson.....	940	Sherman.....	73,043
Van Buren.....	254	Spencer.....	3,671	Gregg.....	282	Longview.....	69,436
Warren.....	439	McMinnville.....	23,102	Grimes.....	801	Anderson.....	12,709
Washington.....	324	Jonesboro.....	64,832	Guadalupe.....	714	Seguin.....	24,017
Wayne.....	739	Waynesboro.....	11,908	Hale.....	979	Plainview.....	36,798
Weakley.....	576	Dresden.....	24,227	Hall.....	885	Memphis.....	7,322
White.....	332	Sparta.....	15,577	Hamilton.....	844	Hamilton.....	8,488
Williamson.....	593	Franklin.....	25,267	Hansford.....	907	Spearman.....	6,208
Wilson.....	568	Lebanon.....	27,668	Hardeman.....	687	Quanah.....	8,275

TEXAS

(954 counties, 262,970 sq. mi. land; pop., 9,579,877)

Anderson.....	1,072	Palestine.....	28,162	Harrison.....	1,723	Houston.....	1,243,158
Andrews.....	1,504	Andrews.....	13,450	Harris.....	894	Marshall.....	45,594
Angelina.....	804	Lufkin.....	39,814	Hartley.....	1,488	Channing.....	2,171
Aransas.....	271	Rockport.....	7,006	Haskell.....	677	Haskell.....	1,174
Archer.....	913	Archer City.....	6,110	Hays.....	870	San Marcos.....	19,934
Armstrong.....	907	Claude.....	1,966	Hemphill.....	904	Canadian.....	3,185
Atascosa.....	1,206	Jourdanton.....	13,828	Henderson.....	943	Athens.....	21,786
Austin.....	663	Bellville.....	13,777	Hidalgo.....	1,543	Edinburg.....	180,904
Bailey.....	835	Muleshoe.....	9,090	Hill.....	1,012	Hillsboro.....	23,650
Bandera.....	763	Bandera.....	3,892	Hockley.....	908	Levelland.....	22,340
Bastrop.....	890	Bastrop.....	16,925	Hood.....	426	Granbury.....	5,443
Baylor.....	875	Seymour.....	5,893	Hopkins.....	793	Sulphur Springs.....	18,594
Bell.....	842	Beville.....	23,755	Houston.....	1,237	Crockett.....	19,376
Bexar.....	1,066	Belton.....	94,097	Howard.....	911	Big Spring.....	40,139
Blanco.....	1,246	San Antonio.....	687,151	Hudspeth.....	4,554	Sierra Blanca.....	3,343
Borden.....	907	Gall.....	3,657	Hunt.....	869	Greenville.....	39,399
Bosque.....	990	Meridian.....	1,076	Hutchinson.....	875	Stinnett.....	39,419
Bowie.....	891	Boston.....	59,971	Irion.....	1,073	Mertzon.....	1,183
Brazoria.....	1,423	Angleton.....	76,204	Jack.....	945	Jacksboro.....	7,418
Brazos.....	586	Bryan.....	44,895	Jackson.....	850	Edna.....	14,040
Brewster.....	6,204	Alpine.....	6,434	Jasper.....	927	Jasper.....	22,100
Briscoe.....	874	Silverton.....	3,577	Jefferson.....	2,259	Fort Davis.....	1,582
Brooks.....	904	Palfurrias.....	8,609	Jim Hogg.....	951	Beaumont.....	245,559
Brown.....	950	Brownwood.....	24,728	Jim Wells.....	1,143	Hebbronville.....	5,022
Burleson.....	683	Caldwell.....	11,177	Johnson.....	845	Alice.....	34,548
Burnet.....	996	Burnet.....	9,265	Jones.....	956	Anson.....	34,720
Caldwell.....	544	Lockhart.....	17,222	Karnes.....	758	Karnes City.....	19,299
Calhoun.....	527	Port Lavaca.....	16,592	Kaufman.....	815	Kaufman.....	29,931
Callahan.....	856	Baird.....	12,292	Kendall.....	670	Boerne.....	5,889
Cameron.....	896	Brownsville.....	151,098	Kenedy.....	1,394	Sanita.....	884
Camp.....	192	Pittsburg.....	7,819	Kent.....	880	Jayton.....	1,727
Carson.....	900	Panhandle.....	7,781	Kerr.....	1,101	Kerrville.....	16,800
Cass.....	941	Linden.....	23,496	Kimble.....	1,274	Junction.....	3,943
Castro.....	680	Dimmitt.....	8,923	King.....	1,943	Guthrie.....	640
Chambers.....	1,040	Rusk.....	10,379	Kinney.....	1,393	Brackettville.....	2,452
Cherokee.....	699	Burness.....	33,120	Kleberg.....	851	Kingsville.....	30,052
Childress.....	1,102	Henrieville.....	8,421	Lamar.....	906	Paris.....	7,857
Clay.....	783	Morton.....	8,351	Lamb.....	1,022	Littlefield.....	34,234
Cochran.....	911	Morton Lee.....	6,417	Lampasas.....	726	Lampasas.....	9,418
Coke.....	911	Morton Lee.....	3,589	La Salle.....	1,500	Cotulla.....	5,972
Coleman.....	1,279	Coleman.....	12,135	Lavaca.....	975	Hallettsville.....	20,174
Collin.....	867	McKinney.....	41,247	Lee.....	644	Giddings.....	8,949
Collingsworth.....	894	Wellington.....	6,276	Liberty.....	1,102	Centerville.....	9,951
Colorado.....	949	Columbus.....	18,463	Limestone.....	931	Groesbeck.....	31,595
Comal.....	567	New Braunfels.....	19,841	Lipscomb.....	934	Lipscomb.....	20,413
Comanche.....	966	Comanche.....	11,865	Live Oak.....	1,055	George West.....	7,416
Concho.....	1,004	Paint Rock.....	3,672	Llano.....	941	Llano.....	5,240

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
TEXAS—Continued				TEXAS—Continued			
Loving.....	648	Mentone.....	226	Zapata.....	1,025	Zapata.....	4,393
Lubbock.....	893	Lubbock.....	156,271	Zavala.....	1,291	Crystal City.....	12,696
Lynn.....	915	Tahoka.....	10,914	UTAH			
McCulloch.....	1,066	Brady.....	8,815	(29 counties, 82,331 sq. mi. land; pop., 890,627)			
McLennan.....	1,030	Waco.....	150,091	Beaver.....	2,584	Beaver.....	4,331
McMullen.....	1,159	Tilden.....	1,116	Box Elder.....	5,627	Brigham City.....	25,061
Madison.....	480	Madisonville.....	6,749	Cache.....	1,174	Logan.....	35,788
Marion.....	380	Jefferson.....	8,439	Carbon.....	4,476	Moab.....	21,135
Martin.....	935	Stanton.....	5,068	Dasget.....	705	Manila.....	1,184
Mason.....	935	Nason.....	3,780	Davis.....	297	Farmington.....	64,760
Matagorda.....	1,157	Bay City.....	25,744	Duchesne.....	3,255	Duchesne.....	7,179
Maverick.....	1,289	Eagle Pass.....	14,508	Emery.....	4,439	Castle Dale.....	5,546
Medina.....	1,352	Hondo.....	18,904	Garfield.....	5,189	Panguitch.....	3,577
Menard.....	914	Menard.....	2,964	Grand.....	3,696	Moab.....	6,345
Midland.....	939	Midland.....	67,717	Iron.....	3,300	Parowan.....	10,795
Milam.....	1,028	Cameron.....	22,268	Juab.....	3,411	Nephi.....	4,597
Mills.....	734	Goldthwaite.....	4,467	Kane.....	4,016	Kanab.....	2,667
Mitchell.....	920	Colonico City.....	11,255	Millard.....	6,793	Fillmore.....	7,566
Montague.....	52	Montague.....	4,593	Morgan.....	610	Morgan.....	2,837
Montgomery.....	1,090	Conroe.....	26,839	Platts.....	754	Juniper.....	1,436
Moore.....	909	Dumas.....	14,773	Rich.....	1,023	Randolph.....	1,685
Morris.....	260	Daingerfield.....	12,576	Salt Lake.....	764	Salt Lake City.....	383,035
Motley.....	980	Mattador.....	2,870	San Juan.....	7,799	Monticello.....	9,040
Nacogdoches.....	943	Nacogdoches.....	28,046	Sanpete.....	1,597	Manti.....	11,053
Navarro.....	1,087	Corsicana.....	34,423	Sevier.....	1,929	Richfield.....	10,565
Newton.....	953	Newton.....	10,372	Summit.....	1,848	Coalville.....	5,673
Nolan.....	922	Sweetwater.....	18,963	Tooele.....	6,923	Tooele.....	17,868
Nueces.....	815	Corpus Christi.....	221,573	Uintah.....	4,472	Vernal.....	11,582
Onchitree.....	907	Vernon.....	9,380	Utah.....	2,014	Provo.....	106,991
Oldham.....	1,47	Vesht.....	1,191	Wasatch.....	1,191	Fiber City.....	5,303
Orange.....	359	Orange.....	60,357	Washington.....	2,427	Saint George.....	10,371
Palo Pinto.....	918	Palo Pinto.....	20,516	Wayne.....	2,486	Loa.....	1,728
Panola.....	880	Carthage.....	16,870	Weber.....	581	Ogden.....	110,744
Parker.....	903	Weatherford.....	22,880	VERMONT			
Parmer.....	859	Farwell.....	9,583	(14 counties, 5,217 sq. mi. land; pop., 359,881)			
Pecos.....	4,740	Fort Stockton.....	11,957	Addison.....	784	Middlebury.....	20,070
Polk.....	1,100	Livingston.....	13,861	Bennington.....	672	Bennington.....	25,088
Porter.....	898	Amarillo.....	115,580	Caledonia.....	612	Saint Johnsbury.....	22,786
Presidio.....	3,89	Marfa.....	5,460	Chittenden.....	533	Burlington.....	74,425
Rains.....	219	Fort Hancock.....	2,963	Essex.....	663	Guildhall.....	6,083
Randall.....	914	Canyon.....	33,913	Franklin.....	680	Saint Albans.....	29,474
Regan.....	1,132	Big Lake.....	3,782	Grant Isle.....	83	North Hero.....	2,927
Real.....	622	Leake.....	2,079	Lamoille.....	474	Hyde Park.....	11,027
Red River.....	1,033	Clarksville.....	15,682	Orleans.....	690	Chelsea.....	10,411
Reeves.....	2,608	Pecos.....	17,644	Rutland.....	927	Rutland.....	46,719
Refugio.....	774	Refugio.....	10,975	Washington.....	707	Montpelier.....	42,560
Roberts.....	899	Miami.....	1,075	Windham.....	787	Newfane.....	29,776
Robertson.....	877	Franklin.....	16,157	Windsor.....	965	Woodstock.....	42,483
Rockwall.....	147	Rockwall.....	5,578	VIRGINIA			
Rusk.....	1,058	Bullinger.....	15,016	(56 cos., 34 ind. cities, 39,841 sq. mi.; pop., 3,906,249)			
Sabine.....	939	Henderson.....	36,421	Accomack.....	476	Accomack.....	30,635
Sabine.....	562	Hempfl.....	7,302	Albemarle.....	745	Charlottesville.....	30,969
San Augustine.....	545	San Augustine.....	7,722	Alleghany.....	446	Covington.....	12,128
San Jacinto.....	624	Coldspring.....	6,153	Amelia.....	366	Amelia, C. H.....	7,815
San Patricio.....	686	Sinton.....	45,021	Annekerst.....	470	Annekerst.....	22,953
San Saba.....	1,120	San Saba.....	6,381	Appomattox.....	345	Appomattox.....	9,113
Schleicher.....	1,331	Eldorado.....	2,791	Arlington.....	266	Arlington.....	163,401
Scurry.....	904	Snyder.....	20,369	Augusta.....	986	Staunton.....	37,363
Shackelford.....	887	Albany.....	3,990	Bath.....	540	Warm Springs.....	5,335
Shelby.....	916	Stratford.....	2,605	Bedford.....	756	Bedford.....	31,028
Sherman.....	916	Tyler.....	86,350	Bland.....	369	Bland.....	5,982
Smith.....	934	Glen Rose.....	2,577	Botetourt.....	548	Fincastle.....	16,715
Somervell.....	1,211	Rio Grande City.....	17,137	Brunswick.....	579	Lawrenceville.....	17,779
Starr.....	923	Breckenridge.....	8,885	Buchanan.....	508	Grundy.....	36,724
Stephens.....	914	Sterling City.....	1,177	Buckingham.....	582	Buckingham.....	10,877
Sterling.....	926	Aspermont.....	3,017	Campbell.....	530	Rustburg.....	32,958
Stonewall.....	1,493	Sonora.....	3,738	Caroline.....	445	Bowling Green.....	32,725
Sutson.....	896	Tulla.....	10,607	Carroll.....	496	Hillsville.....	23,178
Swisher.....	888	Fort Worth.....	538,495	Charles City.....	181	Charles City.....	5,492
Tarrant.....	913	Wlene.....	10,495	Charlotte.....	470	Charlotte Court House.....	13,368
Taylor.....	2,391	Sanderson.....	2,600	Chesterfield.....	465	Chesterfield.....	71,197
Terrill.....	899	Brownfield.....	16,286	Clarke.....	174	Berryville.....	7,942
Terry.....	920	Throckmorton.....	2,767	Craig.....	336	New Castle.....	3,356
Throckmorton.....	418	Mount Pleasant.....	16,785	Cuiper.....	389	Cuiper.....	15,088
Titus.....	1,535	San Angelo.....	64,630	Cumberland.....	291	Cumberland.....	6,360
Tom Green.....	1,012	Austin.....	212,136	Dickenson.....	343	Glennwood.....	20,211
Trinity.....	707	Groveton.....	7,539	Dixie.....	507	Dixie.....	22,183
Tyler.....	919	Woodville.....	10,666	Essex.....	250	Tappahannock.....	6,690
Upshur.....	584	Gilmer.....	19,793	Fairfax.....	405	Fairfax.....	261,417
Upton.....	1,212	Reikin.....	6,291	Fauquier.....	660	Warrenton.....	24,066
Uvalde.....	1,588	Uvalde.....	16,814	Floyd.....	383	Floyd.....	10,462
Val Verde.....	3,241	Del Rio.....	24,461	Fluvanna.....	288	Plainmyra.....	7,227
Van Zandt.....	851	Canton.....	19,091	Franklin.....	716	Rocky Mount.....	25,925
Victoria.....	893	Victoria.....	46,475	Frederick.....	433	Winchester.....	21,941
Walker.....	790	Huntsville.....	21,475	Giles.....	363	Pearisburg.....	17,219
Waller.....	508	Hempstead.....	12,071	Gloucester.....	228	Gloucester.....	11,919
Ward.....	827	Monahans.....	14,917	Grayson.....	454	Independence.....	17,390
Washington.....	612	Brenham.....	19,145	Greene.....	153	Stanardsville.....	4,715
Webb.....	3,306	Laredo.....	64,791	Greensville.....	302	Emporia.....	16,155
Wharton.....	1,076	Wharton.....	38,152	Halifax.....	799	Halifax.....	33,637
Wheeler.....	914	Wheeler.....	7,287	Hanover.....	465	Hanover.....	27,550
Wichita.....	611	Wichita Falls.....	123,528	Henrico.....	229	Richmond.....	117,339
Wilbarger.....	952	Vernon.....	17,748	Henry.....	382	Martinsville.....	40,335
Willacy.....	591	Raymondville.....	20,084	Highland.....	416	Monterey.....	3,221
Williamson.....	1,126	Georgetown.....	35,044	Isle of Wight.....	317	Isle of Wight.....	17,164
Wilson.....	802	Floresville.....	13,267	James City.....	153	Williamsburg.....	11,539
Winkler.....	887	Kermit.....	13,652				
Wise.....	922	Decatur.....	17,012				
Wood.....	721	Quitman.....	17,653				
Yoakum.....	830	Plains.....	8,032				
Young.....	888	Graham.....	17,254				

County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960	County	Land Area sq. mi.	County Seats or Court Houses	County Pop. 1960
WISCONSIN—Continued				WISCONSIN—Continued			
Door.....	492	Sturgeon Bay.....	20,685	Sawyer.....	1,259	Hayward.....	9,475
Douglas.....	1,305	Superior.....	45,008	Shawano.....	1,175	Shawano.....	32,006
Dunn.....	853	Menomonie.....	26,156	Sheboygan.....	505	Sheboygan.....	80,484
Eau Claire.....	647	Eau Claire.....	53,300	Taylor.....	875	Medford.....	17,843
Florence.....	437	Florence.....	3,437	Trempealeau.....	735	Whitehall.....	23,377
Fond du Lac.....	725	Fond du Lac.....	75,085	Vernon.....	802	Viroqua.....	25,663
Forest.....	1,007	Crandon.....	7,542	Vilas.....	867	Eagle River.....	9,332
Grant.....	1,147	Lancaster.....	44,419	Walworth.....	557	Elkhorn.....	52,368
Green.....	585	Monroe.....	25,851	Washburn.....	817	Shell Lake.....	10,301
Green Lake.....	354	Green Lake.....	15,418	Washington.....	429	West Bend.....	46,119
Iowa.....	762	Dodgeville.....	19,631	Waukesha.....	555	Waukesha.....	158,249
Iron.....	747	Hurley.....	7,830	Waupaca.....	751	Waupaca.....	35,340
Jackson.....	999	Black River Falls.....	15,151	Wausau.....	627	Wautoma.....	13,497
Jefferson.....	564	Jefferson.....	50,091	Winnebago.....	448	Oshkosh.....	10,928
Juneau.....	774	Mauston.....	17,490	Wood.....	807	Wisconsin Rapids.....	59,105
Kenosha.....	272	Kenosha.....	100,615				
Kewaunee.....	330	Kewaunee.....	18,282	WYOMING			
La Crosse.....	451	La Crosse.....	72,465	(83 counties, 97,281 sq. m. land; pop., 350,066)			
Lafayette.....	643	Darlington.....	18,142	Albany.....	4,248	Laramie.....	21,290
Langlade.....	856	Antigo.....	19,916	Big Horn.....	3,177	Basin.....	11,898
Lincoln.....	892	Merrill.....	22,338	Campbell.....	4,756	Gillette.....	5,861
Manitowoc.....	590	Manitowoc.....	75,215	Carbon.....	7,905	Rawlins.....	14,937
Marathon.....	1,586	Wausau.....	88,874	Converse.....	4,281	Douglas.....	6,386
Marinette.....	1,378	Marinette.....	34,660	Crook.....	2,882	Sundance.....	4,691
Marquette.....	455	Montpelier.....	8,516	Freemont.....	9,196	Lander.....	26,168
Menomonee.....	362	Stevensona.....	2,606	Goshen.....	2,223	Torrington.....	11,491
Milwaukee.....	237	Milwaukee.....	1,036,041	Hot Springs.....	2,022	Thermopolis.....	6,365
Monroe.....	915	Sparta.....	31,241	Johnson.....	4,175	Buffalo.....	5,745
Oconto.....	1,104	Oconto.....	24,849	Laramie.....	2,703	Cheyenne.....	60,139
Oneida.....	1,112	Rhineland.....	22,112	Lincoln.....	4,098	Kemmerer.....	9,018
Outagamie.....	634	Appleton.....	101,794	Natrona.....	5,342	Casper.....	49,623
Ozaukee.....	236	Port Washington.....	38,441	Niobrara.....	2,614	Lusk.....	3,750
Peplin.....	235	Durand.....	7,332	Park.....	5,209	Cody.....	16,874
Pierce.....	590	Ellsworth.....	22,503	Platte.....	2,086	Wheatland.....	7,195
Folk.....	931	Balsam Lake.....	24,968	Sheridan.....	2,532	Sheridan.....	18,989
Portage.....	806	Stevens Point.....	36,964	Sublette.....	4,851	Pinedale.....	3,778
Price.....	1,260	Phillips.....	14,370	Sweetwater.....	10,475	Green River.....	17,920
Racine.....	537	Racine.....	141,781	Teton.....	2,806	Jackson.....	3,062
Richland.....	583	Richland Center.....	17,684	Uinta.....	2,806	Evansston.....	7,484
Rock.....	721	Janesville.....	113,913	Washakie.....	2,262	World.....	8,883
Rusk.....	906	Ladysmith.....	14,794	Weston.....	2,407	Newcastle.....	7,929
St. Croix.....	735	Hudson.....	29,164	Yel'stone Nat. Park (part).....	2,944.....		420
Sauk.....	841	Baraboo.....	36,179				

Population of World's Largest Urban Areas

City populations often cannot be used to compare urban areas because city limits may underbound or overbound the built-up or urban area. The problem of comparison is compounded by the difficulty in obtaining reliable population data for a common year. The ranking of urban areas below represents one attempt at comparing the world's largest urban areas, taking into account, where necessary and within the limits of available data, urban development extending outward from the principal city named in the table. Thus, the Tokyo area in 1965 included the cities of Tokyo and Yokohama plus neighboring smaller cities, towns and villages, and the New York urban area in 1960 included part or all the population of 8 New Jersey and 5 New York counties in addition to the 5 boroughs of New York City. On the other hand, the urban areas of Seoul and Madrid in 1965 did not run beyond the city limits.

Tokyo, Japan (census 1965)	14,770,727	Diakarta, Indonesia (census 1961)	2,906,533
*New York, N. Y. (census 1960)	14,114,927	Delhi, India (est. 1966)	2,793,131
London, England (est. 1965)	7,948,270	Madrid, Spain (est. 1965)	2,599,330
Osaka, Japan (census 1955)	7,781,000	Sydney, Australia (est. 1966)	2,540,000
Paris, France (census 1962)	7,369,387	Rome, Italy (est. 1965)	2,514,171
Shanghai, China (est. 1958)	6,977,000	Manchester, England (est. 1965)	2,157,340
Buenos Aires, Argentina (census 1960)	6,762,629	San Francisco, Calif. (census 1960)	2,430,663
Moscow, U.S.S.R. (est. 1968)	6,567,000	Shenyang (Mukden), China (est. 1958)	2,423,000
Los Angeles, Calif. (census 1960)	6,488,791	Boston, Mass. (census 1960)	2,413,236
Chicago, Ill. (census 1960)	5,959,213	Birmingham, England (est. 1965)	2,392,610
Sao Paulo, Brazil (est. 1966)	5,383,000	Montreal, Canada (est. 1965)	2,321,000
Bombay, India (est. 1966)	4,784,136	Teheran, Iran (est. 1963)	2,317,116
Calcutta, India (est. 1966)	4,703,398	Manila, Philippines (census 1960)	2,256,471
Mexico City, Mexico (census 1960)	4,659,691	Santiago, Chile (est. 1965)	2,248,378
Essen (Ruhr-Gebiet), W. Germany (est. 1968)	4,259,230	Melbourne, Australia (est. 1966)	2,239,000
Cairo, United Arab Rep. (census 1966)	4,196,998	Wuhan, China (est. 1958)	2,157,340
Peking, China (est. 1958)	4,148,000	Chungking, China (est. 1958)	2,165,000
Rio de Janeiro, Brazil (est. 1967)	4,076,000	Bangkok, Thailand (est. 1963)	2,106,881
Seoul, Korea (census 1965)	3,805,261	Toronto, Canada (est. 1965)	2,066,000
Leningrad, U.S.S.R. (est. 1968)	3,755,000	Budapest, Hungary (est. 1966)	1,951,521
Detroit, Mich.- Windsor, Ont. (a)	3,731,074	Karachi, Pakistan (census 1961)	1,912,598
Philadelphia, Pa. (census 1960)	3,635,228	Madras, India (est. 1966)	1,896,122
Tientsin, China (est. 1958)	3,278,000	Canton, China (est. 1958)	1,867,000
Berlin, E. & W. Germany (est. 1966)	3,269,577	Athens, Greece (census 1961)	1,852,709
Victoria, Hong Kong (by-census 1966)	3,014,900	Hamburg, W. Germany (est. 1966)	1,847,267

*New York-Northeastern New Jersey urbanized area, including the 5 boroughs of New York City plus all or part of the counties of Nassau, Putnam, Rockland, Suffolk and Westchester in New York State and all or part of the counties of Bergen, Essex, Hudson, Middlesex, Morris, Passaic, Somerset and Union in New Jersey. (a) U. S. data, 1960; Canadian data, 1961.

Area and Population of the World

Source: Statistical Office of the United Nations, June, 1963

Continent	Area ¹ (km ²)	Midyear '67 estimated population	Continent	Area ¹ (km ²)	Midyear '67 estimated population
Africa.....	30,312,924	328,134,000	Oceania.....	8,510,947	18,127,000
America, North.....	24,246,904	304,439,000	USSR.....	22,402,200	235,543,000
America, South.....	17,842,516	174,246,000			
Asia ²	27,530,116	1,907,481,000	World.....	135,774,513	3,419,420,000
Europe ³	4,928,906	451,450,000			

¹One square kilometer (km²) equals 0.386 sq. mi. ²Including inland waters, but not some uninhabited polar regions and islands. ³Hawaii, Central America and Caribbean Islands included in N. A. ⁴Excluding USSR but including all of Turkey. ⁵Excluding USSR and European part of Turkey.

U. S. Cities with Standard Metropolitan Statistical Areas

POPULATION OF 228 SMSA'S AND THEIR CENTRAL CITIES

Areas over 1,000,000 population are numbered according to rank in 1965 *1966 provisional figures

Source: Bureau of the Census

Standard Metropolitan Statistical Area	1965 est. (1,000)	1960		1950	
		Metropol. area total	In central cities	Metropol. area total	In central cities
Abilene, Texas.....	126	120,377	90,368	85,517	45,570
Akron, Ohio.....	*652	605,367	290,351	473,986	274,605
Albany, Ga.....	*701	75,680	55,890	43,617	31,155
Albany-Schenectady-Troy, N. Y.....	697	657,503	278,900	589,359	209,091
Albuquerque, N. Mex.....	288	262,199	201,189	145,673	96,815
Allentown-Bethlehem-Easton, Pa.-N. J.....	*516	492,168	215,710	437,824	208,728
Altoona, Pa.....	137	137,270	69,407	139,154	77,177
Amarillo, Texas.....	168	149,493	137,969	87,110	74,246
Anaheim-Santa Ana-Garden Gr., Calif..... (25)	*1,164	703,925	288,772	216,224	60,089
Anderson, Ind.....	180	125,819	49,061	103,911	46,820
Ann Arbor, Mich.....	187	172,440	67,340	131,606	48,251
Asheville, N. C.....	143	130,074	60,192	124,403	53,000
Atlanta, Ga..... (21)	*1,258	1,017,188	487,455	726,989	331,314
Atlantic City, N. J.....	179	160,830	59,544	132,399	61,657
Augusta, Ga.-S. C.....	237	216,639	70,626	162,013	71,508
Austin, Texas.....	247	212,136	186,456	160,980	132,459
Bakersfield, Calif.....	319	291,984	56,848	228,309	41,784
Baltimore, Md..... (12)	*1,980	1,803,745	939,024	1,405,399	949,708
Baton Rouge, La.....	255	230,058	152,419	158,436	125,629
Bay City, Mich.....	109	107,042	53,604	88,161	52,523
Beaumont-Port Arthur, Texas.....	313	306,016	211,456	235,650	151,544
Billings, Mont.....	84	79,016	52,851	55,875	31,834
Biloxi (Gulport) Miss.....		119,489	71,257	84,073	60,081
Binghamton, N. Y.....	297	283,600	75,941	246,834	80,671
Birmingham, Ala.....	*734	721,207	340,887	558,928	326,037
Bloomington-Normal, Ill.....	90	83,847	49,628	76,577	43,935
Boise City, Idaho.....	99	93,460	34,481	70,649	34,393
Boston, Mass..... (6)	*3,291	3,109,158	791,322	2,410,572	801,444
Bridgeport, Stamford, Norwalk, Conn.....	746	653,589	156,748	410,741	138,009
Brockton, Mass.....	296	149,458	72,813	119,728	62,860
Brownsville-Harlingen-San Benito, Texas.....	151	151,098	105,669	125,170	72,566
Buffalo, N. Y..... (16)	*1,323	1,306,957	532,759	1,089,230	580,132
Canton, Ohio.....	356	340,315	113,631	283,194	116,912
Cedar Rapids, Iowa.....	148	136,899	92,035	104,274	72,296
Champaign-Urbana, Ill.....	133	132,436	76,577	106,100	62,397
Charleston, S. C.....	296	254,578	65,925	195,107	70,174
Charleston, W. Va.....	245	252,952	85,796	239,629	73,501
Charlotte, N. C.....	360	316,781	201,564	239,086	134,042
Chattanooga, Tenn.-Ga.....	292	283,169	130,009	246,433	131,041
Chicago, Ill. (see also consolidated areas)..... (3)	*6,632	6,220,913	3,550,101	5,177,868	3,620,962
Cincinnati, Ohio-Ky..... (17)	*1,333	1,268,179	502,550	1,023,245	503,998
Cleveland, Ohio..... (11)	*2,041	1,909,483	876,059	1,532,574	914,808
Colorado Springs, Colo.....	176	143,742	70,194	74,523	45,472
Columbia, S. C.....	289	260,828	97,433	186,844	86,914
Columbus, Ga.-Ala.....	260	217,985	116,779	170,541	79,611
Columbus, Ohio.....	*851	751,885	471,316	563,040	375,901
Corpus Christi, Texas.....	286	266,591	167,690	656,471	108,287
Dallas, Texas..... (19)	*1,352	1,119,110	679,684	743,501	438,462
Davenport, Ia.-Rock Island-Moline, Ill.....	339	319,375	183,549	280,748	160,656
Dayton, Ohio.....	*803	727,121	262,332	545,723	243,872
Decatur, Ill.....	122	118,237	78,004	89,853	66,269
Denver, Colo..... (26)	*1,081	929,383	493,887	612,128	415,786
Des Moines, Iowa.....	271	266,315	208,982	226,010	177,965
Detroit, Mich..... (5)	*1,060	3,762,360	1,670,144	3,016,197	1,819,568
Dubuque, Iowa.....	87	80,048	56,606	71,437	49,671
Duluth-Superior, Minn.-Wis.....	267	276,596	140,147	252,777	139,836
Durham, N. C.....	123	151,965	78,302	101,639	71,311
El Paso, Texas.....	314	314,070	276,687	194,968	130,185
Elie, Pa.....	255	250,682	138,440	219,488	130,803
Eugene, Ore.....	194	162,890	50,977	125,776	35,879
Evansville, Ind.-Ky.....	223	222,890	141,543	212,636	128,636
Fall River, Mass.-R. I.....	138	138,156	99,912	137,298	111,963
Fargo-Moorhead, N. Dak.-Minn.....	110	106,927	69,396	89,240	53,126
Fayetteville, N. C.....	193	118,418	47,106	96,006	34,715
Fitchburg-Leominster, Mass.....		70,158	70,950	80,528	66,766
Flint, Mich.....	*461	416,249	196,940	306,757	163,143
Fort Lauderdale-Hollywood, Fla.....	111	333,946	118,885	83,933	50,679
Fort Smith, Ark.....	154	135,110	52,991	141,978	47,942
Fort Wayne, Ind.....	259	232,196	161,776	183,722	133,607
Fort Worth, Texas.....	*638	573,215	356,268	392,643	278,778
Fresno, Calif.....	*109	365,945	133,929	276,515	91,669
Gadsden, Ala.....	91	96,980	58,088	93,892	55,725
Galveston-Texas City, Texas.....	157	110,364	99,210	113,066	83,188
Gary-Hammond-East Chicago, Ind.....	*399	573,518	347,687	408,228	275,795
Grand Rapids, Mich.....	*505	401,066	177,113	362,013	171,515
Great Falls, Mont.....	82	73,418	55,211	53,027	39,214
Green Bay, Wis.....	137	125,082	62,888	98,214	52,735
Greensboro-Winston-Salem-High Point, N. C.....	*571	520,249	292,772	410,129	202,173
Greenville, S. C.....	267	255,806	66,188	208,210	58,161
Hamilton-Middletown, Ohio.....	208	199,076	114,169	147,203	91,646
Harrisburg, Pa.....	*392	371,653	79,697	317,923	89,544
Hartford, New Britain, Conn.....	*777	689,555	162,178	420,009	177,397
Honolulu, Hawaii.....	*585	500,109	294,194	355,020	248,034
Houston, Texas..... (14)	*1,740	1,418,323	938,219	806,701	596,163
Huntington-Ashland, W. Va.-Ky.-Ohio.....	221	254,780	114,910	245,795	117,484
Huntsville, Ala.....	221	123,053	72,569	108,669	46,437
Indianapolis, Ind.....	*1,027	944,475	476,358	763,129	427,173
Jackson, Mich.....	137	131,994	50,720	107,925	51,988
Jackson, Miss.....	250	221,367	144,422	171,045	98,271
Jacksonville, Fla.....	*500	455,111	201,630	304,029	204,517
Jersey City, N. J.....	*616	610,734	276,101	647,437	299,017
Johnstown, Pa.....	270	280,733	53,949	291,354	63,232
Kalamazoo, Mich.....	181	169,712	82,089	126,707	57,704

Standard Metropolitan Statistical Area	1965 est. (1,000)	1960		1950	
		Metropol. area total	In central cities	Metropol. area total	In central cities
Kansas City, Mo.-Kans. (22)	*1,209	1,092,545	475,539	848,655	456,622
Kenosha, Wis.	114	100,615	67,899	75,238	54,368
Knoxville, Tenn.	*388	368,080	111,827	337,105	124,769
Lafayette, La.	98	84,656	40,400	57,743	33,541
Lafayette-West Lafayette, Ind.	96	89,122	55,010	74,473	47,441
Lake Charles, La.	135	145,475	63,392	89,635	41,272
Lancaster, Pa.	289	278,359	61,055	234,717	63,774
Lansing, Mich.	336	298,949	107,807	244,159	92,129
Laredo, Texas.	76	64,791	60,678	56,141	51,910
Las Vegas, Nev.	232	127,016	64,405	48,289	24,624
Lawrence-Haverhill, Mass.-N. H.		199,136	117,279	190,428	127,816
Lawton, Okla.	99	90,803	61,697	55,165	34,757
Lewiston-Auburn, Me.	91	70,295	65,253	68,426	64,108
Lexington, Ky.	159	131,906	62,810	100,746	55,534
Lima, Ohio.	112	160,862	51,037	88,183	50,246
Lincoln, Nebr.	161	155,272	128,521	119,742	98,884
Little Rock-North Little Rock, Ark.	279	271,936	165,845	196,685	136,310
Lorain-Elyria, Ohio.	240	217,500	112,714	148,162	81,509
Los Angeles-Long Beach, Calif. (2)	*6,789	6,035,771	2,823,183	4,176,607	2,221,455
Louisville, Ky.-Ind.	*775	725,439	390,639	576,900	369,129
Lubbock, Texas.	185	156,271	128,691	101,048	71,747
Lynchburg, Va.	119	110,701	54,790	96,936	47,727
Macon, Ga.	201	180,403	69,761	135,043	70,252
Madison, Wis.	260	222,095	126,706	169,357	96,056
Manchester, N. H.	205	102,861	88,282	93,338	82,732
Mansfield, Ohio.	126	117,761	47,325	91,305	43,564
McAllen-Pharr-Edinburg, Tex.	202	180,904	65,540	160,146	41,140
Memphis, Tenn.	*752	674,583	497,524	529,577	396,000
Miami, Fla. (27)	*1,081	935,047	291,688	495,264	249,276
Midland, Texas.	67	62,625	62,785	57,785	21,713
Midwaukee, Wis. (20)	*1,331	1,278,550	741,321	950,309	637,392
Minneapolis-St. Paul, Minn. (15)	*1,629	1,482,030	796,283	1,151,053	833,067
Mobile, Ala.	*385	363,389	194,856	272,102	129,009
Monroe, La.	112	101,663	52,219	74,713	38,572
Montgomery, Ala.	207	199,734	134,393	170,614	106,525
Muncie, Ind.	117	110,938	68,603	90,242	58,479
Muskegon-Muskegon Heights, Mich.	153	149,943	66,037	121,545	67,257
Nashville, Tenn.	*523	463,628	170,874	381,609	174,307
New Bedford, Mass.	411	143,176	102,477	141,984	109,189
New Haven, Conn.	704	338,836	152,488	273,449	164,443
New London-Groton-Norwich, Conn.	214	179,688	72,688	131,612	68,184
New Orleans, La. (28)	*1,044	907,123	627,525	712,393	570,445
New York-N. Y. (includes 5 boroughs of New York City plus Nassau, Rockland, Suffolk and Westchester Counties, N. Y.—see also consolidated areas below) (1)	*11,410	10,694,632	7,781,984	9,555,943	7,891,957
New York, NE N.J. (SCA)	15,821	14,759,429			
Newark, N. J. (13)	*1,862	1,689,420	405,220	1,468,458	438,776
Newport News-Hampton, Va.	272	224,503	202,920	154,927	143,227
Norfolk-Portsmouth, Va.	*637	578,507	419,642	446,204	293,552
Odessa, Texas.	124	90,995	80,388	42,102	29,495
Ogden, Utah.	124	110,744	70,197	83,319	57,112
Okla.	*588	511,833	324,253	392,439	243,504
Okla.	*520	457,873	301,598	366,395	251,117
Omaha, Nebr.-Iowa.	372	318,487	88,135	141,833	52,367
Oxnard-Ventura, Calif.	318	199,138	69,379	114,647	38,101
Paterson-Clifton-Passaic, N. J. (18)	*1,318	1,186,873	279,710	876,232	261,549
Pensacola, Fla.	224	203,376	56,752	131,260	43,479
Peoria, Ill.	320	313,412	103,162	271,847	111,856
Philadelphia, Pa.-N. J. (4)	*4,690	4,342,897	2,002,512	3,671,048	2,071,605
Phoenix, Ariz.	*831	663,510	439,170	321,770	168,188
Pine Bluff, Ark.	86	81,373	44,037	76,775	37,162
Pittsburgh, Pa. (9)	*2,376	2,401,381	604,332	2,213,236	576,806
Pittsfield, Mass.	144	76,772	57,879	68,636	53,348
Portland, Maine.	197	139,122	72,566	133,983	77,634
Portland, Ore.-Wash.	*908	821,897	372,676	704,829	373,628
Providence-Pawtucket, R. I.-Mass.	*736	821,101	357,003	763,902	330,110
Provo-Orem, Utah.	118	106,991	54,441	81,912	37,288
Pueblo, Colo.	119	118,707	91,181	90,188	63,685
Racine, Wis.	160	141,781	89,144	109,585	71,193
Raleigh, N. C.	195	169,082	93,931	136,450	66,676
Reading, Pa.	283	275,414	98,177	227,320	108,336
Reno, Nev.	113	44,795	51,170	50,205	32,497
Richmond, Va.	*493	434,044	199,958	350,035	230,310
Roanoke, Va.	173	158,803	97,110	133,407	91,921
Rochester, N. Y.	*820	732,588	318,611	615,044	332,488
Rockford, Ill.	247	230,091	126,706	169,455	92,927
Sacramento, Calif.	*749	625,503	191,667	259,429	137,572
Saginaw, Mich.	208	190,752	98,265	153,515	92,918
St. Joseph, Mo.	95	90,581	79,673	96,826	78,588
St. Louis, Mo.-Ill. (10)	*2,284	2,104,669	750,026	1,755,334	856,796
Salem, Ore.	172	147,411	49,142	127,714	43,140
Salinas-Monterey, Calif.	222	198,351	51,037	130,498	30,122
Salt Lake City, Utah.	*526	447,945	189,494	305,762	182,121
San Angelo, Texas.	76	66,630	58,815	58,929	52,093
San Antonio, Texas.	*832	716,168	587,718	525,852	408,442
San Bernardino-Riverside-Ontario, Calif. (29)	*1,040	809,782	222,871	451,688	132,604
San Diego, Calif. (24)	*1,168	1,033,011	573,224	556,808	334,387
San Francisco-Oakland, Calif. (7)	*2,958	2,648,762	1,107,864	2,135,934	1,159,932
San Jose, Calif.	*928	642,315	204,196	290,547	95,280
Santa Barbara, Calif.	243	168,962	58,768	98,220	44,913
Savannah, Ga.	192	188,299	149,245	151,481	126,638
Scranton, Pa.	226	234,531	111,443	237,396	129,536
Seattle-Everett, Wash. (23)	*1,214	1,107,213	587,391	887,372	467,591
Shreveport, La.	289	281,481	164,372	216,686	127,206
Sioux City, Iowa.	114	120,017	89,159	114,318	83,991
Sioux Falls, S. Dak.	94	86,575	65,466	70,910	52,696
South Bend, Ind.	270	271,057	132,445	234,526	115,911
Spokane, Wash.	267	278,333	181,608	221,561	161,721
Springfield, Ill.	153	146,539	83,271	131,484	81,623
Springfield, Mo.	140	126,276	95,865	104,823	66,731
Springfield, Ohio.	147	131,440	82,723	111,661	76,508

Standard Metropolitan Statistical Area	1965 est. (1,000)	1960		1950	
		Metropol. area total	In central cities	Metropol. area total	In central cities
Springfield-Chicopee-Holyoke, Mass.	*547	493,999	288,705	422,163	266,271
Stuebenville-Wellton, Ohio-W. Va.	170	167,756	60,696	157,787	59,877
Stockton, Calif.	273	249,989	86,321	200,750	70,853
Syracuse, N. Y.	*613	563,781	216,038	465,114	220,583
Tacoma, Wash.	343	321,590	147,979	275,876	143,673
Tallahassee, Fla.	83	74,225	48,174	51,590	27,237
Tampa-St. Petersburg, Fla.	*883	772,453	436,268	409,143	221,419
Terra Haute, Ind.	167	172,069	72,500	172,468	64,214
Texasarkana, Texas-Ark.	100	91,637	50,001	94,580	40,628
Toledo, Ohio	*664	630,647	318,003	540,822	303,016
Topeka, Kans.	149	141,286	119,484	105,418	78,731
Trenton, N. J.	296	266,392	114,167	229,781	128,009
Tucson, Ariz.	307	265,660	212,892	141,216	45,454
Tulsa, Okla.	*441	418,974	261,685	327,900	182,740
Tuscaloosa, Ala.	118	109,047	63,370	94,092	46,396
Tyler, Texas	93	86,350	51,230	74,701	38,968
Utica-Rome, N. Y.	346	330,771	152,056	284,262	143,213
Vallejo-Napa, Calif.	239	200,487	83,047	151,436	39,617
Vineyard, N. J. (Cumberland County)	156	106,850	77,747	88,597	42,574
Waco, Texas	124	150,091	97,808	130,194	84,706
Washington, D. C.-Md.-Va.	(8)	2,615	2,064,090	763,956	1,464,089
Waterloo, Iowa	281	122,482	71,755	104,448	802,178
West Palm Beach, Fla.	188	228,106	56,208	114,688	65,198
Wheeling, W. Va.-Ohio	*391	190,342	53,400	196,305	58,891
Wichita, Kans.	130	381,626	254,698	253,291	168,279
Wichita Falls, Texas	346	129,638	101,724	105,309	68,042
Wilkes-Barre-Hazleton, Pa.	*466	346,972	95,607	392,241	112,317
Wilmington, Del.-N. J.	95	414,565	95,827	301,743	110,356
Wilmington, N. C.	608	92,000	44,013	82,150	45,043
Worcester, Mass.	290	328,898	186,587	303,037	203,486
York, Pa.	290	290,242	54,504	246,934	59,953
Youngstown-Warren, Ohio	*525	599,006	226,337	416,541	218,186
Puerto Rico (3 areas)		818,241	596,810	679,858	515,641
Mayaguez		83,850	50,147	87,307	58,044
Ponce		145,886	114,286	126,810	99,492
San Juan		647,979	432,377	465,741	357,205

STANDARD CONSOLIDATED AREAS OF NEW YORK AND CHICAGO

Standard Consolidated Areas combining metropolitan areas (SMSA)	July 1, 1966 estimate	1960	1950	Increase 1950 to 1960
New York-Northeastern New Jersey	15,902,000	14,759,429	12,911,994	1,847,435
New York, N. Y., SMSA	11,410,000	10,694,633	9,555,943	1,138,690
Newark, N. J., SMSA	1,862,000	1,689,420	1,468,458	220,962
Jersey City, N. J., SMSA	616,000	610,734	647,437	-36,703
Paterson-Clifton-Passaic, N. J. SMSA	1,318,000	1,186,873	876,232	310,641
Middlesex County, N. J.	512,000	433,856	264,872	168,984
Somerset County, N. J.	183,000	143,913	99,052	44,861
Chicago-Northwestern Indiana	7,331,000	6,794,461	5,586,096	1,208,365
Chicago, Ill., SMSA	6,732,000	6,220,913	5,177,868	1,043,045
Gary-Hammond-East Chicago, Ind., SMSA	599,000	573,548	408,228	165,320

New Housing Units Started in U. S.

Source: Bureau of the Census

	Inc. Farm		Non-Farm	
	1966	1967p	1966	1967p
Total, private and public	1,196,200	1,321,900	1,172,800	1,298,800
Private	1,165,000	1,291,600	1,141,500	1,268,400
Public	30,900	30,300	30,900	30,300
Metropolitan	808,400	920,300	807,300	919,700
Private	787,700	902,900	786,600	902,300
Public	20,600	17,400	20,600	17,400
Nonmetropolitan	387,800	401,600	365,400	379,000
Private	377,300	388,700	354,900	366,100
Public	10,300	12,900	10,300	12,900
Type of Structure:				
1-family	779,500	844,900	756,200	821,800
2-family	40,600	47,800	40,600	47,800
3- or more family	376,100	429,200	375,900	429,200
Regions:				
Northeast	215,700	223,500	215,400	223,300
North Central	297,400	343,900	290,100	337,300
South	482,800	531,500	467,000	515,300
West	200,500	223,000	200,300	222,900

VALUATION OF ALL PRIVATE CONSTRUCTION

Authorized by building permits in 3,014 selected permit issuing places.

	1966 Total	1967 Total (prelim.)
All private construction	\$22,031,300,000	\$23,811,900,000
Private residential construction	\$10,535,500,000	\$12,070,900,000

Estimated value of new construction put in place (including all types of construction, private and public), in the United States, including Alaska and Hawaii, for 1966 amounted to \$74,371,000. p-Preliminary.

Value of New Construction Put in Place in U. S.

Source: Bureau of the Census

Values in billions of dollars	Value put in place				Percentage change	
	Annually	1967	First 4 mos.	1968 ¹	1966 to 1967	1967 to 1968 ¹
Total new construction	74,371	74,936	20,497	22,650	+0.8	+10.5
Private construction	50,446	49,583	13,466	15,537	-1.7	+15.4
Private residential buildings (non farm)	23,815	23,579	5,708	7,580	-1.0	-3.2
Public construction	23,925	25,353	7,031	7,113	+6.0	+1.2

¹Preliminary. First four months.

Population and Area of U. S. and Outlying Areas

Source: Bureau of the Census

	Population		Gross area (land and water)
	1960	1950	
Total	183,285,009	154,233,234	3,628,150
United States.....	179,323,175	151,325,798	3,615,211
Conterminous United States.....	178,464,236	150,697,361	3,022,387
Alaska.....	226,167	128,643	586,400
Hawaii.....	632,772	499,794	6,424
Commonwealth of Puerto Rico.....	2,349,544	2,210,703	3,435
Outlying areas of sovereignty or jurisdiction.....	237,869	216,188	9,504
Possessions.....	123,151	106,219	463
Guam.....	67,044	59,498	212
Virgin Islands of the U. S.....	32,099	26,665	153
American Samoa.....	20,051	18,937	76
Midway Islands.....	2,356	1,416	2
Wake Island.....	1,097	349	3
Canton Island and Enderbury Island.....	320	272	27
Johnston Island and Sand Island.....	156	46	(a)
Swan Islands.....	28	36	1
Other (b).....	(b)	(b)	(c) 9
*Canal Zone.....	42,122	52,822	553
Corn Islands (h).....	1,872	1,304	4
Trust Territory of the Pacific Islands (d).....	75,836	54,843	8,484
United States population abroad (e).....	1,374,421	481,455	.....
Federal employees.....	647,730	328,505	.....
Armed Forces.....	609,720	301,595	.....
Civilians.....	38,010	26,910	.....
Dependents of Federal employees.....	506,393	107,350	.....
Crews of merchant vessels.....	32,464	45,690	.....
Other citizens.....	(f) 187,834	(g)	.....

*Under U. S. jurisdiction by treaty with Panama.

(a) less than 0.5 sq. mi.

(b) The territory under U. S. sovereignty also includes Palmyra Island, Kingman Reef; Howland, Baker and Jarvis Islands; Tutuila, the Manua Islands, and all others of the Samoa group east of longitude 171° W., together with Swains Island and Navassa Island. U. S. claims to sovereignty over the following western Pacific Islands are disputed by the United Kingdom: Caroline Atoll, Christmas, Flint, Malden, Starbuck, Vostok, Funafuti Atoll, Nukufetau Atoll, Nukunono Atoll, Nurakita, Birnie Atoll, Gardner Atoll, Hull Atoll, McKean Atoll, Sydney Atoll, Phoenix Atoll. Also disputed are sovereignty over Canton and Enderbury Islands. New Zealand disputes U. S. claims to the following atolls: Atafu, Fakaofo, Nukunono, Danger, Manahiki, Rakahanga and Penrhyn, population not enumerated.

(c) Area is for Navassa (2 sq. mi.), Baker, Howland, and Jarvis (combined area 3 sq. mi.), and Palmyra (4 sq. mi.). Areas of other islands listed in footnote (b) not available.

(d) Under United Nations Trusteeship System with U. S. as administering authority.

(e) Excludes citizens temporarily abroad on private business, travel, etc.; these were enumerated at home as absent from their households.

(f) Citizens abroad for extended periods enumerated voluntarily and probably less complete than other categories of Americans abroad. (g) Not available. (h) Leased (1914) from Rep. of Nicaragua for 99 yrs.

Population and Zip Codes

Zip code	Place	1960	1950	Zip code	Place	1960	1950
AMERICAN SAMOA				PUERTO RICO—Continued			
96920	American Samoa.....	20,051	18,937	00653	Guanica.....	4,130	4,833
CANAL ZONE				00654	Guayama.....	19,183	19,408
	Canal Zone.....	42,122	52,822	00656	Guayanilla.....	3,067	3,113
	Balboa.....	3,139	4,162	00657	Guaynabo.....	3,343	2,157
	Gamboa.....	3,489	3,074	00658	Gurabo.....	3,957	4,419
	Paraiso.....	3,113	1,503	00659	Hatillo.....	2,582	2,482
	Rainbow City.....	3,688	5,726	00661	Humacao.....	8,005	10,851
GUAM				00662	Isabela.....	7,302	6,895
96910	Guam.....	67,044	59,498	00665	Juana Diaz.....	4,618	4,743
	Agana Hgts.....	3,210	858	00666	Juncos.....	6,247	8,285
	New Agat City.....	2,596	1,340	00669	Lares.....	4,216	3,836
	Snajana.....	2,861	3,069	00671	Las Piedras.....	3,147	3,150
	Tamuning.....	5,330	1,053	00672	Lolza.....	3,097	2,872
PUERTO RICO				00701	Manati.....	9,682	10,092
	Puerto Rico.....	2,349,544	2,210,703	00708	Mayaguez.....	50,147	58,944
00601	Adjuntas.....	5,318	5,262	00718	Naguabo.....	3,296	4,442
00602	Aguada.....	3,759	3,178	00719	Naranjito.....	2,719	2,358
00603	Aguadilla.....	15,943	18,276	00720	Orocovis.....	3,003	2,674
00609	Albionito.....	5,477	5,126	00731	Ponce.....	114,286	99,492
00612	Arroyo.....	3,741	28,659	00745	Rio Grande.....	2,763	2,623
00615	Bahonamey.....	2,888	4,980	00747	Sabana Grande.....	3,318	4,867
00618	Barranquitas.....	2,684	2,268	00751	Salinas.....	3,666	4,367
00619	Bayamon.....	15,109	20,171	00753	San German.....	7,790	8,872
00623	Cabo Rojo.....	3,086	4,797	00936*	San Juan.....	432,377	224,767
00625	Caguas.....	32,015	33,759	00754	San Lorenzo.....	5,551	6,745
00630	Carolina.....	3,075	5,041	00755	San Sebastian.....	4,019	5,206
00632	Catano.....	8,276	9,182	00757	Santa Isabel.....	9,270	9,693
00633	Cayey.....	19,738	18,429	00762	Tuado.....	4,712	4,117
00638	Ciales.....	3,275	3,482	00763	Vega Alta.....	3,132	3,492
00639	Cidra.....	3,146	3,146	00767	Vega Baja.....	3,718	5,536
00640	Coamo.....	12,146	11,592	00767	Yabucoa.....	3,734	5,258
00642	Comerio.....	5,232	5,031	00768	Yauco.....	8,996	9,801
00643	Corozal.....	3,166	2,428	VIRGIN ISLANDS			
00647	Ensenada.....	3,229	4,730	00820	Virgin Islands.....	32,099	26,665
00648	Fajardo.....	12,409	15,336	00820	St. Croix Island.....	14,973	12,103
00617	Florida Aduento.....	2,955	1,710	00801	Christiansd City.....	5,137	4,112
00617	Florida Aduera.....	3,250	.....	00801	St. John Island.....	925	749
				00801	St. Thomas Island.....	16,201	13,813
				00830	Charlotte Amalie City.....	12,880	11,469

*Check your local postmaster for the correct ZIP code number for a specific address in San Juan.

Educational Attainment by Age, Race and Sex

Source: Bureau of the Census

Age, race and sex March, 1967	Total popu- lation	Years of school completed									Med- ian years com- plete
		None	Elementary school			High school		College			
			1 to 4 years	5 to 7 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years	5 yrs. or more	
White											
Total, 14 years and over	124,503	1,323	3,426	10,895	18,132	27,306	39,040	13,333	7,278	3,770	12.0
14 to 17 years	12,496	42	36	1,778	3,331	7,209	91	9			9.9
18 and 19 years	5,833	12	13	108	130	1,927	2,827	817			12.3
20 to 24 years	11,917	49	41	290	412	1,740	5,168	3,193	838	186	12.7
25 years and over	94,257	1,220	3,336	8,719	14,260	16,431	30,955	9,314	6,439	3,584	12.1
25 to 29 years	10,233	34	68	331	501	1,643	4,547	1,529	1,053	528	12.6
30 to 34 years	9,463	34	114	413	614	1,648	4,103	1,160	914	464	12.5
35 to 44 years	21,223	115	425	1,187	1,797	4,035	8,610	2,289	1,768	907	12.4
45 to 54 years	20,234	132	489	1,614	2,873	3,962	7,268	1,957	1,216	724	12.1
55 to 64 years	15,574	210	681	2,080	3,176	2,896	3,813	1,360	824	534	10.5
65 years and over	17,230	695	1,559	3,094	4,999	2,248	2,611	1,019	664	337	8.7
Male, 14 years and over											
14 to 17 years	59,419	668	1,809	5,560	8,919	12,799	16,398	6,617	3,929	2,719	12.0
18 and 19 years	6,350	27	22	998	1,742	3,519	38	4			9.3
20 to 24 years	2,776	8	7	55	67	1,002	1,236	401			12.2
25 years and over	5,472	20	24	164	207	747	2,065	1,713	396	136	12.8
25 to 29 years	44,820	614	1,757	4,342	6,905	7,531	13,060	4,500	3,534	2,582	12.1
30 to 34 years	4,985	17	25	172	279	788	2,004	789	521	390	12.6
35 to 44 years	4,638	13	62	216	314	720	1,739	618	574	382	12.6
45 to 54 years	10,400	58	237	644	955	1,920	3,604	1,147	1,078	759	12.4
55 to 64 years	9,826	73	266	841	1,515	1,371	3,104	976	694	488	12.1
65 years and over	7,563	136	379	1,050	1,688	1,332	1,634	605	385	354	10.6
Female, 14 yrs. and over											
14 to 17 years	65,084	655	1,617	5,335	9,213	14,507	22,642	6,716	3,348	1,051	12.1
18 and 19 years	6,146	15	14	781	1,589	3,690	53	5			9.5
20 to 24 years	3,057	4	6	53	64	925	1,591	415			12.3
25 years and over	6,445	29	17	126	205	993	3,103	1,480	442	50	12.6
25 to 29 years	49,437	608	1,580	4,375	7,355	8,900	17,895	4,816	2,906	1,001	12.1
30 to 34 years	5,248	17	43	158	222	854	2,543	741	532	137	12.5
35 to 44 years	4,825	21	52	197	300	928	2,364	542	340	82	12.4
45 to 54 years	10,608	59	223	543	842	2,115	5,006	1,142	690	238	12.3
55 to 64 years	10,408	58	189	543	842	2,091	4,164	982	522	236	12.2
65 years and over	8,311	74	302	1,030	1,788	1,564	2,179	755	440	180	10.8
	9,822	379	771	1,675	2,845	1,348	1,639	654	382	128	8.7
Nonwhite											
Total, 14 years and over	15,090	445	1,469	2,569	1,917	4,068	3,143	905	356	217	9.8
14 to 17 years	1,977	2	27	486	519	933	10				8.9
18 and 19 years	858	2	5	49	41	425	282	54			11.3
20 to 24 years	1,648	5	29	88	103	493	633	250	36	10	12.2
25 years and over	10,607	435	1,409	1,945	1,254	2,216	2,218	600	320	207	9.4
25 to 29 years	1,401	7	16	109	100	388	537	127	66	50	12.1
30 to 34 years	1,291	8	38	138	87	336	458	130	62	32	12.1
35 to 44 years	2,642	45	185	414	332	700	640	178	86	63	10.5
45 to 54 years	2,222	48	332	485	334	441	388	101	54	39	8.7
55 to 64 years	1,592	92	359	449	225	239	129	44	39	15	7.3
65 years and over	1,159	235	479	350	176	112	66	20	13	8	5.1
Male, 14 years and over											
14 to 17 years	7,087	258	832	1,235	933	1,838	1,337	379	155	120	9.8
18 and 19 years	987	20	270	257	439	1	17				8.8
20 to 24 years	411		5	24	26	232	107	17			10.9
25 years and over	754	3	17	42	57	234	274	107	15	4	12.1
25 to 29 years	4,936	255	791	897	592	932	955	255	141	115	8.9
30 to 34 years	657	6	9	53	51	171	248	87	24	37	12.2
35 to 44 years	596	6	32	77	47	135	196	58	27	18	12.0
45 to 54 years	1,210	23	123	192	168	316	240	79	40	28	9.9
55 to 64 years	1,046	29	191	227	158	163	195	42	23	18	8.5
65 years and over	767	53	192	222	100	94	58	15	23	10	6.9
	660	138	244	126	68	53	18	4	4	4	4.1
Female, 14 yrs. and over											
14 to 17 years	8,003	187	638	1,334	984	2,230	1,806	526	200	98	10.2
18 and 19 years	991	2	8	216	262	494	8				9.0
20 to 24 years	447	2	11	45	15	192	175	37			11.8
25 years and over	894	180	617	1,047	662	1,285	1,262	346	179	92	9.8
25 to 29 years	5,670	180	617	1,047	662	1,285	1,262	346	179	92	9.8
30 to 34 years	744	2	6	56	49	217	289	70	21	6	12.2
35 to 44 years	695	2	6	61	41	201	262	73	36	33	12.1
45 to 54 years	1,433	22	62	221	164	384	399	99	46	35	10.9
55 to 64 years	1,175	19	141	258	176	278	193	59	31	21	9.0
65 years and over	825	39	167	227	125	145	71	29	16	5	7.7
	798	97	234	224	107	60	48	16	9	4	5.9

Incidence of Poverty for Families

Source: Bureau of the Census (In thousands)

1966	Total	Below Level		1966	Total	Below Level	
		No.	%			No.	%
All families	48,922	6,086	12.4	Female head	5,172	1,819	35.0
Male head	43,750	4,276	9.8	White	4,010	1,111	27.7
White	40,007	3,264	8.2	No children	1,936	256	13.2
Below age 65	34,626	2,164	6.2	With children	2,074	855	41.2
65 and over	5,381	1,100	20.4	1 child	827	244	29.5
Employed in March 1967	33,254	1,712	5.1	2 children	607	226	37.2
White collar, skilled				3 children	332	184	55.4
Craftsmen	21,961	670	3.1	4 children	177	101	57.1
Semiskilled operatives	6,369	365	5.7	5 children or more	131	100	76.3
Service workers	1,741	139	7.8	Nonwhite	1,162	699	60.2
Laborers	1,638	280	16.9	No children	275	71	26.9
Farmers	1,485	258	17.4	With children	887	625	70.5
Nonwhite	3,743	1,012	27.0	1 child	281	169	49.3
Below age 65	3,318	808	24.4	2 children	220	140	63.6
65 and over	425	204	48.0	3 children	135	104	77.0
As applied to 1966 incomes the poverty level of nonfarm residents ranges from \$1,560 for a woman 65 or over living alone to \$5,440 for a family of 7 or more; it was \$3,335 for a nonfarm family of four.				4 children	116	101	87.1
				5 children or more	195	171	87.7

Marine Disasters Since 1861; Major War Losses

Figures show lives lost. Only more serious disasters are listed. See also Chronology.

(B)—burned, (C)—collision, (D)—damaged, (E)—exploded, (F)—foundered at sea, (G)—ran aground, (M)—sunk by mine, (S)—sunk in storm, (T)—torpedoed, (V)—vanished, (W)—wrecked. Braz.—Brazilian, Br.—British, Fr.—French, Ger.—German, It.—Italian, Jap.—Japanese, Sp.—Spanish, Sw.—Swedish.

CIVIL WAR 1861-65

Mar. 8	Cumberland, Congress. (Fed.) sunk by Merrimac (Conf.)	
Mar. 9	Battle of Merrimac (Conf.) and Monitor (Fed.)—5-hr. battle ended in a draw; Merrimac burned by Conf. in May, to prevent capture	
Dec. 31	Monitor (S) off Cape Hatteras	
Feb. 7	Orpheus (W) off New Zealand	190
Apr. 27	Anglo-Saxon (W) off Cape Race	237
June 19	Alabama (Conf.) sunk by Kearsarge (Fed.)	
Feb. 7	Housatonic (Fed.) (T) by the H. L. Hunley off Charleston, S. C. The Hunley swamped and its crew of 9 was lost: first recorded sinking of warship by submarine	
Apr. 27	Sultana (E) on Mississippi River	1,450
Aug. 24	Eagle Speed (F) near Calcutta	265
Jan. 11	London (F) in Bay of Biscay	230
Jan. 30	Missouri (E) on Ohio River	100
Oct. 3	Evening Star (F) from New York	250
Oct. 29	Rhone, Wye and 50 other vessels (W) at St. Thomas, West Indies by hurricane	1,000
Apr. 9	Sea Bird (B) on Lake Michigan	100
Apr. 17	United Kingdom (V)	80
Dec. 4	America; United States (B) Ohio R.	72
Oct. 27	Stonewall (B) below Cairo, Ill.	200
Jan. 24	Onelda (C) off Yokohama	115
Jan. 28	City of Boston (C) in Atlantic	191
Sept. 7	Br. warship Captain (F) off Spain	472
Oct. 19	Cambria lost off Inishtrahull	170
Jan. 28	H. R. Arthur (E)	87
July 30	Westfield (ferry) (E) N. Y. harbor	100
Nov. 7	Mary Celeste left New York for Genoa; found abandoned in Atlantic 4 weeks later; crew never heard from	
Jan. 22	Northfleet (C) off Dungeness	300
Apr. 1	Br. Atlantic (W) off Nova Scotia	547
Nov. 23	Ville de Havre (C) in Atlantic	230
Dec. 6	Cospatrick (B)	470
May 7	Schiller (W) on Scilly Islands	200
Nov. 4	Pacific (C) off Cape Flattery	236
Dec. 6	Deutschland (W) mouth of Thames	157
July 15	Eten (W) off Alparalzo	100
Nov. 24	Huron (W) off North Carolina	100
Nov. ..	Atacama (W) off Caldera, Chile	104
Jan. 31	Metropolis (W) off North Carolina	100
Mar. 24	Eurydice (F) near Isle of Wight	300
Sept. 3	Princess Alice (C) on Thames River	700
Feb. 12-16	13 fishing schooners (F) off N. F.	144
Dec. 2	Borussia sunk off Spain	174
Jan. 31	Atlanta (V) from Bermuda	290
Oct. 16	Alpena (F) Lake Michigan	60
Nov. 24	Uncle Joseph (C) off Spezzia	250
Apr. 29	Tararua (W) off New Zealand	131
May 24	Victoria capsized in Thames River, Canada	200
June ..	U. S. Naval vessel Jeanette crushed in Arctic ice and sunk 500 miles off Siberian coast. Cmdr. G. W. De Long and 21 others lost; 11 survived, including Lt. G. W. Melville. The vessel had been in the ice pack since Sept., 1879. It had sailed from San Francisco in July, 1879, for the North Pole, having been bought and outfitted by James Gordon Bennett	
Aug. 30	Teuton (W) off Cape of Good Hope	200
Sept. 14	Asia (F) near Salt St. Marie	98
Jan. 19	Ger. Cambria (C) iceberg	389
July 3	Daphne capsized in Clyde	124
Jan. 18	City of Columbus (W) off Mass.	103
Apr. 3	Daniel Steinman (W) off N. S.	131
Apr. 18	Pomona; State of Florida (C)	150
July 22	Sp. Gligon; British Lexham (C)	150
Jan. 20	Kapunda; Ada Melmore (C) Brazil	300
Nov. 19	W. A. Scholten (C) in Eng. Channel	134
Aug. 14	Geiser; Thingvalla (C)	105

Sept. 12	It. steamer; La France (C)	89
Mar. 16	U. S. warships Trenton, Vandalla and Nipsic; Ger. Adler and Eber (W) at Apia, Samoa Islands, by hurricane	147
Jan. 2	Persia (W) on Corsica	130
Feb. 17	Br. Duberg (W) in China Sea	400
Mar. 1	Quetta (W) off Cape York	124
Sept. 19	Turkish frigate Otrugul (F) off Japan	540
Nov. 10	British cruiser Serpent (S) off Spain	167
Dec. 27	Shanghai (B) in China Sea	100
Mar. 17	Utopia (C) off Gibraltar	574
Apr. 22	Blanco Encalada (E) in Caldera Bay	200
Jan. 13	Nanchow (W) in China Sea	414
May 22	Braz. warship sunk, La Plata R.	120
Oct. 28	Roumania (W) off Portugal	113
Feb. 8	Trinacria (W) off coast of Spain	115
Feb. 11	Naronic (V) Liverpool to New York	
June 22	Br. battleship Victoria (C) off Syria	350
Feb. 2	Kearsarge (W) on Roncado Reef	
Nov. 1	Walraps (W) off New Zealand	134
Jan. 30	Ger. Elbe; Br. Crathie (C)	335
Mar. 11	Sp. Reina Regenta (F) in Atlantic	400
June 17	Drummond Castle (W) off France	250
Feb. 15	U. S. battleship Maine (E) in Havana harbor	269

SPANISH-AMERICAN WAR

May 1	Battle of Manila Bay—Spanish Reina Cristina; Castilla; cruisers Isla de Cuba and Isla de Luzon; gunboats Don Juan de Austria, Don Antonio de Ulloa and Marques del Duero, under Adm. Patricio Montojo, destroyed by Commodore George Dewey's fleet; Sp., 167 killed, 214 wounded; U. S., 7 wounded	
July 1	Battle of Santiago de Cuba—Spanish cruisers Maria Teresa, Almirante Oquendo and Vizcaya set afire and run aground west of Santiago; cruiser Cristobal Colon beached at mouth of Rio Turquino. Sp. forces, under Adm. Pascual Cervera, 353 killed, 151 wounded; U. S., under Actg. Rear-Adm. William T. Sampson and Commodore Winfield S. Schley, 1 killed	
July 4	Fr. La Bourgoynne; Br. Cromarty-shire (C)	560
July 4	Sp. Reina Mercedes scuttled at Santiago	
July 5	Sp. warship Alfonso XII sunk off Cuba	
July ..	Spanish cruiser Jorge Juan sunk	
Oct. 14	Mohegan (W) off the Lizard	170
Nov. 26	Portland lost off Cape Cod	167
June 30	Main, Bremen and Saale (B) at Hoboken, N. J.	145
Feb. 22	Rio de Janeiro (W) at San Francisco	128
Apr. 1	17 British Asian (W) in Red Sea	180
Aug. 14	Islander, with \$3,000,000 in gold, struck iceberg in Steven's Passage, Alaska	70
Dec. 2	Br. Condor (V) off Esquimaux, B. C.	104
July 21	Primus (C) on the Elbe	112
June 7	French Libau (C) near Marseilles	150

RUSSO-JAPANESE WAR 1904-05

Feb. 9	Russian cruisers Varlag and Korietz sunk off Chemulpo, Korea, by Japanese	
Apr. 13	Russian battleship Petropavlovsk (M) off Port Arthur	600
May 15	Jap. battleships Hatsuse and Yashima (M), cruiser Yoshino rammed by sister ship and sunk	
June 15	Gen. Siocum (B) at Hell Gate, N. Y.	1,030
June 20	Russian submarine Dolphin sunk	23
June 28	Norge (W) on Rockall Reef	590
May 27	Battle of Tsushima Bay—Jap. fleet, under Adm. Heihachiro Togo, destroyed Russian fleet under Adm. Zimriy P. Rodjestvensky including battleships Kniaz Suvaroff, Alexander III, Oslabya, Navarin, Sissol Velikland Borodino; cruisers Dmitri Donski, Adm. Nakhimoff, Vladimir Monomach, Adm. Oushakoff Zhemchug, Izumrud and Svetlana; Russia lost 10,000 men. Japan lost 3 torpedo boats; casualties under 1,000	
Sept. 23	Jap. warship Mikasa	599
Jan. 21	Braz. Aquidaban (E) off Brazil	212
Jan. 22	Valencia lost off Vancouver Island	129
Aug. 4	Italian Sirio (W) off Cape Palos	350

1907		
Feb. 12	Larchmont sunk off Long Island.....	131
Feb. 21	Br. Berlin off Hook of Holland.....	100
Feb. 24	Austrian Imperatrix (W).....	137
Mar. 12	French battleship Jena (E).....	117
July 20	Columbia; San Petro (C) off Calif.....	100
Nov. 26	Turkish Kaptan sunk in North Sea.....	110
1908		
Mar. 23	Jap. Matsu Maru (C) near Hakodate.....	300
Apr. 30	Jap. Matsu Shima (E) off Pescadores.....	200
July 28	Ying King (F) off Hong Kong.....	300
Nov. 6	Talsh (S).....	150
Nov. 27	San Pablo sunk off Philippines.....	100
1909		
Jan. 23	White Star liner Republic rammed and sunk by It. Florida off Nantucket light. All but 6 passengers saved by "CQD" (before SOS) sent by Republic's wireless operator Jack Binns; first time radio was used in sea rescue	
Aug. 1	Br. Waratah (V) from London.....	300
1910		
Feb. 9	Fr. Gen. Chanzy (W) off Minorca.....	200
Sept. 25	Fr. battleship Liberté (E) at Toulon.....	285
1912		
Jan. 11	Russ (F) in Black Sea.....	172
Mar. 5	Spanish Principe de Asturias.....	500
Mar. 28	British Yongala (S) off Australia.....	130
Apr. 8	Nile steamer (C) near Cairo Egypt.....	200
Apr. 14-15	White Star liner Titanic hit iceberg in North Atlantic.....	1,517
Sept. 23	Russian Obnenska sunk in Dyina R.....	115
Sept. 28	Jap. Kikkemaru sunk off Japan.....	1,000
1913		
Mar. 1	Br. Calvados lost in Sea of Marmora.....	200
Mar. 5	Ger. destroyer S-173; cruiser York (C) near Helgoland.....	66
Oct. 9	Volturmo (E) in midocean.....	135
Nov. 9	Storm destroyed on Lake Superior the steamers Henry B. Smith, 26; and Lealand, 18; on Lake Huron the steamers John A. McGean, 23; Charles Price, 28; Isaac M. Scott, 26; Hydruis, 24; Argus, 24; James Carruthers, 22; Regina, 25; and Wexford, 24.	
1914		
Jan. 30	S. S. Monroe (C) off Virginia.....	41
WORLD WAR I 1914-1918		
Mar. 31	Southern Cross (W) Belle Isle Strait.....	173
May 29	Canadian Empress of Ireland (C) St. Lawrence River.....	1,024
Aug. 26	German Kaiser Wilhelm der Grosse sunk off Africa.....	
Aug. 28	German cruisers Ariadne, Coln and Mainz sunk by British.....	
Sept. 12	German cruiser Hela sunk by British sub off Helgoland.....	
Sept. 18	French H. Laget (W) Columbia R.....	80
Sept. 22	British cruisers Aboukir, Cressy and Hogue by German submarine.....	1,400
Oct. 15	British cruiser Hawke by submarine off Aberdeen coast.....	
Oct. 26	British battleship Audacious (M) off Lough Swilly.....	
Nov. 1	British cruisers Good Hope and Monmouth sunk in Battle of Coronel.....	
Nov. 4	German cruiser Karlsruhe (E).....	
Nov. 9	German cruiser Emden sunk off Cocos Is.	
Nov. 17	German cruiser York (M) off Jade River.....	
Nov. 26	Br. battleship Bulwark (E) at Sheerness.....	
Dec. 8	German cruisers Scharnhorst, Leipzig, Gneisenau and Nurnberg sunk in Battle of Falkland Island.....	1,800
Dec. ..	French battleship Jean Bart (T) in Med.	
1915		
Jan. 1	British battleship Formidable (T).....	
Jan. 24	German cruiser Blucher sunk off Dogger Bank.....	792
Mar. 14	German cruiser Dresden blown up by crew.....	
Mar. 18	British battleships Irresistible and Ocean (T) in Dardanelles and sunk; Inflexible (T) and beached.....	
Mar. 25	U.S. sub L-4, off Honolulu Harbor.....	21
May 7	Cunard line steamer Lusitania, bound from New York to England, sunk in 18 minutes after a German submarine attack off the Old Head of Kinsale, southeast tip of Ireland.....	1,198
May 13	British Goliath (T) by Turkish destroyer.....	
May 25	British battleship Triumph (T).....	
May 27	British battleship Majestic (T).....	
July 11	German cruiser Konigsberg sunk by British in Rufiji River.....	
July 18	Italian cruiser Giuseppe Garibaldi (T) in Mediterranean.....	
July 24	Eastland overturned in Chicago River.....	812
Aug. 13	Marowine in Gulf of Mexico.....	97
Aug. 16	Dredges San Jacinto and San Houston (W) off Galveston, Tex.....	106
Nov. 7	Italian Ancona (T) in Mediterranean.....	206
1916		
Jan. 6	British battleship King Edward VII (M) off Cape Wrath.....	
Jan. 22	Pollentia (F) in mid-Atlantic.....	
Feb. 3	Daljin Maru sunk in Pacific.....	160
Feb. 26	French cruiser Provence in Mediterranean.....	3,100
May 31 Battle of Jutland—British cruisers		
Queen Mary, 1,265; Indefatigable, 1,017; Defence; Invincible, 1,000; Black Prince; Ger. battleship Pommern; cruisers Wiesbaden, Rostock, Elbing and Lutzow. Br. Grand Fleet, under Adm. Sir John R. Jellicoe and Vice-Adm. Sir David Beatty, lost 14 ships, 6,097 men; Ger. High Seas Fleet under Vice-Adms. Reinhard Scheer and Franz von Hipper, lost 11 ships, 2,545 men		
June 5	British cruiser Hampshire (M) in Orkneys.....	
Aug. 19	British cruisers Nottingham and Fal-mouth (T).....	
Aug. 29	U. S. cruiser Memphis (W) at Santo Domingo.....	43
Aug. 29	Chinese Hsin Yu sunk off China.....	1,000
Aug. 29	Jap. Wakatsu Maru (W) off Japan.....	105
Nov. 3	Connemara; Retriever (C) Irish Sea.....	92
Nov. 21	Br. Britannic (T) Aegean Sea.....	50
1917		
Jan. 25	British cruiser Laurentic (M) off Ireland.....	350
Apr. 15	Br. Arcadian (T) in Mediterranean.....	279
July 9	British warship Vanguard (E) at Scapa Flow.....	800
Oct. 17	U. S. transport Antilles (T).....	70
Oct. ..	Russian battleship Slava sunk in Baltic.....	
Dec. 6	Fr. Mont Blanc, carrying 3,000 tons of T.N.T., exploded in Halifax harbor when rammed by Belgian relief steamer Imo. Over 1,600 died and thousands were injured in the blast and fire which devastated the northern part of the city. Property damage \$50,000,000	
Dec. 6	U. S. destroyer Jacob Jones (T) off Scilly Islands.....	64
Dec. 30	Br. Aragon (T) in Mediterranean.....	610
1918		
Jan. 20	German warship Breslau (M) off Imbros Island.....	
Jan. 21	Br. Louvain (T) in Mediterranean.....	224
Feb. 1	French La Dive (T) in Mediterranean.....	110
Feb. 5	British Tuscania (T) off Ireland.....	213
Feb. 24	Florizel (W) near Cape Race, N. F.....	92
Apr. 25	Chinese Kiang-Kwan (C) off Hankow.....	500
May 1	City of Athens (C) off Delaware.....	66
May 10	Br. Santa Anna (T) in Mediterranean.....	638
May 23	British Moldavia (T) in Atlantic.....	53
May 26	Leasowe Castle (T) in Mediterranean.....	101
May 31	U. S. troopship Pres. Lincoln (T).....	29
June ..	U.S.S. Cyclops (V) left Barbados Mar. 4.....	309
June 27	Br. Llandovery Castle (T).....	234
July 6	Columbia sunk in Illinois River.....	87
July 12	Jap. battleship Kawachi (E), Tokayama Bay.....	500
July 14	Fr. Djannah (T) in Mediterranean.....	442
July 19	U. S. cruiser San Diego (M) off Fire Island.....	50
Aug. 3	British Warilda (T) off England.....	123
Sept. 5	U. S. troopship Mt. Vernon.....	36
Sept. 12	British Galway Castle (T) in Atlantic.....	189
S. pt. 26	Tampa (T) off England.....	118
Sept. 30	Tlenideroga (T) in Atlantic.....	213
Oct. 6	British Oranto (C) off Scotland.....	431
Oct. 10	Irish Lelaster (T) in St. George's channel.....	480
Oct. 25	Canadian Princess Sophia sunk off Alaska.....	398
Nov. 10	British battleship Britannia (T) off Cape Trafalgar.....	
1919		
Jan. 1	British yacht Isalre lost off Scotland.....	270
Jan. 17	French Chaonia lost in Straits of Messina.....	460
June 4	Br. sub L-55, off Kronstadt.....	41
Sept. 9	Spanish Valbanera lost off Florida.....	500
1921		
Spanish Santa Isabel (S) near Villagarcia.....		214
Mar. 18	Hongkong hit rock near Swatow, China.....	1,000
1922		
May 20	British Egypt (C) off France.....	98
Aug. 26	Jap. cruiser Nittaka (S) off Kamchatka.....	300
Aug. 29	Chilean Itata (C) off Cuzumbo.....	301
1923		
Mar. 10	Greek Alexander sunk off Praeus.....	150
Apr. 30	Mossamedes (G) at Cape Frio, Africa.....	220
Aug. 21	Jap. sub at dock, Kobe.....	85
Sept. 3	U. S. destroyers Delphy, S. P. Lee, Chauncey, Fuller, Woodbury, Nicholas and Young (W) off Honda Point, Calif.....	22
1924		
Jan. 10	Br. sub L-24 (C) off Portland, Eng.....	48
Mar. 19	Jap. sub No. 43, (C) off Sasebo.....	49
1925		
Mar. 12	Jap. Uwajima Maru off Takashima.....	103
Aug. 26	It. sub (V) off Sicily.....	50
Sept. 25	U. S. sub S-51 (C) with steamer City of Rome off Black Island.....	34
Nov. 11	Br. sub M-1 (C) in English Channel.....	69
1926		
Apr. 27	Chichibu (G) off Horomushiro, Jap.....	230
Aug. 28	Buryvestnik hit pier at Cronstadt, Russia.....	300
Oct. 16	Troopship (E) in Yangtze River.....	1,200

1927	
Aug. 25	Jap. destroyers Warabi and Ashi off Bungo Straits..... 129
Oct. 25	Italian Principeessa Mafalda (E) off Porto Seguro, Brazil..... 314
Dec. 17	U. S. sub S-4 (C) off Provincetown, Mass..... 40
1928	
July 7	Chilean Angamos (S) Araucano Bay..... 291
Aug. 6	It. sub F-14 (C) in Adriatic Sea..... 31
Oct. 3	Fr. sub Ondine, off Portugal..... 43
Nov. 12	British Vestris (S) off Virginia..... 113
1929	
Apr. 22	Jap. Toyo Kuni Maru (W) on Rocky Cape Erino..... 103
Aug. 30	San Juan (C) off Santa Cruz, Calif. 70
Dec. 21	Chinese Lee Cheong near Hong Kong 300
1931	
Mar. 11	Chinese steamer (E) in Yangtze River 300
May 22	Russian sub No. 9, Gulf of Finland... 35
June 14	French St. Philbert (S) off St. Nazaire 450
1932	
Jan. 26	Br. sub M-2, off Portland Bill, Eng. 60
Sept. 9	Observation (E) East River, N. Y. C. 72
Dec. 5	Jap. destroyer Sawarab (S) off Formosa..... 105
1933	
Jan. 4	French L'Atlantique (B) in English Channel..... 17
1934	
Jan. 21	Chinese Weltung (B) on Yangtze R. 216
Mar. 12	Jap. Tomozuru upset west of Nagasaki..... 103
Sept. 8	Morro Castle (B) off Asbury Park, N. J..... 125
1935	
Jan. 24	Mohawk; Talisman (C) off N. J.... 45
July 3	Jap. Midori Maru (C) in Inland Sea 104
1936	
Dec. 12	Sp. sub (T) off Malaga..... 47
1937	
Dec. 12	U. S. Panay, bombed by Jap., Yangtze River..... 2
1938	
May 5	French Lafayette (B) in dry dock at Havre
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1939	
Feb. 2	Jap. sub I-36, Bungo Channel..... 81
Apr. 19	French Paris (B) at Le Havre..... 19
May 23	U. S. sub Squalus sunk off Portsmouth, N. H..... 26
June 1	British sub Thetis sunk in Irish Sea..... 69
July 15	Fr. sub Phenix, off Indo-China..... 93
Sept. 3	Br. Athena (T) west of Hebrides..... 112
Sept. 17	Br. aircraft carrier Courageous (T)..... 515
Oct. 14	British battleship Royal Oak (T)..... 786
Dec. 17	German battleship Graf Spee blown up by crew 3 mi. off Uruguay
1940	
June 8	British aircraft carrier Glorious off Narvik..... 1,204
June 16	Fr. Champlain sunk in St. port..... 2,500
July 17	Br. Lancetia (T) off St. Nazaire..... 2,500
July 3	French battleships Bretagne and Provence sunk, Dunkerque run aground by British off N. Africa
Oct. 26	Empress of Britain (T) off Ireland... 45
Nov. 3	Laurentic (T)..... 45
1941	
Apr. 23	British Rajputana (T)..... 40
May	Italian Conte Rosso (T) off Sicily
May 24	British battleship Hood off Greenland by German battleship Bismarck..... 2,300
May 27	Bismarck off Brest by British..... 33
June 16	U. S. sub O-9 in test dive off Maine..... 737
July 13	Georgic destroyed in Suez port..... 100
Oct. 31	U. S. destroyer Reuben James (T) North Atlantic..... 100
Nov. 13	British aircraft carrier Ark Royal in Mediterranean..... 800
Nov. 25	British battleship Barham (T) in Mediterranean..... 800
Dec. 2	Australian cruiser Sydney off Australia..... 645
Dec. 7	Pearl Harbor. <i>Consult Index</i>
Dec. 9	British battleship Prince of Wales and cruiser Repulse by Jap. off Malay Peninsula
Dec. 16	British cruiser Galatea (T) in Mediterranean..... 460
1942	
Feb. 2	Swedish Amerikaland off Cape Hatteras
Feb. 9	French Normandie (B) at pier, New York City..... 1
Feb. 18	U. S. destroyer Truxton and cargo ship Pollux (G) off Newfoundland 204
Mar. 1	U. S. cruiser Houston, Sundra Strait, Battle of Java Sea..... 644
Apr. 5	Br. cruisers Dorsetshire, Cornwall, by Jap. planes off Ceylon..... 425
Apr. 8	Br. aircraft carrier Hermes, destroyer Vampire, in Indian Ocean by Jap. 315
Apr. 8	Greek Enderadria sunk off Turkey..... 211
May 8	U. S. aircraft carrier Lexington in Coral Sea battle..... 216
June 4	Jap. aircraft carriers Akagi (220), Kaga (300), Hiryu (415) and Soryu (718) in Battle of Midway
June 7	U. S. aircraft carrier Yorktown off Midway Island
Aug. 9	U. S. cruisers Quincey (370), Vincennes (332) and Astoria (216) sunk in Solomons
Aug. 22	U. S. destroyer Ingraham (C) in Atlantic..... 218
Sept. 9	U.S.C.G. Muskeget (V) in Atlantic... 120
Sept. 15	U. S. aircraft carrier Wasp (T) in Solomons..... 180
Oct. 2	British cruiser Curacao (C) off Eng. 335
Oct. 26	Pres. Coolidge (M) in South Pacific... 5
Oct. 26	U. S. aircraft carrier Hornet (D) in battle of Santa Cruz Island, later sunk (new Hornet launched Aug. 30, 1943)
Oct. ..	Duchess of Athol (T) in Atlantic
Oct. ..	Viceroy of India (T) in Atlantic
Nov. 8	British aircraft carrier Avenger off North Africa..... 507
Nov. 13	Jap. battleship Hiyel, off Solomons
Nov. 15	Jap. battleship Kirishima, off Solomons
Dec. 6	British Ceramic (T) off Azores..... 500
1943	
Jan. ..	U. S. sub Argonaut by Jap. near New Britain Island..... 102
Jan. 30	U. S. cruiser Chicago (T) in Solomons
Feb. 3	U. S. S. Dorchester (T) off Greenland 600
In one of the most heroic acts of the war, 4 chaplains aboard the Dorchester gave their lifelines to soldiers aboard the transport, linked their arms and prayed as they went down with the ship. They were Clark V. Poling and George L. Fox, Protestants; John P. Washington, Roman Catholic; and Alexander D. Goode, Jewish.	
Mar. 15	Empress of Canada (T) off Freetown, West Africa..... 400
June 8	Jap. battleship Mutsu (E) off Japan
June 13	U.S.C.G. Escanaba (E) in Atlantic... 103
Sept. 9	Italian battleship Roma (W) by Axis planes
Sept. 11	Conte di Savoia bombed by Germany in Venice harbor
Sept. 14	It. Conte Verde scuttled at Shanghai
Oct. 20	Navy tankers (C) off Palm Beach, Fla. 88
Nov. 26	Br. Rohna bombed off Algeria..... 1,015
Dec. 26	Ger. Scharnhorst (T) off Norway by British
1944	
Jan. 3	U.S.S. Turner (E) off N. Y. Harbor... 138
Mar. 9	U.S.S. Leopold (T) in Atlantic..... 171
Apr. 20	U. S. S. Paul Hamilton (T) off Algiers 504
May 29	U. S. aircraft carrier Block Island (T) in western Atlantic..... 10
June 19	Jap. aircraft carriers Shokaki, Taiho in 1st Battle of Philippine Sea by U. S. sub
July 17	Two munitions ships (E) Port Chicago, Calif..... 322
Sept. 8	It. Rex in Trieste Harbor by Br. planes
Oct. 24	U. S. carrier Princeton (E) off Leyte
Oct. 24	Jap. battleship Musashi sunk by U. S. planes
Oct. 25	Jap. battleships Fusu, Yamashiro; cruisers Suzuya, Chikuma, Chokai, Mogami, and aircraft carriers Chiyoda, Zuihou, Zuho and Chitose sunk by U. S. Navy in 2nd Battle of Philippine Sea
Nov. 12	German battleship Tirpitz off Norway
Nov. 21	Jap. battleship Kongo off China by U. S. sub
Nov. 24	Swedish Hansa (E) off Gotland..... 100
Nov. 29	Jap. aircraft carrier Shananan off Jap. by U. S. sub
Dec. 18	U. S. destroyers Spence, 318; Monaghan, 245, and Hull, 202 (S) in Pacific
Dec. 24	Belgian Leopoldville (T) enroute to Cherbourg..... 764
1945	
Jan. 29	U. S. S. Serpens (E) off Guadalcanal..... 196
Jan. 30	German Wilhelm Gustloff sunk off Danzig with refugees..... 6,000
Mar. 19	U. S. aircraft carrier Franklin (D), made port..... 832
Apr. 7	Jap. battleship Yamato (72,809 tons) Kyushu Island by U. S. planes..... 3,033
Apr. 9	U. S. Liberty ship (E) Bari, Italy..... 360
Apr. 9	German battleship Admiral Scheer by R.A.F. at Kiel
Apr. 16	German battleship Luetzow by R.A.F.
May 11	U. S. aircraft carrier Bunker Hill (D) 373
July 8	Brazilian cruiser Bala (E) in Atlantic 300
July 24	Jap. battleship Hyuga, cruiser Tone, and aircraft carriers Amagi, Kailyo sunk off Kure by U. S. planes
July 28	Jap. battleships Haruna, Ise; cruisers Aoba, Izumo and Iwate sunk off Kure by U. S. planes
July 31	U. S. cruiser Indianapolis (T) Philippine Sea (last major loss WW II)..... 880
1947	
Jan. 19	Greek Himera (M) off Athens..... 392
Apr. 16	French Grandcamp (E) in Texas City harbor..... 510
July 17	Ferry Randas (S) Bombay, India..... 625
Nov. 25	U. S. freighter S. Clarksdale Victory off Br. Columbia..... 49
1948	
Jan. 28	Jap. Joo Maru (M) Okayama, Jap... 250

June 11	Danish København (M) in Kattegat Sound.....	150	Jan. 30	1959	
Dec. 3	Kiangya (E) China Sea.....	1,100	Aug. 22	Danish passenger-freighter Hans Hedtoft hit iceberg, Greenland....	95
Jan. 27	1949			Philippine Pilar II (S) off Palawan...	90
Sept. 17	Taiyang; collier (C) off South China... Canadian Noronic (B) at Toronto...	600 119	Dec. 14	1960	
Jan. 12	1950			Yugoslav tanker Peter Zoranic, Gr. tanker World Harmony (C) in Bosphorus.....	53
June 19	Br. sub. Truculent (C) Thames Estuary.....	65	Dec. 19	U.S. aircraft carrier Constellation (B), Brooklyn Navy Yard.....	50
Aug. 25	Br. Indian Enterprise (E) Red Sea... U.S. hospital ship Benevolence, U.S. freighter Mary Luckenbach (C) off San Francisco.....	72	Apr. 8	1961	
Apr. 16	1951		July 8	Br. liner Dara (B), Persian Gulf....	212
May 17	Br. LST Adour (E) Nhatrang, Indochina.....	75	Sept. 3	Portuguese Sava (G) off Mozambique Vencedor capsized off Colombia....	259 100
June 12	U. S. destroyer Walke (D) off Korea	78	Jan. 8	1962	
Sept. 1	Fishing boat Pelican (S) Montauk...	26		Yugoslav Saba, Br. Dorington Court (C), English Channel....	28
Sept. 17	Fr. landing ship (M) Cochín, China...	45	Nov. 18	Norwegian Tharald Brovig, Jap Munakata Maru (C), Japan.....	39
Jan. 9	1952		Feb. 3	1963	
Jan. 10	Freighter Pennsylvania (S) Pacific... Freighter Flying Enterprise (S) off Lizard P.....	45 1	Apr. 10	U.S. tanker Marine Sulphur Queen (V) Gulf of Mexico.....	39
Apr. 21	U. S. cruiser St. Paul (D) off Korea...	34	July 11	U.S. Navy atomic submarine Thresher sank N. A. land... ..	129
Apr. 26	U. S. destroyer Hobbs (C) with aircraft carrier Wasp in Atlantic...	176	Dec. 23	Argentine Ciudad de Asuncion (B), River Plate.....	53
Sept. 24	Fr. sub La Sibille lost off Toulon...	48		Greek liner Lakonia (B) Atlantic....	155
Jan. 9	1953		Feb. 10	1964	
Jan. 9	South Korean Chang Tyong-Ho (F) off Pusan, Korea.....	249		Australian destroyer Voyager (C) Pacific.....	82
Jan. 31	Princess Victoria (S) off N. Ireland	133	Nov. 19	Launch capsized, Chenab River, India	125
Apr. 4	Turkish sub Dumlupinar (C) with Sw Nabolad, Dardanelles.....	81	Nov. 26	Norwegian tanker stolt Dagali, Israeli liner Shalom (C) off N.J.....	19
Aug. 1	Fr. Monique (V) near New Caledonia...	120	Mar. 18	1965	
Oct. 16	U. S. aircraft carrier Leyte (D) in Boston harbor.....	37		Boat loaded with pilgrims (S) Gobindasagar Lake, India.....	100
Mar. 26	1954		Nov. 2	Cuban refugee boat sank off Mexico...	39
May 26	Sp. Guadalete (S) in Mediterranean... U. S. aircraft carrier Bennington (D) 75 mi. south of Newport, R. I....	133 103	Nov. 13	Cruise ship Yarmouth Castle (B) off Nassau.....	89
Sept. 26	Jap. ferry Toya Maru (S) Tsugaru Strait, Japan.....	1,172	Jan. 10	1966	
Oct. 7	U.S. Mornackite (S) off Virginia....	37		Sp. freighter Monte Palomares (S) N. Atlantic.....	32
May 11	1955		Jan. 25	Indonesian Pernina (S) Sumatra....	89
June 16	Jap. ferry Shlun Maru (C) Inland Sea, Japan.....	173	May 16	Philippine Pioneer Cebu (S).....	132
Jan. 18	1956		June 16	U. S. tanker Texaco Massachusetts, Br. tanker Alva (C) Cape (C) N. Y....	33
Jan. 18	Tanker Salem Maritime (E) Lake Charles, La.....	52	July 31	Br. launch Darwin (V) off Br. coast...	31
July 25	It. liner Andrea Doria and Sw. liner Stockholm (C) off Nantucket....	51	Oct. 22	U. S. freighter Golden State, Philippine Pioneer (C) off Manila Bay...	71
Sept. 16	U.S. Freighter Perlagia (S) off Norway	32	Oct. 26	U. S. aircraft carrier Grasp, caught fire, Gulf of Tonkin.....	43
July 14	1957		Dec. 8	Greek ferry ship Heraklion (S) Aegean	264
Sept. 21	U.S.S.R. Eshghabad (G) Caspian Sea	270	Jan. 14	1967	
Sept. 21	W. Ger. bark Pamir (S) off Azores...	80		Korean ferry Hanil-Ho (C) off Korea	72
Jan. 26	1958		Feb. 21	Canadian trawler Cape Bonnie (W), Halifax Harbor.....	15
Mar. 1	Jap. ferry Nankai Maru (V) Inland Sea.....	170	May 23	Greek tanker Circe (E), Mediterranean.....	38
Nov. 18	Turkish ferry Uskudar capsized off Izmit, Turkey.....	361	July 29	USN carrier Forrestal (B), N. Vietnam.....	134
	U.S. freighter Carl D. Bradley (S), Lake Michigan.....	33	Oct. 9	U.S. freighter Panosceanic Falt (S), N. Pacific.....	34

Major Railroad Wrecks in the United States

Source: Federal Railroad Admin., Bureau of Railroad Safety
Date, Location and Number of Persons Killed. See also Chronology

1876/Dec. 29	Ashtabula, Ohio.....	92	1922 Aug. 5	Sulphur Springs, Mo.....	34
1880/Aug. 11	Mays Landing, N. J.....	40	1922/Dec. 13	Humble, Tex.....	22
1887/Aug. 10	Chatsworth, Ill.....	81	1923/Sept. 27	Lockett, Wyo.....	11
1888/Oct. 10	Mud Run, Pa.....	55	1925/June 16	Hackettstown, N. J.....	50
1896/July 30	Atlantic City, N. J.....	60	1925/Oct. 27	Victoria, Miss.....	21
1903/Dec. 23	Laurel Run, Pa.....	53	1926/Sept. 5	Waco, Colo.....	30
1904/Aug. 7	Eden, Colo.....	96	1928/Aug. 24	I. R. T. subway, N. Y., Times Sq. 18	47
1904/Sept. 24	New Market, Tenn.....	56	1938/June 19	Saugus, Mont.....	24
1906/Mar. 16	Florence, Colo.....	35	1939/Aug. 12	Harney, Nev.....	47
1906/Oct. 28	Atlantic City, N. J.....	35	1940/Apr. 19	Little Falls, N. Y.....	31
1906/Dec. 30	Washington, D. C.....	53	1940/July 3	Chillicothe Falls, Ohio.....	43
1907/Jan. 2	Volland, Kans.....	33	1942/Dec. 27	Almonte, Ontario.....	36
1907/Jan. 19	Fowler, Ind.....	29	1943/Aug. 29	Wayland, N. Y.....	27
1907/Feb. 16	New York City.....	22	1943/Sept. 6	Frankford Junction, Philadelphia.....	29
1907/Mar. 23	Onton, Calif.....	26	1943/Dec. 16	Bet. Rennett and Bule, N. C.....	72
1907/July 20	Salem, Mich.....	33	1944/July 6	High Bluff, Tenn.....	35
1907/Sept. 15	Canaan, N. H.....	24	1944/Aug. 4	Near Stockton, Ga.....	47
1910/Mar. 1	Vermillion, Wash.....	96	1944/Sept. 14	Dewey, Ind.....	29
1910/Mar. 21	Green Mountain, Ia.....	55	1944/Dec. 31	Bagley, Utah.....	50
1911/Aug. 25	Mandelleville, N. Y.....	29	1945/Aug. 9	Michigan, N. Dak.....	34
1912/July 4	East Corning, N. Y.....	29	1946/Mar. 25	Naperville, Ill.....	45
1912/July 5	Ligonier, Pa.....	23	1947/Jan. 17	Rockville, Pa.....	24
1913/Sept. 2	North Haven, Conn.....	21	1950/Jan. 17	Rockville Centre, N. Y.....	31
1914/Aug. 5	Hilton Ford, Mo.....	43	1950/Sept. 11	Coshocton, Ohio.....	31
1914/Sept. 15	Canaan, Mo.....	28	1950/Nov. 22	Richmond Hill, N. Y.....	33
1916/Mar. 29	Amherst, Ohio.....	27	1951/Feb. 6	Woodbridge, N. J.....	81
1917/Feb. 27	Mount Union, Pa.....	20	1951/Nov. 12	Wyuta, Wyo.....	17
1917/Sept. 28	Kellyville, Ohio.....	23	1951/Nov. 25	Woodstock, Ala.....	17
1917/Dec. 20	Shepherdsville, Ky.....	46	1953/Mar. 27	Conneaut, Ohio.....	21
1918/June 22	Lebanon, Ind.....	68	1956/Jan. 22	Los Angeles, Calif.....	30
1918/July 9	Nashville, Tenn.....	101	1956/Feb. 28	Swansea, Mass.....	13
1918/Nov. 1	Brooklyn, Madison St. Tunnel.....	97	1956/Sept. 5	Springer, N. M.....	20
1919/Jan. 12	South Bronx, N. Y.....	12	1957/June 11	Yonah, Colo.....	12
1919/July 1	Dunkirk, N. Y.....	12	1958/Sept. 12	Bridgeport, N. J.....	48
1919/Dec. 20	Owasa, Maine.....	23	1960/Mar. 14	San Rafael, Calif.....	14
1921/Feb. 27	Porter, Ill.....	23	1962/July 28	Steelton, Pa.....	19
1921/Dec. 5	Woodmont, Pa.....	27	1966/Dec. 28	Everett, Mass.....	13

World's worst wreck occurred Dec. 12, 1917, Modane, France, passenger train derailed, 543 killed.

Major Earthquakes

Source: United States Coast and Geodetic Survey. See also Chronology.

Year	Place	Deaths	Year	Place	Deaths
1057	China, Chihli	25,000	1923 Sept. 1	Japan, Tokyo	143,000
1268	Asia Minor, Sicilia	60,000	1932 Dec. 26	China, Kansu	70,000
1290 Sept. 27	China, Chihli	100,000	1933 Mar. 10	Long Beach, Calif.	115
1293 May 20	Japan, Kamakura	30,000	1935 May 31	India, Quetta	60,000
1531 Jan. 26	Portugal, Lisbon	30,000	1939 Jan. 24	Chile, Chillan	30,000
1556 Jan. 24	China, Shensi	830,000	1939 Dec. 27	Turkey, Erzincan	23,000
1667 Nov.	Caucasia, Shemaka	80,000	1946 May 31	Eastern Turkey	1,300
1693 Jan. 11	Italy, Catania	60,000	1946 Dec. 21	Japan, Honshu	2,000
1737 Oct. 11	India, Calcutta	300,000	1948 June 28	Japan, Fukui	5,131
1755 June 7	Perzia, northern	40,000	1949 Aug. 5	Ecuador, Pelileo	6,000
1755 Nov. 4	Portugal, Lisbon	60,000	1950 Aug. 15	India, Assam	1,500
1783 Feb. 1	Italy, Calabria	50,000	1953 Mar. 18	Northwestern Turkey	1,200
1797 Feb. 4	Ecuador, Quito	41,000	1954 Sept. 9-12	Northern Algeria	1,657
1811 Dec. 16	U.S. New Madrid, Mo.	10	1956 June 10-17	Northern Afghanistan	2,000
1819 June 16	India, Cutch	1,543	1957 July 2	Northern Iran	2,500
1822 Sept. 5	Asia Minor, Aleppo	22,000	1957 Dec. 4	Outer Mongolia	1,200
1828 Dec. 28	Japan, Echigo	30,000	1957 Dec. 13	Western Iran	2,000
1868 Aug. 13-15	Peru and Ecuador	25,000	1960 Feb. 29	Morocco, Agadir	12,000
1875 May 16	Venezuela, Colombia	16,000	1960 May 21-30	Southern Chile	5,700
1896 June 15	Japan, Seawave	22,000	1961	Northwestern Iran	10,000
1897 June 12	India, Assam	1,542	1963 July 2	Yugoslavia, Skopje	1,100
1906 Apr. 18	Calif., San Francisco	700	1964 Mar. 27	Alaska	131
1906 Aug. 16	Chile, Valparaiso	1,500	1966 Aug. 19	Eastern Turkey	2,529
1908 Dec. 28	Italy, Messina	75,000	1967 July 29	Northern Venezuela	236
1915 Jan. 13	Italy, Avezzano	29,970	1968 Jan. 15	Sicily	146
1920 Dec. 16	China, Kansu	180,000	1968 May 15	Japan, N. Honshu	47

Explosions

Date, Location, Number of Deaths—See also Marine Disasters, Fires and Chronology

1910 Oct. 1	Los Angeles Times Bldg.	21	1959 Apr. 10	World War II bomb, Philippines	38
1913 Mar. 7	Dynamite, Baltimore harbor	55	1959 June 2	Gas truck, Penn. Turnpike	10
1915 Sept. 27	Gasoline tank car, Ardmore, Okla.	47	1959 June 28	Rail tank cars, Meldon, Ga.	25
1916 July 22	San Francisco parade	10	1959 Aug. 7	Dynamite truck, Roseburg, Ore.	13
1917 Apr. 10	Munitions plant, Eddystone, Pa.	133	1959 Nov. 29	Jamrul Bazar, India, explosives	46
1917 Dec. 6	Halifax Harbor, Canada	1,600	1959 Dec. 13	Dortmund, Ger., 2 apt. bldgs.	26
1918 July 2	Explosives, Split Rock, N. Y.	50	1960 Mar. 4	Belgian munition ship, Havana	100
1918 Oct. 4	Shell plant, Morgan Station, N. J.	64	1960 Oct. 4	Chemical plant, Kingsport, Tenn.	10
1919 May 22	Food plant, Cedar Rapids, Iowa	44	1960 Oct. 25	Gas, Windsor, Ont., store	11
1920 Sept. 16	Wall St., New York, bomb	30	1962 Jan. 16	Gas pipeline, Alberta, Canada	19
1924 Jan. 3	Food plant, Pekin, Ill.	42	1962 Mar. 3	Gasoline truck, Syria	31
1937 Mar. 18	New London, Tex., school	294	1962 Oct. 3	Telephone Co. office, New York	23
1940 Sept. 11	Hercules Powder, Kenvil, N. J.	51	1963 Jan. 2	Packing plant, Terre Haute, Ind.	16
1942 June 5	Ordinance plant, Elwood, Ill.	49	1963 Mar. 9	Chem. plant, Modderfontein, S. Af.	45
1943 Apr. 14	Bombay, India, harbor	700	1963 Aug. 13	Explosives dump, Gauthi, India	325
1944 July 17	Port Chicago, Calif., pier	322	1963 Oct. 31	State Fair Coliseum, Indianapolis	72
1944 Oct. 21	Liquid gas tank, Cleveland	135	1964 July 23	Bone, Algeria, harbor, munitions	100
1947 Apr. 16	Texas City, Tex., pier	561	1965 Mar. 4	Gas pipeline Natchitoches, Ala.	17
1948 July 28	Farben works, Ludwigshafen, Ger.	184	1965 Aug. 9	Missile silo, Searcy, Ark.	53
1950 May 19	Munition barges, S. Amboy, N. J.	30	1965 Oct. 21	Bridge, Tila Bund, Pakistan	80
1956 Aug. 7	Dynamite trucks, Cali, Colombia	1,100	1965 Oct. 30	Marketplace, Cartagena, Col.	48
1956 Dec. 3	Brooklyn, N. Y., pier	10	1965 Nov. 24	Armory, Keokuk, Iowa	20
1957 Dec. 5	Villa Rica, Ga., gas line	17	1966 Oct. 13	Chemical plant, La Salle, Que.	11
1958 Apr. 18	Sunken munition ship, Okinawa	40	1967 Feb. 17	Chemical plant, Hawthorne, N.J.	20
1958 May 22	Nike missiles, Leonardo, N. J.	10	1967 Dec. 25	Apartment bldg., Moscow	20

Major Kidnaping Crimes

Charles B. Ross, 4, in Germantown, Pa., July 1, 1874. \$20,000. Victim delivered. Victim found, abducted, shot while committing burglary.

Edward A. Cudahy, Jr., 16, in Omaha, Neb., Dec. 18, 1900. Returned Dec. 20 after \$25,000 ransom paid. Pat Crowe confessed.

Robert Franks, 13, in Chicago, May 22, 1924, by two youths, Loeb and Leopold, who killed boy. Demand for \$10,000 ignored. Loeb died in prison, Leopold paroled 1958, freed Mar. 16, 1963.

Marian Parker, 12, in Los Angeles. Dec. 15, 1927, returned dead after \$1,500 paid. William E. Hickman convicted, hanged.

Charles A. Lindbergh, Jr., 20 mos. old, in Hopewell, N. J., Mar. 1, 1932; found dead May 12. Ransom of \$50,000 was paid to man identified as Bruno Richard Hauptmann, 35, paroled German convict who entered U.S. illegally. Hauptmann passed ransom bill and \$14,000 marked money was found in his garage. He was convicted after spectacular trial at Flemington, N.J., electrocuted in Trenton, N. J. prison, Apr. 3, 1936.

William A. Hamm, Jr., 39, in St. Paul, June 15, 1933. \$100,000 paid. Alvin Karpis given life.

Charles F. Urschel, in Oklahoma City, July 22, 1933. Released July 31 after \$200,000 paid. Geo. (Machine Gun) Kelly and 5 others given life.

Edward G. Bremer, 37, St. Paul, Minn., Jan. 17, 1934. Released Feb. 7 after \$200,000 paid. Two given life.

George Weyerhaeuser, 9, in Tacoma, Wash., May 24, 1935. Returned home June 1 after \$200,000 paid. Kidnapers given 20 to 60 years.

Charles Mattson, 10, in Tacoma, Wash., Dec. 27, 1936. Found dead Jan. 11, 1937. Kidnapers asked \$28,000, failed to contact, escaped.

Arthur Fried, in White Plains, N.Y., Dec. 4, 1937. Body not found. Two kidnapers executed.

Peter Levine, 12, in New Rochelle, N.Y., Feb. 24, 1938. Disembodied body found May 29. \$30,000 ransom not paid. Kidnapers escaped.

Robert C. Greenlease, 6, son of a Kansas City, Mo., motor car dealer, taken from school Sept. 28, 1933, and held for \$800,000. Body found Oct. 7, when Mrs. Bonnie Brown Heady and Carl A.

Hall were arrested. They pleaded guilty and were executed Dec. 28. Two arresting officers—Louis Shoulters and Elmer Dolan—were sentenced to 3 yrs. and 2 yrs., respectively, for perjury in describing recovery of \$300,000 of the ransom. Hall claimed he had over \$590,000 when arrested.

Evelyn Smith, 23, in Phoenix, Ariz., June 9, 1954. Released unharmed June 10, after \$75,000 was paid.

Peter Weinberger, 32 days old, Westbury, L.I., N.Y., July 4, 1956, for \$2,000 ransom, not paid. Child found dead. Angelo John LaMarca, 31, convicted, executed.

Cynthia Ruotolo, 6 yrs. old, taken from carriage in front of Hamden, Conn., store Sept. 1, 1956. Body found Sept. 6 in lake two miles away.

Lee Cray, 8, in Everett, Wash., Sept. 22, 1957, for \$10,000 ransom, not paid. Escaped after 3 days, led police to George E. Collins, convicted.

Eric Peugeot, 4, taken from playground at St. Clair, La., Aug. 19, 1958, Paris, Apr. 12, 1960. Released unharmed 3 days later after payment of undisclosed sum to kidnaper who had demanded \$100,000. Raymond Rolland and Pierre-Marie Larcher sentenced to 20 years in prison Oct. 31, 1962, as kidnapers.

Frank Sinatra, Jr., 19, from hotel room in Lake Tahoe, Calif., Dec. 8, 1963. Released Dec. 11 after his father paid \$240,000 ransom. John W. Irwin, Barry W. Keenan and Joseph C. Ansler convicted, sentenced to prison; most of ransom recovered.

Madeleine Dassault, plane-maker's wife, in Paris, May 23, 1964; found safe next day; 3 arrested.

Daniel Jesse Goldman, 18, abducted Mar. 18, 1966, from his home near Bal Harbour, Fla.

Mrs. Betty Hill, 42, was held prisoner in her Boulder, Colo., home Jan. 6, 1967, by an intruder who released her shortly afterward when her husband paid \$50,000 ransom.

Kenneth King, 11, was abducted from his bedroom in Beverly Hills, Calif., Apr. 3, 1967, but was freed unharmed 3 days later after his father paid \$250,000 ransom.

See also Chronology.

Floods, Hurricanes, Other Storms

Date, Location, Number of Deaths—See also Tornadoes and Chronology

(B)—Blizzard.	(F)—Flood.	(H)—Hurricane.	(S)—Other Storms.	(T)—Typhoon.	(TW)—Tidal Wave
1887.....	(F), Hwang-ho R., China.....	900,000	1959 Dec. 2	(F), Frejus, France.....	412
1888 Mar. 11-14	(B), Eastern U. S.....	400	1960 May 23-24	(TW), Hawaii, Japan, Okinawa.....	237
1889 May 31	(F), Johnstown, Pa.....	2,200	1960 Sept. 4-12	(H), Donna, Caribbean, eastern U.S.....	148
1900 Sept. 8	(H), Galveston, Tex.....	5,000	1960 Oct. 10	(TW), East Pakistan.....	6,000
1911.....	(F), Yangtze R., China.....	100,000	1960 Oct. 31	(TW), East Pakistan.....	4,000
1913 Mar. 25-27	(F), Ohio, Indiana.....	732	1961 July 19	(F), Charleston, W. Va.....	19
1913.....	(F), Brazos, Tex.....	500	1961 Sept. 11	(H), Carla, Tex., La.....	40
1915 Aug. 17	(H), Galveston, Tex.....	275	1961 Oct. 31	(H), Haiti, Br. Honduras.....	400
1926 Sept. 16-22	(H), Florida, Alabama.....	372	1962 Feb. 17	(F), German North Sea coast.....	343
1926 Oct. 20	(H), Cuba.....	600	1962 Sept. 27	(F), Barcelona, Spain.....	445
1928 Mar. 13	(F), collapse of St. Francis Dam, Santa Paula, Calif.....	450	1963 May 28-29	(F), East Pakistan.....	10,000
1928 Sept. 12-17	(H), W. Indies, Fla.....	4,000	1963 Oct. 4-8	(F), Cuba, Haiti.....	6,000
1930 Sept. 3	(H), San Domingo.....	2,000	1963 Oct. 9	(F), Collapse of Vaient Dam, northern Italy.....	1,800
1937 Jan. 22	(F), Ohio, Miss. Valleys.....	250	1963 Nov. 14-15	(F), Haiti.....	500
1938 Sept. 21	(H), New England.....	600	1964 Oct. 4-7	(H), Hilda, Louisiana.....	36
1942 Oct. 15-16	(H), Bengal, India.....	11,000	1964 Nov. 12	(F), South Vietnam.....	7,000
1942 Nov. 6	(TW), Bengal, India.....	10,000	1965 May 11	(S), East Pakistan.....	17,000
1944 Sept. 12-16	(H), N. C. to New England.....	389	1965 June 1-2	(S), East Pakistan.....	30,000
1951 Aug.....	(F), Manchuria.....	1,800	1965 June 11	(F), Sanderson, Tex.....	10
1953 Jan. 31	(S), high tides, Western Europe.....	2,000	1965 Sept. 7-10	(H), Betsy, Fla., Miss., La.....	74
1953 Sept. 25-27	(T), Viet Nam & Japan.....	1,300	1965 Dec. 15	(S), East Pakistan.....	10,000
1954 Aug. 30	(H), Carol, Northeast U. S.....	68	1966 Jan. 31	(S), Eastern T. S.....	166
1954 Sept. 11	(H), Edna, NE U.S., Canada.....	23	1966 June 4-10	(H), Alma, Honduras, S.E. U. S.....	51
1954 Oct. 12-16	(H), Hazel, East U. S., Haiti.....	347	1966 Sept. 24-30	(H), Inez, Caribbean islands.....	293
1955 Aug. 12-13	(H), Connie, Carolinas, Va., Md.....	43	1966 Nov. 4	(B), Midwest, eastern U. S.....	37
1955 Aug. 18-19	(H), Diane, Eastern U. S.....	400	1966 Nov. 4-6	(F), Venice, Florence, Italy.....	113
1955 Sept. 19	(H), Hilda, Mexico.....	200	1967 Jan. 12	(S), Northern Mexico.....	34
1955 Sept. 22-28	(H), Janet, Caribbean.....	500	1967 Jan. 18-24	(F), Eastern Brazil.....	894
1955 Oct.....	(F), India & Pakistan.....	1,700	1967 Jan. 25-27	(B), Lower Gt. Lakes area.....	80
1956 Feb. 1-29	(F), Western Europe.....	1,000	1967 Feb. 17-23	(F), Rio de Janeiro.....	224
1957 June 27-30	(H), Audrey—La., Tex.....	430	1967 Mar. 19	(F), Rio de Janeiro.....	436
1958 Feb. 15-16	(B), Northeastern U.S.....	171	1967 July 9	(T), Billie, Southern Japan.....	347
1959 Sept. 17-19	(T), Sarah, Far East.....	2,000	1967 Sept. 5-23	(H), Beulah, Carib., Mex., Tex.....	54
1959 Sept. 26-27	(T), Vera, Honshu, Japan.....	4,466	1967 Dec. 12-20	(B), Southwest U. S.....	51
1959 Oct. 27	(H), Mazanillo, Mexico.....	1,500			
1959 Nov. 1	(F), Western Mexico.....	2,000			

Chief Political Assassinations Since 1865

1865—April 14. Abraham Lincoln, President of the United States, in Washington; died April 15.

1881—Mar. 13. Alexander II, of Russia—July 2. James A. Garfield, President of the United States, in Washington; died Sept. 19.

1893—Oct. 28. Carter H. Harrison, Sr., Mayor of Chicago.

1894—June 24. Marie Francois Sadi-Carnot, President of France.

1900—Jan. 30. William Goebel, Governor of Kentucky—July 29. Humbert I, King of Italy.

1901—Sept. 6. William McKinley, President of the United States, in Buffalo; died Sept. 14. Leon Czolgosz executed for the crime Oct. 29.

1903—June 11. King Alexander I and Queen Draga of Serbia by army officers at Belgrade.

1913—Feb. 23. Francisco I. Madero, President of Mexico and Jose Pino Suarez, the Vice-President—March 18. George, King of Greece.

1914—June 28. Archduke Francis Ferdinand of Austria-Hungary and his wife, Countess Sophie Chotek, Duchess of Hohenberg, in Sarajevo, Bosnia (later part of Yugoslavia), by Gavrillo Princip.

1918—July 12. Grand Duke Michael of Russia, at Perm—July 16, Nicholas II, abdicated Czar of Russia; his wife, the Czarina Alexandra; their son, Czarévitch Alexis, and their daughters, Grand Duchesses Olga, Tatiana, Marie, Anastasia, and 4 members of their household were murdered in cold blood by Bolsheviks at Ekaterinburg—Dec. 14. Pres. Sidonio Pais of Portugal, in Lisbon.

1920—May 20. Gen. Venustiano Carranza, President of Mexico, in Tlaxcaltenango.

1923—July 20. Gen. Francisco "Pancho" Villa, ex-rebel leader, in Parral, Mexico.

1928—July 17. Gen. Alvaro Obregon, President-elect of Mexico, in San Angel, Mexico.

1933—Feb. 15. In Miami, Fla., Joseph Zangara, anarchist, shot at President-elect Franklin D. Roosevelt, but a woman seized his arm, and the bullet fatally wounded Mayor Anton J. Cermak, of Chicago, who died March 6. Zangara was electrocuted on March 20, 1933.

1934—July 25. In Vienna, Engelbert Dollfuss, Chancellor of Austria, by Nazi, in the chancellery. Otto Planetta convicted and hanged—Oct. 9. In Marseilles, King Alexander I of Yugoslavia and French Foreign Minister Jean Louis Barthou.

1935—Sept. 8. U. S. Senator Huey P. Long, shot in Baton Rouge, La., by Dr. Carl Austin Weiss, who was slain by Long's bodyguards.

1940—Aug. 20. Leon Trotsky (Leba Bronstein), 63, exiled Russian war minister, near Mexico City. Killer, identified as Ramon Mercader del Rio, a Spaniard, served 20 years in Mexican prison.

1942—Dec. 24. Adm. Jean B. Darian, 61, Algiers.

1948—Jan. 30. Mohandas K. Gandhi, 78, shot in New Delhi, India, by Nathuram Vinayak Godse.

36—Sept. 17. Count Folke Bernadotte, U. N. Mediator for Palestine, ambushed in Jerusalem.

1950—Nov. 13. Col. C. Delgado Chabaud, President of Venezuela, in Caracas.

1955—Jan. 2. Jose Antonio Remon, President of Panama, by machine gun at race track, Panama.

1956—Sept. 21. Anastasio Somoza, President of Nicaragua, in Leon; died Sept. 29.

1957—July 26. President Carlos Castillo Armas of Guatemala, in Guatemala City by one of his own guards, who then committed suicide.

1958—July 14. King Faisal of Iraq; his uncle, Crown Prince Abdul Illah, and July 15, Premier Nuri as-Said, by rebels in Baghdad.

1959—Sept. 25. Prime Minister S. W. R. D. Bandaranaike of Ceylon, by Buddhist monk in Colombo.

1960—Aug. 29. Premier Hazza Majid of Jordan and 10 others killed by time bomb in his office.

1961—Jan. 17. Ex-Premier Patrice Lumumba of the Congo, ex-Youth Minister Maurice Mpolo and Senate Vice President Joseph Okito in Katanga Province—May 30. Dominican dictator Rafael Leonidas Trujillo Molina shot to death by assassins near Ciudad Trujillo.

1963—Jan. 13. President Sylvanus Olympio of Togo, by ex-soldiers at Lome—Nov. 22. U. S. President John F. Kennedy fatally shot in Dallas, Tex.; Lee Harvey Oswald accused.

1965—Jan. 21. Iraqi Premier Hassan Ali Mansour fatally wounded by assassin in Teheran; 4 executed. Feb. 21. Malcolm X, Negro nationalist, fatally shot in New York City; 3 sentenced to life.

1966—Sept. 6. Prime Minister Hendrik F. Verwoerd of South Africa stabbed to death in parliament at Capetown by drifter later ruled insane.

1968—Apr. 4. Rev. Dr. Martin Luther King, Jr., fatally shot in Memphis, Tenn.; suspect James Earl Ray captured in London—June 5. Sen. Robert F. Kennedy (D., N. Y.) shot by assassin in Los Angeles, died next day; Sirhan Sirhan, resident alien, charged with murder.

See also Chronology.

ASSASSINATION ATTEMPTS

1910—Aug. 6. New York City Mayor Wm. J. Gaynor shot and seriously wounded by discharged city employee on liner about to leave for Europe.

1912—Oct. 14. Former U. S. President Theodore Roosevelt shot and seriously wounded by demented man in Milwaukee.

1950—Nov. 1. In an attempt to assassinate President Truman, two men identified as members of a Puerto Rican nationalist movement—Griselio Torresola and Oscar Collazo—tried to shoot their way into Blair House. Torresola was killed, and a guard, Pvt. Leslie Coffelt was fatally shot. Collazo, wounded, recovered and was tried and convicted Mar. 7, 1951 for the murder of Coffelt. His death sentence was commuted to life imprisonment by President Truman. July 24, 1952.

See also Chronology.

Some Notable Aircraft Disasters Since 1937

See also Chronology

Year	Aircraft	Site of accident	Deaths
1937 May	6 Ger. zeppelin Hindenburg	Burned at Mooring, Lakehurst, N. J.	36
1944 Aug.	23 U. S. Air Force B-24	Hit school, Freckleton, England	76
1945 July	2 U. S. Army B-25	Hit Empire State bldg., N. Y. C.	14
1946 May	20 U. S. Army C-45	Struck Manhattan Co. bldg., N. Y. C.	14
1949 Nov.	1 Eastern Air Lines DC-4	Rammed by Bolivian P-38, Wash., D. C.	55
1950 Mar.	12 Chartered Avro Tudor	Crashed near Cardiff, Wales	80
1950 June	24 Northwest Airlines DC-4	Exploded in storm over Lake Michigan	58
1950 Aug.	31 TWA Constellation	Crashed, burned, near Cairo, Egypt	55
1951 Dec.	16 Miami Airlines C-46	Plunged into Elizabeth River, N. J.	56
1952 Jan.	22 American Airlines Convair	Crashed in Elizabeth, N. J.	30 ¹
1952 Feb.	11 National Airlines DC-6	Crashed in Elizabeth, N. J.	33 ¹
1952 Dec.	20 U. S. Air Force C-124	Fell, burned, Moses Lake, Wash.	87
1953 Mar.	3 Canadian Pacific Comet jet	Kanash, Pakistan	11 ²
1953 June	18 U. S. Air Force C-124	Crashed, burned near Tokyo	129
1953 July	12 Transocean Air Lines DC-6B	Crashed into ocean east of Wake Isl.	58
1955 Mar.	22 U. S. Navy DC-6	Hit cliff near Honolulu, T. H.	66
1955 Aug.	11 2 USAF Flying Boxcars	Collided near Stuttgart, Germany	66
1955 Oct.	6 United Air Lines DC-4	Hit mountain west of Laramie, Wyo.	66
1955 Nov.	1 United Air Lines DC-6B	Exploded, crashed near Longmont, Colo.	4 ¹
1956 June	20 Venezuelan Super-Const.	Crashed in Atlantic off Asbury Park, N. J.	74
1956 June	30 TWA Super-Const., United DC-7	Collided over Grand Canyon, Arizona	128
1956 Oct.	10 Military Air Transport C-118	Disappeared 150 miles north of Azores	59
1956 Dec.	9 Cunard-Canada North Star	Crashed in mountains, British Columbia	67
1957 Mar.	21 Military Air Transport C-87	Disappeared over Pacific	62
1957 Aug.	11 Maritime Central Airways DC-4	Crashed in swamp near Quebec	79
1958 Feb.	1 MATS C-118, USN P2V Neptune	Collided over Los Angeles	48
1958 Apr.	21 United Airlines DC-7, USAF jet	Collided near Las Vegas, Nev.	49
1958 May	18 Belgian Sabena DC-6B	Crashed at Casablanca, Morocco	65
1958 Aug.	14 KLM Super-Constellation	Plunged into sea 130 mi. w. of Ireland	99
1958 Oct.	17 Soviet TU-104 jet airliner	Crashed near Kanash, 400 mi. e. of Moscow	75
1959 Feb.	3 Amer. Airlines Lockheed Electra	Crashed in East River, New York City	65
1959 June	26 TWA Super-Constellation	Crashed in storm near Milan, Italy	68
1960 Feb.	25 USN transport & Arg. airliner	Collided in air near Rio de Janeiro	61
1960 Mar.	9 Northwest Airlines DC-8 Electra	Exploded over N. Y. City, land	63
1960 July	27 Sikorsky S-53 helicopter	Crashed in Chicago suburbs	13 ¹
1960 Oct.	4 Eastern Air Lines Electra	Crashed after takeoff from Boston	61
1960 Dec.	16 United DC-8 jet, TWA Super-Constellation	Collided over New York City	134 ²
1960 Dec.	17 U. S. Air Force C-131 Convair	Crashed into Munich street car	53 ¹
1961 Feb.	15 Sabena Airlines Boeing 707	Crashed at Berg, Belgium	73 ¹
1961 May	10 Air France Starliner	Crashed in Sahara Desert	72
1961 July	12 Czech Hyushin-18	Hit power line, Casablanca	79
1961 July	19 Argentine Airlines DC-6	Crashed at Azul, Brazil	67
1961 Aug.	9 Cunard English Airways Viking	Crashed in North Sea off Norway	39 ¹
1961 Sept.	1 TWA Constellation	Crashed at Hinsdale, Ill.	66
1961 Sept.	10 President Airlines DC-6	Crashed at Shannon, Ireland	83
1961 Nov.	8 Imperial Airlines Constellation	Crashed near Richmond, Va.	77 ⁸
1962 Mar.	1 Amer. Airlines Boeing 707 jet	Crashed after takeoff, New York City	95
1962 Mar.	4 Br. Caledonian Airlines DC-7C	Crashed near Douala, Cameroun	111
1962 Mar.	16 Flying Tiger Super-Const.	Vanished in western Pacific	107
1962 June	3 Air France Boeing 707 jet	Crashed on takeoff from Paris	130
1962 June	22 Air France Boeing 707 jet	Crashed in storm, Guadeloupe, W. I.	113
1962 July	7 Italian Alitalia airliner	Crashed in storm 50 miles n.e. of Bombay	94
1962 Nov.	27 Brazilian Varig Boeing 707 jet	Crashed and burned in Lima, Peru	96
1963 Feb.	1 Mid. E. Viscoun Turk A.F.C-47	Collided over Ankara, Turkey	67
1963 June	3 Chartered Northw. Airlines DC-7	Crashed in Pacific off British Columbia	96
1963 Sept.	2 Swissair Caravelle Jetliner	Crashed after takeoff from Zurich, Switz.	80
1963 Nov.	29 Trans-Canada Airlines DC-8F	Crashed after takeoff from Montreal	118
1963 Dec.	8 Pan American Boeing 707	Crashed near Elkton, Md.	82
1964 Feb.	25 Eastern Air Lines DC-8	Crashed in Lake Pontchartrain, La.	58
1964 Feb.	29 Br. Eagle Bristol Britannia	Crashed near Innsbruck, Austria	83
1964 Mar.	1 Paradise Airline Constellation	Crashed in snow storm, Lake Tahoe, Calif.	85
1964 May	7 Pacific Airlines F-27	Crashed near Dublin, Calif.	44 ¹
1964 May	11 U.S. MATS C-135 Stratolifter	Crashed at Clark AFB, Philippines	76
1965 Feb.	3 Eastern Airlines DC-7B	Plunged into Atlantic after takeoff, New York	66
1965 May	20 Pakistan Boeing 720-B	Crashed at Cairo, Egypt, Airport	121
1965 June	25 U. S. Air Force C-135 transport	Crashed after takeoff from Los Angeles	84
1965 Aug.	16 United Airlines Boeing 727	Plunged into Lake Michigan near Chicago	30
1965 Aug.	24 U. S. Marine Corps transport	Crashed after takeoff from Hong Kong	58
1965 Nov.	8 American Airlines Boeing 727	Crashed in storm near Cincinnati, Ohio	58
1965 Nov.	11 United Airlines Boeing 727	Crashed, burned in landing at Salt Lake City	42
1965 Dec.	4 TWA Boeing 707, Eastern shuttle	Collided over Danbury, Conn.	4
1966 Jan.	24 Air India Boeing 707 jetliner	Crashed on Mont Blanc, Switzerland	117
1966 Feb.	4 All-Nippon Boeing 727	Plunged into Tokyo Bay	134
1966 Mar.	4 Canadian Pacific DC-8 jet	Crashed in landing at Tokyo, Airport	133 ¹
1966 Mar.	1 BOAC Boeing 707 jetliner	Crashed on Japan's Mount Fuji	124
1966 Apr.	22 Military-chartered Electra	Crashed in storm near Ardmore, Okla.	82
1966 Aug.	6 Braniff BAC-111 jetliner	Crashed near Falls City, Neb.	42
1966 Sept.	1 Britannia 102 turboprop	Crashed near Ljubljana, Yugoslavia	97
1966 Nov.	24 Bulgarian Tabson Ilyushin-18	Crashed near Bratislava, Czechoslovakia	82
1966 Dec.	24 U. S. military-chartered CL44	Crashed into village in South Vietnam	129 ¹
1967 Mar.	5 Lake Airlines Convair 580	Crashed in storm near Kenton, Ohio	38
1967 Mar.	9 TWA DC-9, twin-engine Beechcraft	Collided in air at Urbana, Ohio	26
1967 Mar.	30 Delta Air Lines DC-8	Hit motel at New Orleans	181
1967 Apr.	20 Swissair Britannia turboprop	Crashed at Nicosia, Cyprus	126
1967 June	3 Chartered British DC-8	Crashed into Mont Canigou, France	88
1967 June	4 Chartered British Argonaut	Crashed at Stockport, England	72
1967 June	23 Mohawk Airlines BAC-111	Crashed near Blossburg, Pa.	34
1967 June	2 Two U. S. Marine helicopters	Collided in air at Camp Lejeune, N. C.	22
1967 July	19 Piedmont Boeing 727, Cessna 310	Collided in air, Hendersonville, N. C.	82
1967 Oct.	12 British-Cypriot Mark IV Comet	Crashed into sea off Turkey	66
1967 Nov.	20 TWA Convair 880	Crashed in snowstorm at Cincinnati	68
1967 Dec.	8 Peruvian Faucett DC-4	Crashed near Huanuco, Peru	66

Including those on the ground and in buildings. ¹First fatal crash of commercial jet plane. ²Caused by bomb planted by John G. Graham in insurance plot to kill his mother, a passenger. ³Worst disaster involving single plane. ⁴First crash of commercial helicopter. ⁵Worst commercial air disaster; dead included all 84 aboard jet, all 44 aboard other plane and 6 on ground. ⁶Including 34 English schoolboys. ⁷Including 74 Army recruits. ⁸Tape recording indicated pilot was shot.

Fires

Date, Location and Number of Persons Killed—See also Chronology

1871 Oct.	8 Chicago, Wis., 196,000,000 loss.....	250	1949 Apr.	5 Hospital, Effingham, Ill.....	77
1871 Oct.	9 Peshigo, Wis., forest fire.....	1,182	1950 Jan.	7 Davenport, Iowa, Mercy Hospital	41
1876 Dec.	5 Brooklyn (N. Y.) Theater.....	295	1953 Mar.	29 Largo, Fla., nursing home.....	35
1877 June 20	St. John, N. B., Canada.....	100	1953 Apr.	16 Chicago, metalworking plant.....	35
1881 Dec.	8 Ring Theater, Vienna.....	850	1957 Feb.	17 Home for Aged, Warrenton, Mo.	72
1883 Jan.	10 Milwaukee, Newhall Hotel.....	71	1957 Nov.	16 Niagara Falls, N. Y., tenement.....	21
1883 May 25	Opera, Comique, Paris.....	200	1958 Mar.	19 New York City loft building.....	24
1887 Sept.	4 Exeter, Eng., theater.....	200	1958 Nov.	8 Tenement, Montreal, Cano.....	25
1894 Sept.	1 Hickley, Minn., forest fire.....	413	1958 Dec.	1 Parochial school, Chicago.....	95
1897 May	4 Charity bazaar, Paris.....	150	1958 Dec.	16 Store, Bogota, Colombia.....	83
1899 Mar.	17 Windsor Hotel, New York.....	45	1959 Mar.	5 School near Little Rock, Ark.....	24
1900 June	30 Hoboken, N. J., docks.....	326	1959 June 23	Resort hotel, Stalheim, Norway.....	34
1902 Sept.	30 Chicago, Birmingham, Ala.....	115	1960 Mar.	22 Pusan, Korea, chemical plant.....	68
1903 Dec.	30 Iroquois Theater, Chicago.....	602	1960 June 11	Liverpool, Eng., store.....	22
1904 Feb.	7 Baltimore, Md.....	none	1960 July 14	Mental hospital, Guatemala City.....	225
1905 Mar.	20 Brockton, Mass., shoe factory.....	50	1960 Nov.	13 Movie theater, Amude, Syria.....	152
1905 Jan.	13 Rhoads Thell, Boyertown, Pa.....	170	1961 Jan.	6 Thomas Hotel, San Francisco.....	20
1905 Mar.	4 School, Collinwood, Ohio.....	176	1961 May 15	Tenement, Hong Kong.....	25
1911 Mar.	25 Triangle factory, New York.....	145	1961 Dec.	8 Hospital, Hartford, Conn.....	16
1913 July 22	Binghamton, N. Y., factory.....	35	1961 Dec.	17 Circus, Niteroi, Brazil.....	323
1914 Mar.	9 Mo. Athletic Club, St. Louis.....	37	1963 May 4	Theater, Diourbel, Senegal.....	64
1918 Apr.	13 Norman, Okla., state hospital.....	38	1963 Nov.	18 Surfside Hotel, Atlantic City, N. J.....	25
1918 Oct.	22 Cloquet, Minn., forest fire.....	400	1963 Nov.	23 Rest home, Helyville, Ohio.....	63
1919 June 20	Macquay Theater, San Juan.....	150	1963 Dec.	29 Roosevelt Hotel, Jacksonville, Fla.....	22
1923 May 17	School, Camden, S. C.....	76	1964 May 8	Apartment building, Manila.....	30
1924 Dec.	24 School, Hobart, Okla.....	35	1964 Dec.	15 Nursing home, Fountaintown, Ind.....	28
1929 May 15	Crlie Hospital, Cleveland, Ohio.....	124	1965 Mar.	20 Jewish center, Yonkers, N. Y.....	12
1930 Apr. 21	Penitentiary, Columbus, Ohio.....	320	1965 Dec.	21 Numata, Jap., 2 ski resorts.....	39
1931 July 24	Pittsburgh, Pa., home for aged.....	48	1966 Mar. 11	Lapinlahti, Finland, hospital.....	29
1936 Apr.	6 Gainesville, Ga., hardware Co.....	57	1966 Aug.	13 Melbourne, Austr., hotel.....	29
1938 May 16	Atlanta, Ga., Terminal Hotel.....	35	1966 Sept. 12	Anchorage, Alaska, hotel.....	14
1940 Apr. 23	Dance hall, Natchez, Miss.....	198	1966 Oct. 17	N. Y. City bldg. (firemen).....	12
1942 Nov. 28	Cocoanut Grove, Boston.....	491	1966 Dec. 7	Erzurum, Turkey, barracks.....	68
1943 Sept. 7	Guif Hotel, Houston.....	55	1967 Feb.	7 Restaurant, Montgomery, Ala.....	25
1944 July 6	Ringling Circus, Hartford.....	168	1967 May 22	Store, Brussels, Belgium.....	322
1946 June 5	LaSalle Hotel, Chicago.....	61	1967 July 16	State prison, Jay, Fla.....	37
1946 Dec. 7	Wincoff Hotel, Atlanta.....	119			
1946 Dec. 12	New York, ice plant, tenement.....	37			

Principal Mine Disasters in the U. S.

ALL COAL MINES UNLESS OTHERWISE DESIGNATED

Source: Bureau of Mines. See also Chronology.

Date	Location	Killed	Date	Location	Killed
Sept. 6, 1869*	Plymouth, Pa.....	110	Feb. 8, 1923.....	Dawson, N. Mex.....	120
Mar. 13, 1884.....	Pocahontas, Va.....	112	Mar. 8, 1924.....	Castle Gate, Utah.....	171
Jan. 27, 1891.....	Mammoth, Pa.....	109	Apr. 28, 1924.....	Benwood, W. Va.....	119
Jan. 7, 1892.....	Krebs, Okla.....	100	May 19, 1928.....	Mather, Pa. W. Va.....	195
May 1, 1900.....	Schofield, Utah.....	200	Dec. 23, 1932.....	Moweaqua, Ill.....	54
May 19, 1902.....	Coal Creek, Tenn.....	184	Jan. 10, 1940.....	Bartley, W. Va.....	91
July 10, 1902.....	Johnstown, Pa.....	112	July 15, 1940.....	Portage, Pa.....	63
June 30, 1903.....	Hanna, Wyo.....	169	Feb. 27, 1943.....	Red Lodge, Mont.....	74
Jan. 25, 1904.....	Cheesewick, Pa.....	179	Mar. 25, 1947.....	Centralia, Ill.....	111
Feb. 20, 1905.....	Virginia City, Ala.....	112	Dec. 21, 1951.....	West Frankfort, Ill.....	119
Dec. 6, 1907.....	Monongah, W. Va.....	361	Feb. 4, 1957.....	Bishop, Va.....	37
Dec. 19, 1907.....	Jacobs Creek, Pa.....	239	Oct. 27, 1958.....	Bishop, Va.....	22
Nov. 28, 1908.....	Marianna, Pa.....	154	Mar. 2, 1961.....	Terre Haute, Ind.....	22
Nov. 13, 1909.....	Cherry, Ill.....	259	Dec. 6, 1962.....	Carmichael, Pa.....	27
Apr. 8, 1911.....	Littleton, Ala.....	128	Apr. 25, 1963.....	Dola, W. Va.....	22
Oct. 22, 1913.....	Dawson, N. Mex.....	263	Aug. 27, 1963***	Moab, Utah.....	18
Apr. 28, 1914.....	Eccles, W. Va.....	181	Dec. 28, 1965.....	Redstone, Colo.....	9
Mar. 2, 1915.....	Layland, W. Va.....	112	June 1, 1966.....	Dora, Pa.....	5
Apr. 27, 1915.....	Hastings, Colo.....	121	July 23, 1966.....	Mt. Hope, W. Va.....	7
June 8, 1917**	Butte, Mont.....	163	Mar. 5, 1968***	Calumet, La.....	21
Nov. 6, 1922.....	Spangler, Pa.....	77			

World's worst mine disaster killed 1,549 workers in the Honkeiko Colliery in Manchuria Apr. 26, 1942.
 *Anthracite mine. **Metal mine. ***Potash mine. ****Salt mine.

Principal Tornadoes Since 1900

Source: Weather Bureau, United States Department of Commerce. See also Chronology.

Date	Place	Dead	Date	Place	Dead
1900 Nov. 20	Ark., Miss., Tenn.....	73	1942 Mar. 16	Central to N. E. Miss.....	75
1903 June 1	Gainesville, Ga.....	98	1942 Apr. 27	Rogers & Mays Co., Okla.....	52
1905 May 10	Sunderland, N. E. Miss.....	87	1914 June 23	Okla. Pa., W. Va., Md.....	150
1908 Apr. 24	Lamar Co.-Wayne Co., Miss.....	10	1915 Apr. 12	Okla.-Ark.....	102
1909 Mar. 8	Dallas-Monroe Co., Ark.....	64	1916 Jan. 4	N. E. Texas.....	30
1913 Mar. 23	Omaha, Nebr.....	95	1947 Apr. 9	Texas, Okla., & Kans.....	169
1916 June 5	Ark. (series of tornadoes).....	83	1948 Mar. 19	Bunker Hill & Gillespie, Ill.....	33
1917 Mar. 23	New Albany, Ind.....	45	1949 Jan. 3	La. & Ark.....	58
1917 May 26	Mattoon-Charleston, Ill.....	101	1952 Mar. 16	Ark., Mo., Tenn. (series of tornadoes).....	208
1917 May 27	Tennessee, Kentucky.....	70	21, 22		
1918 Aug. 21	Tyler, Minn.....	26	1953 May 11	Waco, Texas.....	114
1919 June 22	Fergus Falls, Minn.....	59	1953 June 8	Flint to Lakeport, Mich.....	116
1920 Mar. 28	Ma.-Ga.....	50	1953 June 9	Central & Eastern, Mass.....	90
1920 Apr. 20	Mississippi, Alabama.....	67	1953 Dec. 5	Vicksburg, Miss.....	33
1920 May 2	Oklahoma.....	64	1955 May 25	Udall, Kans.....	80
1921 Apr. 15	Texas, Arkansas.....	61	1957 May 20	Williamburg, Kans. to Ruskin Heights, Mo.....	48
1924 Apr. 30	Central S. C.....	67	1958 June 4	Northwestern Wisconsin.....	30
1924 June 28	Lorain, Sandusky, Ohio.....	85	1959 Feb. 10	St. Louis, Mo.....	21
1925 Mar. 18	Mo., Ill., Ind.....	689	1960 May 5, 6	S. E. Oklahoma, Arkansas.....	30
1926 Nov. 25	Belleville to Portland, Ark.....	53	1961 May 5	Le Flore Co., Okla.....	16
1927 Apr. 12	Rock Springs, Tex.....	74	1962 Mar. 31	Milton, Fla.....	17
1927 May 9	Arkansas, Poplar Bluff, Mo.....	92	1964 Apr. 12	Kans., Mo., Iowa, Tex.....	13
1927 Sept. 29	St. Louis, Mo.....	72	1964 Oct. 8	Larose, La.....	22
1929 Apr. 25	S. E. Central Ga.....	41	1965 Apr. 11	Ind., Ill., Mich., Wis.....	271
1930 May 6	Hill & Ellis Co., Tex.....	268	1966 Mar. 3	Jackson, Miss.....	57
1932 Mar. 21	Ala. (series of tornadoes).....	216	1966 Mar. 3	Mississippi, Alabama.....	61
1936 Apr. 5	Tupelo, Miss.....	203	1966 June 8	Kansas.....	17
1936 Apr. 6	Gainesville, Ga.....	32	1967 April 21	Illinois.....	43
1938 Sept. 29	Charleston, S. C.....	32			

NOTED PERSONALITIES

Americans of the Past

AMERICAN MILITARY AND NAVAL LEADERS

Classified according to major service. (N) signifies Navy; (M) signifies Marine Corps

Born	Died	Name	Born	Died	Name	Born	Died	Name	
WAR OF INDEPENDENCE									
1737	1789	Allen, Ethan	1828	1890	Fisk, Clinton B.	1821	1897	McLaws, Lafayette	
1741	1801	Arnold, Benedict	1806	1863	Foot, Andrew (N)	1825	1864	Morgan, John H.	
1745	1803	Barry, John (N)	1823	1903	Franklin, W. B.	1833	1916	Mosby, John	
1749	1833	Buford, Abraham	1813	1890	Fremont, John C.	1814	1881	Pemberton, J. C.	
1752	1818	Clark, Geo. Rogers	1831	1881	Garfield, James A.	1825	1875	Pickett, Geo. E.	
1739	1812	Clinton, George	1805	1877	Goldsbrough, L.M. (N)	1806	1878	Pillow, G. J.	
1728	1806	Gates, Horatio	1822	1876	Granger, Gordon	1806	1864	Polk, Leonidas	
1742	1786	Greene, Nathanael	1822	1885	Grant, Ulysses S.	1809	1867	Price, Sterling	
1757	1804	Hamilton, Alex.	1826	1911	Grierson, Benjamin H.	1809	1877	Semmes, Raphael (N)	
1737	1814	Hearth, William	1815	1872	Halleck, Hy. W.	1816	1886	Sibley, H. H.	
1728	1777	Heckler, Nich.	1824	1886	Hancock, W. S.	1833	1864	Stuart, J. E. B.	
1718	1802	Hopkins, Esck (N)	1822	1893	Hayes, Rutherford B.	1822	1898	Taliaferro, W.R.	
1747	1792	Jones, John Paul (N)	1830	1887	Hazard, William B.	1826	1879	Taylor, Richard	
1756	1806	Knox, Henry R.	1805	1880	Heintzelman, S. P.	1827	1890	Terry, Alfred H.	
1731	1782	Lee, Charles	1814	1879	Hooker, Jos.	1820	1863	Van Dorn, Earl	
1758	1818	Lee, Henry	1830	1909	Howard, Oliver O.	1836	1906	Wheeler, Joseph	
1732	1794	Lee, Rich. Henry	1802	1886	Hunter, David	SPANISH-AMERICAN			
1733	1810	Lincoln, Benj.	1815	1882	Hurlbut, S. A.	1842	1914	Chaffee, Adna R.	
1733	1795	Marion, Francis	1815	1862	Kearny, Philip	1837	1917	Dewey, Geo. (N)	
1737	1775	Montgomery, Richard	1826	1886	Logan, John A.	1846	1912	Evans, Robley D. (N)	
1736	1802	Morgan, Daniel	1818	1861	Lyon, Nathaniel	1865	1917	Funston, Frederick	
1730	1805	Moultrie, Wm.	1806	1885	McClellan, Geo. B.	1858	1928	Gothals, Geo. W.	
1739	1817	Plekens, Andrew	1812	1900	McCormand, John	1870	1937	Hobson, Richmond P. (N)	
1745	1829	Plecker, Tim.	1831	1903	McCook, Alexander M.	1843	1899	Lawton, Henry W.	
1718	1790	Putnam, Israel	1818	1885	McDowell, Irvin	1835	1905	Lee, Fitzhugh	
1733	1804	Schuyler, Phillip	1828	1864	McPherson, Jas.	1845	1912	MacArthur, Arthur	
1728	1822	Stark, John	1815	1872	Meade, Geo. G.	1839	1925	Miles, Nelson A.	
1736	1818	St. Clair, Arthur	1818	1883	Ord, Edward O. C.	1840	1903	Sampson, Wm. T. (N)	
1726	1783	Stirling (Alexander)	1827	1900	Parke, John G.	1839	1911	Schley, W. S. (N)	
1740	1795	Sullivan, John	1813	1885	Phelps, John W.	1835	1906	Shafter, Wm. R.	
1734	1832	Sumter, Thomas	1822	1892	Pope, John	1845	1923	Sigsbee, Chas. D. (N)	
1727	1800	Ward, Ariemas	1818	1891	Porter, David D. (N)	1836	1906	Wheeler, Jos.	
1740	1775	Warren, Joseph	1822	1901	Porter, Fitz John	1860	1927	Wood, Leonard	
1732	1799	Washington, George	1819	1901	Prentiss, Ben.	WORLD WAR I			
1745	1796	Wayne, Anthony	1809	1890	Radford, William (N)	1859	1930	Allen, Henry T.	
Foreign Officers in the War			1820	1863	Reynolds, John F.	1855	1932	Benson, Wm. S. (N)	
1723	1788	DeGrasse, Francois (N)	1819	1892	Rodgers, C. R. P. (N)	1853	1930	Bliss, Tasker H.	
1721	1780	DeKaib, Johann	1819	1898	Rosecrans, Wm. S.	1861	1947	Robt. L.	
1746	1817	Kosciuszko, Thaddeus	1831	1906	Schofield, John	1864	1935	Capps, Wash. L.	
1757	1834	LaFayette, Marquis de	1831	1864	Sedgwick, John	1857	1927	Dickman, Joseph T.	
1748	1779	Paluski, Casimir	1831	1888	Sheridan, Phillip	1879	1951	Drum, Hugh A.	
1725	1807	Rochembeau, Jean de	1820	1891	Sherman, Wm. T.	1860	1931	Edwards, Clarence	
1730	1794	Steuben, F. W. von	1806	1879	Shields, James	1868	1958	Ely, Hanson E.	
WAR OF 1812			1825	1914	Sickles, Daniel E.	1880	1967	Foulois, Benj. D.	
1774	1833	Bainbridge, Wm. (N)	1824	1902	Sigel, Franz	1866	1947	Harbord, Jas. G.	
1775	1828	Brown, Jacob J.	1827	1894	Slocum, Henry W.	1890	1916	Hines, Frank T.	
1772	1840	Chauncey, Isaac (N)	1807	1862	Smith, Charles F.	1860	1963	Hodges, Henry C. Jr.	
1786	1836	Crockett, David	1824	1903	Smith, William F.	1863	1938	Jones, Hilary P. (N)	
1751	1829	Dearborn, Henry	1797	1863	Sumner, Edwin	1867	1942	Lejeune, John A. (M)	
1779	1820	Decatur, Stephen (N)	1822	1880	Sykes, George	1857	1935	Liggett, Hunter	
1773	1841	Harrison, Wm. Henry	1816	1876	Thomas, Geo. H.	1880	1964	MacArthur, Douglas	
1793	1863	Houston, Sam	1839	1881	Upton, Emory	1865	1955	March, Peyton C.	
1773	1843	Hull, Isaac (N)	1807	1864	Wadsworth, Jas. S.	1856	1937	Mayo, Henry T. (N)	
1773	1825	Hull, William	1827	1905	Wallace, Levi	1862	1930	Menohar, Chas. T.	
1767	1845	Jackson, Andrew	1830	1882	Warren, G. G.	1879	1936	Mitchell, Wm. (Billy)	
1781	1813	Lawrence, James (N)	1835	1884	Wetzel, Godfrey	1874	1961	O'Ryan, John F.	
1783	1825	Macdonough, Thos.	1837	1925	Wilson, James H.	1860	1948	Pershing, John J.	
1785	1819	Perry, Oliver H. (N)	1818	1897	Worden, John L. (N)	1869	1957	Pratt, Wm. V. (N)	
1779	1813	Pike, Zebulon M.	1820	1899	Wright, Horatio G.	1858	1936	Sims, Wm. S. (N)	
1780	1843	Porter, David	CIVIL WAR: CONFEDERATE			1862	1954	Wilson, Henry B. (N)	
1773	1838	Rogers, John (N)	1817	1863	Armistead, Lewis	1887	1964	York, Alvin C. (Sgt.)	
1764	1839	Van Rensselaer, S.	1809	1888	Barron, Saml.	WORLD WAR II, KOREA			
1757	1825	Wilkinson, Jas.	1818	1893	Beauregard, P.	1886	1950	Arnold, Henry H.	
MEXICAN WAR			1817	1876	Bragg, Braxton	1878	1967	Bloch, Claude C. (N)	
1794	1848	Kearny, Stephen	1821	1875	Breckinridge, John C.	1838	1950	Buchanan, Pat (N)	
1804	1869	Pierce, Franklin	1804	1874	Buchanan, F. (N)	1887	1945	Buckner, Simon B.	
1786	1866	Scott, Winfield	1823	1914	Buckner, Simon B.	1890	1958	Chennault, Claire L.	
1780	1867	Sloat, John D. (N)	1798	1839	Cooper, Samuel	1886	1961	Eichelberger, R. L.	
1784	1850	Taylor, Zachary	1816	1894	Early, Jubal A.	1896	1967	Fechteler, Wm. M. (N)	
CIVIL WAR: UNION			1817	1872	Ewell, Rich. S.	1883	1959	Halsey, Wm. F. (N)	
1805	1871	Anderson, Robert	1806	1863	Floyd, John B.	1878	1952	Haskell, Wm. N.	
1832	1900	Averell, William W.	1821	1877	Forrest, Nathan B.	1892	1966	Hobbs, Leland	
1816	1894	Banks, Nath. J.	1818	1883	Gorgas, Josiah	1887	1966	Hodges, Courtney	
1821	1875	Blair, Francis P., Jr.	1832	1904	Gordon, John B.	1891	1967	Jones, Albert M.	
1818	1898	Buell, Don Carlos	1818	1902	Hampton, Wade	1879	1956	Kearny, Ernest J. (N)	
1826	1863	Buford, John	1815	1877	Hardee, William J.	1875	1959	Leahy, Wm. D. (N)	
1824	1881	Burnside, Ambrose	1825	1865	Hill, A. Ross P.	1880	1964	MacArthur, Douglas	
1818	1893	Butler, Benj. F.	1821	1889	Hill, Daniel H.	1887	1947	Mitscher, Marc A. (N)	
1817	1873	Canby, Edw. R.	1831	1879	Hood, John B.	1880	1959	Marshall, Geo. C.	
1828	1900	Cox, Jacob D.	1823	1895	Inoden, John D.	1885	1966	Nimitz, Chester	
1819	1893	Crittenden, Thomas L.	1820	1898	Jackson, Henry R.	1896	1959	Parks, Floyd L.	
1828	1890	Crook, George	1824	1863	Jackson, Thos. J.	1885	1945	Patton, Geo. S., Jr.	
1842	1874	Cushing, William B. (N)	1803	1862	Johnston, Albert S.	1887	1944	Roosevelt, Theo., Jr.	
1839	1876	Custer, Geo. A.	1827	1891	Johnston, Jos. E.	1896	1951	Sherman Forrest P. (N)	
1809	1870	Dalbren, John (N)	1824	1893	Kirby-Smith, E.	1882	1967	Smith, Holland M. (M)	
1819	1892	Doubleday, Abner	1807	1870	Lee, Robert E.	1895	1961	Smith, W. Bedell	
1803	1865	DuPont, Saml. (N)	1833	1908	Lee, Stephen D.	1883	1946	Stilwell, Jos. H. (N)	
1837	1863	Farnsworth, Elon J.	1821	1904	Longstreet, Jas.	1884	1955	Townsend, John H. (N)	
1801	1870	Farragut, David G. (N)	1810	1871	Magruder, J. B.	1899	1954	Vandenbergh, Hoyt S.	
			1822	1900	Maury, D. H. (N)	1883	1953	Wainwright, J. M.	
			1806	1873	Maury, M. F. (N)	1889	1950	Walker, Walton H.	
			1825	1895	Maxey, Samuel B.	1876	1959	Yarnell, Hy. E. (N)	

AMERICAN WRITERS OF THE PAST

Novelists, Poets, Historians, Journalists, Publishers, Biographers

A
Charles Francis Adams, biographer, diplomat, 1807-1886.
Charles Francis Adams, historian, lawyer, 1835-1915.
Franklin P. Adams, journalist, 1881-1960.
Henry Adams, historian, philosopher, 1838-1918.
James Truslow Adams, historian, 1878-1949.
Samuel Hopkins Adams, novelist, magazine writer, 1871-1958. *It Happened One Night*.
George Ade, humorist, dramatist, 1866-1944.
Louisa May Alcott, novelist, writer of children's books, 1832-1888. *Little Women*.
Thomas Bailey Aldrich, author, editor, 1836-1907.
Henry M. Alden, editor, 1836-1919. *Harper's Magazine*.
Horatio Alger, author of "rags-to-riches" boys' books, 1832-1899.
James Lane Allen, novelist, 1849-1925.
Gertrude Atherton, novelist, 1857-1948. *Black Oxen*.
Mary Austin, novelist, playwright, 1868-1934.

B
Irving Bacheller, novelist, journalist, 1859-1950. *Eben Holden*.
Ray Stannard Baker, biographer, historian, 1870-1946.
George Bancroft, historian, diplomat, 1800-1891.
Joe Barlow, poet, diplomat, 1754-1812.
Margaret Ayer Barnes, novelist, 1886-1967. *Years of Grace*.
Bruce Barton, author, advertising executive, 1875-1967. *The Man Nobody Knows*.
Rex Beach, novelist, 1877-1949. *The Auction Block*.
Charles A. Beard, historian, 1874-1948.
Henry Rittier Beard, historian, 1876-1953.
Lucius M. Beebe, journalist, author, 1902-1966. *N. Y. Herald Tribune*.
Edward Bellamy, novelist, journalist, 1850-1898. *Looking Backward: 2000-1887*.
Robert C. Benchley, humorist, journalist, 1889-1945.
Stephen Vincent Benet, poet, novelist, 1898-1943.
William Rose Benet, poet, novelist, 1886-1950.
James Gordon Bennett, journalist, 1795-1872. *Founded N. Y. Herald*.
James Gordon Bennett, Jr., journalist, 1841-1918. *N. Y. Herald, Evening Telegram*.
Albert J. Beveridge, historian, politician, 1862-1927.
Ambrose Bierce, short-story writer, journalist, 1849-1914.
Earl Derr Biggers, novelist, 1884-1933. *Created Charlie Chan*.
Samuel Bowles II, journalist, author, 1826-1878. *Springfield Republican*.
Gamaliel Bradford, biographer, 1863-1932.
Anne Bradstreet, poet, 1612-1672.
Arthur Brisbane, journalist, 1864-1936. *N. Y. Sun, Evening Sun, World and Hearst newspapers*.
Louis Bromfield, novelist, essayist, 1896-1956.
Van Wyck Brooks, historian, critic, 1886-1963.
Heywood Brown, journalist, 1888-1939. *N. Y. Morning Telegraph, Tribune, World*.
Orestes Brownson, author, editor, clergyman, 1803-1876.
Katharine Brush, novelist, 1902-1952. *Young Man of Manhattan*.
William Cullen Bryant, poet, editor, 1794-1878.
Henry C. Bunner, journalist, poet, 1855-1896. *Editor of Puck*.
Ned Buntline, author of dime novels, 1823-1886. *Gave "Buff-*

falo Bill" Cody his nickname.
Edgar Rice Burroughs, novelist, 1875-1950. *Tarzan of the Apes*.
Struthers Burt, novelist, poet, 1882-1954.

C
George W. Cable, novelist, essayist, 1844-1925.
Henry Seidel Canby, editor, critic, 1878-1961. *Saturday Review of Literature*.
Will Carleton, poet, journalist, 1845-1912. *Over the Hill to the Poorhouse*.
Rachel Carson, marine biologist, author, 1907-1964. *Silent Spring*.
Amon G. Carter, newspaper publisher, 1880-1955. *Ft. Worth Star-Telegram*.
Willis Cathers, novelist, essayist, 1876-1947. *O Pioneers!*.
Madison Cawein, poet, 1865-1914.
John Vance Cheney, poet, librarian, 1848-1922.
Robert W. Chambers, novelist, artist, 1865-1933. *The Rogue's Moon*.
Winston Churchill, novelist, 1871-1947. *The Crisis*.
Raymond Clapper, journalist, 1892-1944.
Irvin S. Cobb, humorist, journalist, 1876-1944.
James Fenimore Cooper, novelist, 1789-1851. *Leather-Stocking Tales*.
Royal Cortissoz, journalist, author, 1869-1948. *N. Y. Herald Tribune*.
Thomas B. Costain, novelist, journalist, 1885-1965. *The Black Rose*.
Hart Crane, poet, 1899-1932.
Stephen Crane, novelist, short-story writer, 1871-1900. *The Red Badge of Courage*.
Francis Marion Crawford, novelist, 1854-1909.
Frank Crowninshield, editor, author, 1872-1947.
E. S. Cummings, poet, painter, 1824-1963.
Cyrus H. K. Curtis, magazine, newspaper publisher, 1850-1933.
George William Curtis, journalist, author, 1824-1892.
James Oliver Curwood, novelist, 1878-1927. *God's Country and the Woman*.

D
Charles A. Dana, editor, 1819-1878. *New York Sun*.
Richard H. Dana, author, lawyer, 1815-1882. *Two Years Before the Mast*.
Joseph Daniels, journalist, statesman, 1862-1948. *Raleigh News & Observer*.
Elmer Davis, journalist, radio commentator, 1890-1958.
Richard Harding Davis, journalist, novelist, 1864-1916.
Robert H. (Bob) Davis, journalist, editor, 1869-1942. *N. Y. Evening Sun*.
Bernard De Voto, historian, editor, 1897-1955.
Michael H. De Young, newspaper editor, 1849-1925. *San Francisco Chronicle*.
Emily Dickinson, poet, 1830-1886.
Thomas Dixon, novelist, clergyman, 1864-1946. *The Clansman*.
J. Frank Dobie, author, educator, 1888-1964.
Hilda Doolittle (H. D.), poet, 1886-1961.
Joseph Rodman Drake, poet, 1795-1820.
Theodore Dreiser, novelist, editor, 1871-1945. *An American Tragedy*.
Orvil E. Dryfoos, newspaper publisher, 1912-1963. *New York Times*.
Paul L. Dunbar, poet, novelist, 1872-1906.

E
Edward Eggleston, novelist, clergyman, 1837-1902. *The*

Hoosier Schoolmaster.
Ralph Waldo Emerson, poet, essayist, 1803-1882.
John Erskine, novelist, educator, 1879-1951. *The Private Life of Helen of Troy*.

F
Martha Farquharson, author of juveniles, 1828-1909. *Elsie Dinsmore series*.
William Faulkner, novelist, 1897-1962. *Sanctuary*.
Edna Ferber, novelist, 1887-1968. *Show Boat, Saratoga Trunk*.
Arthur D. Ficke, poet, novelist, 1833-1945.
Eugene Field, poet, journalist, 1850-1895. *Little Boy Blue; Wynken, Blynken and Nod*.
James T. Fields, editor, author, 1817-1881. *Atlantic Monthly*.
Joseph Fields, stage and screen writer, 1895-1966. Co-author of *My Sister Ellen*.
Dorothy Canfield Fisher, novelist, writer of juveniles, 1878-1958.
John Fiske, historian, philosopher, 1842-1901.
F. Scott Fitzgerald, novelist, short-story writer, 1896-1940. *The Great Gatsby*.
John Gould Fletcher, poet, critic, 1886-1950.
Esther Forbes, children's author, 1891-1967. *Johnny Tremain*.
Kathryn Forbes, novelist, 1909-1966. *Mama's Bank Account*.
Paul Leicester Ford, novelist, historian, 1865-1902. *The Honorable Peter Stirling*.
Gene Fowler, journalist, author, 1890-1960. *Good Night, Sweet Prince*.
John W. Fox, Jr., novelist, 1863-1919. *The Little Shepherd of Kingdom Come*.
Douglas S. Freeman, historian, editor, 1866-1953. *Richmond News Leader*.
Mary E. W. Freeman, short-story writer, 1852-1930.
Philip Freneau, poet, journalist, 1752-1832.
Robert Frost, poet, 1875-1963.

G
Zona Gale, novelist, dramatist, 1874-1938.
Frank E. Gannett, newspaper publisher, 1876-1957. *Gannett Newspapers*.
Hamlin Garland, novelist, 1860-1940. *Main-Travelled Roads*.
Ellen Glasgow, novelist, 1874-1945.
Susan Glaspell, novelist, dramatist, 1882-1948.
Edwin L. Godkin, journalist, 1831-1902. *Founded The Nation*.
Henry W. Grady, journalist, orator, 1850-1889. *Atlanta Constitution*.
Horace Greeley, journalist, politician, 1811-1872. *N. Y. Tribune*.
Zane Grey, novelist, 1875-1939. *Riders of the Purple Sage*.
Gilbert H. Grosvenor, editor, geographer, 1875-1966. *National Geographic Magazine*.
Edgar A. Guest, poet, 1881-1959. *A Heap of Livin'*.
Louise C. Guiney, poet, essayist, 1861-1920.
Arthur Guiterman, poet, 1871-1943.

H
Edward Everett Hale, author, clergyman, 1822-1909. *The Man Without a Country*.
James Norman Hall, novelist, 1887-1951. Co-author *Mutiny on the Bounty*.
Fitz-Greene Halleck, poet, 1790-1867.
Dashiell Hammett, writer of detective fiction, 1894-1961. *The Thin Man*.
Norman Hapgood, magazine editor, author, 1868-1937.
Joel Chandler Harris, short-story

writer, 1848-1908. Uncle Remus and Br'er Rabbit.
Bret Harte, short-story writer, poet, 1836-1902. The Luck of Roaring Camp.
George B. M. Harvey, journalist, diplomat, 1864-1928.
Nathaniel Hawthorne, novelist, 1804-1864. The Scarlet Letter.
John M. Hay, historian, diplomat, 1838-1905. Abraham Lincoln: A History.
Lafcadio Hearn, author, 1850-1904.
William Randolph Hearst, newspaper publisher, 1863-1951.
Ben Hecht, novelist, playwright, journalist, 1894-1964.
Ernest Hemingway, novelist, short-story writer, 1899-1961. A Farewell to Arms.
Burton J. Hendrick, biographer, journalist, 1871-1949.
O. Henry (W. S. Porter), short-story writer, 1862-1910. The Gift of the Magi.
Joseph Hergesheimer, novelist, 1880-1954. Java Head.
Marguerite Higgins, journalist, 1920-1966.
Robert Hilary, poet, novelist, 1895-1962.
Alice Tisdale Hobart, novelist, 1882-1967. Oil for the Lamps of China.
Samuel Hoffenstein, poet, 1890-1947.
Charles Fenno Hoffman, poet, editor, 1806-1864.
Oliver Wendell Holmes, poet, novelist, 1809-1894.
Mark DeWolfe Hopper, historian, 1906-1967.
Roy W. Howard, newspaper publisher, editor, 1883-1964. Scripps-Howard Newspapers.
Ed Howe, journalist, author, 1853-1937.
Julia Ward Howe, poet, reformer, 1819-1905. The Battle Hymn of the Republic.
William Dean Howells, novelist, critic, 1837-1920.
Elbert Hubbard, author, editor, 1856-1915. A Message to Garcia.
Frank (Kin) Hubbard, humorist, caricaturist, 1868-1930.
Langston Hughes, poet, playwright, 1892-1967.
Rupert Hughes, novelist, playwright, 1872-1956.
Frazier (Spike) Hunt, journalist, war correspondent, 1835-1967.

I
Washington Irving, essayist, historian, 1783-1859.
Wallace Irwin, journalist, humorist, 1875-1959.
Will Irwin, journalist, author, 1873-1948.

J
Henry James, novelist, critic, 1843-1916.
Robinson Jeffers, poet, dramatist, 1887-1962.
Sarah Orne Jewett, novelist, short-story writer, 1849-1909.
James Weldon Johnson, poet, anthropologist, 1871-1938.

K
H. V. Kaltenborn, editor, radio commentator, 1878-1965.
Clarence Budington Kelland, novelist, short-story writer, 1881-1964.
Francis Scott Key, poet, 1779-1843. The Star-Spangled Banner.
Dorothy Kilgallen, journalist, radio-TV personality, 1913-1965.
Bernard Kilgore, journalist, 1908-1967. Wall Street Journal.
Joyce Kilmer, poet, 1886-1918. Trees.
Willard M. Kiplinger, journalist, 1891-1967. Changing Times.

L
Oliver La Farge, novelist, 1901-1963. Laughing Boy.
William M. Laffan, newspaper publisher, 1848-1900. New York Sun. N. Y. Evening Sun.

Benson Young Landis, editor, 1897-1966. Yearbook of American Churches.
Sidney Lanier, poet, critic, 1842-1881.
Ring Lardner, short-story writer, journalist, 1885-1933.
Victor F. Lawson, journalist, 1850-1925. Chicago Daily News.
Emma Lazarus, poet, essayist, 1849-1887. The New Colossus.
Charles Godfrey Leland, poet, journalist, 1824-1903.
William Ellery Leonard, poet, educator, 1876-1944.
Fulton Lewis, Jr., radio news commentator, 1903-1966.
Ludwig Lewisohn, novelist, critic, 1883-1955.
Vachel Lindsay, poet, 1879-1931.
Jack London, novelist, journalist, 1876-1916. The Call of the Wild.
Benson John Lossing, historian, artist, 1813-1891. Pictorial Field Book of the Revolution.
Elijah P. Lovejoy, journalist, abolitionist, 1802-1837.
Amy Lowell, poet, critic, 1874-1925.
James Russell Lowell, poet, editor, 1819-1891.
Henry R. Luce, publisher, 1898-1967. Time, Life, Fortune magazines.

M

Edwin Markham, poet, 1852-1940. The Man with the Hoe.
John P. Marquand, novelist, 1893-1960. The late George Apley.
Don Marquis, humorist, journalist, 1878-1937. The Old Soak.
Edgar Lee Masters, poet, biographer, 1869-1950. Spoon River Anthology.
S. S. McClure, editor, publisher, 1857-1949.
Joseph Medill McCormick, journalist, politician, 1877-1925. Chicago Tribune.
Robert R. McCormick, editor, publisher, 1880-1955. Chicago Tribune.
Carson McCullers, novelist, 1917-1967. The Heart Is a Lonely Hunter.
John B. McMaster, historian, 1852-1932.
Joseph Medill, journalist, 1823-1899. Chicago Tribune.
Herman Melville, novelist, poet, 1819-1891. Moby Dick.
Henry L. Mencken, editor, author, 1880-1956. Baltimore Sun. American Mercury.
Edna St. Vincent Millay, poet, 1892-1950.
Joaquin Miller, poet, 1839-1913.
Max Miller, novelist, 1889-1967. I Cover the Waterfront.
Margaret Mitchell, novelist, journalist, 1900-1949. Gone With the Wind.
William Vaughn Moody, poet, dramatist, 1869-1910.
Clement C. Moore, poet, educator, 1779-1863. A Visit from Saint Nicholas.
Christopher Morley, journalist, novelist, 1890-1957. Kitty Foyle.
John L. Motley, historian, diplomat, 1814-1877.
Edward R. Murrow, radio-TV commentator, 1908-1965.

N

William Rockhill Nelson, journalist, 1841-1915. Kansas City Star.
John G. Nicolay, biographer, A History.
Charles B. Nordhoff, novelist, 1887-1947. Co-author Mutiny on the Bounty.
Frank Norris, novelist, journalist, 1870-1902.
Frank Norris, novelist, 1907-1967. Tower in the West.
Kathleen Norris, novelist, 1880-1966.
Frank B. Noyes, newspaper executive, 1863-1948. Associated Press.

O

Adolph S. Ochs, journalist, 1858-1935. New York Times.
Frederic O'Glen, journalist, 1856-1935. San Francisco Call-Bulletin.
James Oppenheim, poet, novelist, 1882-1932.

P

Clementine Paddleford, food editor, 1900-1967. N. Y. Herald Tribune.
Thomas (Tom) Paine, author, political theorist, 1737-1809. Common Sense.
Dorothy Parker, poet, short-story writer, 1893-1967.
Francis Parkman, historian, 1823-1893.
James K. Paulding, poet, novelist, 1778-1860.
John Howard Payne, poet, dramatist, 1791-1852. Home, Sweet Home.
Frederick Palmer, war correspondent, 1873-1958.
Alicia Patterson, journalist, 1906-1963. Newsday.
Eleanor Medill Patterson, journalist, 1884-1948. Washington Times-Herald.
Joseph Medill Patterson, publisher, 1879-1946. Founded N. Y. Daily News.
Joseph P. Peabody, poet, dramatist, 1874-1922.
David G. Phillips, journalist, novelist, 1867-1911.
Edgar Allan Poe, poet, short-story writer, critic, 1809-1849.
Ernest Poole, journalist, novelist, 1880-1950.
William H. Prescott, historian, 1796-1859.
Joseph Pulitzer, journalist, 1847-1911. St. Louis Post-Dispatch.
N. Y. World.
Joseph Pulitzer, journalist, 1885-1955. St. Louis Post-Dispatch.
Ralph Pulitzer, journalist, 1879-1939. St. Louis Post-Dispatch.
N. Y. World.
Ernie Pyle, journalist, war correspondent, 1900-1945.

R

James G. Randall, historian, 1881-1953.
Burton Rance, journalist, author, 1892-1957.
Marjorie Kinnan Rawlings, novelist, 1896-1953. The Yearling.
Thomas Buchanan Read, poet, painter, 1822-1872. Sheridan's Ride.
Lizette Woodworth Reese, poet, 1856-1935.
Ogden M. Reid, journalist, 1822-1947. N. Y. Herald Tribune.
William Reid, journalist, diplomat, 1837-1912. N. Y. Tribune.
Quentin Reynolds, journalist, author, 1902-1965.
James Ford Rhodes, historian, 1848-1927.
Alice Hegan Rice, novelist, 1870-1952. Mrs. Wiggs of the Cabbage Patch.
Carl Young Rice, poet, novelist, 1872-1943.
Grantland Rice, journalist, 1880-1954.
John C. Ridpath, historian, educator, 1840-1900.
James Whitcomb Riley, poet, 1849-1916.
Mary Roberts Rinehart, novelist, dramatist, 1876-1958. The Circular Staircase (The Bat).
Elizabeth Madox Roberts, poet, novelist, 1886-1941.
Kenneth Roberts, novelist, 1885-1957. Northwest Passage.
Roy A. Roberts, journalist, 1887-1967. Kansas City Star.
Edwin Arlington Robinson, poet, 1869-1935.
Theodore Roethke, poet, 1908-1963.
Richard Ruark, journalist, author, 1915-1965.
Damon Runyon, short-story writer, journalist, 1884-1946. Guys and Dolls.

S

Carl Sandburg, poet, biographer, 1878-1967.
 George Santayana, poet, essayist, philosopher, 1863-1952.
 Lew Sarett, poet, 1888-1954.
 Edward W. Scripps, newspaper publisher, 1854-1926.
 Robert F. Scripps, newspaper publisher, 1895-1938. Scripps-Howard Newspapers.
 Alan Seeger, poet, 1888-1916. I Have a Rendezvous with Death.
 Ernest Thompson Seton, author, naturalist, 1860-1946. Wild Animals I Have Known.
 Odell Shepard, author, politician, 1884-1967. Pedlar's Progress.
 Frank Dempster Sherman, poet, educator, 1860-1916.
 Lydia H. Sigourney, poet, 1791-1865.
 Edward Rowland Sill, poet, educator, 1841-1887.
 Lillian Smith, novelist, 1897-1966. Strange Fruit.
 Samuel Francis Smith, poet, clergyman, 1808-1895. America.
 Jared Sparks, historian, educator, 1789-1866.
 Kate Speed, newspaper editor, 1880-1952. New York Sun.
 Burt L. Standish (Gilbert Patten), author, 1866-1945. Frank Merriwell series.
 Frank L. Stanton, poet, journalist, 1857-1927. Mighty Lak' a Rose.
 Lincoln Steffens, editor, author, 1866-1936. The Shame of the Cities.
 Edmund C. Stedman, poet, critic, 1833-1908.
 Gertrude Stein, author, 1874-1946. Three Lives.
 George Sterling, poet, 1869-1926.
 Wallace Stevens, poet, insurance executive, 1879-1955.
 Frank R. Stockton, novelist, short-story writer, 1834-1902. The Lady or the Tiger?
 Richard H. Stoddard, poet, critic, 1825-1903.
 Melville E. Stone, journalist, 1848-1929. Associated Press.
 Harriet Beecher Stowe, novelist, 1811-1896. Uncle Tom's Cabin.

Edward Stratemeyer, author, 1862-1930. Creator of such series as the Rover Boys, Bobsey Twins, Tom Swift.
 Gene Stratton-Porter, novelist, 1863-1924. A Girl of the Limberlost.
 Mark Sullivan, journalist, author, 1874-1952.
 Herbert Bayard Swape, journalist, 1882-1958. N. Y. World.

T

John B. Tabb, poet, 1845-1909.
 Genevieve Taggard, poet, 1894-1948.
 Booth Tarkington, novelist, 1869-1946. Seventeen.
 Bayard Taylor, poet, novelist, 1825-1878. The Bedouin Love Song.
 Bert (B. L. T.) Taylor, newspaper columnist, 1866-1921.
 Edward Taylor, poet, c. 1642-1729.
 Sara Teasdale, poet, 1884-1933.
 Albert Payson Terhune, novelist, journalist, 1872-1942. Lad: A Dog.
 Dorothy Thompson, journalist, author, 1894-1961.
 James Thurber, humorist, artist, 1894-1961. The New Yorker.
 Eunice Tietjens, poet, novelist, 1884-1944.
 Ridgely Torrence, poet, dramatist, 1875-1950.
 Charles Hanson Towne, poet, editor, 1877-1949.
 George A. Townsend, journalist, war correspondent, 1841-1914.
 Frederick J. Turner, historian, educator, 1861-1932.
 Mark Twain (Samuel Clemens), novelist, humorist, 1835-1910. The Adventures of Huckleberry Finn.

V

Carl Van Doren, historian, critic, educator, 1885-1950.
 Henry Van Dyke, poet, educator, essayist, 1852-1933.
 Hendrik Willem Van Loon, historian, journalist, 1882-1944.
 Val Van Vechten, novelist, music critic, 1880-1964.
 Oswald G. Villard, editor, author, 1872-1949. The Nation.

W

Herbert W. Walker, journalist, 1895-1967. Newspaper Enterprise Association.
 Lew Wallace, novelist, diplomat, 1827-1905. Ben Hur.
 Artemus Ward (Charles F. Browne), humorist, 1834-1867.
 Henry Watterson, editor, author, 1840-1921. Louisville Courier-Journal.
 Thurlow Weed, journalist, politician, 1797-1882. Albany Evening Journal.
 Nathanael West, novelist, 1903-1940.
 Edith Wharton, novelist, 1862-1937. The Age of Innocence.
 Stewart Edward White, novelist, 1873-1946.
 William Allen White, editor, author, 1868-1944. Emporia (Kan.) Gazette.
 Walt Whitman, poet, 1819-1892.
 John Greenleaf Whittier, poet, journalist, 1809-1892.
 Kate Douglas Wiggin, children's author, educator, 1856-1923.
 Rebecca of Sunnybrook Farm.
 Ella Wheeler Wilcox, poet, 1850-1919.
 Ben Ames Williams, novelist, 1889-1953.
 William Carlos Williams, poet, physician, 1883-1963.
 Nathaniel P. Willis, journalist, author, 1806-1867.
 Lyle C. Wilson, journalist, 1899-1967. United Press International.
 Thomas Wolfe, novelist, 1900-1938. Look Homeward, Angel.
 Samuel Woodworth, poet, dramatist, 1784-1842. The Old Oaken Bucket.
 Alexander Woolcott, journalist, critic, 1887-1943.
 Harold Bell Wright, novelist, 1872-1944. The Shepherd of the Hills.
 Richard Wright, novelist, 1908-1960. Native Son.
 Elinor Wylie, poet, novelist, 1885-1928.

Z

John Peter Zenger, journalist, printer, 1697-1746. N. Y. Weekly Journal.

AMERICAN PAINTERS OF THE PAST

Born	Died	Name	Born	Died	Name	Born	Died	Name
1852	1911	Abbey, Edwin A.	1848	1892	Harnett, Wm. Michael	1778	1860	Peale, Rembrandt
1856	1915	Alexander, John W.	1854	1929	Harrison, L. Birge	1851	1914	Pease, Charles S.
1779	1843	Allston, Washington	1828	1901	Hart, James M.	1912	1956	Pollock, Jackson
1780	1851	Audubon, John James	1877	1943	Hartley, Marsden	1857	1923	Potter, Edward C.
1855	1942	Beaux, Cecelia	1860	1935	Hassam, Childe	1853	1911	Pyle, Howard
1852	1917	Beckwith, J. Carroll	1872	1930	Hawthorne, Charles W.	1861	1909	Remington, Frederic
1832	1925	Bellows, George W.	1813	1894	Healy, G. P. A.	1852	1922	Rice, William M. J.
1828	1902	Bierstadt, Albert	1865	1929	Henri, Robert	1838	1905	Richards, William T.
1856	1943	Birch, Reginald B.	1835	1890	Hicks, Thomas	1864	1926	Russell, Charles M.
1848	1936	Blashfield, Edwin H.	1880	1966	Hofmann, Hans	1847	1917	Ryder, Albert P.
1847	1928	Bridgman, F. A.	1836	1910	Homer, Winslow	1856	1925	Sargent, John S.
1859	1920	Browne, Charles Francis	1882	1967	Hopper, Edward	1859	1926	Sawell, Amanda B.
1855	1941	Brush, George de Forest	1840	1895	Hovenden, Thomas	1860	1924	Sewell, Robert V. V.
1855	1926	Cassatt, Mary	1824	1879	Hunt, William M.	1832	1928	Shattuck, Aaron
1796	1872	Catlin, George	1816	1906	Huntington, Daniel	1871	1951	Sloan, John
1860	1925	Chapman, Carlton T.	1801	1846	Inman, Henry	1847	1926	Steele, Theodore C.
1849	1916	Chase, William M.	1825	1894	Inness, George	1835	1922	Story, George H.
1855	1925	Coffin, Wm. A.	1855	1914	Isam, Samuel	1856	1919	Story, Julian
1801	1848	Cole, Thos.	1824	1906	Johnson, Eastman	1755	1828	Stuart, Gilbert
1840	1928	Colman, Charles C.	1874	1939	Johnson, Frank Tenney	1852	1941	Stuart, Jas. E.
1737	1815	Copley, John S.	1848	1927	Jones, H. Bolton	1783	1872	Sully, Thomas
1849	1924	Craig, Thomas B.	1835	1910	La Farge, John	1861	1930	Symons, Gardner
1845	1918	Crowninshield, Frederic	1807	1889	Landibn, James Reid	1849	1921	Thayer, Abbott H.
1843	1909	Currier, J. Frank	1816	1868	Leutz, Emmanuel	1862	1938	Tarbell, Edmund C.
1898	1946	Curry, John Steuart	1866	1955	Leigh, William R.	1859	1899	Truesdell, Gaylord S.
1862	1928	Davies, Arthur B.	1880	1940	Lie, Jonas	1756	1843	Trumbull, John
1856	1933	Davis, Charles H.	1852	1924	Loomis, Chester	1849	1925	Tryon, Dwight N.
1861	1918	Day, Frank Miles	1867	1933	Luks, George B.	1853	1902	Twachtman, John H.
1863	1935	Dennuth, Charles	1872	1953	Marin, John	1776	1852	Vanderlyn, John
1856	1926	Drake, Will H.	1898	1954	Marsh, Reginald	1836	1923	Vedder, Elithu
1796	1886	Durand, A. B.	1836	1897	Martin, Homer	1856	1935	Volk, Stephen A. D.
1848	1919	Duveneck, Frank	1860	1932	Melchers, Carl	1861	1940	Wough, Fred'k J.
1844	1916	Eakins, Thomas	1858	1925	Mercall, Willard L.	1856	1928	Webb, J. Louis
1845	1921	Earle, Lawrence C.	1842	1922	Miller, Charles H.	1849	1903	Weeks, Edwin L.
1871	1956	Feltinger, Lyonel	1829	1901	Moran, Edward	1852	1917	Weir, J. Alden
1808	1884	Freeman, James E.	1863	1935	Moran, Percy	1871	1926	Weir, John F.
1822	1884	Fuller, George	1837	1926	Moran, Thomas	1738	1820	West, Benjamin
1867	1934	Fulter, Henry Brown	1860	1961	Moses, Grandma	1834	1903	Whistler, J. A. M.
1838	1928	Gay, Edward	1858	1928	Mowbray, H. Siddons	1892	1942	Wood, Grant
1834	1918	Griswold, C. C.	1907	1967	Murch, Walter T.	1823	1903	Wood, Thomas W.
1893	1959	Gross, George	1847	1918	Nicoll, J. C.	1836	1892	Wyant, Alexander H.
1861	1927	Grover, Oliver Dennett	1835	1907	Noble, Thomas S.	1882	1945	Wyeth, Newell
1865	1931	Hale, Philip L.	1741	1827	Peale, Chas. W.	1830	1923	Yewell, George H.

AMERICAN ETCHERS, ENGRAVERS, ILLUSTRATORS, CARTOONISTS

Born	Died	Name	Born	Died	Name	Born	Died	Name
1887	1953	Arms, John Taylor	1851	1906	French, Edwin D.	1840	1902	Nast, Thomas
1856	1909	Bachler, Otto Henry	1851	1928	Frost, Arthur B.	1863	1928	Outcault, Richard F.
1862	1951	Benson, Frank W.	1868	1945	Gibson, Chas. Dana	1870	1966	Parish, Maxfield
1875	1930	Briggs, Clare	1866	1925	Keller, Arthur I.	1741	1827	Peale, Charles, W.
1881	1966	Brown, Arthur Wm.	1861	1933	Kemble, E. W.	1857	1926	Pennell, Joseph
1776	1820	Charles, William	1838	1895	Keppeler, Joseph	1861	1933	Platt, Charles A.
1873	1952	Christly, H. Chandler	1876	1952	Kirby, Rollin	1853	1911	Pyle, Howard
1852	1931	Cole, Timothy	1872	1934	McCay, Winsor	1877	1952	Robinson, Boardman
1822	1888	Darley, Felix O. C.	1870	1949	McDougal, John T.	1833	1909	Smillie, James D.
1796	1886	Durand, Asahel Brown	1858	1938	McDougal, Walt	1887	1935	Smith, Sidney
1901	1966	Edson, Gus	1899	1945	McManus, George	1885	1962	Stobser, H. T.
1885	1954	Eisher, H. C. (Bud)	1860	1919	Mielatz, F. Wm.	1887	1966	Westover, Russ
1878	1960	Flagg, Jas. Mont.	1869	1935	Mielzner, Leo	1852	1916	Wolf, Henry
1884	1964	Fox, Fontaine	1874	1948	Morgan, Wallace			

AMERICAN BUSINESS LEADERS, PHILANTHROPISTS

1884	1966	Arden, Elizabeth	1834	1916	Green Henrietta (Hetty)	1795	1869	Peabody, George
1832	1901	Armour, Phillip D.	1828	1905	Guggenheim, Meyer	1830	1891	Pratt, Charles
1764	1848	Astor, John Jacob	1837	1904	Hauna, Marcus A.	1808	1896	Pratt, Enoch
1875	1967	Babson, Roger	1874	1940	Harkness, Edward S.	1831	1897	Pullman, Geo. M.
1870	1965	Baruch, Bernard M.	1848	1909	Harriman, Edward	1839	1937	Rocketteller, John D.
1853	1924	Belmont, August	1865	1957	Hartford, Geo. L. A.	1874	1960	Rocketteller, J. D., Jr.
1786	1844	Bidder, Nicholas	1899	1897	Havens, Theo.	1862	1932	Rosenwald, Julius
1819	1919	Carnegie, Andrew	1838	1916	Hill, James J.	1850	1955	Salmson, Hym
1821	1905	Cooke, Jay	1795	1873	Hopkins, Johns	1847	1920	Schiff, Jacob H.
1791	1883	Cooper, Peter	1821	1900	Huntington, C. P.	1875	1966	Sloan, Alfred P.
1822	1888	Crocker, Charles	1882	1967	Jergens, Andrew	1845	1912	Straus, Isidor
1865	1951	Dawes, Chas. G.	1874	1956	Jones, Jesse H.	1848	1931	Straus, Nathan
1834	1928	Dewey, Chauncey M.	1882	1967	Kaiser, Henry J.	1839	1903	Swift, Gustavus
1876	1893	Drexel, Anthony J.	1879	1948	Knudsen, Wm. K.	1845	1920	Vall, Theo. N.
1856	1925	Duke, James B.	1867	1966	Kresge, S.S.	1794	1877	Vanderbilt, Cornelius
1739	1817	duPont, Pierre S.	1863	1955	Kress, Samuel H.	1843	1899	Vanderbilt, Cornelius
1890	1962	Fairless, Benjamin	1868	1948	Lamont, Robert P.	1821	1885	Vanderbilt, Wm. H.
1835	1906	Field, Marshall	1860	1948	Lamont, Thos. W.	1849	1920	Vanderbilt, Wm. K.
1860	1937	Fillee, Edward A.	1880	1952	Lasker, Albert D.	1835	1900	Villard, Henry
1863	1947	Ford, Henry	1878	1963	Lehman, Herbert H.	1838	1922	Wanamaker, John
1879	1952	Fox, William	1874	1938	Mackay, Clarence	1871	1937	Warburg, Felix M.
1846	1927	Gary, Elbert H.	1831	1902	Mackay, John W.	1874	1956	Watson, Thomas J.
1885	1966	Gifford, Walter S.	1855	1937	Mellon, Andrew W.	1875	1957	Weir, Ernest T.
1919	1964	Gilbert, A. C.	1825	1910	Millis, Darius	1841	1904	Whitney, Wm. C.
1885	1966	Gimbel, Bernard F.	1837	1913	Morgan, J. Pierpont	1868	1951	Wiggin, Albert H.
1750	1831	Grard, Stephen	1868	1943	Morgan, J. P., Jr.	1890	1961	Wilson, Chas. Erwin
1877	1965	Girdler, Tom M.	1734	1806	Morris, Robert	1852	1919	Woolworth, Frank
1836	1892	Gould, Jay	1887	1963	Olds, Irving S.			

AMERICAN INVENTORS OF THE PAST

1891	1954	Armstrong, Edwin	1882	1945	Goddard, Robert H.	1809	1884	McCormick, Cyrus H.
1847	1922	Bell, Alex. Graham	1800	1860	Goodyear, Chas.	1854	1899	Mergenthaler, Ottmar
1874	1961	De Forrest, Lee	1803	1855	Gorrie, John	1791	1872	Morse, S. F. B.
1862	1938	Duryea, Charles E.	1835	1901	Gray, Elisha	1831	1897	Pullman, George M.
1870	1967	Duryea, J. Frank	1886	1964	Hazeltine, L. Alan	1743	1792	Rumsey, Jas.
1854	1932	Eastman, Geo.	1797	1878	Henry, Jos.	1856	1943	Tesla, Nikola
1847	1931	Edison, Thos. A.	1812	1886	Hoe, Richard M.	1853	1937	Thomson, Elihu
1803	1889	Ericsson, John	1819	1869	Howe, Elias	1846	1914	Westinghouse, Geo.
1743	1798	Fitch, John	1866	1945	Lake, Simon	1765	1825	Whitney, Eli
1765	1815	Fulton, Robert	1881	1957	Langmuir, Irving	1871	1948	Wright, Orville
1818	1903	Gatling, Rich. J.	1826	1886	Loomis, Mahlon	1867	1912	Wright, Wilbur

AMERICAN SCIENTISTS, PHYSICIANS, ENGINEERS OF THE PAST

1838	1916	Abbe, Cleveland	1706	1790	Franklin, Benjamin	1852	1931	Michelson, Albert A.
1876	1945	Albee, Fred H.	1884	1967	Funk, Casimir	1903	1966	Millikan, Clark
1807	1873	Agassiz, Louis	1839	1903	Gibbs, Josiah W.	1868	1953	Millikan, Robert
1832	1867	Baird, Spencer	1858	1928	Goethals, Geo. W.	1866	1945	Morgan, Thos. H.
1785	1853	Beaumont, Wm.	1854	1920	Gorgas, Wm. C.	1819	1868	Morton, W. T. G.
1889	1967	Bigelow, Henry B.	1863	1914	Hall, Charles M.	1890	1967	Muller, Hermann J.
1899	1964	Blalock, Alfred	1883	1964	Hess, Victor F.	1904	1967	Oppenheimer, J. Robert
1773	1838	Bowditch, Nath.	1865	1958	Jackson, Chevalier	1883	1962	Papanicolaou, Geo. N.
1848	1908	Brooks, Wm. K.	1834	1913	Klebs, Edwin	1903	1967	Pineus, Gregory
1868	1939	Cabot, Richard C.	1834	1906	Langley, Samuel P.	1851	1902	Reed, Walter S.
1873	1944	Carrel, Alexis	1881	1957	Langmuir, Irving	1846	1927	Rensen, Ira
1864	1943	Carver, Geo. W.	1884	1964	Lanza, Anthony J.	1871	1910	Ricketts, Howard T.
1877	1954	Compton, Karl T.	1901	1958	Lawrence, Ernest O.	1745	1813	Rush, Benjamin
1869	1939	Cushing, Harvey W.	1815	1878	Long, Crawford	1757	1967	Sehick, Beia
1872	1946	Davis, John S.	1806	1873	Maury, Matthew F.	1813	1883	Sims, James M.
1927	1961	Dooley, Thomas	1865	1939	Mayo, Charles H.	1865	1923	Stelmets, Chas.
1901	1965	Du Mont, Allen	1861	1939	Mayo, Wm. J.	1898	1964	Sillard, Leo
1820	1887	Eads, James P.	1845	1913	McBurney, Chas.	1894	1964	Walter, Norbert
1879	1955	Einstein, Albert	1899	1966	Menninger, Wm. C.	1844	1930	Wiley, Harvey W.

AMERICAN SCULPTORS OF THE PAST

1887	1964	Archipenko, Alexander	1877	1953	Fraser, James E.	1875	1955	Miles, Carl
1819	1911	Ball, Thomas	1790	1852	Frazier, John	1873	1940	O'Connor, Andrew
1863	1938	Bancroft, George Grey	1850	1921	French, Daniel C.	1849	1920	O'Donoghue, William
1865	1925	Bartlett, Paul W.	1862	1929	Gaffey, Charles	1870	1835	Paulding, John
1867	1915	Bitter, Karl T.	1805	1852	Greenough, Horatio	1805	1873	Powers, Hiram
1871	1941	Borglum, Gutzon	1887	1967	Hoffman, Malvina	1867	1917	Pratt, Bela
1868	1922	Borglum, Solon H.	1830	1908	Hosmer, Harriet	1868	1929	Quinn, Edmond T.
1871	1924	Brenner, Victor D.	1868	1925	Jaegers, Albert	1829	1904	Rogers, John
1865	1919	Brooks, Richard E.	1875	1951	Keck, Charles	1756	1833	Rush, William
1814	1886	Brown, Henry K.	1843	1907	Kemeys, Edward	1848	1907	St. Gaudens, Augustus
1857	1935	Bush-Brown, H. K.	1882	1935	Lachaise, Gaston	1871	1922	Shrady, Henry M.
1870	1945	Calder, Alexander S.	1877	1963	Lawrie, Lee	1906	1965	Smith, David
1860	1920	Clark, Thomas S.	1871	1935	Lukeman, Henry A.	1860	1936	Taft, Lorado
1814	1857	Crawford, Thomas	1863	1937	MacMortles, Fred W.	1830	1910	Ward, J. Q. A.
1861	1944	Dallin, Cyrus	1885	1966	Manship, Paul	1870	1952	Wetman, Adolph A.
1884	1952	Davidson, Jo	1858	1927	Marling, Philip	1877	1942	Whitney, Gertrude
1878	1960	Evans, Rudolph	1879	1947	McCartan, Edward	1877	1957	Young, Mahonri M.
1895	1942	Flannagan, John	1883	1962	Mestrovic, Ivan	1863	1949	Zolnay, Geo. Julian

AMERICAN EDUCATORS AND RELIGIOUS LEADERS

Born	Died	Name	Born	Died	Name	Born	Died	Name
EDUCATORS								
1897	1967	Alport, Gordon	1827	1908	Norton, Chas. Elliot	1900	1968	Fry, Franklin C.
1829	1916	Angell, James B.	1855	1902	Palmer, Alice Freeman	1805	1879	Garrison, Wm. Lloyd
1870	1949	Angell, James R.	1804	1894	Peabody, Eliz. P.	1834	1921	Gibbons, James
1811	1900	Barnard, Henry	1870	1964	Pound, Roscoe	1867	1938	Hayes, Patrick J.
1827	1911	Basson, John	1855	1916	Royce, Hoslah	1748	1830	Hicks, Elias
1862	1947	Butler, Nich. Murray	1774	1821	Seton, Elizabeth	1879	1964	Holmes, John Haynes
1847	1909	Canfield, Jas. H.	1885	1963	Seymour, Charles	1886	1968	Holt, Ivan Lee
1807	1874	Cornell, Ezra	1779	1864	Silliman, Benj.	1890	1643	Hutchinson, Anne
1862	1948	Cross, Wilbur	1859	1934	Smith, Theobald	1843	1926	Koehler, Kaufmann
1859	1952	Dewey, John	1886	1967	Stace, Walter T.	1866	1949	Manning, Wm. T.
1868	1963	DuBois, Wm. E.	1840	1910	Sumner, Wm. Graham	1663	1728	Mather, Cotton
1834	1926	Eliot, Chas. W.	1858	1915	Washington, Booker T.	1837	1899	Moody, Dwight L.
1863	1940	Finley, John H.	1832	1918	White, Andrew D.	1711	1787	Muhlenberg, H. M.
1903	1967	Gassner, John W.	1787	1870	Willard, Emma	1891	1963	Oxnam, G. Bromley
1871	1908	Gilman, Daniel C.	1864	1935	Williams, Walter	1810	1860	Parker, Theodore
1906	1963	Griswold, A. Whitney	RELIGIOUS LEADERS					
1844	1924	Hall, G. Stanley	1835	1922	Abbott, Lyman	1884	1968	Pollay, Daniel A.
1856	1906	Harper, William R.	1745	1816	Asbury, Francis	1729	1796	Seabury, Samuel
1802	1887	Hopkins, Mark	1813	1887	Beecher, Henry Ward	1882	1968	Shipler, Guy E.
1842	1910	James, William	1775	1863	Beecher, Lyman	1881	1968	Silver, Eliezer
1797	1849	Lyons, Mary	1835	1893	Brooks, Phillips	1805	1844	Smith, Joseph
1800	1873	McGuirey, Wm. H.	1852	1658	Bulkeley, Peter	1889	1967	Spellman, Francis
1796	1859	Mann, Horace	1802	1867	Bushnell, Horace	1863	1935	Sunday, Wm. (Billy)
1738	1791	Manning, James	1780	1842	Channing, Wm. Ellery	1832	1902	Talmadge, T. Dewitt
1722	1964	McKiejohn, Alexander	1584	1652	Cotton, John	1886	1965	Tillmuth, Paul
1886	1964	Mott, Frank L.	1821	1817	Dwight, Timothy	1599	1683	Williams, Roger
1818	1901	Muhlenberg, Fred. A.	1821	1910	Eddy, Mary Baker	1744	1949	Wise, Stephen S.
1869	1946	Nelson, Wm. A.	1703	1758	Edwards, Jonathan	1801	1877	Young, Brigham

AMERICAN REFORMERS, SOCIAL-ECONOMIC LEADERS OF THE PAST

1860	1935	Addams, Jane	1805	1879	Garrison, Wm. L.	1846	1911	Nation, Carry
1847	1902	Algeld, Peter	1839	1897	George, Henry	1811	1886	Noyes, John H.
1820	1906	Anthony, Susan B.	1837	1927	Gerr, Elbridge T.	1801	1877	Owen, Robt. Dale
1867	1916	Balch, Emily G.	1850	1924	Gompers, Samuel	1810	1860	Parker, Theodore
1821	1912	Barton, Clara H.	1873	1952	Green, William	1811	1884	Phillips, Wendell
1809	1890	Brisbane, Albert	1887	1946	Hillman, Sidney	1849	1914	Ris, Jacob A.
1800	1859	Brown, John	1869	1933	Hillquitt, Morris	1883	1967	Sanger, Margaret
1859	1947	Catt, Carrie Chapman	1801	1876	Howe, Samuel G.	1797	1874	Smith, Gerrit
1855	1926	Debs, Eugene	1855	1925	LaFollette, Robt. M.	1816	1902	Stanton, Eliz. Cady
1802	1887	Dix, Dorothea	1882	1947	La Guardia, Fiorello	1818	1893	Stone, Lucy
1817	1895	Douglass, Frederick	1793	1880	Mott, Lucretia	1867	1960	Townsend, Francis E.
			1886	1952	Murray, Philip	1839	1898	Willard, Frances E.

AMERICAN EXPLORERS, NATURALISTS OF THE PAST

EXPLORERS								
1884	1960	Andrews, Roy C.	1844	1881	De Long, G. W.	1779	1813	Pike, Zebulon M.
1875	1946	Bartlett, Robert A.	1877	1948	Dickey, H. S.	1793	1864	Schoolcraft, Hy. R.
1875	1956	Bingham, Hiram	1880	1951	Ellsworth, Lincoln	1798	1876	Walker, Joseph R.
1796	1878	Bonneville, Benj.	1813	1890	Fremont, John C.	1802	1847	Whitman, Marcus
1734	1820	Boone, Daniel	1844	1935	Greely, Adolphus W.	1798	1877	Wilkes, Charles
1796	1836	Bowie, James	1884	1937	Johnson, Martin	NATURALISTS		
1804	1881	Bridger, James	1894	1953	Johnson, Osa	1864	1926	Akeley, Carl Ethan
1888	1957	Byrd, Richard E.	1820	1857	Kane, Elisha K.	1780	1851	Audubon, John J.
1809	1868	Carson, Kit	1784	1809	Lewis, Meriwether	1849	1926	Burbank, Luther
1770	1838	Clark, William	1799	1877	Palmer, Nathaniel	1837	1921	Burroughs, John
1775	1813	Colter, John	1856	1920	Pear, Robt. E.	1838	1914	Muir, John
1865	1940	Cook, Frederick A.	1834	1902	Powell, John W.	1817	1862	Thoreau, Henry D.
						1766	1813	Wilson, Alexander

American Architects and Some of Their Achievements

Max Abramovitz, b. 1908. Philharmonic Hall at Lincoln Center, N.Y.

Henry Bacon, (1866-1924) Lincoln Memorial.
 Marcel Breuer, b. Pecs, Hungary, 1902. Whitney Museum of American Art, N. Y. (with Hamilton Smith).

Charles Bulfinch, (1763-1844) State House, Boston; Capitol, Washington, (part).

Daniel H. Burnham, (1846-1912) Union Station, Washington; Flatiron, New York.

Ralph Adams Cram, (1863-1942) Cathedral of St. John the Divine, New York; U. S. Military Academy (part).

Alexander J. Davis, (1803-1892) Sub-treasury, N. Y.; capitols of Indiana, North Carolina, Illinois, Ohio.

William F. Gibbs, (1886-1967) Designed liner United States.

Cass Gilbert, (1859-1934) Custom House, Woolworth Bldg., New York; Capitol, St. Paul.

Bertrand Goldberg, b. 1913. Marina City Towers, Chicago.

Bertram G. Goodhue, (1869-1924) Capitol, Lincoln, Nebr.; St. Thomas, St. Bartholomew, N. Y.
 Wallace K. Harrison, b. 1895. Metropolitan Opera House at Lincoln Center, N.Y.

Thomas Hastings, (1860-1929) Public Library, Frick Mansion, New York.

James Hoban, (1762-1831) The White House.

Raymond Hood, (1881-1934) Rockefeller Center (part); McGraw-Hill, N. Y.; Tribune, Chicago.

Richard M. Hunt, (1828-1896) Metropolitan Museum (part); The Breakers, Newport.

William Le Baron Jenney, (1832-1907) Home Insurance, Chicago (demolished).

Philip C. Johnson, b. 1906. N.Y. State Theater at Lincoln Center, N.Y.

Albert Kahn, (1869-1942) Athletic Club Bldg., General Motors Bldg., New York.

Christopher Grant LaFarge, (1862-1938) Chapel, West Point; Cathedral Seattle.

Benjamin H. Latrobe, (1764-1820) U. S. Capitol (part).

Charles F. McKim, (1847-1909) Public Library, Boston; Columbia Univ. (part).

Ludwig Mies van der Rohe, b. Aachen, Germany, 1886. Seagram Building, N. Y. (with Philip C. Johnson).

Robert Mills, (1781-1855) Washington Monument.

Frederick L. Olmsted, (1822-1903) Central Park, New York; Fairmount Park, Philadelphia.

Ioeh Ming Pei, b. Canton, China, 1917. Kips Bay Plaza, N.Y.; Earth Sciences Building (M.I.T.) Cambridge, Mass.

John Russell Pope, (1874-1937) National Gallery.

James Renwick, Jr., (1818-1895) Grace Church, St. Patrick's Cathedral, New York; Smithsonian, Corcoran Galleries, Washington.

Henry H. Richardson, (1838-1886) Trinity, Boston.

James Gamble Rogers, (1867-1947) Columbia-Presbyterian Medical Center, New York; Northwestern Univ., Chicago (part).

Eero Saarinen, (1910-1961) Gateway to the West arch, St. Louis; Trans World Flight Center, N.Y.

Edward Durell Stone, b. 1902. U.S. Embassy, New Delhi, India; (H. Hartford) Gallery of Modern Art, N.Y.

Louis H. Sullivan, (1856-1924) Auditorium, Chicago.

Richard Upjohn, (1802-1873) Trinity Ch., N. Y.

Stanford White, (1853-1906) Washington Arch, First Madison Square Garden, New York.

Frank Lloyd Wright, (1869-1959) Imperial Hotel, Tokyo; Guggenheim Museum, New York.

American Composers of Operas, Light Operas and Musicals

Samuel Barber, b. 1910. *Vanessa*; *Antony and Cleopatra*.

Irving Berlin, b. Russia. May 11, 1888. *Ziegfeld Follies*; *Music Box Revue*, 1921-1924; *Face the Music*, 1932; *As Thousands Cheer*, 1933; *Louisiana Purchase*, 1940; *This Is the Army*, 1942; *Annie Get Your Gun*, 1946; *Miss Liberty*, 1949; *Call Me Madam*, 1950; Mr. President, 1962. Wrote songs, *God Bless America*, *White Christmas*.

Leonard Bernstein, b. 1918. *Trouble in Tahiti*; *On the Town*; *Wonderful Town*; *West Side Story*. **Mario Bizetzky**, 1905-1964. *The Cradle Will Rock*; *No for an Answer*; *Regina*; *Reuben, Reuben*.

Jerry Bock, b. 1928. Mr. Wonderful, 1956; *Floriello*, 1959; *Fiddler on the Roof*, 1964.

Charles Wakefield Cadman, 1881-1946. *Shanewis*; *A Witch of Salem*; *The Willow Tree*; *The Land of the Misty Water*; *The Garden of Death*; *The Garden of Mystery*; *Tabasco*.

George W. Chadwick, 1854-1931. *Judith*. **Frederick S. Converse**, 1871-1940. *The Pipe of Desire*; *The Sacrifice*.

Aaron Copland, b. 1900. *The Tender Land*. **Walter J. Damrosch**, 1862-1950. *The Scarlet Letter*; *Cyrano de Bergerac*; *The Man Without a Country*; *The Opera Cloak*.

Reginald DeKoven, 1861-1920. *The Begum*; *Don Quixote*; *Robin Hood*; *The Fencing Master*; *The Algerian*; *The Mandarin*; *The Knickerbockers*; *The Tzigane*; *Rob Roy*; *The Highwayman*; *The Three Dragoons*; *Papa's Wife*; *The Little Duchess*; *Maid Marian*; *Red Feather*; *Happy Land*; *The Student King*; *The Golden Butterfly*; *Her Little Highness*; *The Canterbury Pilgrims*.

Carlisle Floyd, *Susannah*; *Wuthering Heights*; *The Passion of Jonathan Wade*.

Rudolf Friml, b. Prague 1884, naturalized U. S. 1925. *The Firefly*, 1912; *High Jinks*, 1913; *Katinka*, 1916; *June Love*, 1920; *Rose Marie*, 1923; *Vagabond King*, 1925; *Bird of Paradise*, 1930.

George Gershwin, 1898-1937. *Lady Be Good*, 1924; *Oh Kay*, 1924; *Strike Up the Band*, 1927; *Funny Face*, 1927; *Treasure Girl*, 1928; *Show Girl*, 1929; *Of Thee I Sing*, 1931; *Porgy and Bess*, 1935.

Louis Gruenberg, 1884-1948. *The Emperor Jones*; *Green Mansions*; *Jack and the Beanstalk*; *Volpone*; *Helena's Husband*; *Antony & Cleopatra*.

Henry K. Hadley, 1871-1937. *Azota*; *Cleopatra's Night*.

Howard Hanson, b. 1896. *Merry Mount*.

Victor Herbert, b. Dublin, Feb. 1, 1859, d. New York, N. Y., May 26, 1924. Operas: *Natoma*, 1911; *Madeleine*, 1914. Operettas: *Wizard of the Nile*, 1895; *The Fortune Teller*, 1898; *Cyrano de Bergerac*, *The Amerer*, *The Viceroy*, *The Idol's Eye*, *The Singing Girl*, *Babette*; *Mile Modiste*, 1905; *Babes in Toyland*, 1903; *The Red Mill*, 1906; *Naughty Marietta*, 1910; *Sweethearts*, 1913; *Princess Pat*, 1915; *Eileen*, 1917.

Jerry Herman, b. 1931. *Milk and Honey*, 1961; *Hello, Dolly!*, 1964; *Mame*, 1966.

Jerome Kern, 1885-1945. *Sally*, 1920; *Sunny*, 1925; *Show Boat*, 1930; *Cat and the Fiddle*, 1931; *Music in the Air*, 1932; *Roberta*, 1933.

Burton Lane, b. New York, N. Y., 1912. *Three's a Crowd*; *Finian's Rainbow*; *On a Clear Day You Can See Forever*.

Frank Loesser, b. New York, N. Y., 1910. *Guy*

and Dolls; *Where's Charley?*; *The Most Happy Fella*. Many songs including *Kiss the Boys Good-bye*, *A Touch of Texas*, *Praise the Lord and Pass the Ammunition*, *Jingle*, *Jangle*, *Jingle*.

Frederick Loewe, b. Austria. With Alan Jay Lerner, librettist, *The Day Before Spring*; *Brigadoon*; *Paint Your Wagon*; *My Fair Lady*; *Camelot*. **Gian-Carlo Menotti**, b. Italy, 1911. *Amelia Goes to the Ball*, *The Old Maid and the Thief*, *The Island God*, *The Medium*, *The Telephone*, *The Consul*, *Amahl and the Night Visitors*, *Maria Golovin*, *The Saint of Bleeker Street*; *The Unicorn*, *the Gorgon & the Manticore*; *The Last Superman*; *Labyrinth*.

Douglas S. Moore, b. 1893. *Giants in the Earth*; *The Ballad of Baby Doe*; *Sister Carrie*.

Horatio W. Parker, 1863-1919. *Mona*; *Fairyland*. **Cole Porter**, 1893-1964. *Hitchy Koo*, 1919; *Fifty Million Frenchmen*, 1929; *The Gay Divorce*, 1932; *Anything Goes*, 1934; *Jubilee*, 1935; *DeBary Was a Lady*, 1939; *Panama Hattie*, 1940; *Mexican Hayride*, 1943; *Kiss Me Kate*, 1948; *Can Can*, 1953; *Silk Stockings*, 1955.

Richard Rodgers, b. 1902. *Garrick Gaieties*, 1925; *Dearest Enemy*, 1925; *Connecticut Yankee*, 1927, revised 1943; *Present Arms*, 1928; *America's Sweetheart*, 1931; *On Your Toes*, 1936; *Babes in Arms*, 1937; *The Boys from Syracuse*, 1938; *By Jupiter*, 1942; *Oklahoma!*, 1943; *Carousel*, 1945; *Allegro*, 1947; *South Pacific*, 1949; *The King & I*, 1951; *Me & Juliet*, 1953; *Pipe Dream*, 1955; *Flower Drum Song*, 1958; *The Sound of Music*, 1959; *No Strings*, 1962; *Do I hear a Waltz?*, 1965.

Sigmund Romberg, b. Hungary, 1887; d. New York, 1951. *Maytime*, 1917; *The Student Prince*, 1924; *Desert Song*, 1926; *Blossom Time*, 1926; *New Moon*, 1927; many others.

Harold Rome, b. Hartford, Conn., 1908. *Pins and Needles*; *Call Me Mister*; *Wish You Were Here*; *Fanny*; *Destry Rides Again*; *I Can Get It For You Wholesale*.

John Philip Sousa, 1854-1932. *The Smugglers*; *Desire*; *Queen of Hearts*; *El Capitan*; *The Bride-Elect*; *The Charlatan*, *Chris and the Wonderful Lamp*.

Igor F. Stravinsky, b. Russia, 1882. *Le Rossignol*, 1914; *Oedipus Rex*, 1927; *The Rake's Progress*, 1951; *L'Histoire du Soldat*, 1956.

Julie Styne, b. London, Eng., 1905. *High Button Shoes*; *Gentlemen Prefer Blondes*; *Bells Are Ringing*; *Say Darling*; *Gypsy*; *Funny Girl*. **Deems Taylor**, 1885-1966. *The King's Henchmen*; *Peter Ibbetson*.

Virgil Thomson, b. 1886. *Four Saints in Three Acts*; *The Mother of Us All*.

Kurt Weill, 1900-1950. (Ger.-Amer.) *Three-Penny Opera*; *Down in the Valley*; *The Protagonist*; *The Man Who Says Yes*; *Lady in the Dark*; *Knickerbocker Holiday*; *One Touch of Venus*; *Lost in the Stars*; *Street Scene*.

Meredith Willson, b. 1902. *The Music Man*, 1957.

Vincent Youmans, 1898-1946. *Two Little Girls in Blue*, 1921; *Wildflower*, 1923; *Hit the Deck*, 1927; *Rainbow*, 1928; *Smiles*, 1930; *Through the Years*, 1932; *Take a Chance*, 1932.

Notable Americans of the Present

Statesmen, Authors, Military Men and Other Prominent Persons Not Listed in Other Categories.

Name	Birthplace	Birthdate	Name	Birthplace	Birthdate
Acheson, Dean (Middletown, Conn.)		4/11/93	Buckley, William F. (New York, N. Y.)		11/24/25
Albee, Edward (Washington, D. C.)		3/12/28	Bunche, Ralph (Detroit, Mich.)		8/7/04
Albert, Carl (McAlester, Okla.)		5/10/08	Bundy, McGeorge (Boston, Mass.)		3/30/19
Alsop, Joseph W., Jr. (Avon, Conn.)		10/11/10	Caldwell, Erskine (Coweta Co., Ga.)		12/17/03
Aldson, Stewart (Avon, Conn.)		5/17/14	Capote, Truman (New Orleans, La.)		9/30/24
Alston, Walter (Butler Co., Ohio)		12/1/11	Case, Clifford (Franklin Park, N. J.)		4/16/04
Arcaro, Eddie (Cincinnati, Ohio)		2/19/16	Casper, Billy (San Diego, Calif.)		6/24/31
Ashe, Arthur (Richmond, Va.)		7/10/43	Ceiler, Emmanuel (Brooklyn, N. Y.)		5/1/68
Baker, Russell (Loudoun Co., Va.)		8/14/25	Chamberlain, Wilt (Philadelphia, Pa.)		8/21/36
Baldwin, Faith (New Rochelle, N. Y.)		10/1/93	Church, Frank (Boise, Idaho)		7/25/24
Baldwin, James (New York, N. Y.)		8/2/24	Clark, Ramsey (Dallas, Texas)		12/18/27
Ball, George (Des Moines, Iowa)		12/21/09	Clay, Cassius (Louisville, Ky.)		1/18/42
Belli, Melvin (Sonoma, Calif.)		7/29/07	Clay, Lucius D. (Marietta, Ga.)		4/23/97
Bellow, Saul (Quebec, Canada)		7/10/15	Cohn, Roy (New York, N. Y.)		2/20/27
Benton, Thomas Hart (Neosho, Mo.)		4/15/89	Collins, Leroy (Tallahassee, Fla.)		3/10/09
Berra, Yogi (St. Louis, Mo.)		5/12/25	Conant, James B., (Dorchester, Mass.)		3/26/93
Bishop, Jim (Jersey City, N. J.)		11/21/07	Connally, John B. (Floresville, Tex.)		2/28/17
Bliss, Ray C. (Akron, Ohio)		12/16/07	Cooper, John Sherman (Somerset, Ky.)		8/23/01
Bowles, Chester (Springfield, Mass.)		4/5/01	Dempsey, Jack (Manassa, Colo.)		6/24/95
Bradley, Omar N. (Clark, Mo.)		2/12/93	Dewey, Thomas E. (Owosso, Mich.)		3/24/02
Braun, Werner von (Wirsitz, Germany)		3/23/12	DiMaggio, Joe (Martinez, Calif.)		11/25/14
Brewster, Kingman (Toledo, Ohio)		5/7/31	Dirksen, Everett M. (Pekin, Ill.)		1/4/96
Brooke, Edward (Washington, D. C.)		10/26/19	Dodd, Thomas (Norwich, Conn.)		5/15/07
Brown, Edmund (Pat) (San Fran. Calif.)		4/21/05	Dominick, Peter (Stamford, Conn.)		7/7/15
Buchwald, Art (Mt. Vernon, N. Y.)		10/20/25	Doollittle, James H. (Alameda, Calif.)		12/14/96
Buck, Pearl S. (Hillsboro, W. Virginia)		6/26/92	Dos Passos, John (Chicago, Ill.)		1/14/96

Name	Birthplace	Birthdate	Name	Birthplace	Birthdate
Douglas, Paul (Salem, Mass.)		3/26/92	O'Brien, Lawrence F. (Springfield, Mass.)		7/7/17
Drury, Allan (Houston, Texas)		9/2/18	O'Dwyer, Paul (Ireland)		6/29/07
Dubinsky, David (Brest-Litovsk, Poland)		2/22/92	O'Hara, John (Pottsville, Pa.)		1/31/05
Dulles, Allen W. (Watertown, N. Y.)		4/7/93	O'Malley, Walter (Bronx, N. Y.)		10/9/03
Durocher, Leo (West Springfield, Mass.)		7/27/06	Paley, William S. (Chicago, Ill.)		9/28/01
Eisenhower, Dwight D. (Denison, Texas)		10/14/90	Palmer, Arnold (Youngstown, Pa.)		10/9/29
Eisenhower, Mamie (Boone, Iowa)		11/14/96	Patterson, Floyd (Waco, No. Car.)		1/4/35
Eisenhower, Milton, S. (Abilene, Kans.)		9/15/99	Pauling, Linus (Portland, Ore.)		2/28/01
Fadiman, Clifton (Brooklyn, N. Y.)		5/15/04	Peale, Norman Vincent (Bowersville, Ohio)		5/31/98
Farley, James A. (Grassy Point, N. Y.)		5/30/88	Pearson, Drew (Evanston, Ill.)		12/13/97
Farmer, James (Marshall, Texas)		1/12/20	Pegler, Westbrook (Minneapolis, Minn.)		8/2/94
Fong, Hiram (Honolulu, Hawaii)		1/01/07	Percy, Charles H. (Pensacola, Fla.)		9/27/19
Ford, Gerald R. (Omaha, Nebr.)		7/14/13	Perleman, S. J. (Brooklyn, N. Y.)		2/1/04
Fortas, Abe (Memphis, Tenn.)		6/19/10	Pike, James A. (Okla. City, Okla.)		2/14/13
Fowler, Henry H. (Roanoke, Va.)		9/5/08	Porter, Katherine Ann (Indian Creek, Tex.)		5/15/94
Freeman, Orville L. (Minneapolis, Minn.)		5/9/18	Powell, Adam Clayton (New Haven)		11/29/08
Fulbright, J. William (Sumner, Mo.)		4/9/05	Rafferty, Max (New Orleans, La.)		4/5/17
Funston, Keith (Waterloo, Iowa)		10/12/10	Randolph, A. Philip (Crescent City, Fla.)		5/17/89
Galbraith, John Kenneth (Ontario, Can.)		10/15/08	Reagan, Ronald (Tampico, Ill.)		2/6/11
Gardner, Erie Stanley (Malden, Mass.)		7/17/89	Reston, James (Clydebank, Scotland)		11/3/09
Gavin, James (New York, N. Y.)		3/22/07	Reuther, Walter P. (Wheeling, W. Va.)		9/1/07
Getty, J. Paul (Minneapolis, Minn.)		12/15/92	Rhodes, James (Jackson Co., Ohio)		9/13/09
Glenn, John (Cambridge, Ohio)		7/18/21	Rickover, Hyman (Makowa, Poland)		1/27/00
Goldberg, Arthur J. (Chicago, Ill.)		8/8/08	Robertson, Oscar (Charlotte, Tenn.)		11/24/38
Goldwater, Barry M. (Phoenix, Ariz.)		1/1/09	Robinson, Jackie (Cairo, Ga.)		1/31/19
Graham, Billy (Charlotte, N. C.)		11/7/18	Rockefeller, David (New York, N. Y.)		6/12/15
Grange, Red (Forkville, Pa.)		6/13/04	Rockefeller, John D. 3rd (New York, N. Y.)		3/21/06
Harriman, W. Averell (New York, N. Y.)		11/15/91	Rockefeller, Laurence S. (New York, N. Y.)		5/26/10
Hatfield, Mark O. (Dallas, Ore.)		7/12/22	Rockefeller, Nelson A. (Bar Harbor, Me.)		7/8/08
Heller, Walter (Buffalo, N. Y.)		8/27/15	Rockefeller, Winthrop S. (New York, N. Y.)		5/1/12
Hershey, Lewis B. (Steuben Co., Ind.)		9/12/93	Rockwell, Norman (New York, N. Y.)		2/3/94
Hogan, Ben (Dublin, Tenn.)		8/13/12	Romney, George W. (Chihuahua, Mexico)		7/8/07
Hoover, J. Edgar (Washington, D. C.)		1/1/95	Roosevelt, Elliot (New York, N. Y.)		9/23/10
Hughes, Howard (Houston, Tex.)		12/24/05	Roosevelt, Franklin D., Jr. (Canada)		8/17/14
Hughes, Richard (Houston, N. J.)		8/10/09	Rusk, Dean (Cherokee Co., Ga.)		2/9/09
Javits, Jacob K. (New York, N. Y.)		5/27/11	Russell, Richard B. (Winder, Ga.)		11/2/97
Johnson, Luci Baines (Mrs. Patrick Nugent)		5/18/04	Ryun, Jim (Wichita, Kansas)		4/29/47
Johnson, Lynda Bird (Mrs. Charles Robb)		7/2/47	Sallinger, J. D. (New York, N. Y.)		1/1/19
Johnson, Lyndon B. (Stonewall, Texas)		3/19/44	Sallinger, Pierre (San Francisco, Calif.)		6/14/25
Johnson, Mrs. Lyndon B. (Karnack, Tex.)		8/27/08	Salk, Jonas (New York, N. Y.)		10/28/14
Jones, James (Robinson, Ill.)		12/22/12	Sarnoff, David (Uzlian, Minsk, Russia)		2/27/91
Katzenbach, Nicholas deB. (Phila., Pa.)		11/6/21	Schlesinger, Arthur Jr. (Columbus, Ohio)		10/15/17
Kennedy, Caroline		1/17/52	Scranton, William W. (Madison, Conn.)		7/19/17
Kennedy, Edward M. (Brookline, Mass.)		2/25/32	Seaborg, Glenn T. (Ishpeming, Mich.)		4/19/12
Kennedy, Jacqueline (Southampton, N. Y.)		7/28/29	Sheen, Fulton J. (El Paso, Ill.)		5/8/95
Kennedy, John Fitzgerald, Jr.		11/25/60	Shirer, William L. (Chicago, Ill.)		2/23/04
Kerr, Walter (Evanston, Ill.)		7/8/13	Shoemaker, Willie (Pabens, Texas)		8/19/31
Kheel, Theodore (New York, N. Y.)		5/9/14	Shor, Toots (Philadelphia, Pa.)		5/6/05
Kieran, John (New York, N. Y.)		8/2/92	Shriver, Sargent (Westminster, Md.)		11/9/15
Kirk, Grayson (Jefferson, Ohio)		10/12/03	Smith, Upton (Baltimore, Md.)		9/20/78
Koufax, Sandy (Brooklyn, N. Y.)		12/30/35	Smith, H. Allen (McLeansboro, Ill.)		12/19/07
Landon, Alfred (West Middlesex, Pa.)		9/9/87	Sorenson, Theodore (Skowhegan, Me.)		12/14/97
Lawrence, David (Philadelphia, Pa.)		12/25/88	Spillane, Michael (Lincoln, Neb.)		5/8/28
Lemnitz, Lyman L. (Honesdale, Pa.)		8/29/99	Spock, Benjamin (Brooklyn, N. Y.)		3/9/18
Lindbergh, Ann Morrow (Englewood, N. J.)		1906	Stassen, Harold (New Haven, Conn.)		5/2/03
Lindbergh, Charles A. (Detroit, Mich.)		2/4/02	Steinbeck, John (West St. Paul, Minn.)		4/13/07
Lindsay, John V. (New York, N. Y.)		11/24/21	Stengel, Casey (Kansas City, Mo.)		2/27/02
Lippmann, Walter (New York, N. Y.)		9/23/89	Taft, Robert Jr. (Cincinnati, Ohio)		7/30/91
Lodge, Henry Cabot (Nahant, Mass.)		7/5/02	Taylor, Maxwell D. (Keytesville, Mo.)		2/26/17
Long, Russell B. (Shreveport, La.)		11/3/18	Thomas, Lowell (Woodington, Ohio)		4/6/92
Louis, Joe (Lafayette, Ala.)		5/13/14	Thompson, Llewellyn (Las Animas, Colo.)		8/24/04
Lowell, Robert (Boston, Mass.)		3/1/17	Thurmond, J. Strom (Edgefield, S. C.)		12/5/02
Luce, Clare Booth (New York, N. Y.)		4/10/03	Tower, John (Houston, Texas)		9/29/25
MacLeish, Archibald (Glencoe, Ill.)		5/7/92	Truman, Harry S. (Lamar, Mo.)		5/6/84
Maller, Norman (Long Branch, N. J.)		1/31/23	Truman, Mrs. Harry (Independence, Mo.)		2/13/85
Manchester, William (Attleboro, Mass.)		4/1/22	Truman, Margaret (Independence, Mo.)		5/25/98
Mansfield, Mike (New York, N. Y.)		3/16/03	Tunney, Gene (New York, N. Y.)		1/31/20
Mantle, Mickey (Spavinaw, Okla.)		10/20/31	Udall, Stewart L. (St. Johns, Ariz.)		5/7/33
Marciano, Rocky (Brockton, Mass.)		9/1/24	Unruh, Jesse (Newton, Kansas)		9/30/22
Marshall, Thurgood (Baltimore, Md.)		7/2/08	Vanderbilt, Alfred G. (London, Eng.)		9/22/12
Mays, Willie (Fairfield, Ala.)		5/6/31	Van Buren, Abigail (Sioux City, Iowa)		7/4/18
McCarthy, Eugene (Watkins, Minn.)		3/29/16	Veck, Bill (Chicago, Ill.)		2/9/14
McCormack, John W. (Boston, Mass.)		12/21/91	Vidal, Gore (West Point, N. Y.)		10/3/25
McGinnis, Phyllis (Ontario, Ore.)		3/21/05	Wagner, Robert F. (New York, N. Y.)		4/20/10
McKissick, Floyd (Asheville, N. C.)		3/9/22	Walcott, Jersey Joe (Merchantville, N.J.)		1/31/14
McClellan, John J. (Sheridan, Ark.)		2/25/96	Walker, Mickey (Elizabeth, N.J.)		7/13/01
McNamara, Robert S. (San Francisco)		6/9/16	Wallace, George (Clio, Ala.)		8/25/19
Meany, George (New York, N. Y.)		8/16/94	Warren, Earl (Los Angeles, Calif.)		3/19/91
Menotti, Gian-Carlo (Cadedgiano, Italy)		7/7/11	Warren, Robert Penn (Guthrie, Ky.)		4/24/05
Michener, James A. (New York, N. Y.)		2/3/07	Westmoreland, William (Spartanburg S.C.)		3/26/14
Miller, Arthur (New York, N. Y.)		10/17/15	White, Paul Dudley (Roxbury, Mass.)		6/6/86
Mills, Wilbur (Kensett, Ark.)		5/24/09	White, Theodore (Boston, Mass.)		5/6/15
Moore, Marianne (St. Louis, Mo.)		11/15/87	Wilder, Thornton (Madison, Wisc.)		4/17/97
Morse, Wayne (Madison, Wisc.)		10/20/00	Wilkins, Roy (St. Louis, Mo.)		8/30/01
Morton, Thurston (Louisville, Ky.)		8/19/07	Williams, John J. (Frankford, Del.)		5/17/04
Moses, Robert (New Haven, Conn.)		12/18/88	Williams, Ted (San Diego, Calif.)		10/30/18
Moyers, Bill D. (Hugo, Okla.)		6/5/34	Williams, Tennessee (Columbus, Miss.)		3/26/14
Murphy, George (New Haven, Conn.)		7/4/04	Wirtz, W. Willard (De Kalb, Ill.)		3/14/12
Musial, Stan (Donora, Pa.)		11/21/20	Wouk, Herman (New York, N. Y.)		5/27/15
Namath, Joe (Beaver Falls, Pa.)		5/31/43	Wylie, Philip (Beverly, Mass.)		5/12/02
Nash, Ogden (Rye, N. Y.)		8/19/02	Yarborough, Ralph (Chandler, Tex.)		6/8/03
Nicklaus, Jack (Columbus, Ohio)		1/21/40	Yastrzemski, Carl (Southampton, N.Y.)		8/22/39
Niebuhr, Reinhold (Wright City, Mo.)		6/21/92	Yorty, Sam (Lincoln, Neb.)		10/1/09
Nixon, Richard (Yorba Linda, Calif.)		1/9/13	Young, Whitney (Lincoln Ridge, Ky.)		7/31/21
Nizer, Louis (London, Eng.)		2/6/02			

Sidney Kingsley, b. 1906. Men in White, The Patriots. Dead End. Darkness at Noon.

Nigeria, A Streetcar Named Desire, Cat on a Hot Tin Roof, The Night of the Iguana, The Milk Train Doesn't Stop Here Anymore.

Born	Died	Name	Born	Died	Name	Born	Died	Name
		A						
1892	1948	Achron, Isador	1882	1942	Barrymore, John	1905	1965	Bow, Clara
1873	1953	Adair, Jean	1878	1954	Barrymore, Lionel	1874	1946	Bowes, Maj. Edward
1872	1953	Adams, Maude	1848	1905	Barrymore, Maurice	1893	1939	Brady, Alice
1928	1968	Adams, Nick	1897	1963	Barthelemess, Richard	1873	1948	Brathwaite, Lillian
1885	1926	Adler, Jacob P.	1893	1962	Barton, John	1836	1936	Breese, Edmund
1858	1953	Adler, Sarah Levitzka	1878	1947	Barton, John	1898	1964	Brendel, Et
1898	1933	Adoree, Rence	1873	1941	Bates, Blanche	1901	1948	Breneman, Tom
1879	1945	Ainley, Henry	1888	1954	Bates, Florence	1875	1948	Brian, Donald
1909	1964	Albertson, Frank	1873	1951	Bauer, Harold	1891	1951	Brice, Fanny
1885	1952	Alda, Frances	1893	1951	Baxter, Warner	1866	1952	Broadhurst, George
1894	1956	Allen, Fred	1880	1928	Bayes, Nora	1891	1959	Broderick, Helen
1906	1964	Allen, Gracie	1904	1965	Beatty, Clyde	1898	1965	Brokenshire, Norman
1869	1948	Allen, Viola	1873	1928	Beban, George	1904	1951	Bromberg, J. Edward
1883	1950	Algood, Sara	1887	1955	Becher, Janet	1814	1889	Brougham, John
1886	1954	Anderson, John Murray	1884	1946	Beck, George	1904	1957	Brown, Jeff
1859	1940	Anderson, Mary	1889	1949	Beery, Wallace	1895	1953	Bruce, Nigel
1915	1967	Andrews, Laverne	1903	1931	Beiderbecke, Blix	1881	1948	Bryant, Charles
1876	1958	Anglin, Margaret	1854	1931	Belasco, David	1878	1961	Buchan, Annabelle
1866	1931	Arbuckle, Madya	1851	1917	Bell, Digby	1891	1957	Buchanan, Jack
1868	1946	Arlliss, George	1906	1964	Bendix, William	1886	1957	Buck, Gene
1879	1951	Armstrong, Harry	1905	1965	Bennett, Constance	1904	1965	Bunce, Alan
1890	1956	Arnold, Edward	1873	1944	Bennett, Richard	1863	1915	Bunny, John
1869	1950	Arthur, Julia	1879	1946	Bent, Marion	1912	1967	Burnette, Smiley
1871	1936	Asche, Oscar	1870	1946	Bentley, George	1896	1956	Burns, George
1885	1946	Atwill, Lionel	1867	1944	Bessford, Harry	1882	1941	Burr, Henry
1845	1930	Auer, Leopold	1899	1966	Berg, Gertrude	1802	1860	Burton, William E.
1905	1967	Auer, Mischa	1875	1938	Bergere, Valerie	1883	1966	Bushman, Francis X.
1898	1940	Ayres, Agnes	1863	1927	Bernard, Sam	1896	1946	Butterworth, Charles
		B	1845	1923	Bernhardt, Sarah	1872	1943	Byron, Arthur
			1893	1943	Bernie, Ben	1843	1920	Byron, Oliver D.
			1889	1967	Bickford, Charles			C
1864	1922	Bacon, Frank	1911	1960	Boerling, Jussi	1886	1955	Cahill, Lily
1859	1953	Bailev, Frankie	1882	1951	Blaney, Charles E.	1874	1933	Cahill, Marie
1847	1906	Bailey, James A.	1900	1943	Bledsoe, George	1895	1956	Calhern, Louis
1843	1951	Bailey, William Ed	1872	1928	Blinn, Holbrook	1858	1942	Calve, Emma
1893	1968	Bainter, Mary	1888	1959	Blone, Eric	1865	1940	Campbell, Mrs. Patrick
1895	1957	Baker, Belle	1899	1957	Bogart, Humphrey	1892	1964	Cantor, Eddie
1876	1948	Baker, Lee	1885	1965	Boland, Mary	1878	1947	Carey, Harry
1898	1963	Baker, Phil	1903	1960	Bond, Ward	1866	1959	Carhart, Georgiana
1882	1956	Bancroft, George	1866	1932	Bonstelle, Jessie	1876	1941	Carle, Richard
1890	1952	Banks, Leslie	1833	1893	Booth, Edwin	1894	1954	Carney, "Uncle Don"
1897	1950	Banks, Monty	1863	1965	Booth, Julius Brutus	1884	1946	Carroll, Alexander
1890	1965	Bara, Theda	1894	1953	Bordoni, Irene	1880	1961	Carroll, Leo
1810	1891	Barnum, Lineas T.	1888	1960	Bordoni, Margia	1905	1965	Carroll, Nancy
1858	1981	Barrett, Lawrence	1867	1943	Bosworth, Hobart	1910	1963	Carson, Jack
1882	1912	Barrimore, Mabel	1869	1913	Boudcault, Aubrey	1862	1937	Carter, Mrs. Leslie

(Continued on bottom page 678)

Canadians of the Past

Born	Died	Name	Born	Died	Name	Born	Died	Name
STATESMEN								
1821	1893	Abbott, John	....	1936	Dougherty, Arthur G.	1895	1960	Panneton, Philippe
1878	1943	Aberhart, William	1854	1907	Drummond, W. H.	1862	1932	Parker, Gilbert
1804	1858	Baldwin, Robert	1862	1932	Duncan, Sara, J.	1883	1922	Pickthall, Marj.
1870	1957	Bennett, Richard B.	1799	1870	Faillon, Etienne	1883	1964	Pratt, Edwin J.
1854	1937	Borden, Robert	1805	1865	Ferland, Jean	1749	1809	Quessel, Joseph
1823	1917	Bowell, Mackenzie	1839	1908	Frechette, Louis H.	1796	1852	Richardson, John
1818	1880	Brown, George	1809	1866	Garnet, Francis X.	1860	1943	Richards, Chas. G. D.
1875	1940	Buchan, John	1786	1871	Gaspe, Philippe de	1885	1961	Roche, Mazo de la
1814	1873	Carter, George	1824	1882	Gerin-Lajoie, Ant.	1839	1920	Routhier, Adolph
1817	1893	Galt, Alexander T.	1871	1918	Gill, Charles	1870	1943	Roy, Camille
1869	1953	Hepburn, Mitchell F.	1860	1937	Gordon, Chas. W. (Ralph Connor)	1858	1913	Roy, Joseph E.
1804	1873	Howe, Joseph	1878	1967	Groulx, Lionel A.	1822	1893	Sangster, Charles
1874	1950	King, W. Mackenzie	1871	1948	Grove, Frederick	1862	1944	Scott, Duncan C.
1841	1919	Laurier, Wilfrid	1862	1910	Hannay, James	1874	1958	Service, Robt. W.
1815	1891	MacDonald, John A.	1796	1865	Haliburton, Thos. C.	1859	1931	Short, Adam
1887	1967	Massey, Vincent	1816	1876	Heavysege, Charles	1878	1941	Skelton, O. D.
1795	1861	Mackenzie, Wm. Lyon	1880	1913	Hemon, Louis	1823	1910	Smith, Goldwin
1822	1905	McDougall, William	1766	1844	Heriot, George	1841	1923	Sulte, Benjamin
1825	1868	McGee, Thomas D'Arcy	1849	1952	Innis, H. A.	1888	1951	Trotter, R. G.
1874	1960	Meighen, Arthur	1881	1943	Kennedy, W. P. M.	PAINTERS		
1820	1914	Strathcona (Smith)	1859	1931	Kingsford, Wm.	1740	1794	Beaucourt, Francois
1844	1894	Thompson, John	1817	1906	Kirby, William	1871	1945	Carr, Emily
1855	1927	Tupper, Charles H.	1862	1913	Johnson, Pauline	1769	1819	Feld, Robert
1888	1967	Vanier, George P.	1871	1899	Lamberg, Albert	1810	1894	Fowler, Daniel
AUTHORS			1871	1899	Lampman, Archibald	1812	1901	Jacobi, Otto
1748	1784	Alline, Henry	1871	1936	Laut, Agnes	1810	1871	Kane, Paul
1850	1931	Beauchemin, Neree	1869	1944	Leacock, Stephen	1812	1872	Krieghoff, Cornelius
1913	1966	Allen, Ralph	1837	1918	Lemay, Pamphile	1789	1885	Legare, Joseph
....	1931	Beck, L. Adams	1857	1954	Lighthall, William	1882	1953	Milne, David
1861	1924	Blake, W. H.	1909	1957	Lowry, Malcolm	1832	1899	O'Brien, Lucius
1827	1916	Bourassa, Napoleon	1853	1931	Lucas, L. P.	1859	1892	Peck, Paul
1840	1901	Bules, Arthur	1878	1924	Lozeau, Albert	1804	1895	Planondon, Antoine
1861	1918	Campbell, W. Wilfred	1876	1951	Mac Innes, Tom	1798	1849	Valentine, William
1861	1929	Carman, W. Bliss	1840	1927	Maier, Charles	SCIENCE, INDUSTRY		
1831	1904	Casgrain, Henri-R.	1844	1945	Marmette, Joseph	1810	1882	Allan, Hugh
1858	1946	Chapais, Thomas	1864	1936	Marquis, Thomas	1891	1942	Banting, Fredk. G.
1850	1917	Chapman, Wm.	1882	1958	Martin, Chester	1877	1943	Beatty, Edward W.
1829	1890	Chauveau, Pierre	1872	1918	McCrae, John	1889	1966	Hilton, Hugh G.
1855	1953	Chopin, Rene	1820	1907	McMullen, John	1798	1815	Logan, Wm.
1850	1887	Crawford, Isabella	1874	1942	Montgomery, Lucy	1849	1919	Oslar, Wm.
1827	1879	Cremazie, Octave	1889	1963	Morin, Paul	1876	1935	Macleod, John J. R.
1831	1904	Cosgrain, Abbe R.	1879	1941	Nelligan, Emile	1863	1892	Stairs, Wm. Grant
1865	1945	Dantin, Louis	1737	1818	Odeli, Jonathan	1902	1967	Zimmerman, Adam

Entertainment Personalities of the Past

(continued from page 675)

1860	1929	Shaw, Mary	1884	1953	Tearle, Godfrey	1866	1951	Warfield, David
1861	1940	Shea, Thomas E.	1892	1937	Tell, Alma	1876	1958	Warner, H. B.
1868	1949	Shean, Al	1881	1934	Tellegen, Lou	1911	1960	Warren, Leonard
1892	1951	Shepley, Ruth	1864	1942	Tempest, Marie	1878	1964	Warwick, Robert
1945	1967	Sheridan, Ann	1910	1963	Templeton, Alec	1867	1945	Watson, Billy
1848	1908	Sheridan, John F.	1865	1939	Templeton, Fay	1879	1962	Watson, Lucile
1885	1934	Sherman, Lowell	1848	1928	Terry, Ellen	1890	1965	Watson, Minor
1854	1935	Sherwin, Amy	1874	1940	Tetrazzini, Luisa	1896	1966	Webb, Clifton
1883	1953	Shubert, Lee	1857	1914	Thomas, Brandon	1867	1942	Weber, Joe
1755	1831	Siddons, Mrs. Sarah	1892	1960	Thomas, John Charles	1900	1942	Went, Kurt
1882	1930	Sills, Milton	1835	1905	Thomas, Theodore	1876	1926	Welch, Ben
1878	1946	Sis Hopkins (Melville)	1835	1911	Thompson, Denman	1873	1918	Welch, Joe
1891	1934	Skelly, Hal	1861	1938	Thornton, James	1880	1952	Wenich, Percy
1858	1942	Skinner, Odis	1869	1936	Thurston, Howard	1883	1953	Werrenrath, Reinald
1870	1952	Skidworth, Allison	1896	1960	Tibbitt, Lawrence	1859	1934	West, Basil
1863	1948	Smith, C. Aubrey	1887	1940	Tinney, Frank	1879	1942	Westley, Helen
1826	1881	Sothern, Edward A.	1909	1958	Todd, Michael	1895	1968	Wheeler, Bert
1859	1933	Sothern, Edward H.	1874	1947	Toler, Sidney	1889	1938	White, Pearl
1884	1957	Sothern, Harry	1878	1933	Torrence, Ernest	1890	1967	Whiteman, Paul
1854	1932	Sousa, John Philip	1867	1957	Toscanini, Arturo	1869	1942	Whiting, George
1884	1957	Sparks, Ned	1900	1967	Tracy, Spencer	1882	1943	Whiteside, Walker
1876	1948	Speaks, Oley	1853	1917	Tree, Herbert Beerbohm	1865	1948	Whitty, Dame May
1888	1953	Spooner, Cecil	1883	1942	Tucker, Richard	1895	1948	Williams, Warren
1875	1953	Spooner, Edna May	1884	1966	Tucker, Sophie	1877	1922	Williams, Bert
1855	1940	Spooner, Mary G.	1879	1945	Turner, Clara	1867	1918	Williams, Evan
1886	1958	Squire, Ronald	1887	1946	Turner, Florence	1923	1953	Williams, Hank
1873	1937	Standing, Guy	1874	1940	Turpin, Ben	1872	1942	Williams, Hattie
1898	1950	Starr, Muriel	1908	1959	Twelvrees, Helen	1854	1935	Wilson, Francis
1871	1956	Stephenson, Henry	V			1904	1959	Wilters, Grant
1900	1941	Stephenson, James	1895	1926	Valentino, Rudolph	1881	1931	Wolheim, Louis
1883	1939	Sterling, Ford	1882	1927	Vall, Vallie	1888	1963	Woolley, Monty
1882	1928	Stevens, Emily A.	1870	1950	Van, Billy B.	1899	1938	Wooley, Robert
1896	1961	Stewart, Anita	1894	1943	Veldt, Conrad	1881	1956	Woyley, Margaret
1873	1959	Stone, Fred	1885	1944	Vivian, Robert	1844	1919	Wyndham, Charles
1879	1953	Stone, Lewis	1886	1957	Von Stroheim, Erich	1886	1966	Wynn, Ed
1871	1954	Stratus, Oskar	W			1906	1964	Wynyard, Diana
1911	1960	Sullivan, Margaret	1874	1946	Waldron, Charles D.	Y		
1903	1956	Sullivan, Francis L.	1904	1966	Walker, June	1874	1929	Yeamans, Lydia
1862	1934	Summerville, Amelia	1919	1951	Walker, Robert	1869	1938	Yohe, May
T			1904	1943	Waller, Thomas (Fats)	1891	1960	Young, Clara Kimball
1897	1957	Talmadge, Norma	1873	1915	Walsh, Blanche	1887	1953	Young, Roland
1878	1947	Tanguay, Eva	1876	1962	Walter, Bruno	1900	1956	Young, Victor
1899	1934	Tashman, Lilyan	1878	1936	Walsh, Henry B.	Z		
1873	1940	Tate, Harry	1872	1952	Ward, Fannie	1869	1932	Ziegfeld, Florens
1885	1966	Taylor, Deems	1855	1935	Ware, Sallie			
1887	1946	Taylor, Laurette	1877	1939	Ware, Helen			
1878	1938	Tearle, Conway						

Entertainment Personalities—Where and When Born

Actors, Actresses, Composers, Dancers, Musicians, Producers, Radio-TV Performers, Singers

Name	Birthplace	Born	Name	Birthplace	Born
Abbott, Bud (Wm.)	Atlantic City, N. J.	1898	Bankhead, Tallulah	Huntsville, Ala.	1903
Abbott, George	Salamanca, N. Y.	1887	Bannon, Ian	Aldrie, Scotland	1928
Abel, Walter	St. Paul, Minn.	1898	Barber, Red	Columbus, Miss.	1908
Abner (Norris Gof.)	Cove, Ark.	1906	Barbirolli, John	London, Eng.	1899
Ackermann, Bettye	Cottageville, S. Car.	1928	Bardot, Brigitte	Paris, France	1934
Adam, Nollie	La Rochelle, France	1935	Barl, Lynn	Roanoke, Va.	1917
Adams, Don	New York, N. Y.	1927	Barker, Lex	Rye, N. Y.	1919
Adams, Edith	Kingston, Pa.	1929	Barlow, Howard	Urbana, Ill.	1892
Adams, Julie	Decorah, Iowa	1928	Barrat, Vincent	Richmond, Va.	1902
Addams, Dawn	Sulfolk, Eng.	1930	Barrat, Robert	New York, N. Y.	1891
Adler, Kurt H.	Vienna, Austria	1905	Barbault, Jean-Louis	Le Vesinet, France	1919
Adler, Larry	Baltimore, Md.	1914	Barrett, Sheila	Washington, D. C.	1909
Adler, Luther	New York, N. Y.	1903	Barrie, Mona	London, Eng.	1909
Adrian, Max	Ireland	1903	Barrie, Wendy	Hong Kong, China	1913
Agar, John	Chicago, Ill.	1921	Barry, Gene	New York, N. Y.	1922
Aherne, Brian	Worcestershire, Eng.	1902	Barry, Jack	Lindenhurst, N. Y.	1918
Albanese, Lucia	Barl, Italy	1913	Barrymore, John, Jr.	Beverly Hills, Calif.	1932
Alberchell, Anna	Pesaro, Italy	1936	Bartholomew, Freddie	London, England	1924
Albert, Eddie	Rock Island, Ill.	1908	Barok, Eva	Budapest, Hungary	1929
Albright, Lolla	Akron, Ohio	1925	Basehart, Richard	Zanesville, Ohio	1915
Alda, Robert	New York, N. Y.	1914	Basle, Count (Wm.)	Red Bank, N. J.	1904
Alexander, Ben	Goldfield, Nev.	1911	Baum, Kurt	Cologne, Germany	1908
Alexander, Katherine	Arkansas	1901	Bavler, Frances	New York, N. Y.	1903
Allan, Elizabeth	England	1910	Baxter, Anne	Michigan City, Ind.	1923
Allbritton, Louise	Oklahoma City, Okla.	1920	Beal, John	Joplin, Mo.	1909
Allen, Mel	Birmingham, Ala.	1913	Bean, Orson	Cambridge, Mass.	1928
Allen, Steve	New York, N. Y.	1921	Beates, The		
Alan, Woody	Brooklyn, N. Y.	1935	Harrison, George	Liverpool, Eng.	1943
Allister, Claud	London, Eng.	1893	Lennon, John	Liverpool, Eng.	1942
Allison, Fran	Leopote City, Iowa		McCartney, Paul	Dingle, Eng.	1940
Allyson, June	Westchester, N. Y.	1923	Starr, Ringo	Hamilton, Ont.	1909
Alpert, Herb	Los Angeles, Calif.	1937	Beatty, Robert	Richmond, Va.	1937
Amerhe, Don	Kenosha, Wis.	1908	Beatty, Warren	New York, N. Y.	1922
Ames, Ed	Boston, Mass.		Becker, Sandy	New York, N. Y.	1916
Ames, Leon	Portland, Ind.	1903	Beery, Noah, Jr.	Hartford, Conn.	1901
Amos (F. F. Gosden)	Richmond, Va.	1904	Begley, Ed	New York, N. Y.	1927
Amsterdam, Morey	Chicago, Ill.	1912	Belafonte, Harry	Suffolk, Va.	1891
Anderson, Judith	Adelaide, Australia	1908	Bell, James	Chicago, Ill.	1933
Anderson, Marian	Philadelphia, Pa.	1902	Belamy, Ralph	Belmound, Jean-Paul	1910
Anderson, Mary	Birmingham, Ala.	1922	Bennett, Joan	Pallades, N. Y.	1926
Anderson, Michael, Jr.	London, Eng.	1943	Bennett, Tony	Astoria, N. Y.	1894
Anderson, Warner	Brooklyn, N. Y.	1911	Benny, Jack	Waukegan, Ill.	1916
Andrew, Ursula	Switzerland	1938	Bentley, John	Warwickshire, Eng.	1924
Andrews, Dana	Collins, Miss.	1912	Benzell, Mimi	Bridgeport, Conn.	1946
Andrews, Edward	Griffin, Ga.	1915	Bergen, Candice	Chicago, Ill.	1930
Andrews, Julie	Walton, England	1935	Bergen, Edgar	Knoxville, Tenn.	1927
Andrews, Maxene	Minneapolis, Minn.	1918	Bergerac, Jacques	Stockholm, Sweden	1900
Andrews, Percy	Minneapolis, Minn.	1920	Bergman, Ingrid	Umea, Sweden	1909
Andy (C. J. Correll)	Peoria, Ill.	1909	Bergner, Elisabeth	New York, N. Y.	1908
Angel, Heather	Oxford, Eng.	1932	Berle, Milton	Temun, Russia	1888
Angeli, Pier	Cagliari, Sardinia	1942	Berling, Warren	Brooklyn, N. Y.	1937
Anka, Paul	Canada	1941	Berman, Shelley	Chicago, Ill.	1926
Ann-Margret	Stockholm, Sweden	1941	Bernardi, Hershel	New York, N. Y.	1923
Annabella	Paris, France	1912	Bernstein, Leonard	Lawrence, Mass.	1918
Ansara, Michael	Lowell, Mass.	1922	Best, Edna	Hove, England	1900
Archer, John	Osecoia, Neb.	1912	Bethune, Zina	New York, N. Y.	1945
Arden, Eve	Mill Valley, Calif.	1935	Bing, Rudolf	Vienna, Austria	1902
Arkin, Alan	New York, N. Y.	1905	Bishop, Joely	Philadelphia, Pa.	1919
Arten, Harold	Buffalo, N. Y.	1900	Bishop, Julie	Denver, Colo.	1917
Arlen, Richard	Charlotteville, Va.	1900	Black, Frank	Philadelphia, Pa.	1894
Armstrong, Louis	New Orleans, La.	1896	Blackmer, Sidney	Saltbury, N. C.	1898
Armstrong, Robert	Saginaw, Mich.	1917	Blaine, Vivian	Newark, N. J.	1924
Arnaz, Desi	Santiago, Cuba	1923	Blair, Janet	Blair, Pa.	1921
Arness, James	Minneapolis, Minn.	1918	Blair, June	San Francisco, Calif.	1937
Arnold, Eddy	Nashville, Tenn.	1905	Blanc, Mel	San Francisco, Calif.	1908
Arquette, Cliff	Toledo, Ohio	1904	Bloch, Ray	Alsace-Lorraine	1902
Arrau, Claudio	Chillau, Chile	1908	Bloch, Rudy	Bowie County, Tex.	1928
Arroyo, Martina	New York, N. Y.	1908	Bondell, Joan	New York, N. Y.	1909
Arthur, Jean	New York, N. Y.	1940	Bloom, Claire	London, Eng.	1931
Ashley, Elizabeth	Ocala, Fla.	1900	Blue, Ben	Montreal, Canada	1928
Astaire, Fred	Omaha, Neb.	1930	Blythe, Ann	Mt. Kisco, N. Y.	1900
Astin, John	Baltimore, Md.	1906	Blythe, Betty	Los Angeles, Calif.	1895
Astor, Mary	Quincy, Ill.	1913	Boehm, Karl	London, Eng.	1921
Aumont, Jean-Pierre	Paris, France	1901	Bogache, Dirk	Greenville, Tex.	1904
Austin, Gene	Texas	1907	Bolger, Ray	Dorchester, Mass.	1928
Autry, Gene	Tioga, Texas	1940	Bones, Shelia	New York, N. Y.	1892
Avalon, Frankie	Philadelphia, Pa.	1908	Bondi, Beniah	Chicago, Ill.	1934
Ayres, Lew	Minneapolis, Minn.	1924	Boone, Pat	Jacksonville, Fla.	1916
B			Boone, Richard	Los Angeles, Calif.	1907
Bacall, Lauren	New York, N. Y.	1900	Booth, Shirley	Copenhagen, Denmark	1918
Baccaloni, Salvatore	Rome, Italy	1913	Borge, Victor	Hamden, Conn.	1927
Bachus, Jim	Cleveland, Ohio	1899	Boswell, Connie	New Orleans, La.	1914
Baclanova, Olga	Moscow, Russia	1938	Bowman, Lee	Cincinnati, Ohio	1908
Baer, Jr., Max	Oakland, Calif.	1941	Boyd, Stephen	Cambridge, Ohio	1898
Baez, Joan	Staten Island, N. Y.	1918	Boyd, William	Figeac, France	1920
Bailey, Pearl	Newport News, Va.	1905	Boyer, Charles	Astoria, L. I., N. Y.	1921
Bailey, Raymond	San Francisco, Calif.	1904	Bracken, Eddie	Kewanee, Ill.	1924
Baird, William B.	Grand Island, Neb.	1937	Brand, Neville	Omaha, Neb.	1923
Baker, Carroll	Johnstown, Pa.	1938	Brand, Marion	Ellyria, Ohio	1916
Baker, Diane	Hollywood, Calif.	1907	Brasselle, Keefe	Bologna, Italy	1937
Baker, Josephine	St. Louis, Mo.	1912	Brazzi, Rossano	Los Angeles, Calif.	1894
Baker, Kenny	Monrovia, Calif.	1908	Brennan, Eileen	Swampscott, Mass.	1899
Bakewell, William	Hollywood, Calif.	1904	Brennan, Walter	Tampa, Fla.	1899
Balachine, George	St. Petersburg, Russia	1911	Brent, Evelyn		
Ball, Lucille	Jamesown, N. Y.	1926			
Ballard, Kaye	West Cleveland, Ohio	1923			
Balsam, Martin	New York, N. Y.	1909			
Bampton, Rose	Cleveland, Ohio	1931			
Bancroft, Anne	New York, N. Y.				

Name	Birthplace	Born	Name	Birthplace	Born
Brent, George	Dublin, Ireland	1904	Chayefsky, Paddy	New York City	1913
Brewer, Teresa	Toledo, Ohio	1932	Chevalier, Maurice	nr. Paris, France	1888
Brian, David	New York, N. Y.	1914	Christian, Linda	Tampico, Mexico	1924
Bridges, Lloyd	San Leandro, Calif.	1913	Christie, Audrey	Chicago, Ill.	1912
Brinkley, David	Wilmington, N. Car.	1929	Christie, Julie	India	1941
Britt, May	Sweden	1936	Churchill, Sarah	London, England	1916
Britton, Barbara	Long Beach, Calif.	1923	Ciiento, Jane	Queensland, Aust.	1933
Brook, Clive	London, England	1891	Claire, Ina	Washington, D. C.	1892
Brooks, Louise	Cherryvale, Kans.	1906	Clark, Dane	New York, N. Y.	1915
Brooks, Phyllis	Boise, Idaho	1914	Clark, Dick	Mt. Vernon, N. Y.	1929
Brooks, Stephen	Columbus, Ohio	1942	Clark, Fred	Lincoln, Calif.	1924
Brown, Jimmy	Manhasset, L. I.	1936	Clark, Petula	Ewell, Surrey, Eng.	1932
Brown, Joe E.	Colgate, Ohio	1892	Clayton, Jan	Tularosa, N. Mex.	1925
Brown, Johnny Mack	Dothan, Ala.	1904	Cliburn, Van	Shreveport, La.	1935
Brown, Vanessa	Vienna, Austria	1928	Cloney, Rosemary	Maysville, Ky.	1928
Brownlee, John	Geelong, Australia	1901	Cobb, Lee J.	New York, N. Y.	1911
Brubeck, Dave	Concord, Calif.	1920	Coburn, James	Laurel, Neb.	1928
Bruce, Carol	Brooklyn, N. Y.	1919	Coca, Imogene	Bethlehem, Pa.	1920
Bruce, Virginia	Minneapolis, Minn.	1910	Cohen, Myron	Grodno, Poland	1902
Bryant, Anita	Barnsdale, Okla.	1941	Colbert, Claudette	Paris, France	1907
Bryner, Yul	Sakhalin, U.S.S.R.	1917	Cole, Dennis	Detroit, Mich.	1943
Bubbles, John	Louisville, Ky.	1903	Cole, Tina	Hollywood, Calif.	1943
Buchanan, Edgar	Huntsville, Mo.	1903	Collinge, Patricia	Dublin, Ireland	1894
Buchholz, Horst	Berlin, Germany	1933	Collins, Dorothy	Windsor, Ontario	1926
Burke, Billie	Washington, D. C.	1885	Collins, Joan	London, England	1933
Burke, Paul	New Orleans, La.	1926	Collyer, Bud	New York, N. Y.	1908
Burnett, Carol	San Antonio, Texas	1934	Colonna, Jerry	Boston, Mass.	1903
Burns, David	New York, N. Y.	1902	Como, Perry	Catskillburg, Pa.	1888
Burns, George	New York, N. Y.	1896	Conklin, Chester	Oskaloosa, Ia.	1912
Burr, Raymond	Westminster, B. C.	1917	Conklin, Peggy	Dobbs Ferry, N. Y.	1890
Burrows, Abe	New York, N. Y.	1910	Connelly, Marc	McKeesport, Pa.	1913
Burton, Richard	South Wales	1925	Conner, Nadine	Compton, Calif.	1925
Bushell, Anthony	Kent, Eng.	1904	Connors, Michael	Fresno, Calif.	1930
Buttons, Red	New York, N. Y.	1919	Conner, Sean	Edinburgh, Scotland	1921
Buzzell, Eddie	Brooklyn, N. Y.	1897	Conners, Chuck	Brooklyn, N. Y.	1935
Byington, Spring	Colo. Springs, Colo.	1898	Conrad, Robert	Chicago, Ill.	1940
C			Considine, Tim	Los Angeles, Calif.	1914
Cabot, Bruce	Carlsbad, N. Mex.		Conte, Richard	New York, N. Y.	1938
Cabot, Susan	Boston, Mass.	1927	Converse, Frank	St. Louis, Mo.	1938
Caesar, Irving	New York, N. Y.	1895	Conway, Gary	Boston, Mass.	1938
Caesar, Sld	Yonkers, N. Y.	1922	Conway, Shirl	Franklinville, N. Y.	1916
Cagney, James	New York, N. Y.	1904	Conway, Tim	Chagrin Falls, Ohio	1933
Cagney, Jeanne	New York City	1919	Coogan, Jackie	Los Angeles, Calif.	1914
Cahn, Sammy	New York, N. Y.	1913	Cook, Barbara	Atlanta, Ga.	1928
Caine, Michael	London, Eng.	1933	Cooke, Alstair	England	1908
Calloun, Rorv	Los Angeles, Calif.	1928	Cooper, Ben	Hartford, Conn.	1891
Callan, Michael	Philadelphia, Pa.	1940	Cooper, Gladys	London, England	1921
Callas, Maria	New York, N. Y.	1923	Cooper, Jackie	Los Angeles, Calif.	1896
Calloway, Cab	Rochester, N. Y.	1917	Cooper, Melville	Birmingham, England	1897
Calvert, Phyllis	London, Eng.	1917	Coots, J. Fred	Brooklyn, N. Y.	1900
Calver, Corinne	Paris, France	1926	Copland, Aaron	Brooklyn, N. Y.	1914
Cambridge, Godfrey	New York, N. Y.	1933	Corey, Wendell	Dracut, Mass.	1921
Cameron, Rod	Calgary, Alb., Canada	1912	Cornell, Don	New York, N. Y.	1898
Campbell, Glen	Delight, Ark.	1937	Cornell, Katharine	Berlin, Germany	1899
Cansary, David	Elwood, Ind.	1938	Cortez, Ricardo	Vienna, Austria	1938
Canova, Judy	Jacksonville, Fla.	1916	Cosby, Bill	Philadelphia, Pa.	1905
Cantinas	Mexico City, Mex.	1911	Costello, Dolores	Oak Park, Ill.	1908
Capp, Al	New Haven, Conn.	1897	Cotter, Joseph	Petersburg, Va.	1937
Capra, Frank R.	Palermo, Italy	1939	Courtenay, Tom	Hull, England	1897
Cardinale, Claudia	Italy	1913	Cowan, Jerome	New York City	1899
Carey, Macdonald	Sioux City, Ia.	1925	Coward, Noel	Teddington, England	1924
Carey, Phil	Hackensack, N. J.	1903	Cox, Wally	Detroit, Mich.	1910
Carle, Frankie	Providence, R. I.	1914	Crabbe, Biter	Oakland, Calif.	1925
Carlisle, Kitty	New Orleans, La.	1914	Crain, Jeanne	Barstow, Calif.	1934
Carlson, Richard	Albert Lea, Minn.	1899	Crane, Les	New York, N. Y.	1911
Carmichael, Hoagy	Bloomington, Ind.	1939	Crawford, Broderick	Philadelphia, Pa.	1908
Carne, Judy	Northampton, Eng.	1918	Crawford, Joan	San Antonio, Tex.	1927
Carney, Ari	Mt. Vernon, N. Y.	1918	Crenna, Richard	Los Angeles, Calif.	1880
Carovsky, Morris	St. Louis, Mo.	1931	Crisp, Donald	London, England	1916
Caron, Leslie	France	1906	Cronkite, Walter	St. Joseph, Mo.	1911
Carradine, John	New York, N. Y.	1935	Crosby, Bing (Harry)	Trenton, N. J.	1904
Carroll, Diahann	Bronx, N. Y.	1892	Crosby, Bob	Tacoma, Wash.	1913
Carroll, Leo G.	Weedon, England	1906	Cross, Milton	Spokane, Wash.	1897
Carroll, Madeleine	W. Bromwich, Eng.	1927	Crowley, Pat	Saranton, Ia.	1929
Carroll, Pat	Shreveport, La.	1929	Cugat, Xavier	Barcelona, Spain	1920
Carson, Jeannie	Yorkshire, Eng.	1925	Cullen, William	Pittsburgh, Pa.	1931
Carson, Johnny	Cedarburg, Iowa	1902	Culp, Robert	Berkeley, Calif.	1910
Carson, Mindy	New York City	1876	Cummings, Constance	Seattle, Wash.	1919
Casadesus, Gaby	Marseilles, France	1889	Cummings, Robert	Joplin, Mo.	1925
Casadesus, Robert	Paris, France	1889	Cummings, York	Northampton, Mass.	1925
Casals, Pablo	Vendrell, Spain	1932	Curtis, Ken	Fresatyn, No. Wales	1916
Cass, Anna	Clinton, N. J.	1927	Curtis, Tony	New York, N. Y.	1925
Cass, Peggy	Kingsland, Ark.	1927	Cushing, Peter	Surrey, Eng.	1913
Cassavetes, John	Boston, Mass.	1929	D		
Cassidy, Jack	New York, N. Y.	1927	Dagmar (Egnor)	Huntington, W. Va.	1926
Cassidy, Ted	Thibault, Pa.	1932	Dahl, Arlene	Minneapolis, Minn.	1927
Castle, Irene	New Rochelle, N. Y.	1894	Daley, Dan	New York, N. Y.	1917
Caulfield, Joan	West Orange, N. J.	1922	Dalrymple, Jean	Morristown, N. J.	1918
Cavallaro, Carmen	New York, N. Y.	1936	Daly, James	Waco, Tex.	1914
Cavett, Dick	Gibson, Neb.	1898	Daly, John	Johannesburg, So. Afr.	1917
Cerf, Bennett	New York, N. Y.	1935	Damita, Lili	Paris, France	1928
Chamberlain, Dick	Beverly Hills, Calif.	1926	Damone, Vic	Brooklyn, N. Y.	1924
Champion, Gower	Genova, Ill.	1915	Dana, Bill	Quincy, Mass.	1901
Champion, Marge	Los Angeles, Calif.	1922	Danels, Bebe	Dallas, Tex.	1927
Chaney, Lon, Jr.	Oklahoma City, Okla.	1926	Danilova, William	Brooklyn, N. Y.	1907
Channing, Carol	Seattle, Wash.	1926	Dantona, Alexandra	Peterhof, Russia	1931
Chaplin, Charles	London, England	1889	Darcel, Denise	Paris, France	1925
Chaplin, Charles, Jr.	California	1925	Darcel, Bobby	Bronx, N. Y.	1935
Chaplin, Sydney	Beverly Hills, Calif.	1926			
Charles, Cyd	Anarillo, Texas	1923			
Charles, Ray	Albany, Ga.	1932			
Chase, Iika	New York, N. Y.	1905			

Name	Birthplace	Born	Name	Birthplace	Born
Darren, James	Philadelphia, Pa.	1936			
Darrieux, Danielle	Bordeaux, France	1917	Fabian (Forte)	Philadelphia, Pa.	1943
Darrow, Henry	New York, N. Y.	1933	Fabray, Nanette	San Diego, Calif.	1922
Da Silva, Howard	Cleveland, Ohio	1939	Fadiman, Clifton	Brooklyn, N. Y.	1904
Dassin, Jules	New York, Conn.	1913	Fairbanks, Doug., Jr.	New York, N. Y.	1909
Davies, Claude	Corbetti, Ft.	1905	Falk, Percy	Toronto, Ont.	1908
Davidson, John	Pittsburgh, Pa.	1941	Falk, Peter	New York, N. Y.	1929
Davis, Bette	Lowell, Mass.	1905	Falkenburg, Jinx	Barcelona, Spain	1919
Davis, Sammy, Jr.	New York, N. Y.	1921	Farmet, Frances	Seattle, Wash.	1915
Davis, Ossie	Waycross, Ga.	1921	Farr, Felicia	Westchester, N. Y.	1932
Dawn, Hazel	Ogden, Utah	1898	Farrell, Charles	Onset Bay, Mass.	1901
Day, Dennis	New York, N. Y.	1917	Farrell, Ellen	Willimantic, Conn.	1920
Day, Doris	Cincinnati, Ohio	1924	Farrell, Frank	New York, N. Y.	1912
Day, Laraine	Rocksvell, Utah	1913	Farrell, Glenda	Enid, Okla.	1904
Dean, Jimmy	Plano, Texas	1928	Farrow, Mia	Los Angeles, Calif.	1945
De Camp, Rosemary	Prescott, Ariz.	1913	Faye, Alice	New York, N. Y.	1917
De Carlo, Yvonne	Vancouver, B. C.	1924	Feeney, Joe	Grand Island, Nebr.	1937
Dee, Frances	Los Angeles, Calif.	1907	Feldon, Barbara	Pittsburgh, Pa.	1915
Dee, Joey	Passaic, N. J.	1940	Fellini, Federico	Rimini, Italy	1920
Dee, Sandra	Bayonne, N. J.	1942	Fellows Edith	Boston, Mass.	1923
DeFore, Don	Cedar Rapids, Iowa	1917	Fenton, Leslie	England	1903
DeHaven, Gloria	Los Angeles, Calif.	1926	Fernandel	Marseilles, France	1903
De Havilland, Olivia	Tokyo, Japan	1916	Ferrer, Jose	Santurce, P. R.	1912
Della Chiesa, Vivienne	Chicago, Ill.	1914	Ferrer, Mel	Elberon, N. J.	1917
Delon, Alain	Paris, France	1935	Fetchit, Stepin	Key West, Fla.	1962
Del Rio, Dolores	Durango, Mexico	1905	Fiedler, Arthur	Boston, Mass.	1891
Demarest, William	St. Paul	1892	Field, Betty	Boston, Mass.	1918
De Mille, Agnes	New York, N. Y.	1901	Field, Sally	Rockdale, England	1896
Dempster, Carol	Duluth, Minn.	1901	Fields, Grace	Brooklyn, N. Y.	1910
Denning, Richard	Poughkeepsie, N. Y.	1914	Fields, Shep	Salford, Eng.	1936
Dennis, Sandy	Lincoln, Nebr.	1936	Finney, Albert	Philadelphia, Pa.	1928
Denver, Bob	New Rochelle, N. Y.	1935	Fisher, Eddie	Troy, N. Y.	1898
Derek, John	Hollywood, Calif.	1926	Fitzgerald, Ed	Newport News, Va.	1918
De Sica, Vittorio	Italy	1901	Fitzgerald, Ella	Dublin, Ireland	1914
Desmond, Johnny	Detroit, Mich.	1931	Fitzgerald, Geraldine	Noracur, Kans.	1910
Devine, Andy	Flagstaff, Ariz.	1905	Fleming, Peegen	Hollywood, Calif.	1922
de Wilde, Brandon	New York, N. Y.	1942	Fleming, Rhonda	Little Rock, Ark.	1899
De Wolfe, Billy	Wollaston, Mass.	1936	Flipping, Jay C.	Youngstown, Ohio	1926
Dickinson, Angie	Kulm, No. Dakota	1931	Flynn, Joe	Leyden, Neth.	1924
Dietrich, Marlene	Berlin, Germany	1901	Foch, Nina	Grand Island, Nebr.	1905
Diller, Phyllis	Lima, Ohio	1917	Fonda, Henry	New York, N. Y.	1937
Dillman, Bradford	San Francisco, Calif.	1930	Fonda Jane	New York, N. Y.	1939
Dixon, Ivan	New York, N. Y.	1917	Fonda, Peter	New York, N. Y.	1930
Dixon, Les	New York, N. Y.	1917	Fontaine, Frank	Cambridge, Mass.	1929
Donahue, Troy	New York, N. Y.	1936	Fontaine, Joan	Tokyo, Japan	1937
Donald, Peter	Bristol, England	1918	Fontaine, Lorraine	London, England	1887
Donlevy, Brian	Portadown, Ireland	1903	Fonteyn, Margot	Chicago, England	1919
Donnelly, Ruth	Trenton, N. J.	1936	Foran, Dick	Flemington, N. J.	1910
Dors, Diana	Swindon, England	1891	Ford (Tenn.), Ernie	Ford Town, Tenn.	1919
d'Orsay, Fifi	Montreal, Que.	1908	Ford, Edw. "Senator"	Brooklyn, N. Y.	1887
Douglas, Donna	Baywood, La.	1939	Ford, Glenn	Quebec, Canada	1916
Douglas, Kirk	Amsterdam, N. Y.	1916	Ford, Paul	Baltimore, Md.	1901
Douglas, Melvyn	Macon, Ga.	1917	Ford, Ruth	Hazelhurst, Miss.	1938
Douglas, Mike	Chicago, Ill.	1925	Forrest, Sally	San Diego, Calif.	1925
Dowling, Eddie	Providence, R. I.	1902	Forrest, Steve	Huntsville, Tex.	1918
Downey, Morton	Wallingford, Conn.	1905	Forsyth, John	Richmond, N. J.	1918
Downs, Hugh	Akron, Ohio	1921	Foster, Norman	Richmond, Ind.	1900
Dragonette, Jessica	Calcutta, India	1902	Foster, Preston	Ocean City, N. J.	1904
Drake, Alfred	Bronx, N. Y.	1914	Foster, Susanna	Chicago, Ill.	1925
Drake, Betsy	Paris, France	1923	Fox, James	London, England	1939
Draper, Paul	Florence, Italy	1911	Foy, Eddie, Jr.	New Rochelle, N. Y.	1905
Drew, Ellen	Kansas City, Mo.	1923	Francescatti, Zino	Marseilles, France	1904
Dru, Joanne	Logan, W. Va.	1915	Franciosa, Anthony	New York City	1928
Duffy, James	New York, N. Y.	1917	Francis, Arlene	Boston, Mass.	1938
Duff, Howard	Bremerton, Wash.	1917	Francis, Conlie	New York, N. Y.	1938
Duke, Patty	New York, N. Y.	1946	Franciscus, James	Clayton, Mo.	1934
Dunaway, Faye	Tallahassee, Fla.	1941	Frankenhelmer, John	Malba, L. I., N. Y.	1930
Duncan, Todd	Danville, Ky.	1900	Freeman, Mona	Baltimore, Md.	1926
Duncan, Vivian	Los Angeles, Calif.	1902	Friml, Rudolf	Prague, Austria	1884
Dunham, Katherine	Chicago, Ill.	1910	Froman, Jane	St. Louis, Mo.	1911
Dunne, Irene	Louisville, Ky.	1904	Furness, Betty	New York, N. Y.	1911
Dunninger, Joseph	New York, N. Y.	1898			
Durante, Jimmy	New York, N. Y.	1898			
Durbin, Deanna	Winnipeg, Canada	1922			
Dvorak, Ann	New York, N. Y.	1912			
Dylan, Bob	Duluth, Minn.	1941			
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Name	Birthplace	Born	Name	Birthplace	Born
Genn, Leo	London, England	1905	Heifetz, Jascha	Vilna, Russia	1901
Gentry, Bobby	Clockwork Co., Miss.	1914	Heiss, Carol	Ozone Park, N. Y.	1939
Gershwin, Ira	New York City	1896	Hellman, Lillian	New Orleans, La.	1905
Gielgud, John	London, England	1904	Helmroth, Tom	London, England	1912
Gilbert, Billy	Louisville, Ky.	1894	Henderson, Florence	Dale, Ind.	1934
Gingold, Hermione	London, England	1897	Henderson, Marla	Andover, Mass.	1932
Gish, Lillian	Springfield, Ohio	1896	Henderson, Skitch	Birmingham, England	1919
Givot, George	Omaha, Nebr.	1903	Henle, Sonja	Oslo, Norway	1913
Gleason, Jackie	Brooklyn, N. Y.	1916	Henred, Paul	Trieste, Italy	1908
Gobel, George	Chicago, Ill.	1920	Heppburn, Audrey	Brussels, Belgium	1929
Goddard, Mark	Lowell, Mass.	1936	Heppburn, Katharine	Hartford, Conn.	1909
Goddard, Paulette	Great Neck, N. Y.	1911	Herbert, Evelyn	Philadelphia, Pa.	1898
Godfrey, Arthur	New York City	1903	Herbert, Holmes	Mansfield, Eng.	1882
Goldwyn, Samuel	Warsaw, Poland	1882	Herlie, Eileen	Glasgow, Scotland	1920
Goodman, Benny	Chicago, Ill.	1909	Herman, Woody	Milwaukee, Wis.	1913
Gorey, Leo	New York, N. Y.	1917	Hershfield, Harry	Cedar Rapids, Iowa	1885
Gordon, Gale	New York City	1906	Heston, Charlton	Evansville, Ind.	1924
Gordon, Kitty	Folkestone, England	1878	Hildegarde	Adell, Wis.	1906
Gordon, Max	New York, N. Y.	1892	Hiller, Wendy	Bramhall, England	1912
Gordon, Ruth	Wollaston, Mass.	1896	Hines, Jerome	Hollywood, Calif.	1921
Core, Lesley	Teaneck, N. J.	1946	Hines, Mimi	Vancouver, B. C.	1933
Gorin, Igor	Ukraine, Russia	1906	Hingle, Pat	Texas	1924
Gorme, Eydie	Bronx, N. Y.	1931	Hirt, Al	New Orleans, La.	1922
Gorshin, Frank	Pittsburgh, Pa.	1935	Hitchcock, Alfred	London, England	1899
Gould, Morton	Richmond Hill, N. Y.	1913	Hobart, Rose	New York City	1906
Goulet, Robert	Lawrence, Mass.	1933	Hodges, Eddie	Hattiesburg, Miss.	1947
Grable, Betty	St. Louis, Mo.	1916	Holbrook, Hal	Cleveland, Ohio	1925
Grady, Don	San Diego, Calif.	1944	Holden, Fay	Birmingham, England	1895
Graham, Martha	Pittsburgh, Pa.	1902	Holden, William	O'Fallon, Ill.	1918
Grahame, Gloria	Los Angeles, Calif.	1929	Holloway, Stanley	London, England	1890
Grahame, Margaret	Sarnbury, England	1911	Holloway, Sterling	Cedartown, Ga.	1919
Granger, Farley	San Jose, Calif.	1925	Holmes, Celeste	New York, N. Y.	1887
Granger, Stewart	England	1913	Holmes, Stuart	Chicago, Ill.	1918
Granville, Bonita	New York, N. Y.	1923	Holt, Tim	Beverly Hills, Calif.	1898
Grant, Cary	Bristol, England	1904	Holtz, Lou	San Francisco, Calif.	1930
Grant, Katharine	Houston, Tex.	1933	Homeler, Skip	Chicago, Ill.	1901
Grauer, Ben	New York, N. Y.	1908	Homolka, Oscar	Vienna, Austria	1937
Gray, Coleen	Staplehurst, Nebr.	1922	Hooks, Robert	Washington, D. C.	1904
Gray, Dolores	Chicago, Ill.	1924	Hope, Bob	London, England	1902
Grayson, Kathryn	Winston-Salem, N. C.	1923	Hopkins, Miriam	Bainbridge, Ga.	1918
Greco, Buddy	Philadelphia, Pa.	1926	Horn, Len	Brooklyn, N. Y.	1904
Greco, Jose	Abruzzo, Italy	1915	Horowitz, Vladimir	Brooklyn, N. Y.	1888
Greco, Juliette	Paris, France	1901	Horton, Ed. Everett	Los Angeles, Calif.	1924
Green, Eddie	Baltimore, Md.	1899	Horton, Robert	Burbank, Calif.	1959
Green, Martyn	London, England	1920	Howard Clint	Duncan, Okla.	1930
Green, Mitzi	New York, N. Y.	1916	Howard Ronnie	Winnetka, Ill.	1925
Greene, Lorne	Canada	1921	Howes, Sally Ann	Louisville, Ky.	1890
Greenwood, Charlotte	Philadelphia, Pa.	1924	Hudson, Rock	Gasport, N. Y.	1917
Greenwood, Joan	London, England	1924	Hull, Henry	Chicago, Ill.	1900
Greer, Jane	Washington, D. C.	1933	Hull, Warren	Cape Town, S. Africa	1931
Gregory, Dick	St. Louis, Mo.	1925	Hunt, Marsha	Cardwell, Mont.	1911
Grey Joel	Cleveland, Ohio	1926	Hunter, Ian	Nevada, Mo.	1906
Griffin, Merv	San Mateo, Calif.	1926	Hunter, Kim	Los Angeles, Calif.	1916
Griffith, Andy	Mount Airy, N. C.	1912	Hunter, Tab	Battle Creek, Mich.	1918
Griffith, Hugh	Wales	1934	Huntley, Chet	Chicago, Ill.	1929
Grimes, Tammy	Lynn, Mass.	1928	Huston, John	Cleveland Hts., Ohio	1937
Grizzard, George	Roanoke Rapids, N. C.	1892	Hutchins, Will	Rocky Mt., N. C.	1926
Grofe, Ferde	New York City	1925	Hutchinson, Josephine	Edinburgh, Scotland	1901
Guardino, Harry	New York, N. Y.	1914	Hutton, Betty	Brooklyn, N. Y.	1936
Guinness, Alec	London, England	1914	Hutton, Ina Ray	Cairo, Ill.	1895
H			Hyer, Martha	Vancouver, B. C.	1915
Hackett, Buddy	Brooklyn, N. Y.	1924	Hyland, Diana	Valencia, Spain	1895
Hagen, Uta	Gottingen, Germany	1919	Hyman, Eule	Hunt, Ill.	1909
Hagman, Larry	Ft. Worth, Tex.	1931	Inescort, Frieda	Edinburgh, Scotland	1901
Halsaz, László	Debrecen, Hungary	1905	Ingels, Marly	Brooklyn, N. Y.	1936
Hale, Barbara	DeKalb, Ill.	1922	Ingram, Rex	Cairo, Ill.	1895
Haley, Jack	Boston, Mass.	1902	Ireland, John	Vancouver, B. C.	1915
Hamilton, George	Memphis, Tenn.	1940	Isturbi, Jose	Valencia, Spain	1895
Hamilton, Neil	Lynn, Mass.	1899	Ives, Burl	Hunt, Ill.	1909
Hampton, Lionel	Birmingham, Ala.	1914	J		
Hampton, Ruth	Throop, Pa.	1932	Jackson, Mahalia	New Orleans, La.	1912
Hanson, Howard	Wahoo, Nebr.	1896	Jaffe, Sam	New York, N. Y.	1898
Harding, Ann	Ft. Sam Houston, Tex.	1904	Jaeger, Dean	Lima, Ohio	1903
Harper, Ron	Turtle Creek, Pa.	1935	James, Dennis	Jersey City, N. J.	1917
Harris, Barbara	Evansville, Ind.	1935	James, Harry	Albany, Ga.	1916
Harris, Julie	Grosse Pte. Park, Mich.	1925	Janney, Leon	Ogden, Utah	1917
Harris, Phil	Linton, Ind.	1906	Janney, William	New York, N. Y.	1908
Harris, Richard	Co. Limerick, Ire.	1898	Janssen, David	Naponee, Nebr.	1941
Harris, Roy	Oklahoma	1898	Jarvis, Rex	New York, N. Y.	1926
Harrison, Noel	London, England	1934	Jeanmaire, Renee	New Orleans, La.	1923
Harrison, Rex	Huyton, England	1908	Jeffreys, Anne	New York, N. Y.	1900
Hartman, Paul	San Francisco, Calif.	1928	Jennings, Peter	Toronto, Canada	1937
Harvey, Laurence	Yonishkis, Lithuania	1910	Jepson, Helen	Titusville, Pa.	1907
Hasso, Signe	Stockholm, Sweden	1892	Jeriza, Maria	Brunn, Austria	1887
Hatton, Raymond	Red Oak, Iowa	1926	Jessel, George	New York, N. Y.	1898
Haver, June	Rock Island, Ill.	1916	Johns, Gladys	Durban So Africa	1923
Havoc, Jane	Seattle, Wash.	1945	Johnson, Richard	Essex, England	1927
Hawn, Goldie	Washington, D.C.	1912	Johnson, Russell	Asbury, Pa.	1924
Hayakawa, Seede	Chicago, Japan	1912	Johnson, Van	Newport, R. I.	1916
Hayden, Russell	Chico, Calif.	1916	Johnston, Johnny	St. Louis, Mo.	1916
Hayden, Sterling	Montclair, N. J.	1910	Jones, Alan	Seranton, Pa.	1907
Hayden, Julie	Oak Park, Ill.	1885	Jones, Carolyn	Amarillo, Tex.	1932
Hayes, Geo. (Gabby)	Wellsville, N. Y.	1916	Jones, Chris	Jackson, Tenn.	1941
Hayes, Helen	Washington, D. C.	1918	Jones, Dean	Morgan, Co., Ala.	1936
Hayes, Peter Lind	San Francisco, Calif.	1909	Jones, Grandpa	Henderson Co., Ky.	1913
Haymes, Dick	Buenos Aires, Argentina	1919	Jones, Henry	Philadelphia, Pa.	1912
Hayward, Louis	Johannesburg, S. Afr.	1918	Jones, Jack	Hollywood, Calif.	1938
Hayward, Susan	Brooklyn, N. Y.	1919	Jones, Shaffer	Tulsa, Okla.	1919
Hayworth, Rita	New York, N. Y.	1918	Jones, Shirley	Shelton, Pa.	1944
Healy, Mary	New Orleans, La.	1890	Jory, Victor	Dawson, Yukon, Can.	1902
Heatherton, Joey	New York, N. Y.	1919	Joslyn, Alan	Niford, Pa.	1905
Heather, Gabriel	New York, N. Y.	1910	Jourdan, Louis	Martillac, France	1921
Herkart, Elleen	Columbus, Ohio	1910			
Hedlin, Van	Walters, Okla.	1910			

Name	Birthplace	Born	Name	Birthplace	Born
Judge, Arline	Bridgeport, Conn.	1912	Lennon, Peggy	Los Angeles, Calif.	1941
Jurado, Katy	Guadalupe, Mex.	1927	Leonard, Jack E.	New York, N. Y.	1911
K					
Kanin, Garson	Rochester, N. Y.	1912	Leonard, Sheldon	New York, N. Y.	1907
Karloff, Boris	Dulwich, England	1887	Leontovich, Eugenie	Moscow, Russia	1894
Karns, Roscoe	San Bernardino, Calif.	1897	LeRoy, Mervyn	San Francisco, Calif.	1900
Kaye, Buddy	New York, N. Y.	1918	Leslie, Joan	Detroit, Mich.	1925
Kaye, Danny	Brooklyn, N. Y.	1913	Lester, Jerry	Chicago, Ill.	1911
Kaye, Nora	New York, N. Y.	1920	Levant, Oscar	Pittsburgh, Pa.	1906
Kaye, Sammy	Cleveland, Ohio	1910	Levene, Sam	New York, N. Y.	1907
Kaye, Sonya	Brooklyn, N. Y.	1934	Levenson, Sam	New York City	1911
Kazan, Ella	Constantinople, Turk.	1909	Lewis, Jerry	Newark, N. J.	1926
Keel, Howard	Gillespie, Ill.	1919	Lewis, Joe E.	New York, N. Y.	1925
Keeler, Ruby	Halifax, N. S.	1909	Lewis, Morton	Chicago, Ill.	1924
Kelth, Brian	Bayonne, N. J.	1921	Lewis, Robert Q.	New York, N. Y.	1934
Kelley, DeForrest	Atlanta, Ga.	1912	Lewis, Shari	New York, N. Y.	1934
Kelly, Gene	Pittsburgh, Pa.	1912	Lewis, Ted	Circleville, Ohio	1891
Kelly, Grace	Philadelphia, Pa.	1930	Liberace	Milwaukee, Wis.	1919
Kelly, Jack	Astoria, N. Y.	1927	Lillie, Beatrice	Toronto, Canada	1898
Kelly, Nancy	Lowell, Mass.	1921	Lindfors, Vilvea	Uppsala, Sweden	1920
Kelly, Patsy	Brooklyn, N. Y.	1926	Lindsay, Margaret	Dubuque, Iowa	1910
Kennedy, Arthur	Worcester, Mass.	1914	Linkletter, Art	Saskatchewan, Can.	1912
Kennedy George	New York, N. Y.	1925	Linn, Bambi	Brooklyn, N. Y.	1926
Kennedy, Madge	Chicago, Ill.	1925	List, Vira	Italy	1937
Kent, Allegre	Los Angeles, Calif.	1937	List, Marie	Vienna, Austria	1881
Kenton, Stan	Wichita, Kans.	1912	Lilo (Lilliane Lewin)	France	1925
Kenyon, Doris	Macusac, N. Y.	1897	Livingstone, Mary	Seattle, Wash.	1909
Kerr, Deborah	Helensburgh, Scotland	1921	Lloyd, Harold	Buchard, Nebr.	1893
Kerr, John	New York, N. Y.	1931	Lloyd, Harold, Jr.	California	1932
Kert, Larry	Los Angeles, Calif.	1930	Lockhart, June	New York, N. Y.	1925
Keyes, Evelyn	Port Arthur, Tex.	1925	Lockwood, Margaret	Karachi, India	1916
Kiley, Richard	Chicago, Ill.	1922	Loder, John	London, England	1898
Killian, Victor	Jersey City, N. J.	1898	Loesser, Frank	New York, N. Y.	1910
King, Alan	New York City	1926	Logan, Ella	Glasgow, Scotland	1910
King, Dennis	Coventry, England	1897	Lozan, Joshua	Texas, Texas	1908
King, Henry	Christiansburg, Va.	1896	Lolobrigida, Gina	Subiaco, Italy	1928
King, Peggy	Greensburg, Pa.	1913	Lombardo, Guy	London, Ont., Canada	1902
King, Walter Woolf	San Francisco, Calif.	1899	London, George	Montreal, Que.	1920
King, Wayne	Savannah, Ill.	1901	London, Julie	Santa Rosa, Calif.	1926
Kirby, Durwood	Covington, Ky.	1912	Long, Richard	Chicago, Ill.	1927
Kirby, Michael	Canada	1925	Lopez, Perry	New York, N. Y.	1931
Kirk, Phyllis	Syracuse, N. Y.	1929	Lopez, Trini	Dallas, Texas	1938
Kirkland, Muriel	Yonkers, N. Y.	1903	Loren, Vincent	Brooklyn, N. Y.	1895
Kirsten, Dorothy	Montclair, N. J.	1919	Loren, Sophia	Rome, Italy	1944
Kitchell, Iva	Junction City, Kan.	1919	Loring, Lynn	New York, N. Y.	1944
Kitt, Eartha	Columbia, S. C.	1928	Losch, Tilly	Vienna, Austria	1902
Klotz, Don	Morgantown, W. Va.	1924	Loudon, Dorothy	Boston, Mass.	1932
Knowles, Patric	Weymouth, England	1911	Louise, Anita	New York City	1917
Knox, Alexander	Strathroy, Canada	1907	Louise, Tina	New York City	1934
Kollmar, Richard	Ridgewood, N. J.	1910	Love, Bessie	Midland, Tex.	1898
Korman, Harvey	Chicago, Ill.	1927	Love, Edmund	San Jose, Calif.	1892
Kostelanetz, Andre	St. Petersburg, Rus.	1910	Loy, Myrna	Helena, Mont.	1905
Kruger, Otto	Toledo, Ohio	1885	Ludwig, Christa	Berlin, Ger.	1934
Krupa, Gene	Chicago, Ill.	1909	Lukas, Paul	Budapest, Hungary	1895
Kullman, Chas.	New Haven, Conn.	1902	Luke, Keye	Canton, China	1902
Kyser, Kay	Rocky Mount, N. C.	1905	Lum (Chester Lauck)	Albany, Ark.	1902
L					
Laine, Frankie	Chicago, Ill.	1913	Lund, John	Rochester, N. Y.	1913
Lake, Veronica	Lake Placid, N. Y.	1919	Lundigan, William	Syracuse, N. Y.	1914
Lamar, Hedy	Vienna, Austria	1915	Lunt, Alfred	Milwaukee, Wis.	1893
Lamas, Fernando	Buenos Aires	1915	Lupino, Ida	London, England	1918
Lamb, Gil	Minneapolis, Minn.	1906	Lynde, Paul	Mt. Vernon, Ohio	1926
Lamour, Dorothy	New Orleans, La.	1914	Lynn, Diana	Los Angeles, Calif.	1926
Lamster, Bert	New York, N. Y.	1913	Lynn, Jeffrey	Auburn, Mass.	1909
Lanchester, Elsie	London, England	1902	Lynley, Carol	New York City	1946
Landers, Harry	New York, N. Y.	1921	Lyon, Ben	Atlanta, Ga.	1901
Landis, Jessie Royce	Chicago, Ill.	1904	Lyon, Sue	Davenport, Iowa	1946
Landon, Michael	Forest Hills, N. Y.	1937	M		
Lane, Abbe	Brooklyn, N. Y.	1932	MacArthur, James	Los Angeles, Calif.	1937
Lang, Harold	Daly City, Calif.	1924	MacGrath, Leueen	England	1914
Lang, June	Minneapolis, Minn.	1915	MacK, Ted	Greeley, Colo.	1904
Lange, Hope	Redding Ridge, Conn.	1933	MacKenzie, Gisela	Winnipeg, Man.	1927
Langford, Frances	Lakeland, Fla.	1913	MacKay, Jim	Philadelphia, Pa.	1921
Lansbury, Angela	London, England	1925	MacLaine, Shirley	Richmond, Va.	1934
Lansing, Robert	San Diego, Calif.	1929	MacLaine, Barton	Columbia, S. C.	1902
Lansonia, Snooky (Roy)	Memphis, Tenn.	1919	MacMahon, Aline	McKeesport, Pa.	1899
La Rosa, Julius	Brooklyn, N. Y.	1930	MacMurray, Fred	Kankakee, Ill.	1908
Larimore, Francine	Verdun, France	1898	MacMillan, Eileen	Gavarr, S. I.	1884
La Rue, Jack	New York, N. Y.	1919	MacRae, Gordon	East Orange, N. J.	1921
Laurie, Piper	Detroit, Mich.	1932	MacRae, Shella	London, England	1924
Lawford, Peter	London, England	1925	Maerady, George	Providence, R. I.	1909
Lawrence, Barbara	Carnegie, Okla.	1930	Madison, Guy	Bakersfield, Calif.	1922
Lawrence, Carol	Melrose Park, Ill.	1932	Magnani, Anna	Rome, Italy	1908
Lawrence, Marjorie	Victoria, Australia	1909	Mahler, Fritz	Vienna, Austria	1901
Lawrence, Steve	Brooklyn, N. Y.	1935	Mahn, Marjorie	Acton, Ind.	1890
Lawrence, Vicki	Inglewood, Calif.	1949	Maibin, Elaine	New York, N. Y.	1932
Lederer, Francis	Prague, Czechoslov.	1906	Malden, Karl	Gary, Ind.	1914
Lee, Gypsy Rose	Seattle, Wash.	1914	Malone, Dorothy	Chicago, Ill.	1925
(Rose Louise Hovick)			Malone, Nancy	New York, N. Y.	1935
Lee, Lila	New York, N. Y.	1905	Mangano, Silvana	Italy	1937
Lee, Michele	Los Angeles, Calif.	1942	March, Fredric	Racine, Wis.	1897
Lee, Peggy	Jamestown, N. D.	1920	March, Hal	San Francisco, Calif.	1920
Lee, Pinky	St. Paul, Minn.	1920	Margo	Mexico City, Mexico	1918
Le Gallienne, Eva	London, England	1895	Markova, Alicia	London, England	1910
Lehmann, Lotte	Leibersheim, Germany	1895	Marlowe, Hugh	Philadelphia, Pa.	1914
Leigh, Janet	Merced, Calif.	1927	Marsh, Joan	Porterville, Calif.	1915
Leighton, Margaret	Warwickshire, Eng.	1922	Marshall, Brenda	Philippines	1915
Leinsdorf, Erich	Vienna, Austria	1912	Marshall, E. G.	Owatona, Minn.	1910
Leimon, Jack	Boston, Mass.	1925	Marshall, Everett	London, England	1901
Lennon, Dianne	Los Angeles, Calif.	1939	Marshall, Sarah	London, England	1933
Lennon, Janet	Culver City, Calif.	1946	Martin, Dean	Steubenville, Ohio	1917
Lennon, Kathy	Santa Monica, Calif.	1943	Martin, Dewey	Katemy, Texas	1923
			Martin, Dick	Detroit, Mich.	1928
			Martin, Mary	Weatherford, Texas	1914
			Martin, Tony	Oakland, Calif.	1913
			Martipelli, Giovanni	Montaguana, Italy	1885

Name	Birthplace	Born	Name	Birthplace	Born
Martini, Nino.	Verona, Italy.	1905	Morison, Patricia.	New York, N. Y.	1919
Marvin, Lee.	New York, N. Y.	1924	Morley, Robert	Semley, England.	1908
Marx, Herbert (Zeppo)	New York, N. Y.	1901	Morris, Chester	New York, N. Y.	1901
Marx, Julius (Groucho)	New York, N. Y.	1895	Morrow, Susan	Teaneck, N. J.	1932
Marian, James	Buersersied, England	1909	Morrow, Vic.	Brox, N. Y.	1932
Massey, Curt	Midland, Texas.	1910	Morse, Robert	Newton, Mass.	1931
Massey, Iona.	Hungary	1896	Mostel, Zeger (Sam)	Brooklyn, N. Y.	1893
Massey, Raymond.	Toronto, Canada	1896	Mowbray, Alan	London, England	1909
Maschine, Leonide	Moscow, Russia.	1896	Muir, Gavin	Chicago, Ill.	1911
Mastrolanni, Marcello	Italy	1924	Muir, Jean.	New York, N. Y.	1911
Mathis, Johnny	San Francisco, Calif.	1935	Muhlall, Jack	Wap'ing's Falls, N. Y.	1894
Matthau, Walter	New York City	1922	Mulhare, Edward	Ireland.	1921
Matthews, Jessie	London, England	1907	Mundy, Meg.	London, England	1925
Matvey, Victor	Louisville, Ky.	1922	Munsel, Patrice	Spokane, Wash.	1924
Maxwell, Marilyn.	Chillicothe, Iowa	1922	Murphy, Audie	Texas	1924
May, Elaine	Philadelphia, Pa.	1916	Murphy, Arthur	Washington, D. C.	1893
Maynard, Ken.	Mission, Texas.	1895	Murray, Arthur	New York, N. Y.	1929
Maynor, Dorothy	Norfolk, Va.	1910	Murray, Don.	Hollywood, Calif.	1919
Mayo, Virginia	St. Louis, Mo.	1920	Murray, Jan.	New York	1919
McBride, Mary Marg.	Paris, Mo.	1899	Murray, Kathryn	Jersey City, N. J.	1906
McCaffery, J. K. M.	Moscow, Idaho.	1913	Murray, Ken.	New York, N. Y.	1903
McCallum, David.	Glasgow, Scotland.	1933	Myerson, Bess.	Broix, N. Y.	1924
McCarey, Leo.	Los Angeles, Calif.	1898	N		
McCarthy, Kevin.	Seattle, Wash.	1915	Nabors, Jim.	Sylacauga, Ala.	1933
McClure, Doug	Glendale, Calif.	1935	Nagel, Conrad.	Kokuk, Iowa	1897
McCoey, Tim.	Saginaw, Mich.	1891	Naisit, J. Carol.	Los Angeles, Calif.	1945
McCrary, Tex (John)	Calvert, Texas.	1905	Nardini, Tom	Baltimore, Md.	1908
McCrea, Joel	Los Angeles, Calif.	1905	Natwick, Mildred	Ulm, Germany	1899
McDowall, Roddy	London, England	1928	Neal, Patricia	Lipno, Poland	1925
McFarland, George.	Dallas, Tex	1928	Neff, Hildegarde.	Oakland, Calif.	1920
McGavin, Darren	San Joaquin, Calif.	1922	Negli, Pola.	New York, N. Y.	1936
McGee, Fibber, Jordan	Peoria, Ill.	1896	Nelson, Barry	New Orleans, La.	1928
McGee, Frank	Monroe, La.	1921	Nelson, David	Seattle, Wash.	1920
McGoodan, Patrick.	Astoria, N. Y.	1928	Nelson, Gene	Dos Molnes	1933
McGuire Sisters:			Nelson, Harriet.	Santa Fe, N. M.	1906
Christine	Middletown, Ohio.	1928	Nelson, Lori.	Jersey City, N. J.	1940
Dorothy.	Middletown, Ohio.	1931	Nelson, Ozzie.	Teaneck, N. J.	1939
Phyllis	Middletown, Ohio.	1919	Nelson, Ricky	New York, N. Y.	1889
McGuire, Dorothy.	Omaha, Nebr.	1899	Nero, Peter.	Cheshire, England	1943
McHugh, Frank	Honestead, Pa.	1915	Nesbit, Cathleen	Philadelphia, Pa.	1923
McKay, Scott.	Pleasantville, Iowa.	1923	Nesbitt, Natalie	Chicago, Ill.	1925
McKenna, Slobhan	Belfast, Ireland.	1907	Newhart, Bob	Cleveland, Ohio	1930
McKenney, Alvin	Quebec, Can.	1930	Newley, Anthony.	California	1931
McMahon, Ed.	Detroit, Mich.	1929	Newman, Paul	Berlin, Ger.	1913
McMahon, Horace.	So. Norwalk, Conn.	1930	Nichols, Mike	At sea	1899
McQueen, Steve.	Indianapolis, Ind.	1929	Niesen, Gertrude	Ystad, Sweden.	1911
Meadows, Audrey	China	1926	Nilsson, Anna Q.	Sweden.	1931
Meadows, Jayne	Wu Chang, China.	1916	Nilsson, Birgit	Boston, Mass.	1911
Meeker, Ralph	Minneapolis, Minn.	1890	Nimoy, Leonard	Scotland	1908
Melchior, Lauritz	Copenhagen, Denmark	1909	Niven, David.	Sussex, England	1916
Menahin, Yehudi	New York, N. Y.	1903	Noble, Ray	Los Angeles, Calif.	1911
Mercer, Johnny	Savannah, Ga.	1911	Nolan, Doris.	San Francisco, Calif.	1902
Mercurio, Melina.	Greece	1915	Nolan, Lloyd.	Hollywood, Calif.	1953
Meredith, Burgess.	Cleveland, Ohio	1920	North, Jay	Baraboo, Wis.	1933
Merkel, Uns	Covington, Ky.	1907	North, John Ringling.	Los Angeles, Calif.	1905
Merman, Ethel.	Astoria, N. Y.	1919	North, Sheree.	Chicago, Ill.	1935
Merrick, David	Hong Kong	1920	Novak, Kim	Durango, Mexico.	1904
Merrill, Gary	Hartford, Conn.	1907	Novarro, Ramon	New York, N. Y.	1904
Merrill, Robert	Brooklyn, N. Y.	1911	Obert, Edward	Cleveland, Ohio	1938
Merriman, Nan	Pittsburgh, Pa.	1911	Nugent, Elliott.	Russia	1939
Middleton, Guy	Hove, England.	1907	Nuyen, Rudolf.	Marseilles, France.	1939
Middleton, Ray	Chicago, Ill.	1907	O		
Mielziner, Jo	Paris, France	1901	Oakie, Jack.	Sedalia, Mo.	1903
Milano, Zinka.	Zagreb, Yugoslavia.	1930	Oberon, Merle	Tasmania, Australia	1914
Miles, Vera	near Boise City, Okla.	1923	O'Brian, Hugh	Rochester, N. Y.	1915
Milland, Ray	Neath, Wales.	1903	O'Brien, Edmond.	New York, N. Y.	1915
Miller, Ann	Houston, Tex.	1923	O'Brien, Margaret	Los Angeles, Calif.	1899
Miller, Mitch	Rochester, N. Y.	1911	O'Brien, Pat.	Milwaukee, Wis.	1908
Miller, Roger	Oklahoma	1937	O'Brien-Moore, Erin.	Chicago, Ill.	1925
Mills, Hayley			O'Connor, Donald.	Siluria, Ala.	1923
Mills, John	London.	1960	O'Donnell, Cathy	Tulsa, Okla.	1922
Milstein, Nathan.	Burling, Eng.	1908	O'Driscoll, Martha.	Dublin, Ireland.	1920
Mimieux, Yvette.	Odessa, Russia.	1904	O'Hara, Maureen.	Wexford, Ire.	1928
Minnell, Lisa.	Hollywood, Calif.	1942	O'Herlihy, Dan.	Hartford, Conn.	1907
Mineo, Sal	California.	1946	O'Keefe, Walter.	Warrington, England	1904
Mineo, Cameron.	New York, N. Y.	1939	O'Keeffe, J. Pat.	Rutler, Eng.	1901
Mitchell, Guy	Dallastown, Pa.	1918	O'Neal, Ryan.	Los Angeles, Calif.	1941
Mitchum, Robert.	Detroit, Mich.	1917	Ormandy, Eugene.	Budapest, Hungary.	1899
Moffo, Ann.	Bridgeport, Conn.	1917	O'Shea, Kevin	Chicago, Ill.	1917
Monroe, Vaughn.	Wayne, Pa.	1912	O'Sullivan, Maureen.	Boyle, Ireland	1911
Montalban, Ricardo	Akron, Ohio	1913	O'Toole, Peter	Ireland	1934
Montalban, Ricardo	Akron, Ohio	1913	Owen, Reginald.	Wheatthampstead, Eng.	1887
Montgomery, Eliz	Mexico City, Mex.	1921	Owens, Buck	Sherman, Tex.	1929
Montgomery, George.	Messinmano, Italy.	1921	P		
Montgomery, Robert.	Hollywood, Calif.	1933	Paar, Jack.	Canton, Ohio.	1918
Montovani, Annunzio.	Hollywood, Calif.	1942	Page, Geraldine.	Kirksville, Mo.	1924
Moore, Colleen	Brady, Mont.	1916	Page, Patll.	Claremore, Okla.	1927
Moore, Constance.	Beacon, N. Y.	1904	Paget, Debra.	Denver, Colo.	1933
Moore, Dickie	Venice, Italy.	1905	Paige, Janis.	Tacoma, Wash	1923
Moore, Garry	Port Huron, Mich.	1902	Paige, Robert.	Indianapolis, Ind.	1910
Moore, Mary Tyler.	Sloux City, Iowa.	1925	Palance, Jack.	Lattimer, Pa.	1920
Moore, Roger	Los Angeles, Calif.	1922	Palmer, Beryl	East Chicago, Ind.	1927
Moore, Terry	Baltimore, Md.	1915	Palmer, Gregg	San Francisco, Calif.	1920
Moorehead, Agnes.	Baltimore, Md.	1915	Palmer, Lilli	Austria	1914
Moran, Lois	London, Eng.	1928	Parker, Eleanor.	Cedarville, Ohio	1922
Morean, Jeanne.	Los Angeles, Calif.	1932	Parker, Fess	El, World, Tex.	1925
Moreno, Rita	Boston, Mass.	1904	Parker, Frank.	New York, N. Y.	1906
Morgan, Claudia	Buffalo, N. Y.	1895			
Morgan, Dennis	Vienna, Austria.	1906			
Morgan, Mary					
Morgan, Henry					
Morgan, Jane					
Morgan, Russ					
Morazana, Nina.					
Morlin, Erika					

Name	Birthplace	Born	Name	Birthplace	Born
Parker, Jean.	Deer Lodge, Mont.	1916	Reynolds, William.	Los Angeles, Calif.	1931
Parker, Suzy.	New York City	1934	Rich, Irene	Buffalo, N. Y.	1897
Parkins, Barbara.	Vancouver, Canada.	1942	Richardson, Ralph.	Cheltenham, England.	1902
Parks, Bert.	Atlanta, Ga.	1914	Richardson, Tony.	ShIPLEY, England.	1928
Parks, Larry.	Olathe, Kans.	1914	Richman, Harry.	Cincinnati, Ohio.	1895
Pasternak, Joseph.	Hungary	1901	Rickles, Don.	Long Island, N. Y.	1928
Paterson, Pat.	Bradford, England.	1911	Ritchard, Cyril.	Sydney, N. S. W.	1888
Patterson, Melody.	Los Angeles, Calif.	1947	Ritter, Tex.	Murvaul, Tex.	1907
Patterson, Neva.	Nevada, Iowa.	1922	Ritter, Thelma.	Brooklyn, N. Y.	1905
Paulson, Pat.	South Bend, Wash.	1932	Ritz, Harry.	Newark, N. J.	1908
Pavan, Marisa.	Cagliari, Sardinia.	1932	Ritz, Jimmy.	Newark, N. J.	1905
Payne, John.	Rosnoke, Va.	1912	Robards, Jason, Jr.	Chicago, Ill.	1922
Pearl, Jack.	New York, N. Y.	1895	Robbins, Jerome.	Weehawken, N. J.	1918
Pearl, Minnie.	Centerville, Tenn.	1912	Robertson, Cliff.	La Jolla, Calif.	1925
Peck, Gregory.	La Jolla, Calif.	1916	Robertson, Dale.	Oklahoma City, Okla.	1923
Peerce, Jan.	New York, N. Y.	1904	Robeson, Paul.	Princeton, N. J.	1898
Pelletier, Wilfred.	Montreal, Canada.	1896	Robinson, Edward G.	Bucharest, Rumania.	1893
Peppard, George.	Detroit, Mich.	1933	Robinson, Jay.	New York, N. Y.	1930
Perkins, Anthony.	Brookline, Mass.	1932	Robson, Flora.	South Shields, England.	1902
Perkins, Millie.	Passaic, N. J.	1940	Rochester (E. Anders'n)	Oakland, Calif.	1905
Perry, Margaret.	Denver, Colo.	1913	Rockwell, Geo. (Doc.).	Providence R. I.	1889
Persoff, Nehemiah.	Israel	1920	Rodgers, Richard.	New York, N. Y.	1902
Peters, Roberta.	New York, N. Y.	1930	Rogers, Chas. (Buddy)	Olathe, Kans.	1904
Peters, Jean.	Canton, Ohio.	1926	Rogers, Ginger.	Independence, Mo.	1911
Peterson, Dorothy.	Hector, Minn.	1901	Rogers, Roy.	Cincinnati, Ohio.	1912
Petit, Pascale.	France	1937	Rogers, Will, Jr.	New York, N. Y.	1912
Pietti, Joanna.	London, Eng.	1944	Roland, Gilbert.	Juarez, Mexico	1924
Phillips, Margaret.	Windsor, Canada.	1937	Ronan, Robert.	Boston, Mass.	1924
Plattigorsky, Gregor.	Russia	1903	Romero, Cesar.	New York, N. Y.	1907
Piazza, Ben.	Little Rock, Ark.	1934	Rooney, Mickey.	Brooklyn, N. Y.	1922
Piazza, Marguerite.	New Orleans, La.	1926	Rose Marie.	New York, N. Y.	1926
Pickens, Jane.	Macon, Ga.	1893	Rosenbloom, Maxie.	New York, N. Y.	1906
Pickford, Mary.	Toronto, Canada.	1893	Ross, David.	St. Paul, Minn.	1924
Picon, Molly.	New York, N. Y.	1898	Ross, Lanny.	Seattle, Wash.	1906
Pidgeon, Walter.	E. St. John, N. B.	1898	Ross, Shirley.	Omaha, Nebr.	1910
Piston, Walter.	Rockland, Me.	1894	Roth, Lillian.	Boston, Mass.	1928
Plesence, Donald.	Worsop, England.	1919	Rowan, Dan.	Los Angeles, Calif.	1929
Pleshette, Suzanne.	New York City.	1937	Rubin, Benny.	New York, N. Y.	1899
Flourlight, Joan.	England.	1929	Rubino, David.	Grodno, Russia.	1897
Plummer, Christopher.	Toronto, Canada.	1929	Rubinstein, Artur.	Lodz, Poland.	1889
Pollter, Sidney.	Miami, Fla.	1924	Rudolf, Max.	Frankfurt, Germany.	1902
Pollard, Michael.	Passaic, N. J.	1940	Ruggles, Charles.	Los Angeles, Calif.	1892
Pons, Lily.	Cannes, France.	1940	Rule, Janice.	Cincinnati, Ohio.	1931
Ponselle, Carmela.	Schenectady, N. Y.	1892	Rush, Barbara.	Denver, Colo.	1927
Ponselle, Rosa.	Meriden, Conn.	1897	Russell, Jane.	Bemidji, Minn.	1921
Porterfield, Robert.	Austinville, Va.	1905	Russell, Rosalind.	Waterbury, Conn.	1912
Portman, Eric.	Yorkshire, England.	1903	Rutherford, Ann.	Toronto, Canada.	1924
Porton, Tom.	Columbus, Ohio.	1927	Rutherford, Margaret.	London, England.	1892
Powell, Eleanor.	Springfield, Mass.	1912	Ryan, Irene.	El Paso, Tex.	1903
Powell, Jane.	Portland, Ore.	1929	Ryan, Robert.	Chicago, Ill.	1913
Powell, William.	Pittsburgh, Pa.	1892	Rydel, Bobby.	Philadelphia, Pa.	1942
Powers, Mala.	San Francisco, Calif.	1931	S		
Powers, Stefanie.	Hollywood, Calif.	1942			
Preminger, Otto.	Vienna, Austria.	1906	Sahl, Mort.	Montreal, Que.	1927
Prentiss, Paula.	San Antonio, Texas.	1939	Saint, Eva Marie.	Newark, N. J.	1924
Presley, Elvis.	Tupelo, Miss.	1935	Saint, John, Jill.	Los Angeles, Calif.	1940
Preston, Robert.	Newton Mass.	1918	Sales, Soutpy.	Franklinton, No. Car.	1906
Price, Leontyne.	Laurel, Miss.	1926	Sanders, George.	St. Petersburg, Russia	1887
Price, Roger.	Chelston, W. Va.	1920	Sanderson, Julia.	Springfield, Mass.	1887
Price, Vincent.	St. Louis, Mo.	1911	Sands, Tommy.	Chicago, Ill.	1937
Prima, Louis.	New Orleans, La.	1911	Sarnoff, Dorothy.	New York, N. Y.	1917
Primus, Pearl.	Trinidad, W. I.	1921	Saunders, Lori.	Kansas City, Mo.	1941
Prince, William.	Neichs, N. Y.	1913	Saxon, John.	Brooklyn, N. Y.	1935
Provine, Dorothy.	Deadwood, S. D.	1937	Sayao, Bido.	Rio de Janeiro, Brazil.	1908
Prowse, Juliet.	Bombay, India.	1907	Schallert, William.	Los Angeles, Calif.	1925
Pryor, Roger.	New York, N. Y.	1963	Schary, Dore.	Newark, N. J.	1905
Pyne, Joe.	Chester, Pa.	1924	Schell, Maria.	Vienna, Austria.	1926
Q			Schell, Maxillian.	Austria.	1926
Qualen, John.	Vancouver, B. C.	1899	Schenkel, Chris.	Bippus, Ind.	1924
Quayle, Anthony.	Lancashire, England.	1913	Scherman, Thomas.	New York, N. Y.	1917
Quillan, Eddie.	Philadelphia, Pa.	1907	Schippers, Thomas.	Kalamazoo, Mich.	1930
Quinn, Anthony.	Chihuahua, Mexico.	1915	Schneider, Alexander.	Vilna, Poland.	1908
R			Schneider, Romy.	Austria.	1938
Raft, George.	New York, N. Y.	1895	Schuman, William.	New York, N. Y.	1910
Raine, Lulse.	Vienna, Austria.	1912	Schwartz, Arthur.	Brooklyn, N. Y.	1900
Raines, Ella.	Springfield, Mass.	1921	Schwarzkopf, Elisabeth.	Hurtsch, Poland.	1912
Rallt, John.	Santa Ana, Calif.	1917	Schofield, Paul.	Hurst, Pierpont, Eng.	1925
Ralston, Esther.	Bar Harbor, Maine.	1902	Scott, Barbara Ann.	Canada.	1934
Ralston, Vera.	Prague, Czechoslov.	1921	Scott, George C.	Virginia.	1927
Rambeau, Marjorie.	San Francisco, Calif.	1889	Scott, Gordon.	Portland, Ore.	1927
Rambo, Dick.	Delano, Calif.	1941	Scott, Hazel.	Trinidad.	1920
Randall, Tony.	Tulsa, Okla.	1920	Scott, Henry L.	Tivoli, N. Y.	1908
Ray, Aldo.	Pen Argyl, Pa.	1926	Scott, Elizabeth.	Scranton, Pa.	1923
Ray, Johnnie.	Dallas, Ore.	1927	Scott, Martha.	Jamesport, Mo.	1916
Rayburn, Gene.	Christopher, Ill.	1917	Scott, Randolph.	Orange Co., Va.	1903
Raye, Martha.	Butte, Mont.	1916	Seal, Elizabeth.	England.	1935
Raymond, Gene.	New York, N. Y.	1908	Seberg, Jean.	Marshalltown, Iowa.	1912
Redford, Robert.	Hollywood, Calif.	1936	Seeger, Pete.	New York, N. Y.	1919
Redgrave, Lynn.	England.	1943	Seely, Blossom.	San Pablo, Calif.	1919
Redgrave, Michael.	Bristol, England.	1908	Segal, Vivienne.	Philadelphia, Pa.	1897
Redgrave, Vanessa.	London, England.	1937	Seldel, Toscha.	Odessa, Russia.	1899
Redman, Joyce.	Co. Mayo, Ireland.	1918	Sellers, Peter.	Southsea, England.	1925
Reed, Donna.	Denison, Iowa.	1921	Serkin, Rudolf.	Eger, Austria.	1903
Reed, Robert.	Chicago, Ill.	1932	Serling, Rod.	Syracuse, N. Y.	1924
Regan, Phil.	Brooklyn, N. Y.	1906	Sharif, Omar.	India.	1933
Reiner, Carl.	Brooklyn, N. Y.	1923	Shatner, William.	Montreal, Canada.	1931
Remick, Lee.	Boston, Mass.	1935	Shaw, Artie.	New York, N. Y.	1910
Renaldo, Duncan.	Camden, N. J.	1904	Shaw, Robert.	Red Bluff, Calif.	1936
Rennie, Michael.	Bradford, England.	1909	Shaw, Virginia.	Sydney, N. S. W.	1935
Resnik, Regina.	New York, N. Y.	1923	Shaw, Winfred.	San Francisco, Calif.	1899
Reynolds, Debbie.	El Paso, Texas.	1932	Shawn, Edwin (Ted).	Kansas City, Mo.	1891
Reynolds, Joyce.	San Antonio, Tex.	1924	Shearer, Maira.	Scotland.	1926
Reynolds, Marjorie.	Buhl, Idaho.	1921	Shearer, Norma.	Montreal, Canada.	1904
			Sherman, Allan.	Chicago, Ill.	1924
			Shirley, Anne.	New York, N. Y.	1918

Name	Birthplace	Born	Name	Birthplace	Born
Shore, Dinah	Winchester, Tenn.	1920	Taylor, Robert	Filley, Nebr.	1911
Shriner, Herb	Toledo, Ohio	1918	Taylor, Rod	Sidney, Australia	1929
Sidney, Sylvia	New York, N. Y.	1910	Tebaldi, Renata	Pesaro, Italy	1922
Siepl, Cesare	Milan, Italy	1923	Temple, Shirley	Santa Monica, Calif.	1929
Sigoret, Simone	Cornaby	1921	Terris, Norma	Columbus, Kans.	1904
Silvera, Frank	Kingston, Jam. W. I.	1934	Terrell, Thomas	London, Eng.	1911
Silvers, Phil	Brooklyn, N. Y.	1912	Teyte, Maglie	Wolverhampton, Eng.	1889
Silvers, Sid	Brooklyn, N. Y.	1908	Thaxter, Phillis	Portland, Me.	1921
Sim, Alastair	Edinburgh, Scotland	1900	Thebom, Blanche	Monessen, Pa.	1919
Simmons, Jean	London, England	1929	Thibault, Conrad	Northbridge, Mass.	1898
Simon, Simone	Marseilles, France	1914	Thinnies, Roy	Chicago, Ill.	1937
Sinatra, Frank	Hoboken, N. J.	1915	Thomas, Danny	Deerfield, Mich.	1914
Singleton, Penny	Philadelphia, Pa.	1912	Thomas, Lowell	Woodington, Ohio	1892
Skelton, Red (Rich) Old	Indianapolis, Ind.	1913	Thomas, Mario	Detroit, Mich.	1938
Skinner, Cornelia Otis	Chicago, Ill.	1893	Thompson, Marshall	Peoria, Ill.	1926
Skulnik, Menasha	Russia	1895	Thornbke, Sybil	Gainsborough, Eng.	1882
Slezak, Walter	Vienna, Austria	1902	Tierney, Gene	Brooklyn, N. Y.	1920
Smith, Bob	Buffalo, N. Y.	1917	Tierney, Lawrence	Brooklyn, N. Y.	1919
Smith, Connie	Kingsland, Ark.	1932	Tiffin, Pamela	Oklahoma City, Okla.	1942
Smith, Cyril	Peterhead, Scotland	1892	Tillstrom Burr	Chicago, Ill.	1917
Smith, Ethel	Pittsburgh, Pa.	1921	Tiny Tim	New York, N. Y.	1919
Smith, Howard K.	Ferriday, La.	1914	Todd, Richard	Dublin, Ireland	1919
Smith, Kate	Greenville, Va.	1909	Toomey, Regis	Pittsburgh, Pa.	1902
Smith, Lois	Cheka, Kan.	1931	Tomlin, Pinky	Durant, Okla.	1907
Smith, Lorling	Stratford, Conn.	1900	Torrey, C. Mel.	Chicago, Ill.	1915
Smith, Muriel	New York, N. Y.	1923	Torn, Rip	Temple, Tex.	1931
Smith, Roger	Southgate, Calif.	1933	Totter, Audrey	Joliet, Ill.	1923
Smothers, Dick	New York, N. Y.	1939	Tracy, Arthur	Philadelphia, Pa.	1903
Smothers, Tom	New York, N. Y.	1937	Tracy, Lee	Atlanta, Ga.	1898
Snow, Hank	Nova Scotia	1914	Traubel, Helen	St. Louis, Mo.	1903
Somes, Michael	nr. Stroud, England	1917	Treacher, Arthur	Brighton, England	1894
Sommer, Elke	Berlin, Ger.	1941	Trevor, Claire	New York, N. Y.	1909
Sothern, Ann	Valley City, N. Dak.	1912	Trux, Ernest	Kansas City, Mo.	1920
Specht, Bobby	Superior, Wis.	1921	Tryon, Tom	Hartford, Conn.	1926
Spewack, Bella	Hungary	1899	Tucker, Forrest	Plainfield, Ind.	1919
Spewack, Samuel	Russia	1899	Tucker, Orrin	St. Louis, Mo.	1911
Spitalny, Phil	Romanoff, Russia	1900	Tucker, Richard	Brooklyn, N. Y.	1915
Spivak, Lawrence	Brooklyn, N. Y.	1919	Tucker, Tommy	Souris, N. D.	1907
Stack, Robert	Los Angeles, Calif.	1919	Tufts, Sonny	Boston, Mass.	1911
Stafford, Jo	Coalinga, Calif.	1918	Turner, Lana	Wallace, Idaho	1920
Stamp, Terence	London, England	1940	Tushingham, Rita	Liverpool, Eng.	1942
Stang, Arnold	Chelsea, Mass.	1925	Uggams, Leslie	New York City	1943
Stanley, Kim	Chicago, N. Y.	1921	Uric, Lenore	New Ulm, Minn.	1894
Stanley, Pat	Cincinnati, Ohio	1931	Umeki, Miyoshi	Hokkaido, Japan	1929
Stanwyck, Barbara	Brooklyn, N. Y.	1907	Ure, Mary	Glasgow, Scotland	1935
Stapleton, Maureen	Troy, N. Y.	1925	Ustinov, Peter	London, England	1921
Starr, Frances	Oneonta, N. Y.	1886	V		
Starr, Kay	Dougherty, Okla.	1924	Vallee, Rudy	Island Pond, Vt.	1901
Steber, Eleanor	Wheeling, W. Va.	1916	Vance, Vivian	Cherryvale, Kans.	1912
Steele, Bob	Pendleton, Ore.	1907	Vance, Cleef, Lee	Somerville, N. J.	1925
Steele, Karen	Hawaii	1934	Van Doren, Mamie	Rowena, S. D.	1935
Steele, Ted	Hartford, Conn.	1917	Van Dyke, Dick	West Plains, Mo.	1925
Steele, Tommy	London, England	1937	Van Fleet, Jo	Oakland, Calif.	1922
Steiger, Rod	W. Hampton, N. Y.	1925	Van Horne, Harriet	Syracuse, N. Y.	1922
Sterling, Jan	New York, N. Y.	1923	Varnay, Astrid	Stockholm, Sweden	1918
Sterling, Robert	Newcastle, Pa.	1917	Vaughn, Robert	New York, N. Y.	1932
Stern, Isaac	Kremlnsey, Russia	1920	Venuta, Benay	San Francisco, Calif.	1913
Stevens, Connie	Brooklyn, N. Y.	1938	Vera-Allen	Cincinnati, Ohio	1926
Stevens, Inger	Stockholm, Sweden	1946	Verdon, Gwen	Culver City, Calif.	1925
Stevens, Mark	Cleveland, Ohio	1922	Vernon, Jackie	New York, N. Y.	1925
Stevens, Onslow	Los Angeles, Calif.	1902	Vigor, King Louis	Galveston, Tex.	1895
Stevens, Rita	Los Angeles, Calif.	1938	Vinton, Bobby	Baumont, Tex.	1907
Stevens, Stella	Yazoo City, Miss.	1938	Von Furstenberg, Beisy	Canonsburg, Pa.	1936
Stewart, Elaine	Montclair, N. J.	1929	Von Sydow, Max	Westphalia, Ger.	1931
Stewart, James	Indiana, Pa.	1908	Von Zell, Harry R.	Lund, Sweden	1929
Stickney, Dorothy	Dickinson, N. Dak.	1903	Voorhees, Donald	Indianapolis, Ind.	1906
Stokowski, Leopold	London, England	1882	W	Allentown, Pa.	1903
Stone, Carol	New York, N. Y.	1916	Wagner, Robert	Detroit, Mich.	1930
Stone, Dorothy	Bensonhurst, N. Y.	1905	Wain, Bea	Bronx, N. Y.	1917
Stone, Ezra	New Bedford, Mass.	1917	Waggoner, Lyle	Kansas City, Kansas	1935
Stone, Harvey	Detroit, Mich.	1911	Walker, Raymond	Plymouth, Ind.	1887
Stone, Milburn	Burton, Kans.	1904	Walker, Clint	Hartford, Ill.	1927
Stone, Paula	New York, N. Y.	1916	Walker, Nancy	Philadelphia, Pa.	1922
Storm, Gale	Bloomington, Tex.	1922	Wallace, Mike	Brookline, Mass.	1918
Storrs, Suzanne	Salt Lake City, Utah	1934	Wallach, Eli	Brooklyn, N. Y.	1915
Straight, Beatrice	Old Westbury, N. Y.	1918	Wallenstein, Alfred	Chicago, Ill.	1898
Strasberg, Susan	New York, N. Y.	1938	Walston, Ray	New Orleans, La.	1918
Strauss, Robert	New York, N. Y.	1913	Ward, Burt	Los Angeles, Calif.	1946
Stravinsky, Igor F.	St. Petersburg, Russia	1882	Warden, Jack	Newark, N. J.	1929
Streisand, Barbra	Brooklyn, N. Y.	1942	Warfield, William	Helena, Ark.	1929
Strich, Elaine	Holot, N. Y.	1925	Warin, Fred	Tyone, Pa.	1900
Stuart, Gloria	Santa Monica, Calif.	1911	Waters, Ethel	Chester, Pa.	1900
Sullivan, Barry	New York, N. Y.	1912	Watson, Debbie	Culver City, Calif.	1940
Sullivan, Ed	New York, N. Y.	1902	Wayne, David	Traverse City, Mich.	1916
Sumac, Yma	Peru	1922	Wayne, John	Winteret, Iowa	1907
Susskind, David	New York, N. Y.	1920	Weaver, Charley		
Sutherland, Joan	Australia	1926	(Cliff Arquette)	Toledo, Ohio	1905
Suzuki, Pat	Cressy, Calif.	1931	Weaver, Dennis	Joplin, Mo.	1925
Swanson, Gloria	Chicago, Ill.	1899	Webb, Alan	York, England	1906
Swantheur, Gladys	Dearwater, Mo.	1904	Webb, Jack	Santa Monica, Calif.	1920
Swayze, John Cameron	Wichita, Kan.	1896	Webster, Margaret	New York, N. Y.	1905
Sweet, Blanche	Chicago, Ill.	1896	Weede, Robert	Baltimore, Md.	1903
Swenson, Inga	Sweden	1935	Weidler, Virginia	Hollywood, Calif.	1927
Szell, George	Budapest	1897	Weissmuller, Johnny	Windber, Pa.	1905
Szigeti, Joseph	Budapest, Hungary	1892	Welch, Raquel	La Jolla, Calif.	1942
T			Weld, Tuesday	New York, N. Y.	1943
Talbot, Lyle	Pittsburgh, Pa.	1904	Welk, Lawrence	nr. Strasburg, N. Dak.	1903
Talbot, Nita	New York, N. Y.	1930	Welles, Orson	Kenosha, Wis.	1915
Tallchief, Maria	Fairfax, Okla.	1924	Wells, Kitty	Nashville, Tenn.	1915
Talmadge, Constance	Brooklyn, N. Y.	1900	Werner, Oscar	Walla Walla, Wash.	1922
Tamblin, Russ	Los Angeles, Calif.	1935	West, Adam	Brooklyn, N. Y.	1892
Tandy, Jessica	London, England	1909	West, Mae	New York City	1907
Tauror, Norman	Chicago, Ill.	1899	Westman, Nydia		
Taylor, Elizabeth	London, England	1932			
Taylor, Kent	Nashua, Iowa	1907			

Name	Birthplace	Born	Name	Birthplace	Born
White, Jesse.....	Buffalo, N. Y.....	1919	Woodward, Joanne.....	Thomasville, Ga.....	1932
Whitman, Stuart.....	San Francisco, Calif.....	1926	Wray, Fay.....	Alberta, Canada.....	1907
Whitmore, James.....	White Plains, N. Y.....	1921	Wright, Martha.....	Seattle, Wash.....	1926
Wildmark, Richard.....	Sunrise, Minn.....	1914	Wright, Teresa.....	New York, N. Y.....	1919
Wilcoxon, Henry.....	British West Indies.....	1905	Wyatt, Jane.....	New York.....	1913
Wilde, Cornel.....	New York, N. Y.....	1915	Wyer, William.....	Mulhouse, France.....	1902
Wilding, Michael.....	Essex, England.....	1912	Wyman, Jane.....	St. Joseph, Mo.....	1914
Williams, Andy.....	Wall Lake, Iowa.....	1931	Wynn, Bessie.....	Adrian, Mich.....	1876
Williams, Emily.....	Moctyn, Wales.....	1905	Wynn, Keenan.....	New York, N. Y.....	1916
Williams, Esther.....	Los Angeles, Calif.....	1923	Wynter, Dana.....	London.....	1930
Wilson, Meredith.....	Mason City, Iowa.....	1929			
Wilson, Dolores.....	Philadelphia, Pa.....	1929	York, Dick.....	Ft. Wayne, Ind.....	1928
Wilson, Fltp.....	Jersey City, N. J.....	1933	York, Susannah.....	London, England.....	1942
Wilson, Julie.....	Omaha, Nebr.....	1924	Young, Alan.....	Northumberl'd, Eng.....	1919
Wilson, Marie.....	Anahiem, Calif.....	1917	Young, Glg.....	St. Cloud, Minn.....	1917
Wilson, Nancy.....	Chillicothe, Ohio.....	1937	Young, Loretta.....	Salt Lake City, Utah.....	1913
Winchell, Paul.....	New York, N. Y.....	1924	Young, Robert.....	Chicago, Ill.....	1907
Winchell, Walter.....	New York, N. Y.....	1897	Young, Stephen.....	Toronto, Canada.....	1939
Windom, William.....	New York, N. Y.....	1924	Youngman, Henny.....	Liverpool, England.....	1906
Winniger, Charles.....	Athens, Wis.....	1884	Yurka, Blanche.....	St. Paul, Minn.....	1893
Winters, Jonathan.....	Dayton, Ohio.....	1925			
Winters, Shelley.....	St. Louis, Mo.....	1922	Zanuck, Darryl F.....	Wahoe, Nebr.....	1902
Winwood, L. Stelle.....	Lee, England.....	1884	Zimbalist, Efrein.....	Rostov, Russia.....	1889
Withers, Jane.....	Atlanta, Ga.....	1927	Zimbalist, Efrein, Jr.....	New York, N. Y.....	1923
Wood, Helen.....	Clarksville, Tenn.....	1937	Zimmer, Norma.....	Larsen, Idaho.....	1917
Wood, Natalie.....	San Francisco, Calif.....	1938	Zorina, Vera.....	Berlin, Germany.....	1917
Wood, Peggy.....	Brooklyn, N. Y.....	1892	Zukor, Adolph.....	Ricse, Hungary.....	1873

Foreign Composers of Light Operas

Francois Adrien Boieldieu, 1775-1834. (F.) The Caliph of Bagdad.

Julius Eichberg, 1824-1893. (G.) The Rose of Tyrol, A Night in Rome.

Leo Fall, 1873-1925. (Aus.) The Rebel, The Happy Farmer, The Dollar Princess, Pampadour, The Girl in the Train.

Gilbert & Sullivan—W. S. Gilbert, librettist, 1836-1911; Arthur S. Sullivan, composer, 1842-1900. *Thespis*, 1871; *Trial by Jury*, 1875; *The Sorcerer*, 1877; *H. M. S. Pinafore*, 1878; *The Pirates of Penzance*, 1880; *Patience*, 1881; *Iolanthe*, 1882; *Princess Ida*, 1884; *The Mikado*, 1885; *Ruddigore*, 1887; *The Yeomen of the Guard*, 1888; *The Gondoliers*, 1889; *Utopia, Ltd.*, 1893; *The Grand Duke*, 1896.

Emmerich (Imre) Kalman (1882-1953) *Sari, Gipsy Princess, Countess Maritza, Paris in Spring, Marinka*.

Franz Lehar, 1870-1948. (H.) *The Merry Widow, The Count of Luxemburg*.

Karl Millocker, 1842-1899. (Aus.) *The Beggar Student*, 1881, and *Poor Jonathan*, 1890.

Jacques Offenbach, 1819-1880. (F.) *Opera: Tales of Hoffmann, Operettas: Orpheus in the Underworld, La Belle Helene, Barbebleue, Grandduchess of Gerolstein, Madame Favart*.

Robert Planquette, 1848-1903. (F.) *The Chimes of Normandy, Rip van Winkle, Paul Jones*.

Oskar Straus, 1870-1954. (Aus.) *A Waltz Dream, The Chocolate Soldier*.

Johann Strauss, 1825-1899. (Aus.) *Capliostro, Gypsy Baron, Die Fledermaus, Night in Venice, Prince Methusalem*. Composed famous waltzes: *Beautiful Blue Danube, Roses from the South, Artists' Life, Wine, Woman & Song, Tales from the Vienna Woods*.

Concert Violinists of the Past

Born	Died	Name	Born	Died	Name	Born	Died	Name
1856	1943	Adamowski, T., Pol.	1889	1934	Kiehanski, Paul, Pol.	1844	1908	Sarasate, P. M., Span.
1845	1930	Auer, Leopold., Hung.	1875	1962	Kreissler, Fritz., Aus.	1815	1894	Sivori, Ern., Ital.
1795	1876	Boehm, Jos., Czech.	1880	1940	Kubelik, Jan., Boh.	1888	1953	Spalding Albert, U. S.
1810	1880	Bull, Ole., Nor.	1790	1861	Lipinski, Karl., Pol.	1784	1859	Spohr, Ludwig., Ger.
1653	1713	Corelli, Arcang., Ital.	1840	1927	Loito, Isidor.	1692	1770	Tartini, Giu., Ital.
1891	1967	Elman, Mischa., U.S.	1722	1793	Nardini, Pietro., Ital.	1880	1953	Thibaud, Jacq., Fr.
1881	1955	Enesco, Georges, rum.	1782	1840	Paganini, Nicolo., Ital.	1820	1881	Vieuxtemps, H. Belg.
1667	1762	Geminiani, F., Ital.	1868	1920	Powell, Maud., U. S.	1753	1824	Vioti, Giovanni, Ital.
1716	1796	Giardini, F. di., Ital.	1830	1898	Remenyi, Edw., Hung.	1675	1741	Vivaldi, Antonio, Ital.
1858	1937	Hubay, Jeno., Hung.	1892	1936	Rigo, Jancsi., Hung.	1835	1880	Wienlowski, H., Pol.
1882	1947	Huberman, B., Pol.	1774	1830	Rode, Jacques., Fr.	1845	1908	Wilhelmj, Aug., Ger.
1831	1907	Joachim, Joseph, Hung.	1863	1946	Rose, Arnold., Aus.	1858	1931	Ysaeye, Eugene., Belg.

Ancient Greeks and Latins

B. C. years are in black type; A. D. years in light. Herodotus believed that Homer lived in what is now called the 9th century B. C.

GREEKS

Born	Died	Name	Subj.	Born	Died	Name	Subj.	Born	Died	Name	Subj.
389	314	Aeschines.....	Orat.	450	.....	Empedocles.....	Philos.	582	500	Pythagoras.....	Philos.
525	456	Aeschylus.....	Dram	55	135	Epictetus.....	Philos.	690	.....	Sappho.....	Poet
.....	550	Aesop.....	Tales	342	270	Epicurus.....	Philos.	556	469	Simonides.....	Poet
563	478	Anacreon.....	Poet	480	406	Euripides.....	Dram.	469	399	Socrates.....	Philos.
500	428	Anaxagoras.....	Philos.	576	480	Heraclitus.....	Philos.	495	405	Sophocles.....	Dram.
287	212	Archimedes.....	Physi.	463	424	Herodotus.....	Hist.	63	24	Strabo.....	Geog.
448	380	Aristophanes.....	Dram.	460	735	Hesiod.....	Poet	600	450	Thales.....	Philos.
384	322	Aristotle.....	Philos.	484	377	Hippocrates.....	Medic.	530	460	Themistocles.....	Philos.
.....	194	Athenaeus.....	Antiq.	.....	.....	Homer.....	Poet	.....	255	Theopritus.....	Poet
460	370	Democritus.....	Philos.	342	292	Menander.....	Dram.	382	287	Theophrastus.....	Philos.
310	240	Callimachus.....	Poet	522	443	Pindar.....	Poet	471	401	Thucydides.....	Hist.
382	322	Demosthenes.....	Orat.	429	347	Plato.....	Philos.	280	.....	Timon.....	Philos.
50	13	Diodorus.....	Hist.	49	120	Plutarch.....	Biog.	490	.....	Zeno.....	Philos.
.....	7	Dionysius.....	Hist.	207	122	Polybius.....	Hist.	430	357	Xenophon.....	Hist.

LATINS

330	390	Ammanianus.....	Hist.	38	65	Lucretius.....	Poet	86	34	Sallust.....	Hist.
125	200	Apuleius.....	Satir.	180	103	Lucilius.....	Satir.	5	65	Seneca.....	Morol.
130	175	Aulus Gellius.....	Satir.	96	52	Lucretius.....	Philos.	25	100	Silius.....	Poet
475	524	Boethius.....	Philos.	43	104	Martial.....	Poet	61	96	Statius.....	Poet
234	149	Cato, (Elder).....	Orat.	100	30	Nepos.....	Hist.	70	150	Suetonius.....	Biog.
87	54	Caullius.....	Poet	43	18	Ovid.....	Poet	55	117	Tacitus.....	Hist.
107	43	Cicero.....	Orat.	34	62	Persius.....	Satir.	185	159	Terence.....	Dram.
365	408	Claudian.....	Poet	54	18	Plautus.....	Dram.	54	16	Thullius.....	Poet
65	8	Horace.....	Poet	23	79	Pliny.....	Natur.	70	19	Varro.....	Poet
60	140	Juvenal.....	Satir.	62	113	Pliny (Younger).....	Letters	70	16	Vitruvius.....	Arch.
59	17	Livy.....	Hist.	35	95	Quintilian.....	Critic				

Foreign Composers and Their Operas

Aus.-Austrian. Br.-British. C.-Czech. F.-French. G.-German. H.-Hungarian. It.-Italian. R.-Russian.

- Daniel Auber**, 1782-1871. (F.) *The Mute of Portici*, *Fra Diavolo*.
- Michael Wm. Balfe**, 1808-1870. (Dublin-born, English) *Maid of Artoles*, *Joan of Arc*, *Bohemian Girl*, *Sicilian Bride*, *Rose of Castile*.
- Bela Bartok**, 1861-1945. (H.) *Duke Bluebeard's Castle*.
- Ludwig van Beethoven**, 1770-1827. (G.) *Fidelio*.
- Vincenzo Bellini**, 1801-1835. (It.) *La Straniera*, *Capuletti ed i Montecchi*, *La Sonnambula*, *Norma*, *I Puritani*.
- Alban Berg**, 1885-1935. (Aus.), pupil of Arnold Schoenberg and composer in the 12-tone scale, wrote *Wozzeck*, 1925; *Lulu*, 1927.
- Hector Berlioz**, 1803-1869. (F.) *Benvenuto Cellini*, *Beatrice & Benedict*, *Damnation of Faust*.
- Sir Henry Rowley Bishop**, 1796-1855. (Br.) in 1823 composed *Clari*, which includes *Home Sweet Home*, with words by John Howard Payne.
- Georges Bizet**, 1838-1875. (F.) *Carmen*, *Don Procopio*, *Fair Maid of Perth*, *Pearl Fishers*.
- Arrigo Boito**, 1842-1918. (It.) *Menestoele*.
- Alexander Borodin**, 1834-1887. (R.) *Prince Igor*.
- Benjamin Britten**, b. 1913. (Br.) *Paul Bunyan* (with W. H. Auden), 1940; *Peter Grimes*, 1945; *The Rape of Lucretia*, 1946; *The Turn of the Screw*, 1954; *A Midsummer Night's Dream*, 1960.
- Ferruccio Busoni**, 1866-1924. (It.) *Turandot*, *Arlecchino*, *Doctor Faustus*.
- Alfredo Catalani**, 1854-1893. (It.) *La Falce*, *Elda*, *Dejanire*, *Edmea*, *Loreley*, *La Wally*.
- Gustave Charpentier**, 1860-1956. (F.) *Louise*.
- Maria Luigi Cherubini**, 1760-1842. (It.) *Armida*, *Medea*, *Iphigenia in Aulis*, *All Baba*.
- Domenico Cimarosa**, 1749-1801. (It.) *The Secret Marriage*.
- Peter Cornelius**, 1824-1874. (G.) *Der Barbier von Bagdad*, *Der Cid*.
- Eugene Francis D'Albert**, 1864-1932. (G.) *The Lowlands*.
- Claude Achille Debussy**, 1862-1918. (F.) *Pelleas et Melisande*.
- C. F. Leo Delibes**, 1836-1890. (F.) *Lakmé*, *Le Roi et le Duc*, *Jean de Nivelle*, *Ballets: Coppelia*, *Sylvia*.
- Frederick Delius**, 1862-1934. (Br.) lived in Florida and Paris, and wrote symphonic poems on both. Best known for music drama *A Village Romeo and Juliet*.
- Gaetano Donizetti**, 1797-1848. (It.) *Elixir of Love*, *Lucrezia Borgia*, *Maria Stuart*, *Marino Faliero*, *Lucia di Lammermoor*, *Daughter of the Regiment*, *Linda di Chamouni*, *Don Pasquale*.
- Paul Dukas**, 1865-1935. (F.) *Ariane et Barbe Bleue*.
- Antonin Dvorak**, 1841-1904. (C.) *King and Collier*, *Vanda*, *The Devil and Kate*.
- Manuel de Falla**, 1876-1946. (Sp.) whose ballets *El Amor Brujo* and the three-Cornered Hat are standard in repertory. In 1905 wrote *La Vida Breve* (*The Brevity of Life*).
- Camille Erlanger**, 1863-1910. (F.) *Le Juif Polonais*, *Aphrodite*.
- Frederic Erlanger**, 1868-1943. (F.) *Tess of the d'Urbervilles*.
- Friedrich von Flotow**, 1812-1883. (G.) *Martha*, *Alessandro Stradella*.
- Alberto Franchetti**, 1860-1942. (It.) *Cristoforo Colombo*, *Giove a Pompei*.
- John Gay**, 1685-1732. (Br.) poet and satirist, wrote *The Beggar's Opera*, 1728.
- Umberto Giordano**, 1867-1948. (It.) *Andrea Chénier*, *Fedora*, *Madame Sans-Gêne*.
- Mikhail Glinka**, 1803-1857. (R.) *A Life for the Czar*, *Ruslan & Ludmilla*.
- Christoph Gluck**, 1714-1787. (G.) *Orfeo ed Euridice*, *Alceste*, *Iphigenie en Aulide*, *Iphigenie en Tauride*, *Armide*.
- Benjamin L. P. Godard**, 1849-1895. (F.) wrote half a dozen operas of which *Jocelyn* (1888) became famous for its Berceuse.
- Karl Goldmark**, 1830-1915. (H.) *The Queen of Sheba*, 1875; *Merlin*, 1886.
- Charles Gounod**, 1818-1893. (F.) *Faust*, *Romeo and Juliet*.
- Enrique Granados**, 1867-1916. (Spanish) *Maria del Carmen*, *Goyescas*.
- George Frederick Handel**, 1685-1759. (German-English) *Xerxes*, *Almira*, *Armida*, *Berenice*.
- Gustav Holst**, 1874-1934. (Br.) *The Perfect Fool*, *The Tale of the Wandering Scholar*.
- Arthur Honegger**, 1892-1955. (F.) *Judith*, *Antigone*.
- Engelbert Humperdinck**, 1854-1921. (G.) *Hansel and Gretel*, *Die Koenigskinder*.
- Leos Janacek**, 1854-1928. (C.) *Jenufa*, *Katya*.
- Kabanova**, *From the House of the Dead*.
- Wilhelm Kienzl**, 1857-1941. (Aus.) *The Evangelist*.
- Zeitan Kodaly**, b. 1882. (H.) *Hary Janos*.
- Erich Korngold**, 1897-1957. (Aus.) *The Ring of Polykrates*, *Violanta*, *The Dead City*.
- Edouard V. A. Lalo**, 1823-1892. (F.) *Fiesque*, *Namouna*, *Le Roi d'Ys*.
- Ruggiero Leoncavallo**, 1858-1919. (It.) *I Pagliacci*, *Zaza*.
- Albert Lortzing**, 1801-1851. (G.) *Czar and Carpenter*, *The Poacher*, *Undine*.
- Pietro Mascagni**, 1863-1945. (It.) *Cavalleria Rusticana*, *L'Amico Fritz*, *The Rantzau*, *Iris*, *Isabeau*.
- Jules Massenet**, 1842-1912. (F.) *Herodiade*, *Mannon*, *The Cid*, *Werther*, *Thais*, *Sapho*, *Cendrillon*, *Juggler of Notre Dame*, *Don Quixote*, *Cleopatra*.
- Giuseppe Mercadante**, 1795-1870. (It.) *Elisa e Claudio*, *Il Caramento*, *The Brigands*.
- Giacomo Meyerbeer**, 1791-1864. (G.) *Robert le Diable*, *Les Huguenots*, *Le Prophete*, *Dinorah*, *L'Africaine*.
- Darius Milhaud**, b. 1892. (F.) *Le Pauvre Matelot*, *Christophe Colomb*.
- Italo Montemezzi**, 1875-1952. (It.) *L'Amore del Tre Re*, *La Nave*, *La Notte di Zoraima*.
- Claudio Monteverdi**, 1567-1643. (It.) *Orfeo*, *Arianna*.
- Modest Moussorsky**, 1835-1881. (R.) *Boris Godunov*, *Khovanschina*.
- Wolfgang Amadeus Mozart**, 1756-1791. (Aus.) *Abduction from the Harem*, *Marriage of Figaro*, *Don Giovanni*, *Così fan Tutte*, *The Magic Flute*.
- Otto Nicolai**, 1810-1849. (G.) *The Merry Wives of Windsor*.
- Amilcare Ponchielli**, 1834-1886. (It.) *The Betrothed*, *La Gioconda*, *Marion Delorme*.
- Serge Prokofiev**, 1891-1953. (R.) *The Love for the Three Oranges*; *Betrothal in a Convent*; *War and Peace*.
- Giacomo Puccini**, 1858-1924. (It.) *La Bohème*, *Manon Lescaut*, *La Tosca*, *Madama Butterfly*, *Girl of the Golden West*, *La Rondine*, *Turandot*.
- Henry Purcell**, 1658-1695. (Br.) composer of *Dido and Aeneas* and other classical themes, remains famous for his songs.
- Jean Philippe Rameau**, 1683-1764. (F.) classical composer of opera and ballet, of which *Castor & Pollux* is occasionally revived.
- Maurice Ravel**, 1875-1937. (F.) *The Spanish Hour*.
- Ottorino Respighi**, 1879-1936. (It.) *La Campana*, *Sommerso*, *La Fiamma*.
- Nikolay Rimsky-Korsakov**, 1844-1908. (R.) *Ivan the Terrible*, *The Snow Maiden*, *The Czar's Bride*, *Sadko*, *Golden Cockerel*.
- Gioacchino Rossini**, 1792-1868. (It.) *Italian in Algiers*, *Sigismondo*, *Barber of Seville*, *Otello*, *La Cenerentola*, *Armida*, *Lady of the Lake*, *Semiramide*, *William Tell*.
- Chas. Camille Saint-Saens**, 1835-1921. (F.) *Samson and Delilah*, *Henry VIII*, *Phyne*, *Helen*.
- Dmitri Shostakovich**, b. 1906. (R.) *Operas: Lady Macbeth of Minsk*, *The Nose*, *Symphonies*.
- Bedrich Smetana**, 1824-1884. (C.) *Married for Money*, *Brandenburger in Bohemia*, *The Bartered Bride*.
- Ethel Mary Smyth**, 1858-1944. (Br.) *Fantasio*, *Der Wald*, *The Wreckers*.
- Richard Strauss**, 1864-1949. (G.) *Salome*, *Elektra*, *Der Rosenkavalier*, *Woman without a Shadow*, *Ariadne on Naxos*, *Arabella*, *Egyptian Helen*.
- Franz von Suppe**, 1820-1895. (Aus.) *Fatinitza*, *Boccaccio*, *The Beautiful Galathea*.
- Peter Tchaikovsky**, 1840-1893. (R.) *Undine*, *Guardsman*, *Eugen Onegin*, *Maid of Orleans*, *Ma-zepa*, *Pique Dame*, *Iolanthe*.
- Ambrose Thomas**, 1811-1896. (F.) *Raymond*, *Mignon*, *Hamlet*.
- Ludwig Thuille**, 1861-1907. (G.) *Theurdank*, *Lobetanz*.
- Giuseppe Verdi**, 1813-1901. (It.) *Aida*, *Otello*, *Simon Boccanegra*, *Macbeth*, *Force of Destiny*, *Rigoletto*, *Ernani*, *Don Carlo*, *Il Trovatore*, *Masked Ball*, *La Traviata*, *Falstaff*.
- Richard Wagner**, 1813-1883. (G.) *Rienzi*, *Flying Dutchman*, *Tannhäuser*, *Meistersinger von Nürnberg*, *Lohengrin*, *Das Rheingold*, *Die Walküre*, *Siegfried*, *Götterdämmerung*, *Tristan and Isolde*, *Parsifal*.
- Karl Maria von Weber**, 1786-1826. (G.) *Der Freischütz*, *Euryanthe*, *Oberon*.
- Jaromir Weinberger**, b. 1896. (C.) *Schwanda the Bagpipe Player*.
- Wolf-Ferrari**, *Ermanno*, 1876-1948. (It.) *Secret of Suzanne*, *Jewels of the Madonna*.

Composers of Instrumental and Vocal Music

- Adolphe C. Adam, 1893-1856. (F.) *Giselle; Le Postillon de Longjumeau*.
 Isaac Albeniz, 1860-1909. (Sp.) *Iberia*.
 George Antheil, 1900-1959. (U. S.) *Ballet Mécanique*.
 Johan Sebastian Bach, 1685-1750. (G.) *St. Matthew Passion; The Welltempered Clavichord*.
 Ernest Ball, 1887-1912. (U. S.) *Mother Machree, When Irish Eyes are Smiling, Love Me and the World is Mine*.
 Bela Bartok, 1881-1945. (H.) *Concerto for Orchestra; The Miraculous Mandarin*.
 Ludwig Van Beethoven, 1770-1824. (G.) *Concertos (Emperor); sonatas (Moonlight, Pastorale, Pathétique); symphonies (Eroica)*.
 Ernest Bloch, 1880-1959. (Swiss) *Schelomo; Voice in the Wilderness*.
 François Boieldieu, 1773-1834. (F.) *Caliph of Bagdad*.
 Carrie Jacobs Bond, 1826-1946. (U. S.) *I Love You Truly*.
 Johannes Brahms, 1833-1897. (G.) *Liebeslieder Waltzes, Rhapsody in E Flat Major, Opus 119 for Piano, Academic Festival Overture; symphonies, quartets*.
 Max Bruch, 1838-1920. (G.) *Lorelei*.
 Anton Bruckner, 1824-1896. (Aus.) *Symphonies (Romantic); Intermezzo for String Quintet*.
 Henry Carey, 1690-1743. (Bro.) *Sally in Our Alley*.
 John Alden Carpenter, 1876-1951. (U. S.) *Ballets*.
 Emmanuel Chabrier, 1841-1894. (Fr.) *Le Roi Malgré Lui; Espana*.
 Cecile Chaminade, 1857-1944. (Fr.) *Scarif Dance*.
 Ernest Chausson, 1855-1899. (Fr.) *Chanson Perpetuelle*.
 Frederic Chopin, 1810-1849. (P.) *Concertos, Polonaise No. 6 in A Flat Major (Heroic), sonatas*.
 Samuel Coleridge-Taylor, 1875-1912. (Br.) *Hia-watha trilogy*.
 François Couperin, 1668-1733. (F.) *Harpichord suites*.
 Paul Dukas, 1865-1935. (Fr.) *Sorcerer's Apprentice*.
 Edward Elgar, 1857-1934. (Br.) *Pomp and Circumstance*.
 Georges Enesco, 1881-1955. (Rom.) *Romanian Rhapsody*.
 Gabriel Fauré, 1845-1924. (Fr.) *Requiem*.
 Stephen Collins Foster, 1826-1864. (U. S.) *My Old Kentucky Home, Old Folks at Home, Jeannie with the Light Brown Hair*.
 Cesar Franck, 1822-1890. (Belg.) *D Minor Symphony*.
 Edward German, 1862-1936. (Br.) *English Fantasia*.
 Alexander Glazunov, 1865-1936. (R.) *Carnival Overture; Raymonda ballet; symphonies*.
 Edwin F. Goldman, 1878-1956. (U. S.) *Marches*.
 Eugene F. Goossens, 1893-1962. (Br.) *Symphonies, operas*.
 Louis Gottschalk, 1829-1869. (U. S.) *The Dying Poet*.
 Percy Grainger, 1882-1961. (Br.) *Country Gardens*.
 André Grétry, 1741-1813. (Fr.) *Coeur de Lion*.
 Edvard Grieg, 1843-1907. (Nor.) *Peer Gynt Suite; Concerto in A Minor*.
 Charles Griffes, 1884-1920. (U. S.) *Lake at Evening*.
 Joseph Haydn, 1732-1809. (Aus.) *Symphonies (Clock); oratorios; chamber music*.
 Paul Hindemith, 1895-1963. (U. S.) *Das Marienleben; operas, sonatas*.
 Vincent d'Indy, 1851-1931. (Fr.) *Istar variations*.
 Charles Ives, 1874-1954. (U. S.) *Third Symphony*.
 Rodolphe Kreutzer, 1766-1831. (Fr.) 40 etudes for violin.
 Edouard Lalo, 1823-1892. (Fr.) *Le Roi d'Ys*.
 Franz Liszt, 1811-1886. (H.) 20 Hungarian Rhapsodies; symphonic poems.
 Edward MacDowell, 1861-1908. (U. S.) *To a Wild Rose*.
 Gustav Mahler, 1860-1911. (Aus.) *Song of the Earth*.
 Lowell Mason, 1792-1872. (U. S.) *Nearer My God to Thee*.
 Mendelssohn-Bartholdy, 1809-1847. (G.) *Midsummer Night's Dream*.
 Karl Millocker, 1842-1899. (Aus.) *Beggar Student*.
 Victor Nessler, 1841-1890. (G.) *Trumpeter of Säckingen*.
 Ethelbert Nevin, 1862-1901. (U. S.) *The Rosary*.
 Ignace Paderewski, 1860-1941. (P.) *Minuet in G*.
 Giovanni Palestrina, 1524-1594. (It.) *Church music*.
 Gabriel Pierne, 1863-1937. (Fr.) *Cantata Edith*.
 Sergei Rachmaninov, 1873-1943. (R.) *Prelude in C Sharp Minor*.
 Maurice Ravel, 1875-1937. (Fr.) *Bolero*.
 Anton Rubinstein, 1829-1894. (R.) *Caprice Russe*.
 Alessandro Scarlatti, 1659-1725. (It.) *Cantatas; concertos; operas*.
 Arnold Schoenberg, 1874-1951. (Aus.) *Pelleas und Melisande*.
 Franz Schubert, 1797-1828. (A.) *Lieder; symphonies (Unfinished); overtures (Rosamunde)*.
 Robert Schumann, 1810-1856. (G.) *Symphonies (Rhenish); Kinderszenen*.
 Aleksandr Scriabin, 1872-1915. (R.) *Prometheus*.
 Jean Sibelius, 1865-1957. (Finn.) *Finlandia, Valse Triste*.
 Christian Sinding, 1856-1941. (Nor.) *Rustle of Spring*.
 Oley Speaks, 1876-1948. (U. S.) *Sylvia, Road to Mandalay*.
 Hector Villa Lobos, 1887-1959. (Brazil.) *Choros*.
 William Wallace, 1860-1940. (Scot.) *François Villon*.
 Hugo Wolf, 1860-1900. *Songs*.

Noted Choreographers and Some of Their Ballets

- Frederick Ashton, b. 1906. (Br.) *Les Rendezvous, The Wedding Bouquet, Cinderella, Sylvia, Ondine, La Fille Mal Gardée*.
 George Balanchine, b. 1904. (U. S.) *Apollo, Agon, Electronics, Don Quixote*.
 Agnes de Mille, b. 1908. (U. S.) *Black Ritual, Three Virgins and a Devil, Drums Sound in Hackensack, Rodeo, Tally-Ho, Fall River Legend*.
 Anton Dolin, b. 1904. (Br.) *David, Job, Nightingale and the Rose, Rhapsody in Blue, Quintet, Capriccio*.
 Michel Fokine, 1880-1942. (U. S.) *Les Sylphides, Carnaval, Prince Igor, Scheherazade, The Specter of the Rose*.
 Martha Graham, b. 1902. (U. S.) *Frontier, Letter to the World, Appalachian Spring, Deaths and Entrances, Errands into the Maze*.
 Kurt Jooss, b. 1901. (G.) *The Green Table, The Big City, Johann Strauss Tonight, The Seven Heroes, The Mirror*.
 Serge Lifar, b. 1905. (R.) *Alexander the Great, Chota Roustavelli, Endymion, Noir et Blanc, Prometheus*.
 Catherine Littlefield, 1908-1951. (U. S.) *Bolero, The Fairy Doll, Let the Righteous Be Glad, The Sleeping Beauty, The Snow Queen*.
 Eugene Loring, b. 1914. (U. S.) *Billy the Kid, The Great American Goof, Harlequin for President, Prairie, Yankee Clipper*.
 Leonide Massine, b. 1896. (U. S.) *Parade, La Boutique Fantasque, The Three-cornered Hat, Saratoga, Union Pacific, Gaite Parisienne*.
 Vaslav Nijinsky, 1890-1950. (R.) *The Afternoon of a Faun, Jeux, The Rite of Spring, Tyl Eulenspiegel*.
 Ruth Page, b. 1903. (U. S.) *Frankie and Johnny, The Bells, Billy Sunday, Impromptu au Bois, Oak Street Beach, The Story of the Soldier*.
 Jerome Robbins, b. 1918. (U. S.) *Fancy Free, Interplay, Facsimile, Summer Day, Pas de Trois, The Cage, Pled Piper, Ballade, Afternoon of a Faun, Fanfare, Quartette, The Concert*.
 Arthur Saint-Leon, 1821-1870. (Fr.) *Coppelia*.
 Antony Tudor, b. 1909. (Br.) *Dark Elegies, Pillar of Fire, Lilac Garden, Offenbach in the Underworld, Dim Lustre, Romeo and Juliet, Undertow*.
 Ninette de Valois, b. 1898. (Br.) *The Birthday of Oberon, Don Quixote, The Haunted Ballroom, Job, The Rake's progress, The Wise and Foolish Virgins*.

Rulers of England and Great Britain

Name	ENGLAND	Began	Died	Age	Rgd
SAXONS AND DANES					
Egbert.....	King of Wessex, won allegiance of all English.....	827	839	..	12
Ethelwulf.....	Son, King of Wessex, Sussex, Kent, Essex.....	839	858	..	19
Ethelbald.....	Son of Ethelwulf, displaced father in Wessex.....	858	860	..	2
Ethelbert.....	2nd son of Ethelwulf, united Kent and Wessex.....	858	866	..	8
Ethelred.....	3rd son, King of Wessex, defeated Danes.....	866	871	..	5
Alfred.....	The Great, 4th son, fought Danes, fortified London.....	871	901	52	30
Edward.....	The Elder, Alfred's son, united English, claimed Scotland.....	901	925	55	24
Athelstan.....	The Glorious, Edward's son, King of Mercia, Wessex.....	925	940	45	15
Edmund.....	3rd son of Edward, King of Wessex, Mercia.....	940	946	25	6
Edred.....	4th son of Edward.....	946	955	32	9
Edwy.....	The Fair, eldest son of Edmund, King of Wessex.....	955	959	18	3
Edgar.....	The Peaceful, son of Edmund, ruled all English.....	959	975	32	17
Edward.....	The Martyr, son of Edgar, murdered by stepmother.....	975	978	17	4
Ethelred II.....	The Unready, son of Edgar, married Emma of Normandy.....	978	1016	48	37
Edmund.....	Ironsides, son of Ethelred II, King of London.....	1016	1016	27	0
Canute.....	The Dane, gave Wessex to Edmund, married Emma.....	1017	1035	40	18
Harold I.....	Harefoot, natural son of Canute.....	1035	1040	..	5
Hardicanute.....	Son of Canute by Emma, Danish King.....	1040	1042	24	2
Edward.....	The Confessor, son of Ethelred II (Crowned 1066).....	1042	1066	62	24
Harold II.....	Edward's brother-in-law, last Saxon King.....	1066	1066	44	0
HOUSE OF NORMANDY					
William I.....	The Conqueror, defeated Harold at Hastings.....	1066	1087	60	21
William II.....	Rufus, 3rd son of William I, killed by arrow.....	1087	1100	43	13
Henry I.....	Beauclerc, youngest son of William I.....	1100	1135	67	35
HOUSE OF BLOIS					
Stephen.....	Son of Adela, 4th dau. of William I, and Count of Blois.....	1135	1154	50	19
HOUSE OF PLANTAGENET					
Henry II.....	Son of Geoffrey Plantagenet (Augevin) by Matilda, dau. of Henry I.....	1154	1189	56	35
Richard I.....	Coeur de Lion, son of Henry II, crusader.....	1189	1199	42	10
John.....	Lackland, son of Henry II, signed Magna Carta, 1215.....	1199	1216	50	17
Henry III.....	Son of John, acceded at 9, under regency till 1227.....	1216	1272	65	56
Edward I.....	Longshanks, son of Henry III.....	1272	1307	68	35
Edward II.....	Son of Edward I, deposed by Parliament, 1327.....	1307	1327	43	20
Edward III.....	Of Windsor, son of Edward II.....	1327	1377	65	50
Richard II.....	Grandson of Edw. III, minor until 1389, deposed 1399.....	1377	1400	34	22
HOUSE OF LANCASTER					
Henry IV.....	Son of John of Gaunt, Duke of Lancaster, son of Edw. III.....	1399	1413	47	13
Henry V.....	Son of Henry IV, victor of Agincourt.....	1413	1422	34	9
Henry VI.....	Son of Henry V, deposed 1461, died in Tower.....	1422	1471	49	39
HOUSE OF YORK					
Edward IV.....	Great-grandson of Edward III, son of Duke of York.....	1461	1483	41	22
Edward V.....	Son of Edward IV, murdered in Tower of London.....	1483	1483	13	0
Richard III.....	Crookback, bro. of Edward IV, fell at Bosworth Field.....	1483	1485	35	2
HOUSE OF TUDOR					
Henry VII.....	Son of Edmund Tudor, Earl of Richmond, whose father had married the widow of Henry V; descended from Edward III through his mother, Margaret Beaufort via John of Gaunt. By marriage with dau. of Edward IV he united Lancaster and York.....	1485	1509	53	24
Henry VIII.....	Son of Henry VII. See memorable dates.....	1509	1547	56	38
Edward VI.....	Son of Henry VIII, by Jane Seymour, his 3rd queen. Ruled under regents. Was forced to name Lady Jane Grey his successor. Council of State proclaimed her queen July 10, 1553. Mary Tudor won Council, was proclaimed queen July 19, 1553. Mary had Lady Jane Grey beheaded for treason, Feb., 1554.....	1547	1553	16	1
Mary I.....	Daughter of Henry VIII, by Catharine of Aragon.....	1553	1558	43	1
Elizabeth.....	Daughter of Henry VIII, by Anne Boleyn. Designated Elizabeth I in 1558.....	1558	1603	60	44
GREAT BRITAIN					
HOUSE OF STUART					
James I.....	James VI of Scotland, son of Mary, Queen of Scots. First to call himself King of Great Britain. This became official with the Act of Union, 1707.....	1603	1625	59	22
Charles I.....	Only surviving son of James I; beheaded Jan. 30, 1649.....	1625	1649	48	24
COMMONWEALTH, 1649-1660					
<i>Council of State, 1649; Protectorate, 1653</i>					
The Cromwells.....	Oliver Cromwell, Lord Protector.....	1653	1658	59	..
	Richard Cromwell, Lord Protector, resigned May 25, 1659.....	1658	1712	86	..
HOUSE OF STUART (RESTORED)					
Charles II.....	Eldest son of Charles I, died without issue.....	1660	1685	55	25
James II.....	Second son of Charles I. Deposed 1688. Interregnum Dec. 11, 1688, to Feb. 13, 1689.....	1685	1701	68	2
William III.....	Son of William, Prince of Orange, by Mary, daughter of Charles I.....	1689	1702	51	13
and Mary II.....	Eldest daughter of James II and wife of William III.....	1689	1694	33	6
Anne.....	Second daughter of James II.....	1702	1714	49	12
HOUSE OF HANOVER					
George I.....	Son of Elector of Hanover, by Sophia, grand-dau. of James I.....	1714	1727	67	13
George II.....	Only son of George I, married Caroline of Brandenburg.....	1727	1760	77	33
George III.....	Grandson of George II, married Charlotte of Mecklenburg.....	1760	1820	81	59
George IV.....	Eldest son of George III, Prince Regent, from Feb., 1811.....	1820	1830	67	10
William IV.....	Third son of George III, married Adelaide of Saxe-Meiningen.....	1830	1837	71	7
Victoria.....	Dau. of Edward, 4th son of George III; married (1840) Prince Albert of Saxe-Coburg and Gotha, who became Prince Consort.....	1837	1901	81	63
HOUSE OF SAXE-COBURG AND GOTHA					
Edward VII.....	Eldest son of Victoria, married Alexandra, Princess of Denmark.....	1901	1910	68	9
HOUSE OF WINDSOR					
<i>Name adapted July 17, 1917</i>					
George V.....	Second son of Edward VII, married Princess Mary of Teck.....	1910	1936	70	25
Edward VIII.....	Eldest son of George V; acceded Jan. 20, 1936, abdicated Dec. 11, 1936.....	1936	1936	..	1
George VI.....	Second son of George V; married Lady Elizabeth Bowes-Lyon.....	1936	1952	56	15 1/2
Elizabeth II.....	Eldest daughter of George VI, acceded Feb. 6, 1952.....	1952	..	..	..

Rulers of France; Kings, Queens, Presidents

CAESAR TO CHARLEMAGNE

Julius Caesar subdued the Gauls, native tribes of Gaul (France) 57 to 52 B.C. The Romans ruled 500 years. The Franks, a Teutonic tribe, reached the Somme from the East C. 250 A. D. By the 5th century the Merovingian Franks ousted the Romans. In 451 A. D., with the help of Visigoths, Burgundians and others, they defeated Attila and the Huns at Chalons-sur-Marne.

Childeric I became leader of the Merovingians 458 A. D. His son Clovis I (Chlodwig, Ludwig, Louis) crowned 481, founded the dynasty. After defeating the Alemanni (Germans) 496, he was baptized a Christian and made Paris his capital. His line ruled until Childeric III was deposed, 742.

The West Merovingians were called Neustrians, the eastern Austrasians. Pepin of Herstal (687-714) major domus, or head of the palace, of Austrasia, took over Neustria as dux (leader) of the Franks. Pepin's son, Charles, called Martel (the Hammer) defeated the Saracens at Tours-Poitiers, 732; was succeeded by his son, Pepin the Short, 741, who deposed Childeric III and ruled as king until 768.

His son, Charlemagne, or Charles the Great, (742-814), became king of the Franks, 768, with his brother Carloman, who died 771. He ruled France, Germany, parts of Italy, Spain, Austria, enforced Christianity. Was crowned Holy Roman Emperor by Pope Leo III in St. Peter's, Rome, Dec. 25, 800 A. D. Succeeded by sons, Louis I, the Pious, 814. At death, 840, Louis left empire to sons, Lothair (Roman emperor), Pepin I (king of Aquitaine); Louis II (of Germany); Charles the Bald (France). They quarreled and by the peace of Verdun, 843, divided the empire.

A.D. Name and year of accession

THE CAROLINGIANS

- 840 Charles I, the Bald, Roman Emperor, 875
- 877 Louis II, the Stammerer, son
- 879 Louis III (died 882) and Carloman (bro.)
- 884 Charles II, the Fat; Roman Emperor, 881
- 888 Eudes (Odo) elected by nobles. Ceded land to
- 898 Charles III, the Simple, son of Louis II, defeated by
- 922 Robert, brother of Eudes, killed in war
- 923 Rodolph (Raoul) Duke of Burgundy
- 936 Louis IV, son of Charles III
- 954 Lothair, son, aged 13, defeated by Capet
- 986 Louis V, the Sluggard, left no heirs

THE CAPETS

- 987 Hugh Capet, son of Hugh the Great
- 996 Robert (the Wise), his son
- 1031 Henry I, his son, last Norman
- 1060 Philip I (the Fair), son, king at 14
- 1108 Louis VI (the Fat), son
- 1137 Louis VII (the Younger), son
- 1180 Philip II (Augustus), son, crowned at Reims
- 1223 Louis VIII (the Lion), son
- 1226 Louis IX, son, crusader. Louis IX (1214-1270) reigned 44 years, arbitrated disputes with English King Henry III; led crusades, 1248 (captured in Egypt 1250) and 1270, when he died of plague in Tunis. Canonized 1297 as St. Louis
- 1270 Philip III (the Hardy), son
- 1285 Philip IV (the Fair), son, king at 17
- 1314 Louis X (the Headstrong), son. His posthumous son, John I, lived only 7 days
- 1316 Philip V (the Tall), brother of Louis X
- 1322 Charles IV (the Fair), brother of Louis X

HOUSE OF VALOIS

- 1328 Philip VI (of Valois), grandson of Philip III
- 1350 John II (the Good), his son, retired to England
- 1364 Charles V (the Wise), son
- 1380 Charles VI (the Beloved), son
- 1422 Charles VII (the Victorious), son. In 1429 Joan of Arc (Jeanne d'Arc) promised Charles to oust the English, who occupied northern France. Joan won at Orleans and Patay and had Charles crowned at Reims July 17, 1429. Joan was captured May 24, 1430, and executed May 30, 1431, at Rouen for heresy. Charles ordered her rehabilitation, effected 1455. Agnes Sorel was Charles' mistress
- 1461 Louis XI (the Cruel), son, civil reformer
- 1483 Charles VIII (the Affable), son
- 1498 Louis XII, great grandson of Charles V
- 1515 Francis I, of Angoulême, nephew, son-in-law. Francis I (1494-1547) reigned 32 years, fought 4 big wars, was patron of the arts, aided Cellini, del Sarto, Leonardo da Vinci, Raphael. Embellished Fontainebleau
- 1547 Henry II, son, killed at a joust in a tournament. He was the husband of Catherine de Medici (1519-1589) and the lover of Diane de Poitiers (1499-1566). Catherine was born in Florence, daughter of Lorenzo de Medici. By her marriage to Henry II she became the mother of Francis II, Charles IX, Henry III and Queen Margaret (Reine Margot) wife of Henry IV. She persuaded Charles IX to order

the massacre of Huguenots on St. Bartholomew, Aug. 24, 1572, the day her daughter was married to Henry of Navarre

- 1559 Francis II, son of Henry II. In 1548, Mary, Queen of Scots since infancy, was betrothed when 6 to Francis, aged 4. They were married 1558. Francis died 1560, aged 16; Mary ruled Scotland, abdicated 1567.
- 1560 Charles IX, brother of Francis II
- 1574 Henry III, brother, assassinated

HOUSE OF BOURBON

- 1589 Henry IV, of Navarre, assassinated. Henry IV made enemies when he gave tolerance to Protestants by Edict of Nantes, 1598. He was grandson of Queen Margaret of Navarre, literary patron. He married Margaret of Valois, Catherine de Medici's daughter; was divorced; in 1600 married Marie de Medici, Regent of France, 1610-17 for son, Louis XIII, and was exiled by Richelieu
- 1610 Louis XIII (the Just), son. Louis XIII (1601-1643) married Anne of Austria. His ministers were Cardinals Richelieu and Mazarin
- 1643 Louis XIV (the Grand Monarch), son. Louis XIV, was king 72 years. He exhausted a prosperous country in wars for thrones and territory. By revoking the Edict of Nantes (1685) he caused the emigration of the Huguenots. He said: "I am the state." His mistresses were Louise de la Valliere, Madame de Montespan and Madame de Maintenon
- 1715 Louis XV, great grandson. Louis XV (1710-1774) married a Polish princess. Lost Canada to the English. His favorites, Mme Pompadour and Mme. DuBarry influenced policies. Noted for saying: Apres moi, le deluge. (After me, the deluge.)
- 1774 Louis XVI, grandson; married Marie Antoinette, dau. of Empress Maria Theresa of Austria. King and queen beheaded by Revolution, 1793. Their son, called Louis XVII, died in prison, never ruled

FIRST REPUBLIC

- 1792 National Convention of the French Revolution
- 1795 Directory, under Barras and others
- 1799 Consulate, Napoleon Bonaparte, First Consul in 1802 elected Consul for life

FIRST EMPIRE

- 1804 Napoleon I, Emperor. Josephine (de Beauharnais) Empress, 1804-09; Marie Louise, Empress, 1810-1814. Her son, Francis (1811-1832) titular King of Rome, later Duke de Reichstadt and "Napoleon II," never ruled. Napoleon abdicated 1814, died 1821. See Memorable Dates.

BOURBONS RESTORED

- 1814 Louis XVIII King; brother of Louis XVI
- 1824 Charles X, brother; reactionary, deposed by the July Revolution, 1830

HOUSE OF ORLEANS

- 1830 Louis Philippe, the Citizen King

SECOND REPUBLIC

- 1848 Louis Napoleon. President, nephew of Napoleon I. He became:

SECOND EMPIRE

- 1852 Napoleon III, Emperor. Eugenie (de Montijo) Empress. Lost Franco-Prussian war, deposed 1870. Son, Prince Imperial (1856-79), died in Zulu War. Eugenie died 1920

THIRD REPUBLIC—PRESIDENTS

- 1871 Thiers, Louis Adolphe (1797-1877), historian
- 1873 MacMahon, Marshal Patrice M. (1808-1893)
- 1879 Grevy, Paul J. (1807-1891), resigned
- 1887 Sadi-Carnot, M. (1837-1894), assassinated
- 1894 Casimir-Perier, Jean P. P. (1847-1907), resigned
- 1895 Faure, Francois Felix (1841-1899)
- 1899 Loubet, Emile (1838-1929)
- 1906 Fallieres, Armand (1841-1931)
- 1913 Poincare, Raymond (1860-1934)
- 1920 Deschanel, Paul (1856-1922) resigned
- 1920 Millerand, Alexandre (1859-1943) resigned
- 1924 Doumergue, Gaston (1863-1937)
- 1931 Doumer, Paul (1867-1932) assassinated
- 1932 Lebrun, Albert (1871-1950) resigned 1940.
- Vichy govt. under German armistice: Henry Philippe Petain (1856-1951) Chief of State, 1940-1944
- Provisional govt., after liberation: Chas. de Gaulle (1890-) Oct., 1944-Jan. 21, 1946; Felix Gouin (1884-) Jan. 23, 1946; Georges Bidault (1899-) June 24, 1946.

FOURTH REPUBLIC—PRESIDENTS

- 1947 Auriol, Vincent (1884-1966)
- 1954 Coty, Rene (1883-1962)

FIFTH REPUBLIC—PRESIDENT

- 1958 De Gaulle, Charles Andre M. J. born Nov. 22, 1890; elected Dec. 21, 1958, reelected Dec. 19, 1965.

Rulers of Middle Europe; Rise and Fall of Dynasties

CAROLINGIAN DYNASTY

Charles the Great, or Charlemagne, ruled France, Italy and Middle Europe; established Ostmark (later Austria); crowned Roman emperor by pope in Rome, 800 A.D. Died, 814.

Louis I (Ludwig) the Pious, son; crowned by Charlemagne 813, d. 840.

Louis the German, son, succeeded to East Francia (Germany) 843-876.

Charles the Fat, son, inherited East Francia and West Francia (France) 876, reunited empire, crowned emperor by pope, 881, deposed, 887.

Arnulf, nephew, 887-899. Partition of empire.

Louis the Child, 900-911, last direct descendant of Charlemagne.

Conrad I, duke of Franconia, first elected German king, 911-918, founded House of Franconia.

SAXON DYNASTY; FIRST REICH

Henry I, the Fowler, duke of Saxony, 919-936.

Otto I, the Great, 936-973, son; crowned Holy Roman Emperor by pope, 962.

Otto II, 973-983, son; failed to oust Greeks and Arabs from Sicily.

Otto III, 983-1002, son. Crowned emperor at 16. Henry II, duke of Bavaria, 1002-1024, great-grandson of Henry the Fowler.

HOUSE OF FRANCONIA

Conrad II, 1024-1039, son-in-law of Otto I.

Henry III, 1039-1056, son; deposed 3 popes; annexed Burgundy.

Henry IV, 1056-1106, son; regency by his mother, Agnes of Poitou. Banned by Pope Gregory VII, he did penance at Canossa.

Henry V, 1106-1125, son; last of Salic House.

Lothair, duke of Saxony, 1125-1137. Crowned emperor in Rome, 1134.

HOUSE OF HOHENSTAUFEN

Conrad III, duke of Suabia, 1138-1152. In 2nd Crusade.

Frederick I, Barbarossa, 1152-1190; son of Conrad's brother; in 3rd Crusade.

Henry VI, 1190-1196, took Lower Italy from Normans. Son became king of Sicily.

Philipp of Suabia, 1198-1208, son of Frederick I.

Otto IV, of House of Welf, 1198-1215; deposed.

Frederick II, 1215-1250, son of Henry VI; king of Sicily; crowned king of Jerusalem; in 5th Crusade.

Conrad IV, 1250-1254, son, lost Lower Italy to Charles of Anjou.

Conradin, son, king of Jerusalem and Sicily, was beheaded. Last Hohenstaufen.

Interregnum, 1250-1273. Rose of the Electors.

TRANSITION

Rudolph of Hapsburg, 1273-1291, defeated King Ottocar II of Bohemia. Bequeathed duchy of Austria to eldest son, Albert.

Adolphus, count of Nassau, 1291-1298, killed in war with Albert of Austria.

Albert I, German king, 1298-1308.

Henry VII, of Luxemburg, 1308-1313, crowned emperor in Rome. Seized Bohemia, 1310.

Louis IV of Bavaria (Wittelsbach), 1314-1347. Also elected was Frederick of Austria, 1314-1330 (Hapsburg). Abolition of papal sanction for election of Holy Roman Emperor.

Charles IV, of Luxemburg, 1347-1378, grandson of Henry VII, German emperor and king of Bohemia, Lombardy, Burgundy; took Mark of Brandenburg.

Wenceslaus, 1378-1400, deposed.

Rupert, Duke of Palatine, 1400-1410.

HUNGARY

Stephen I, house of Arpad, 907-1038. Crowned king by Pope Sylvester II, 1001 A.D., converted Magyars. After several centuries of feuds Charles Robert of Anjou became Charles I, 1308-1342.

Louis I, the Great, son, 1342-1382, joint ruler of Poland with Casimir III, 1370. Defeated Turks.

Mary, daughter, 1385-1395, ruled with husband, Sigismund of Luxemburg, 1387-1437, also king of Bohemia. As bro. of Wenceslaus he succeeded Rupert as Holy Roman Emperor, 1410.

Albert II, 1438-1439, son-in-law of Sigismund; also Roman emperor. *See under Hapsburg.*

Ulazlo I of Poland, died in battle, 1444.

Ladislaus V, child. John Hunyadi (Hunyadi Janos) guardian, fought Turks, Czechi; died 1456.

Matthias I (Corvinus) son of Hunyadi, 1458-1490. Shared rule of Bohemia, captured Vienna, 1485, annexed Austria, Styria, Carinthia.

Ulazlo II (King of Bohemia) 1490-1516.

Louis II, son, aged 10. 1516-1526. Wars with

Solimán, Turk. In 1527 Hungary was split between Ferdinand I, Archduke of Austria, bro.-in-law of Louis II, and John Zápolya, of Transylvania. After Turkish invasion, 1547, Hungary was split between Ferdinand, Prince John Sigismund (Transylvania) and the Turks.

HOUSE OF HAPSBURG

Albert V of Austria, Hapsburg, crowned king of Hungary, Jan., 1438, Roman emperor, March, 1438, as Albert II; died 1439.

Frederick III, cousin, 1430-1493. Fought Turks. Maximilian I, son, 1493-1519. Assumed title of Holy Roman emperor (German), 1508.

Charles V, grandson, 1519-1556. King of Spain with mother co-regent; crowned Roman emperor at Aix 1520. Confronted Luther at Worms; attempted church reform and religious conciliation. Abdicated 1556.

Ferdinand I, king of Bohemia, 1526, of Hungary, 1527; disputed. German king, 1531. Crowned Roman emperor on abdication of Charles V. 1556.

Maximilian II, son, 1564-1576; Rudolph II, son, 1576-1612.

Matthias, brother, 1612-1619, king of Bohemia and Hungary.

Ferdinand II, of Styria, king of Bohemia, 1617, of Hungary, 1618, Roman emperor, 1619. Bohemian Protestants deposed him, elected Frederick V of Palatine, starting Thirty Years War.

Ferdinand III, son, king of Hungary, 1625, Bohemia, 1627, Roman emperor, 1637. Peace of Westphalia, 1648, ended war. Leopold I, 1658-1705; Joseph I, 1705-1711; Charles VI, 1711-1740.

Maria Theresa, daughter, 1740-1780, Archduchess of Austria, queen of Hungary; ousted pretender, Charles VII, crowned 1742; in 1745 obtained election of her husband Francis I as Roman emperor and co-regent (d.1765). Fought Seven Years' War with Frederick II (the Great) of Prussia. Mother of Marie Antoinette, Queen of France.

Joseph II, son, 1765-1790, Roman emperor, reformer; powers restricted by Empress Maria Theresa until her death, 1780. First partition of Poland, Leopold II, 1790-1792.

Francis II, 1792-1835. Fought Napoleon. Proclaimed first hereditary emperor of Austria, 1806. Forced to abdicate as Roman emperor, 1806, last use of title. Ferdinand I, son, 1835-1848, abdicated during revolution.

AUSTRO-HUNGARIAN MONARCHY

Francis Joseph I, nephew, 1848-1916, emperor of Austria, king of Hungary. Dual monarchy of Austria-Hungary formed, 1867. After assassination of heir, Archduke Francis Ferdinand, June 28, 1914, Austrian diplomacy precipitated World War I.

Charles I, grandnephew, 1916-1918, last emperor of Austria and king of Hungary. Abdicated Nov. 11-13, 1918, died 1922.

RULERS OF PRUSSIA

Nucleus of Prussia was the Mark of Brandenburg. First margrave was Albert the Bear (Albrecht), 1134-1170. First Hohenzollern margrave was Frederick, burgrave of Nuremberg, 1415-1440.

Frederick William, 1640-1688, the Great Elector. Son, Frederick III, 1688-1713, was crowned Frederick I of Prussia, 1701.

Frederick II, the Great, 1740-1786, annexed Silesia, part of Austria.

Frederick William II, nephew, 1786-1797.

Frederick William III, 1797-1840. Napoleonic wars. Queen Louise.

Frederick William IV, 1840-1861. Uprising of 1848 and first parliament and constitution.

SECOND AND THIRD REICH

William I, 1861-1888, brother. Annexation of Schleswig and Hanover; Franco-Prussian war, 1870-71, proclamation of German Reich, Jan. 18, 1871, at Versailles; William, German emperor (Deutscher Kaiser), Bismarck, chancellor.

Frederick III, son, 1888.

William II, son, 1888-1918. Led Germany in World War I, abdicated as German emperor and king of Prussia, Nov. 9, 1918. Died in exile in Netherlands June 4, 1941. Minor rulers of Bavaria, Saxony, Wurttemberg also abdicated.

Germany proclaimed a republic at Weimar, July 1, 1919. Presidents: Frederick Ebert, 1919-1925, Paul von Hindenburg-Beneckendorff, 1925, reelected 1932, d. Aug. 2, 1934. Adolf Hitler, chancellor, chosen successor as Leader-Chancellor (Fuehrer & Reichskanzler) of Third Reich. Annexed Austria, March, 1938. Precipitated World War II, 1938-1945. Reported suicide May 1, 1945.

Roman Rulers

From Romulus to the end of the Empire in the West. Rulers of the Roman Empire in the East sat in Constantinople, and for a brief period in Nicaea, until the capture of Constantinople by the Turks in 1453, when it was succeeded by the Ottoman Empire.

B.C.	Name	A.D.	Name	A.D.	Name		
The Kingdom							
753	Romulus (Quirinus)	81	Domitianus	314	Constantinus I and Licinius		
716	Numa Pompilius	96	Nerva	324	Constantinus I (the Great)		
673	Tullus Hostilius	98	Trajanus	337	Constantinus II, Constans I, Constantius II		
640	Anicus Marcius	117	Hadrianus	340	Constantius II and Constans I		
616	L. Tarquinius Priscus	138	Antoninus Pius	350	Constantius II		
578	Servius Tullius	161	Marcus Aurelius and Lucius Verus	360	Julianus II (the Apostate)		
534	L. Tarquinius Superbus	169	Marcus Aurelius (alone)	363	Jovianus		
The Republic			West (Rome) and East (Constantinople)				
509	Consulate established	180	Commodus	364	Valentinianus I (West) and Valens (East)		
509	Quaestorship instituted	193	Pertinax; Julianus I		367	Valentinianus with Gratianus (West) and Valens (East)	
498	Dictatorship introduced	211	Caracalla and Geta	375	Gratianus with Valentinianus II (West) and Valens (East)		
494	Plebeian Tribune created	212	Caracalla (alone)		378	Gratianus with Valentinianus II (W.), Theodosius I (E.)	
444	Plebeian Aedileship created	217	Macrinus	383	Valentinianus II (West) and Theodosius I (East)		
444	Consular Tribune organized	218	Elagabalus (Heliogabalus)		394	Theodosius I (the Great)	
435	Censorship instituted	222	Alexander Severus	395	Honorius (West) and Arcadius (East)		
366	Praetorship established	235	Maximinus I (the Thracian)		408	Honorius (West) and Theodosius II (East)	
366	Curule Aedileship created	238	Gordianus I and Gordianus II; Pupienus and Balbinus	423	Valentinianus III (West) and Theodosius II (East)		
362	Military Tribune elective	238	Gordianus III		450	Valentinianus III (West) and Marcianus (East)	
326	Proconsulate introduced	244	Philipppus (the Arabian)	455	Maximus (West); Avitus (West); Marcianus (East)		
311	Naval Duumvirate elective	249	Decius		456	Avitus (W.), Marcianus (E.)	
217	Dictatorship of Fabius Maximus	251	Gallus and Volusianus	457	Majorianus (W.), Leo I (E.)		
133	Tribunate of Tiberius Gracchus	253	Aemilianus		461	Severus II (W.), Leo I (E.)	
123	Tribunate of Gaius Gracchus	258	Valerianus and Gallienus	467	Anthemius (W.), Leo I (E.)		
82	Dictatorship of Sulla	268	Gallienus (alone)		472	Olybrius (W.), Leo I (E.)	
60	First Triumvirate formed (Caesar, Pompeius, Crassus)	268	Claudius II (the Goth)	473	Glycerius (W.), Leo I (E.)		
46	Dictatorship of Caesar	270	Quintillus		474	Julius Nepos (W.) Leo II (E.)	
43	Second Triumvirate formed (Octavianus, Antonius, Lepidus)	270	Aurelianus	475	Romulus Augustulus (West) and Zeno (East)		
The Empire			275	Tacitus	476	End of Empire in West; Odoacer, King, drops title of Emperor; murdered by King Theodoric of Ostrogoths 493 A. D.	
27	Augustus (Gaius Julius Caesar Octavianus)	276	Florianus	276		Probus	
A.D.			282	Carus			
14	Tiberius I	283	Carinus and Numerianus	283	Carinus and Numerianus		
37	Gaius (Caligula)	284	Diocletianus	284	Diocletianus		
41	Claudius I	286	Diocletianus and Maximianus	286	Diocletianus and Maximianus		
54	Nero	305	Galerius and Constantius I	305	Galerius and Constantius I		
68	Galba	306	Galerius, Maximinus II, Severus I	306	Galerius, Maximinus II, Severus I		
69	Galba; Otho; Vitellius	307	Galerius, Maximinus II, Constantinus I, Licinius, Maxentius	307	Galerius, Maximinus II, Constantinus I, Licinius, Maxentius		
69	Galba; Otho; Vitellius	311	Maximinus II, Constantinus I, Licinius, Maxentius	311	Maximinus II, Constantinus I, Licinius, Maxentius		
76	Vespasianus	312	Maximinus II, Constantinus I, Licinius	312	Maximinus II, Constantinus I, Licinius		
79	Titus						

Rulers of Modern Italy

After the fall of Napoleon in 1814 the Congress of Vienna, 1815, restored Italy as a political patchwork, comprising the Kingdom of Naples & Sicily, the Papal States, and smaller units. Piedmont and Genoa were awarded to Sardinia, ruled by King Victor Emmanuel I of Savoy.

United Italy emerged under the leadership of Camillo, Count di Cavour, (1810-1861) Sardinian prime minister. Agitation was led by Giuseppe Mazzini (1805-1872) and Giuseppe Garibaldi (1807-1882), soldier. Victor Emmanuel I abdicated 1821. After a brief regency for a brother, Charles Albert was King 1831-1849, abdicating when defeated by the Austrians at Novara. Succeeded by Victor Emmanuel II (1820-1878).

In 1859 France forced Austria to cede Lombardy to Sardinia, which gave rights to Savoy and Nice to France. In 1860 Garibaldi led 1,000 volunteers in a spectacular campaign, took Sicily and expelled the King of Naples. In 1860 the House of Savoy annexed Tuscany, Parma, Modena, Romagna, the Two Sicilies, the Marches and Umbria. Victor Emmanuel assumed the title of King of

Italy at Turin Mar. 17, 1861. In 1866 he joined Prussia and Austria in the Triple Alliance and received Venetia from Austria. On Sept. 20, 1870, his troops under Gen. Raffaele Cardona entered Rome and took over the Papal States, ending the temporal power of the Roman Catholic Church.

Succession. Humbert I, 1878, assassinated 1900; Victor Emmanuel III, 1900, abdicated 1946, died 1947; Humbert II, 1946, ruled a month. In 1921 Benito Mussolini (1883-1945) formed the Fascist party and became prime minister Oct. 31, 1922. He made the King Emperor of Ethiopia, 1937; entered World War II as ally of Hitler. He was deposed July 25, 1943.

At a plebiscite June 2, 1946, Italy voted for a republic. Premier Alcide de Gasperi became Chief of State June 13, 1946. On June 28, 1946, the Constituent Assembly elected Enrico de Nicola, Liberal, Provisional President of the Republic of Italy. Luigi Einaudi was elected President May 11, 1948. Giovanni Gronchi was elected Apr. 29, 1955, inaugurated May 11, 1955. Antonio Segni elected May 6, 1962, Giuseppe Saragat Dec. 28, 1964.

Rulers of Scotland

The Romans gave the name of Caledonia to present-day Scotland and called the people Caledonians. The Scots, Celtic race that, spoke Gaelic, came from Ireland, then called Scotia.

Kenneth I (S. C. MacAlpin) was the first Scot to rule both Scots and Picts, 843 A. D.

Duncan I was the first general ruler, 1034. Macbeth seized the kingdom 1040, was slain by Duncan's son, Malcolm Canmore (Malcolm III), 1058.

Malcolm married Margaret, English princess who had fled from the Normans. Queen Margaret introduced English language and English monastic customs. She was canonized. Her son Edgar, 1097, moved the court to Edinburgh. His brothers Alexander I and David I succeeded. Malcolm IV, grandson of David I, 1153, was followed by his brother, William the Lion, 1165, whose son was Alexander II, 1214. The latter's son, Alexander III, defeated the Norse and regained the Hebrides. When he died, 1286, his granddaughter, Margaret, child of Eric of Norway and grandniece of Edward I of England, known as the Maid of Norway, was chosen ruler, but died on the way, 1290.

John Balliol, 1292-1296. [Interregnum, 10 years.]

Robert Bruce (The Bruce), 1306-1329, victor at Bannockburn, 1314.

Robert II, 1316-1390, grandson of Robert Bruce, son of Walter, the Steward of Scotland, was called The Steward, first of the so-called Stuart line.

Robert III, son of Robert II, 1390-1406.

James I, son of Robert III, 1406-1437.

James II, son of James I, 1437-1460.

James III, 1460-1488, eldest son of James II.

James IV, 1488-1513, eldest son of James III.

James V, 1513-1542, eldest son of James IV.

Mary, daughter, born 1542, became queen when 1 week old; was crowned 1543. Married, 1548, Francis, son of Henry II of France, who became king 1559, died 1560. Mary ruled Scots 1561 until abdication, 1567. She also married (2) Henry Stewart, Lord Darnley, and (3) James, Earl of Bothwell. Imprisoned by Elizabeth I; beheaded 1587.

James VI, 1567-1625, son of Mary and Lord Darnley, became King of England on death of Elizabeth in 1603. Although the thrones were thus united, the legislative union of Scotland and England was not effected until the act of Union, May 1, 1707.

Rulers of Denmark, Sweden, Norway

DENMARK

Earliest rulers invaded Britain; King Canute, who ruled in London 1017-1035, was most famous. The Valdemars furnished kings until the 16th century. In 1282 the Danes won the first national assembly, Danehof, from King Erik.

Most redoubtable medieval character was Margaret, daughter of Valdemar IV, born 1353, married at 16 to King Haakon VI of Norway. In 1375 she had her infant son Olaf made king of Denmark. After his death, 1387, she was regent of Denmark and Norway. In 1388 Sweden accepted her as sovereign. In 1389 she made her grand-nephew, Duke Erik of Pomerania, titular king of Denmark, Sweden and Norway, with herself as regent. In 1397 she effected the Union of Kalmar of the three kingdoms and had Erik crowned. In 1439 the three kingdoms deposed him and elected Christopher of Bavaria king (Christopher III). On his death, 1448, the union broke up.

Succeeding rulers were unable to enforce their claims as rulers of Sweden until 1520, when Christian II conquered Sweden. He was thrown out 1522, and in 1523 Gustavus Vasa united Sweden. Denmark continued to dominate Norway until the Napoleonic wars, when Frederick VI joined the Napoleonic cause after Britain had destroyed the Danish fleet (1807). In 1814 he was forced to cede Norway to Sweden and Heligoland to Britain, receiving Lauenburg. Successors: 1839—Christian VIII; 1848—Frederick VII; 1863—Christian IX; 1906—Frederick VIII; 1912—Christian X; 1947—Frederick IX.

SWEDEN

Early kings ruled at Uppsala, but did not dominate the country. Sverker (1134-1156) united the Swedes and Goths. In 1435 Sweden obtained the Riksdag, or parliament. After the Union of Kalmar, 1397, the Danes either ruled or harried the country until Christian II of Denmark con-

quered it anew. 1520. This led to a rising under Gustavus Vasa, who ruled Sweden 1523-1560, and established an independent kingdom. Charles IX (1594-1611, crowned 1607) conquered Moscow. Gustavus II Adolphus (1611-1633) was called the Great. Later rulers: 1633—Christina; 1664—Charles X; 1660—Charles XI; 1697—Charles XII (invader of Russia and Poland, defeated at Poltava, June 28, 1709); 1718—His sister, Ulrika Eleonora, elected queen; 1720—Her husband, Frederick I (of Hesse); 1751—Aldolphus Frederick; 1771—Gustavus III; 1792—Gustavus IV; 1809—Charles XIII. (Union with Norway began, 1814). 1818—Charles XIV. He was Jean Bernadotte, Napoleon's Prince of Ponte Corvo, succeeded 1810 to succeed Charles XIII. He founded the present dynasty, 1844—Oscar I; 1859—Charles XV; 1872—Oscar II; 1907—Gustavus V; 1950—Gustavus VI Adolf.

NORWAY

Overcoming many rivals, Harald Haarfager (872-930) conquered Norway, Orkneys and Shetlands. Olaf, great-grandson (985-1000) brought Christianity into Norway, Iceland, Greenland. In 1035 Magnus the Good also became king of Denmark. Haakon V (1299-1319) had married his daughter to Erik of Sweden. Their son, Magnus, became ruler of Norway and Sweden at 6. His son, Haakon VI, married Margaret of Denmark; their son Olaf became king of Norway and Denmark, followed by Margaret's regency and the Union of Kalmar, 1397.

In 1450 Norway became subservient to Denmark. Christian IV (1558-1648) founded Christianity, now Oslo. After Napoleonic wars, when Denmark ceded Norway to Sweden, a strong nationalist movement forced recognition of Norway as an independent kingdom united with Sweden under the Swedish kings, 1814-1905. In 1905 the union was dissolved and Prince Carl of Denmark became Haakon VII. He died Sept. 21, 1957, aged 85; succeeded by son, Olav V, b. July 2, 1903.

Rulers of the Netherlands and Belgium

THE NETHERLANDS (HOLLAND)

William Frederick, Prince of Orange, led a revolt against French rule, 1813, and was crowned King of the Netherlands, 1815. Belgium seceded Oct. 4, 1830, after a revolt, and formed a separate government. The change was ratified by the two kingdoms by treaty Apr. 19, 1839.

(1840) William II; (1849) William III; (1890) Wilhelmina (daughter of William II and his second wife Princess Emma of Waldeck); Wilhelmina abdicated Sept. 4, 1948, in favor of daughter Juliana, 39.

BELGIUM

A national congress elected Prince Leopold of Saxe-Coburg King; he took the throne July 21, 1831, as Leopold I. (1865) Leopold II; (1890) Albert I, nephew of Leopold II; (1934) Leopold III, son of Albert; (1944) Prince Charles, Regent, Leopold returned, 1950, yielded powers to son Baudouin, Prince Royal, Aug. 6, 1950, abdicated July 16, 1951. Baudouin I took throne July 17, 1951.

For political history prior to 1830 see articles on the Netherlands and Belgium.

Rulers of Russia; Premiers of the U. S. S. R.

First ruler to consolidate Slav tribes was Rurik, leader of the Russ, who established himself at Novgorod A. D. 862. He and his immediate successors had Scandinavian affiliations. They moved to Kiev after 972 A. D. and ruled as Dukes of Kiev. In 988 Vladimir I was converted and adopted the Byzantine Greek service, later modified by Slav influences. Important organizer and law-giver was Yaroslav, 1018-1054, whose daughters married kings of Norway, Hungary and France. His grandson, Vladimir II (Monomachos) 1113-1125, was progenitor of several rulers, but in 1169 Andrew Bogolubski overthrew Kiev and began the line known as Grand Dukes of Vladimir.

Of the Grand Dukes of Vladimir Alexander Nevsky, 1245-1263, had a son, Daniel, first to be called Duke of Moscow (Moscow) who ruled 1294-1303. His successors became Grand Dukes of Moscow. After Demetrius III, Donskoi, in 1380 defeated the Tartars, they also became Grand Dukes of All Russia. Independence of the Tartars and considerable territorial expansion was achieved under Ivan III, 1462-1505.

Czars of Muscovy—Ivan III was referred to in church ritual as Czar. He married Sofia, niece of the last Byzantine emperor. His successor, Basil, died in 1533 when Basil's son, Ivan, was only 3. He became Ivan IV, "the Terrible," crowned 1547 as Czar of all the Russias, ruled till 1584. Under the weak rule of his son, Theodore, Boris Godunov had control. The dynasty died, and after years of tribal strife and intervention by Polish and Swedish armies, the Russians united under 17-year-old Michael Romanov, distantly related to the first wife of Ivan IV. He ruled 1613-1645 and established the Romanov line. Fourth ruler after Michael was Peter I.

Czars, or Emperors of Russia (Romanovs)—Peter I, 1682-1725, known as Peter the Great, took title of Emperor in 1721. His successors and dates of accession were: Catherine, his widow, 1725, Peter II, his grandson, 1727, d. 1730; Anne, Duchess of Courland, 1730, daughter of Peter the Great's brother, Czar Ivan; Ivan VI, 1740-1741,

great grandson of Ivan V, child, kept in prison and murdered 1764; Elizabeth, daughter of Peter I, 1741; Peter III, grandson of Peter I, 1761, deposed 1762 for his consort, Catherine II, former princess of Anhalt Zerbst (German) who is known as Catherine the Great, 1762-1796; Paul I, her son, 1796, killed 1801. Alexander I, son of Paul, 1801-1825, defeated Napoleon; Nicholas I, his brother, 1825; Alexander II, son of Nicholas, 1855, assassinated 1881 by terrorists; Alexander III, son, 1881-1894.

Nicholas II, son, 1894-1917, last Czar of Russia, was forced to abdicate by the Revolution that followed defeat by Germany. The Czar, the Czarina, the Czarevitch (Crown Prince) and the Czar's 4 daughters were murdered by the Bolsheviks in Ekaterinburg, July 17, 1918.

Provisional Government—Prince Georgi Lvov and Alexander Kerensky, premiers, 1917.

UNION OF SOVIET SOCIALIST REPUBLICS

Bolshevik Revolution, Nov. 7, 1917, displaced Kerensky; Council of People's Commissars formed, Nicolai Lenin, premier. Lenin died Jan. 21, 1924. Alexei Rykov (executed 1938) and V. M. Molotov held the office, but actual ruler was Joseph Stalin (Joseph Vissarionovich Djugashvili), general secretary of the Central Committee of the Communist Party. Stalin became president of the Council of Ministers (premier) May 7, 1941, died Mar. 5, 1953. Succeeded by Georgi M. Malenkov, as head of the Council and premier and Nikita S. Khrushchev, first secretary of the Central Committee. Malenkov resigned Feb. 8, 1955, became deputy premier, was dropped July 3, 1957. Marshal Nikolai A. Bulganin became premier. Marshal Georgi K. Zhukov became minister of defense, was dropped Nov. 1, 1957. Bulganin was demoted and Khrushchev became premier Mar. 27, 1958. Khrushchev was ousted Dec. 14-15, 1964, replaced by Leonid I. Brezhnev as first secretary of the party and by Aleksei N. Kosygin as premier.

Rulers of Modern Spain

From 8th to 11th centuries Spain was dominated by the Moors (Arabs and Berbers). The Christian reconquest established small competing kingdoms of the Asturias, Aragon, Castile, Catalonia, Leon, Navarre and Valencia. In 1474 Isabella (Isabel) b. 1451, became queen of Castile & Leon. Her husband, Ferdinand, b. 1452, inherited Aragon, 1474, with Catalonia, Valencia and the Balearic Islands, became Ferdinand V of Castile. By Isabella's request Pope Sixtus IV established the Inquisition, 1478. Last Moorish kingdom, Granada, fell 1492. Columbus opened New World of colonies, 1492. Isabella died 1504, succeeded by her daughter, Juana "the Mad," but Ferdinand ruled until his death 1516.

Charles I, b. 1500, son of Juana and grandson of Ferdinand & Isabella and of Maximilian I of Hapsburg; succeeded latter as Holy Roman Emperor, Charles V, 1520. Abdicated 1556. Philip II, son, 1556-1598, inherited only Spanish throne; conquered Portugal, fought Turks, persecuted non-Catholics, sent Armada vs. England. Was briefly married to Mary I of England, 1554-1558. Succession: Philip III, 1598-1621; Philip IV, 1621-1665; Charles II, 1665-1700, left Spain to Philip of Anjou, grandson of Louis XIV, who as Philip V, 1700-1746, founded Bourbon dynasty. Ferdinand IV, 1746-1759; Charles III, 1759-1788; Charles IV, 1788-1808, abdicated.

Napoleon now dominated politics and made his brother Joseph King of Spain but the Spanish ousted him finally in 1813. Ferdinand VII, 1814-1833, lost American colonies; succeeded by daughter, Isabella II, aged 3, with wife Maria Christina of Naples regent until 1843. Isabella deposed by revolution, 1868. Prince Amadeo of

Savoy, 1870-1873. First republic, 1873-1874. Alphonso XII 1875-1885. His posthumous son was Alphonso XIII, with his mother, Queen Maria Christina regent; Spanish-American war, Spain lost Cuba, gave up Puerto Rico, Philippines, Sulu Isl., Marianas. Alphonso took throne 1902, aged 18, married British Princess Victoria Eugenia of Battenberg. The dictatorship of Primo de Rivera, 1923-30, precipitated the revolution of 1931. Alphonso agreed to leave without formal abdication. The monarchy was abolished and the second republic established, with strong socialist backing. Presidents were Niceto Alcala Zamora, to 1936, when Manuel Anzana was chosen.

In July, 1936, the army in Morocco revolted against the government and General Francisco Franco led the troops into Spain. The revolution succeeded by February, 1939, when Anzana resigned. Franco became chief of state, with provisions that if he is incapacitated the Regency Council by two-thirds vote may propose a king to the Cortes, which must have a two-thirds majority to elect him.

Alphonso XIII died in Rome Feb. 28, 1941, aged 54. His property and citizenship had been restored.

A succession law theoretically restoring the monarchy was approved in a 1947 referendum. A new Constitution, approved by referendum Dec. 14, 1966, affirmed Spain's status as a monarchy under a king or a regent. Pretender to the throne, should the monarchy actually be restored, was Don Juan de Borbon y Battenberg, 3rd son of Alphonso XIII. Also favored above other claimants was Don Juan's son, Prince Juan Carlos.

Leaders in the South American Wars of Liberation

Simon Bolivar (1783-1830), Jose Francisco de San Martin (1783-1850) and Francisco Antonio Gabriel Miranda (1750-1816) are among the heroes of the early 19th century struggles of South American nations to free themselves from Spain. All three, and their contemporaries, operated in periods of intense factional strife, during which soldiers and civilians suffered.

Miranda, a Venezuelan, who had served with the French in the American Revolution and commanded parts of the French Revolutionary armies in the Netherlands, attempted to start a revolt in Venezuela in 1806 and failed. In 1810, with British and American backing, he returned and was briefly a dictator, until the British withdrew their support. In 1812 he was overcome by the royalists in Venezuela and taken prisoner, dying in a Spanish prison in 1816.

San Martin was born in Argentina and during 1789-1811 served in campaigns of the Spanish armies in Europe and Africa. He first joined the independence movement in Argentina in 1812 and then in 1817 invaded Chile with 4,000 men over the high mountain passes. Here he and General Bernardo O'Higgins (1778-1842) defeated the Spaniards at Chacabuco, 1817, and O'Higgins was named Liberator and became first dictator of Chile, 1817-1823. In 1821 San Martin occupied Lima and Callao, Peru, and became Protector of Peru.

Bolivar, the greatest leader of South American liberation from Spain, was born in Venezuela, the son of an aristocratic family. His organizing and administrative abilities were superior and he foresaw many of the political difficul-

ties of the future. He first served under Miranda in 1812 and in 1813 captured Caracas, where he was named Liberator. Forced out next year by civil strife, he led a campaign that captured Bogota in 1814. In 1817 he was again in control of Venezuela and was named dictator. He organized Nueva Granada with the help of General Francisco de Paula Santander (1792-1840). By joining Nueva Granada, Venezuela and the present terrain of Panama and Ecuador, the republic of Colombia was formed with Bolivar president. After numerous setbacks he decisively defeated the Spaniards in the second battle of Carabobo, Venezuela, June 24, 1821.

In May, 1822, Gen. Antonio Jose de Sucre, Bolivar's trusted lieutenant, took Quito, Bolivar went to Guayaquil to confer with San Martin, who resigned as Protector of Peru and withdrew from politics. With a new army of Colombians and Peruvians Bolivar defeated the Spaniards in a saber battle at Junin in 1824 and cleared Peru.

De Sucre organized Charcas (Upper Peru) as Republica Bolivar (now Bolivia) and acted as president in place of Bolivar, who wrote its constitution. Sucre defeated the Spanish faction of Peru at Ayacucho, Dec. 19, 1824.

Continued civil strife finally caused the Colombian federation to break apart. Santander turned against Bolivar, but the latter defeated him and banished him. In 1828 Bolivar gave up the presidency he had held precariously for 14 years. He became ill from tuberculosis and died Dec. 17, 1830. He was honored as the great liberator and is buried in the national pantheon in Caracas.

British

POETS, DRAMATISTS, ESSAYISTS, HISTORIANS, NOVELISTS

Born	Died	Name	Born	Died	Name	Born	Died	Name
1672	1719	Addison, Joseph	1563	1631	Drayton, Michael	1828	1909	Meredith, George
1805	1882	Ainsworth, W. H.	1631	1700	Dryden, John	1806	1873	Mill, John Stuart
1721	1770	Akenside, Mark	1834	1896	Du Maurier, Geo. L.	1882	1956	Milne, A. A.
1904	1966	Allingham, Margery	1819	1880	Eliot, George	1608	1674	Milton, John
1832	1904	Arnold, Edwin	1888	1965	Eliot, T. S.	1779	1852	Moore, Thomas
1822	1888	Arnold, Matthew	1620	1706	Evelyn, John	1838	1923	Morley, John
1515	1568	Ascham, Roger	1707	1754	Fielding, Henry	1780	1916	Munro, H. H. (Saki)
1775	1817	Austen, Jane	1809	1883	Fitzgerald, Edward	1880	1958	Noyes, Alfred
1561	1626	Bacon, Francis	1908	1964	Fleming, Ian	1903	1950	Orwell, George
1214	1294	Bacon, Roger	1873	1939	Ford, Ford Maxod	1839	1894	Pater, Walter
1762	1851	Baillie, Joanna	1889	1966	Forester, C. S.	1785	1866	Peacock, Thomas L.
1860	1937	Barrie, James M.	1908	1967	Frankau, Pamela	1632	1703	Pepys, Samuel
1584	1616	Beaumont, Francis	1867	1933	Galsworthy, John	1688	1744	Pope, Alexander
673	735	Bede, the Venerable	1685	1732	Gay, John	1664	1721	Prior, Matthew
1872	1956	Beerbohm, Max	1737	1794	Gibbon, Edward	1863	1944	Quiller-Couch, Arthur T.
1870	1953	Belloe, Hilaire	1857	1903	Gissing, George	1552	1618	Raleigh, Sir Walter
1876	1931	Bennett, Arnold	1728	1774	Goldsmith, Oliver	1814	1884	Reade, Charles
1748	1832	Bentham, Jeremy	1716	1771	Gray, Thomas	1882	1957	Richardson, Dorothy
1662	1742	Bentley, Richard	1825	1967	Griffin, Gwyn	1689	1761	Richardson, Samuel
1869	1951	Blackwood, Algernon	1840	1928	Hardy, Thomas	1819	1900	Ruskin, John
1740	1795	Boswell, James	1831	1923	Harrison, Frederic	1816	1967	Sassoon, Siegfried
1844	1930	Bridges, Robert	1778	1830	Hazlitt, William	1771	1832	Scott, Sir Walter
1816	1855	Bronte, Charlotte	1793	1835	Hemans, Felicia	1564	1616	Shakespeare, William
1818	1848	Bronte, Emily	1849	1903	Henley, Wm. Ernest	1856	1950	Shaw, G. Bernard
1806	1861	Browning, Elizabeth B.	1591	1674	Herrick, Robert	1797	1851	Shelley, Mary W.
1812	1889	Browning, Robert	1588	1679	Hobbes, Thomas	1792	1822	Shelley, Percy Bysshe
1838	1922	Bryce, James	1770	1835	Hogg, James	1751	1816	Sheridan, Richard B.
1628	1688	Bunyan, John	1886	1967	Holland, Vyvyan	1554	1586	Sidney, Sir Philip
1729	1797	Burke, Edmund	1799	1845	Hood, Thomas	1887	1964	Stilwell, Edith
1759	1796	Burns, Robert	1859	1936	Housman, Alfred E.	1771	1845	Smith, Sydney
1788	1824	Byron, (Geo. Gordon)	1711	1776	Hume, David	1721	1771	Smollett, Tobias
1777	1844	Campbell, Thomas	1894	1963	Huxley, Aldous	1774	1843	Southey, Robert
1795	1881	Carlyle, Thomas	1825	1895	Huxley, Thos. H.	1552	1599	Spenser, Edmund
1832	1893	Carroll, Lewis	1889	1967	Irwil, Margaret	1672	1729	Steele, Richard
1888	1957	Cary, Joyce	1803	1857	Jerrold, Douglas W.	1713	1768	Sterne, Laurence
1340	1400	Chaucer, Geoffrey	1709	1784	Johnson, Samuel	1850	1894	Stevenson, Robert Louis
1694	1773	Chesterfield, Earl of	1573	1637	Jonson, Ben	1880	1932	Strachey, Lytton
1874	1936	Chesterton, G. K.	1795	1821	Keats, John	1667	1745	Swift, Jonathan
1762	1835	Cobbett, William	1896	1967	Kennedy, Margaret	1837	1909	Swinburne, Algernon C.
1804	1865	Cobden, Richard	1819	1875	Kingsley, Charles	1839	1893	Tennyson, Alfred
1772	1834	Coleridge, S. T.	1865	1936	Kipling, Rudyard	1811	1863	Thackeray, W. M.
1670	1729	Congreve, William	1874	1945	Knoblock, Edward	1914	1953	Thomas, Dylan
1857	1924	Conrad, Joseph	1775	1834	Lamb, Charles	1700	1748	Thomson, James
1878	1957	Coppard, A. E.	1332	1400	Langland, William	1876	1962	Trevelyan, Geo. M.
1864	1924	Corelli, Marie	1885	1930	Lawrence, David H.	1815	1882	Trollope, Anthony
1731	1800	Cowper, William	1838	1903	Lecky, W. E. H.	1884	1941	Walpole, Hugh
1809	1882	Darwin, Charles	1866	1947	Le Gallienne, Richard	1593	1683	Walton, Izaak
1695	1731	Defoe, Daniel	1894	1957	Le Gallienne, Richard	1851	1928	Ward, Mrs. Humphry
1873	1956	De la Mare, Walter	1632	1704	Locke, John	1903	1966	Wagh, Evelyn
1785	1859	De Quincey, Thomas	1800	1859	Macauley, Thomas B.	1866	1964	Wells, H. G.
1812	1870	Dickens, Charles	1863	1947	Machen, Arthur	1906	1964	White, T. H.
1804	1881	Disraeli, Benjamin	1888	1923	Mansfield, Katherine	1861	1947	Whitehead, Alfred N.
1573	1631	Donne, John	1564	1593	Marlowe, Christopher	1770	1850	Wordsworth, William
1868	1952	Douglas, Norman	1878	1967	Masefield, John	1882	1941	Woolf, Virginia
1867	1900	Dowson, Ernest	1583	1640	Massinger, Phillip	1640	1715	Wycherly, William
1859	1930	Doyne, Arthur Conan	1874	1965	Maugham, W. Somerset			

BRITISH PAINTERS AND SCULPTORS

1836	1912	Alma-Tadema, Lawr.	1755	1826	Flaxman, John	1806	1870	MacIse, Daniel
1872	1898	Beadsley, Aubrey	1825	1899	Foster, Myles Birket	1829	1896	Maillart, J. E.
1734	1808	Beaumont, Lady Diana	1866	1934	Fry, Roger E.	1763	1804	Morland, George
1735	1839	Beechey, Wm.	1727	1788	Gainsborough, Thos.	1834	1896	Morris, William
1881	1967	Beresford, Frank E.	1648	1721	Gibbons, Grinling	1849	1933	Murray, David
1757	1827	Blake, William	1790	1866	Gibson, John	1835	1910	Orchardson, W. Q.
1802	1828	Boulton, R. P.	1817	1897	Gilbert, John	1878	1931	Orpen, William
1821	1893	Brown, Ford Maxod	1775	1802	Girtin, Thomas	1839	1893	Pettie, John
1833	1898	Burne-Jones, Edw.	1866	1846	Haydon, Benj.	1836	1919	Poynter, E. J. Bt.
1799	1883	Calvert, Edward	1784	1947	Henry, C. N.	1756	1823	Reaumur, Henry
1781	1841	Chantrey, F. L.	1697	1764	Hogarth, William	1733	1792	Reynolds, Joshua
1896	1967	Charrux, Siegfried	1758	1810	Hoppper, John	1734	1802	Romney, George
1850	1934	Collier, John	1827	1910	Hunt, W. Holman	1828	1882	Rossetti, D. G.
1776	1837	Constable, John	1646	1725	Knelier, Godfrey	1891	1959	Spencer, Stanley
1803	1902	Cooper, Thos. Sidney	1802	1873	Lansier, Edwin	1854	1935	Stokes, Adrian
1782	1842	Cotman, J. S.	1856	1941	Lavery, John	1775	1851	Turner, J. M. W.
1768	1821	Crome, John	1769	1830	Lawrence, Thomas	1817	1904	Watts, Geo. F.
1793	1865	Eastlake, Charles L.	1830	1896	Leighton, Fred'k, Lord	1775	1856	Westmacott, R.
1880	1959	Epstein, Jacob	1794	1859	Leslie, Charles R.	1785	1841	Wikie, David
1787	1849	Ety, William	1864	1941	Llewellyn, William	1713	1782	Wilson, Richard

BRITISH STATESMEN

1852	1928	Asquith, Herbert H.	1889	1952	Cripps, Stafford	1863	1945	Lloyd George, David
1879	1964	Astor, Viscountess	1599	1658	Cromwell, Oliver	1876	1947	Lyttton, Victor
1883	1967	Atlee, Clement	1859	1925	Curzon of Kedleston	1866	1937	MacDonald, J. Ramsay
1867	1947	Baldwin, Stanley	1804	1881	Disraeli, Benjamin	1854	1925	Milner, Alfred
1848	1930	Balfour, Arthur J.	1819	1886	Forster, Wm. E.	1732	1792	North, Frederick
1879	1964	Beaverbrook, Lord	1749	1806	Fox, Chas. Jas.	1784	1865	Palmerston, Henry
1897	1960	Bevan, Aneurin	1906	1963	Gaitskill, Hugh	1788	1850	Peel, Robert
1881	1951	Beyvin, Ernest	1809	1898	Gladstone, Wm. E.	1867	1937	Peel, William
1838	1922	Bryce, James	1712	1770	Grenville, George	1759	1806	Pitt, William
1770	1827	Canning, George	1764	1845	Grey, Charles	1708	1778	Pitt, W. (Chatham)
1769	1822	Castlereagh, Robt.	1862	1933	Grey, Edward	1854	1932	Plunkett, Horace
1864	1958	Cecil, Edgar	1594	1643	Hampden, John	1853	1902	Rhodes, Cecil
1863	1937	Chamberlain, Austen	1732	1818	Hastings, Warren	1847	1929	Rosebery, Arch.
1836	1914	Chamberlain, Joseph	1863	1935	Henderson, Arthur	1792	1878	Russell, John
1869	1940	Chamberlain, Neville	1853	1917	Jameson, Leander S.	1830	1903	Salsbury, Robt.
1874	1965	Churchill, Winston	1858	1923	Law, A. Bonar	1676	1745	Walpole, Robert
1725	1774	Clive, Robert						

BRITISH ARMY (A), NAVY (N), AIR FORCE (F), EXPLORATION (E)

Born Died	Name	Born Died	Name	Born Died	Name
1861 1936	Allenby, Edmund (A)	1535 1594	Frobisher, Martin (E)	1898 1967	McCreery, Richard (A)
1717 1797	Amherst, Jeffrey (A)	1721 1787	Gage, Thomas (A)	1867 1948	Milne, Geo. (A)
1584 1622	Baffin, William (E)	1833 1885	Gordon, Chas. G. (A)	1894 1967	Morgan, Frederick (A)
1871 1936	Beatty, David (N)	1870 1963	Gough, Hubert (A)	1782 1853	Napier, Charles J. (A)
1873 1967	Boyle, Wm. H. D. (N)	1896 1967	Graham, Ronald (F)	1810 1890	Napier, Robert C. (A)
1695 1755	Braddock, Edward (A)	1541 1591	Grenville, Richard (N)	1758 1805	Neison, Horatio (N)
1723 1792	Burgoyne, John (A)	1861 1928	Haig, Douglas (A)	1696 1875	Oglethorpe, James (A)
1663 1733	Byng, George (N)	1853 1947	Hamilton, Ian (A)	1832 1914	Roberts, Frederick (A)
1675 1726	Cadogan, Wm. (A)	1795 1857	Havelock, Henry (A)	1719 1792	Rodney, Geo. (N)
1893 1676	Cavendish, Wm. (A)	1745 1792	Hearne, Samuel (E)	1800 1862	Ross, James C. (E)
1575 1867	Chattfield, Alfred (N)	1536 1624	Howard, Charles (N)	1868 1912	Scott, Robert F. (E)
1738 1795	Clinton, Henry (A)	1726 1799	Howe, Richard (A)	1874 1922	Shackleton, Ernest (E)
1892 1959	Cochrane, Edw. L. (N)	1729 1814	Howe, William (A)	1869 1966	Shaw, John S. (A)
1770 1851	Codrington, Ed. (N)	1725 1611	Hudson, Henry (E)	1841 1904	Stanley, Henry M. (E)
1727 1779	Cook, James (E)	1883 1966	Humphreys, Noel (E)	1869 1951	Swinton, Ernest (A)
1738 1805	Cornwallis, Chas. (A)	1880 1959	Ironside, Wm. E. (A)	1890 1967	Tedder, Arthur W. (F)
1550 1605	Davis, John (E)	1859 1935	Jellicoe, John (N)	1757 1975	Vancouver, George (E)
1540 1596	Drake, Francis (N)	1715 1774	Johnson, Wm. (A)	1883 1950	Wavell, Archibald (A)
1877 1967	Ellington, Edward (F)	1872 1945	Keyes, Roger (N)	1787 1834	Weddell, James (E)
1841 1920	Fisher, John A. (N)	1850 1916	Kitchener, H. H. (A)	1769 1852	Wellington, Duke of (A)
1710 1759	Forbes, John (A)	1888 1935	Lawrence, T. E. (A)	1727 1759	Wolfe, James (A)
1750 1847	Franklin, John (E)	1560 1722	Marlborough, Duke of (A)		
1852 1925	French, John (A)	1871 1951	Maurice, Frederick (A)		

BRITISH SCIENTISTS, ENGINEERS, PHYSICIANS

1888 1967	Bamforth, Joseph	1892 1964	Haldane, J. B. S.	1733 1804	Priestley, Jos.
1813 1898	Bessemer, Henry	1578 1657	Harvey, Wm.	1857 1932	Ross, Ronald
1899 1966	Cameron, Roy	1792 1871	Herschel, John	1871 1937	Rutherford, Ernest
1881 1966	Campbell, Donald F.	1738 1822	Herschel, Wm.	1811 1870	Simpson, Jas. Y.
1731 1810	Cavendish, Henry	1897 1967	Hinshelwood, Cyril	1781 1848	Stephenson, Geo.
1905 1967	Cockcroft, John	1861 1947	Hopkins, Frederick	1624 1689	Sydenham, Thomas
1832 1919	Crooks, Wm.	1749 1823	Jenner, Edward	1820 1904	Thompson, Jos.
1870 1966	Dain, Guy	1815 1898	Jenner, William	1824 1907	Thomson, Wm. (Kelvin)
1766 1844	Dalton, John	1878 1967	Jones, Owen T.	1820 1893	Tyndall, John
1809 1882	Darwin, Charles	1827 1912	Lister, Jos.	1823 1913	Wallace, Alf. Russell
1791 1867	Farraday, Michael	1831 1879	Maxwell, Jas. Clerk	1736 1819	Wat, James E.
1881 1955	Fleming, Alexander	1877 1967	McAlpine, Malcolm	1802 1875	Wheatstone, Chas.
1849 1945	Fleming, Ambrose	1663 1729	Newcomen, Thos.	1901 1966	Whinfield, John R.
1897 1966	Franklin, Kenneth J.	1642 1727	Newton, Isaac		

BRITISH RELIGIOUS LEADERS

1117 1170	Becket, Thomas &	1860 1954	Inge, William Ralph	1613 1667	Taylor, Jeremy
1685 1753	Berkeley, George	1874 1966	Johnson, Hewlett	1484 1536	Tyndale, William
1829 1912	Booth, William B.	1505 1572	Knox, John	1703 1791	Wesley, John
1566 1644	Brewster, William	1491 1555	Latimer, Hugh	1714 1770	Whitefield, Geo.
1489 1556	Cranmer, Thos.	1813 1873	Livingstone, David	1802 1865	Wiseman, Nicholas
1624 1691	Fox, George	1808 1892	Manning, Henry E.	1475 1530	Wolsey, Thomas
1554 1600	Hooker, Richard	1801 1890	Newman, John H.	1324 1384	Wycliffe, John

Poets Laureate of England

There is no authentic record of the origin of the office of Poet Laureate of England. According to Warton, there was a Versificator Regis, or King's Poet, in the reign of Henry III (1216-1272), and he was paid 100 shillings a year. Geoffrey Chaucer (1340-1400) assumed the title of Poet Laureate, and in 1389 got a royal grant of a yearly allowance of wine. In the reign of Edward IV (1461-1483), John Kay held the post. Under Henry VII (1485-1509), Andrew Bernard was the Poet Laureate, and was succeeded under Henry VIII (1509-1547) by John Skelton. Next came Edmund Spenser, who died in 1599; then Samuel Daniel, who died in 1619, and then Ben Jonson (appointed 1619). Sir

William D'Avenant was appointed in 1638. He was a godson of William Shakespeare.

Others were John Dryden, 1670-1688; Thomas Shadwell, 1689; Nahum Tate, 1692; Nicholas Rowe, 1715; the Rev. Laurence Eusden, 1718; Colly Cibber, 1730; William Whitehead, 1758, on the refusal of Gray; Rev. Thomas Warton, 1785, on the refusal of Mason; Henry J. Pye, 1790; Robert Southey, 1813, on the refusal of Sir Walter Scott; William Wordsworth, 1843; Alfred Tennyson, 1850; Alfred Austin, 1896; Robert Bridges, 1913 (died 1930); John Masefield, 1930 (died May 12, 1967).

Cecil Day Lewis was appointed to the post Jan. 1, 1968.

Germans

GERMAN ENGINEERS, NATURALISTS, SCIENTISTS, INDUSTRIALISTS

Born Died	Name	Born Died	Name	Born Died	Name
1840 1905	Abbe, Ernst	1834 1919	Haeckel, Ernst	1848 1896	Lilienthal, Otto
1193 1280	Albertus, Magnus	1844 1913	Hagenbeck, George F.	1734 1815	Mesmer, Franz
1844 1929	Benz, Carl	1755 1843	Hahnemann, Samuel	1855 1916	Neisser, Albert
1836 1907	Bergmann, Ernest v.	1821 1894	Helmholz, Hermann	1787 1854	Ohm, Geo. S.
1811 1899	Bunsen, Robert	1857 1894	Hertz, Heinrich	1871 1948	Opel, Wilh. v.
1873 1941	Burger, Hans	1769 1859	Humboldt, Alex. v.	1853 1932	Ostwald, Wilhelm
1834 1900	Daimler, Gottlieb	1767 1835	Humboldt, Wilh. v.	1858 1947	Planck, Max
1858 1913	Diesel, Rudolf	1859 1935	Junkers, Hugo	1632 1694	Pufendorf, Samuel
1895 1964	Domagk, Gerhard	1571 1630	Keppler, Johannes	1845 1923	Roentgen, Wilh.
1861 1935	Duisberg, Carl	1843 1910	Koch, Robert	1822 1890	Schlegelmann, Heinrich
1868 1954	Eckener, Hugo	1812 1887	Krupp, Alfred	1816 1892	Siemens, Werner v.
1854 1915	Ehrlich, Paul	1907 1967	Krupp, Alfred	1842 1926	Thyssen, Aug.
1686 1736	Fahrenheit, Gabriel	1900 1967	Kuhn, Richard	1821 1902	Virchow, Rudolf
1852 1919	Fischer, Emil	1646 1716	Leibnitz, Gottfried v.	1866 1925	Wassermann, Aug. v.
1882 1964	Frank, James	1742 1799	Lichtenberg, Georg	1853 1905	Wissmann, Hermann v.
1400 1468	Gutenberg, Johannes	1803 1873	Liebig, Justus v.	1838 1917	Zeppelin, Ferd. v.

GERMAN POLITICAL AND MILITARY LEADERS; ECONOMISTS

1876 1967	Adenauer, Konrad	1863 1932	Hipper, Franz v.	1848 1916	Moltke, Helmuth von
1815 1898	Bismarck, Otto v.	1889 1945	Hitler, Adolf	1876 1960	Raeder, Erich
1742 1819	Blucher, Gebh. v.	1882 1946	Kettler, Wilhelm	1861 1922	Rathenau, Walter
1856 1921	Bethmann-Hollweg, T. v.	1887 1960	Kesselring, Alb.	1891 1944	Rommel, Erwin
1849 1929	Buelow, Bernhar v.	1874 1919	Liebknecht, Karl	1856 1935	Rundstedt, Karl v.
1880 1831	Clausewitz, C. v.	1886 1966	Luckner, Felix v.	1865 1939	Scheidemann, Philipp
1913 1967	Erlar, Fritz	1865 1937	Ludendorff, Erich	1833 1913	Schleffen, Alf. v.
1875 1921	Erzberger, Matthias	1880 1919	Luxemburg, Rosa	1878 1929	Sireseman, Gustav
1861 1922	Falkenhayn, E. v.	1849 1945	Mackensen, Aug. v.	1849 1930	Tirpitz, Alf. v.
1760 1831	Gneisenau, Aug.	1818 1883	Marx, Karl	1832 1904	Waldersee, Alf. v.
1847 1934	Hindenburg, Paul v.	1800 1891	Moltke, Helmuth von		

GERMAN AUTHORS, DRAMATISTS, ESSAYISTS, HISTORIANS, POETS

Born Died	Name	Born Died	Name	Born Died	Name
1769 1860	Arndt, Ernst Moritz	1862 1946	Hauptmann, Gerhart	1844 1900	Nietzsche, Friedrich
1886 1956	Benn, Gottfried	1760 1863	Hebbel, Friedrich	1796 1835	Platten, Aug. v.
1898 1956	Brecht, Bertolt	1770 1831	Hegel, Georg W. F.	1795 1886	Ranke, Leopold, v.
1778 1842	Brentano, Clemens	1797 1856	Heine, Heinrich	1810 1874	Reuter, Fritz
1832 1908	Busch, Wilhelm	1744 1803	Herder, Johann v.	1763 1825	Richter, Jean Paul
1740 1815	Claudius, Matthias	1877 1962	Hesse, Hermann	1875 1926	Rilke, Rainer Maria
1863 1920	Dehmel, Richard	1776 1822	Hoffman, E. T. A.	1899 1966	Ropke, Wilhelm
1837 1898	Ebers, Georg	1770 1843	Holderlin, Friedrich	1788 1866	Ruckert, Friedrich
1788 1857	Eichendorff, Jos.	1724 1804	Kant, Immanuel	1494 1576	Sachs, Hans
1820 1895	Engels, Friedrich	1878 1945	Kaiser, Georg	1775 1854	Schelling, Frederick v.
1886 1933	Ernst, Paul	1724 1804	Kasack, Hermann	1759 1805	Schiller, Friedrich
1170 1220	Eschenbach, Wolfram v.	1777 1811	Kleist, Heinrich v.	1767 1845	Schlegel, Aug. W.
1884 1958	Feuchtwanger, Lion	1724 1803	Klopstock, Friedr.	1772 1829	Schlegel, Friedr.
1762 1814	Fichte, Johann G.	1791 1813	Koerner, Karl Th.	1768 1834	Schliermacher, Fredrich
1869 1966	Foerster, Friedrich	1875 1967	Kolb, Annette	1788 1860	Schopenhauer, Arthur
1819 1898	Fontane, Theodor	1646 1716	Leibnitz, Gottfried	1817 1888	Schorn, Theodor
1816 1895	Freytag, Gustav	1729 1781	Lessing, Gotthold	1857 1928	Sudermann, Hermann
1868 1933	Georg, Stefan	1844 1909	Lillencron, Detlev v.	1893 1939	Toller, Ernst
1607 1676	Gerhardt, Paul	1881 1948	Ludwig, Emil	1834 1896	Treitschke, Heinrich v.
1749 1832	Goethe, Johann W. v.	1871 1950	Mann, Heinrich	1890 1935	Tucholsky, Kurt
1785 1863	Grimm, Jakob	1875 1955	Mann, Thomas	1787 1862	Uhland, Ludwig
1786 1859	Grimm, Wilhelm	1804 1875	Mörike, Eduard	1873 1934	Wassermann, Jakob
1890 1941	Hausenauer, Walter	1817 1903	Mommsen, Theodor	1733 1813	Wieland, Chris. M.
1802 1827	Haffner, Wilhelm			1855 1930	Wolzen, Ernst von

GERMAN ARTISTS: PAINTERS, SCULPTORS, ARCHITECTS

1480 1538	Aldorfer, Albrecht	1829 1880	Feuerbach, Anselm	1837 1887	Marees, Hans v.
1476 1545	Baldung, Hans	1774 1840	Friedrich, Kaspar	1815 1905	Menzel, Adolf v.
1870 1938	Barlach, Ernst	1503 1529	Gruenewald, Matth.	1803 1884	Richter, Ludwig
1840 1950	Beckmann, Max	1847 1921	Hildebrand, Adolf v.	1764 1850	Schadow, Johann
1827 1901	Böcklin, Arnold	1460 1524	Holbein, Hans (Sr.)	1781 1841	Schinkel, Karl
1726 1801	Chodowiecki, Dan'l	1497 1543	Holbein, Hans (Jr.)	1868 1932	Slevogt, Max
1858 1925	Corinth, Louis	1877 1947	Kolbe, Georg	1839 1924	Thoma, Hans
1783 1867	Cornelius, Peter	1867 1945	Kollwitz, Käthe	1848 1911	Ude, Fritz v.
1472 1553	Cranach, Lucas	1847 1935	Liebermann, Max	1455 1529	Vischer, Peter
1471 1528	Duerer, Albrecht	1880 1916	Marc, Franz		

French

FRENCH AUTHORS, CRITICS, POETS, DRAMATISTS, HISTORIANS

Born Died	Name	Born Died	Name	Born Died	Name
1079 1142	Abélard, Pierre	1651 1715	Fénelon, François de	1808 1855	Nerval, Gerard de
1717 1783	Alphonbert, Jean d'	1821 1890	Feuillet, Octave	1623 1662	Pascal, Blaise
1880 1918	Apollinaire, Guillaume	1821 1880	Flaubert, Gustave	1873 1914	Péguy, Charles
1820 1889	Augier, (Emile)	1886 1914	Fournier, Alain	1849 1930	Porto-Riche, Georges de
1902 1967	Ayme, Marcel	1844 1924	France, Anatole (Jacques-Anatole Thibault)	1697 1763	Prévost (L'Abbé)
1799 1850	Balzac, Honoré de	1333 1400	Froissart, Jean	1871 1922	Proust, Marcel
1823 1891	Banville, Theodore de	1811 1872	Gautier, Théophile	1495 1553	Rabelais, François
1873 1935	Barbuss, Henri	1869 1951	Gide, André	1639 1699	Racine, Jean
1862 1923	Barrès, Maurice	1822 1944	Giraudoux, Jean	1864 1936	Régnière, Henri de
1821 1867	Baudelaire, Charles	1816 1882	Gobineau, Jean	1823 1892	Renan, Ernest
1732 1799	Beaumarchais, Pierre	1822 1896	Goncourt, Edmond de	1849 1926	Richepin, Jean
1837 1899	Beauve, Henry	1830 1870	Goncourt, Jules de	1854 1891	Rimbaud, Arthur
1780 1857	Béranger, Pierre	1787 1874	Gulzot, François	1866 1944	Rimbaud, Romain
1859 1941	Bergson, Henri	1570 1631	Hardy, Alexandre	1524 1585	Ronsard, Pierre de
1888 1948	Bernanos, Georges	1842 1905	Heredia, José-María de	1868 1918	Rostand, Edmond
1866 1947	Bernard, Tristan	1857 1915	Hervieu, Paul	1760 1836	Rouget de Lisle, Claude
1767 1953	Bernstein, Henri	1892 1955	Höngger, Arthur	1885 1966	Roure, Remy
1876 1967	Biot, Pierre A.	1802 1885	Hugo, Victor	1712 1778	Rousseau, Jean-Jacques
1636 1711	Boileau, Nicolas	1848 1907	Huyssmans, Joris-Karl	1610 1703	Saint-Evremond, de
1627 1704	Bossuet, Jacques	1876 1944	Jacob, Max	1900 1944	Saint-Exupéry, Ant. de
1852 1935	Bourget, Paul	1868 1938	Jammes, Francis	1675 1755	Saint-Simon, Duc de
1867 1926	Boylesve, René	1815 1888	Lamache, Eugène	1804 1869	Sainte-Beuve, Charles A.
1858 1932	Brieux, Eugène	1530 1568	La Boétie, Etienne de	1567 1622	Sales (Saint François) de
1707 1788	Buffon, Georges	1645 1696	La Bruyère, Jean de	1804 1876	Saint-George (Lucile Dupin)
1509 1564	Calvin, Jean	1757 1834	La Fayette, Marquis de	1831 1908	Sardou, Victorien
1913 1960	Camus, Albert	1621 1695	La Fontaine, Jean de	1791 1861	Scribe, Eugene
1581 1603	Charron, Pierre	1860 1887	Laforège, Jules	1626 1696	Sévigné, (Mme. de)
1768 1848	Chateaubriand, Franc	1744 1829	Lamartine, Alphonse de	1875 1895	Sieffried, Andre
1762 1794	Chénier, André	1763 1680	La Rochefoucauld	1766 1817	Stael, (Mme. de)
1889 1963	Cocteau, Jean	1846 1870	Lautréamont, Comte de	1783 1842	Stendhal, (Beyle)
1873 1954	Colette, Sidonite	1818 1894	Lecomte de Lisle	1839 1906	Sully-Prudhomme, René
1455 1509	Comines, Philippe de	1853 1914	Lemaître, Jules	1828 1893	Taine, Hippolyte
1798 1857	Comte, Auguste	1668 1747	Lesage, Alain-René	1795 1856	Thierry, Augustin
1734 1794	Condorcet, Marquis de	1850 1923	Loti, Pierre (J. Vlaud)	1805 1859	Torquerville, A. C. de
1767 1830	Constant, Benjamin	1855 1928	Maïherbe, François de	1871 1945	Valéry, Paul
1842 1908	Coppée, François	1842 1898	Mallarmé, Stéphane	1889 1897	Vercel, Roger
1845 1875	Corbière, Tristan	1688 1763	Marivaux, Pierre	1844 1896	Verlaine, Paul
1606 1684	Cornille, Pierre	1850 1893	Maupassant, Guy de	1828 1905	Verne, Jules
1854 1928	Curel, François de	1885 1967	Maurais, Andre	1797 1863	Vigny, Alfred de
1769 1832	Cuvier, Georges	1803 1870	Merimée, Prosper	1838 1889	Villiers de l'Isle-Adam
1848 1897	Daudet, Alphonse	1798 1874	Michélet, Jules	1841 1884	Villon, François
1596 1650	Descartes, René	1622 1673	Molière, Jean-Baptiste	1597 1648	Voltaire, Vincent
1713 1874	Diderot, Denis	1533 1592	Montaigne, Michel de	1694 1778	Voltaire, (Arouet)
1881 1958	Du Gard, Roger M.	1689 1755	Montesquieu, Charles de	1840 1902	Zola, Emile
1803 1870	Dumas, Alexandre	1810 1857	Musset, Alfred de		
1824 1895	Dumas, Alexandre fils				
1926 1967	Fall, Bernard B.				

FRENCH POLITICAL LEADERS (See also page 689)

1884 1566	Auriol, Vincent	1620 1698	Frontenac, Louis de	1602 1661	Mazarin, Jules
1872 1950	Blum, Leon	1838 1882	Cambetta, Leon	1749 1791	Mirabeau, Honore
1862 1932	Briand, Aristide	1859 1914	Jaures, Jean	1860 1934	Poincaré, Raymond
1841 1929	Clemenceau, Georges	1872 1957	Herriot, Edouard	1878 1966	Reynaud, Paul
1619 1683	Colbert, Jean-Bapt.	1883 1945	Laval, Pierre	1585 1642	Richelieu, Cardinal de
1759 1794	Danton, Georges	1871 1950	Lebrun, Albert	1758 1794	Robespierre, Max
1760 1794	Desmoullins, Camille	1641 1691	Louvois, Fran. de	1208 1265	Simon de Montfort
1763 1820	Fouche, Jos.	1744 1793	Marat, Jean-Paul	1754 1838	Talleyrand, Chas. de

FRENCH PAINTERS AND SCULPTORS

Born	Died	Name	Born	Died	Name	Born	Died	Name
1834	1904	Bartholdi, F. A.	1877	1953	Dufy, Raoul	1824	1898	Moreau, Gustave
1848	1884	Bastien-Lepage, J.	1811	1889	Dupre, Jules	1830	1903	Pissarro, Camille
1822	1899	Bonheur, Rosa	1852	1931	Forain, Jean L.	1594	1665	Poussin, Nicolas
1867	1947	Bonnard, Pierre	1732	1806	Fragonard, Jean	1758	1823	Prudhon, Pierre
1703	1770	Boucher, François	1820	1876	Fromentin, Eugene	1824	1898	Puyss de Chavanne
1825	1905	Bouguereau, W.	1848	1903	Gauguin, Paul	1840	1916	Redon, Odilon
1876	1957	Braun, C.	1770	1837	Gérard, F.	1841	1919	Renoir, P. A.
1882	1963	Braque, Georges	1791	1824	Géricault, J. L. A. T.	1840	1917	Rodin, Auguste
1851	1933	Carrier-Belleuse, P.	1824	1964	Gerôme, J. L.	1871	1958	Rouault, Georges
1839	1906	Cézanne, Paul	1628	1715	Girardon, Fr.	1812	1867	Rousseau, P. E. T.
1699	1779	Chardin, Jean-Bapt.	1839	1883	Goupi, Jules A.	1795	1858	Scheffer, Ary
1600	1682	Claude Lorrain	1725	1805	Greuze, J. B.	1863	1927	Serurier, Paul
1845	1902	Constant, Benj.	1741	1828	Houdon, J. A.	1859	1891	Seurat, Georges
1796	1875	Corot, J. B. C.	1780	1867	Ingres, J. A. D.	1863	1935	Signac, Paul
1819	1877	Courbet, Gustave	1755	1841	Lebrun, Marie	1839	1899	Sisley, Alfred
1817	1878	Daubigny, C. F.	1887	1965	Le Corbusier	1900	1955	Tanguy, Yves
1808	1879	Dumier, Honore	1798	1880	Lemaître, Ph. H.	1864	1901	Toulouse-Lautrec
1748	1825	David, Louis J.	1600	1682	Lorrain, Claude	1813	1865	Troyon, Constant
1783	1856	David d'Angers, P. J.	1861	1944	Maillol, Aristide	1883	1955	Utrillo, Maurice
1834	1917	Degas, H. G. E.	1832	1883	Manet, Edouard	1758	1835	Vernet, Carl
1799	1863	Delacroix, Eugene	1869	1954	Marisse, Henri	1714	1789	Vernet, Claude, J.
1797	1856	Delacroix, Paul	1815	1891	Méissonier, J. L. E.	1789	1863	Vernet, Horace
1880	1954	Derain, Andre	1815	1875	Miller, J. F.	1876	1958	Vladimick, Maurice
1807	1876	Diaz de la Pena, N. V.	1884	1920	Modigliani, Amadeo	1868	1940	Vuillard, Edouard
1833	1883	Dore, Gustave	1840	1926	Monet, Claude	1684	1721	Watteau, Antoine

FRENCH SCIENTISTS, PHYSICIANS

1775	1836	Ampère, Andre-Marie	1678	1761	Fauchard, Pierre	1864	1948	Lumière, Louis
1788	1878	Bequerel, A. C.	1842	1925	Flammarion, Camille	1852	1907	Molsan, Henri
1852	1908	Bequerel, H. A.	1778	1850	Gay-Lussac, Joseph	1745	1799	Montgolfier, Jacques
1827	1907	Berthelot, Marcelin	1900	1958	Joliot-Curie, Frederic	1740	1810	Montgolfier, Jos.
1812	1878	Bernard, Claude	1781	1826	Laennec, Rene	1807	1875	Nélaton, Auguste
1785	1870	Brogie, A. C. de	1736	1813	Lagrange, Jos. L.	1863	1935	Painlevé, Paul
1872	1936	Bleriot, Louis	1744	1829	Lamarck, Jean B.	1647	1714	Papin, Denis
1825	1893	Charcot, Jean M.	1749	1827	Laplace, Pierre S.	1510	1590	Panloup, Ambrose
1746	1823	Chaptal, Jacques	1743	1794	Lavoisier, Antoine	1822	1895	Pasteur, Louis
1786	1889	Chevreul, Michel	1822	1900	Lenoir, Etienne	1854	1912	Poincaré, Henri
1859	1906	Curie, Pierre	1811	1877	LeVerrier, Urbain	1850	1935	Réchet, Chas.
1890	1967	Danjon, Andre	1862	1954	Lumière, Auguste	1875	1965	Schweitzer, Albert

FRENCH MILITARY LEADERS AND EXPLORERS

1769	1821	Bonaparte, Napoleon	1753	1800	Kleber, Jean-Bapt.	1889	1952	Tassigny, Jean de
1753	1823	Carnot, Lazare	1757	1834	La Fayette, Marquis de	1611	1675	Turenne, Vicomte de
1519	1572	Coligny, Gasp. de	1902	1947	Leclerc, Jacques P.	EXPLORERS		
1621	1686	Condé, Prince de	1854	1934	Lyautey, Louis H.	1658	1730	Cadillac, Antoine
1881	1942	Darlan, Jean F.	1756	1817	Massena, Andre	1491	1557	Cartier, Jacques
1722	1788	DeGrazie, François	1712	1759	Montcalm, Louis de	1567	1635	Champlain, Sam'l de
1739	1823	Dumouriez, Chas. F.	1763	1813	Morvan, Jean V.	1867	1926	Charcot, Jean B.
185	1929	Eoch, Ferdinand	1769	1815	Ney, Michel	1640	1701	Hennepin, Louis
1489	1512	Foix, Gaston de	1856	1951	Pétain, Henri Philippe	1645	1700	J-Liet, Louis
1894	1953	Fonck, Rene	1725	1867	Rochambeau, Jean-Bapt.	1643	1687	LaSalle, Robt. de
1849	1916	Gallieni, Jos. S.	1579	1638	Rohan, Henri	1637	1675	Marquette, Jacques
1879	1949	Giraud, Henri H.	1696	1750	Saxe, Maurice de			
1852	1931	Joffre, Jos.	1769	1851	Soult, Nicolas J.			

Russians

Born	Died	Name	Born	Died	Name	Born	Died	Name
AUTHORS—POETS			ARTISTS			POLITICAL LEADERS		
1888	1966	Akhmatova, Anna A.	1866	1924	Bakst, Leon S.	1844	1998	Rimsky-Korsakov, N.
1871	1919	Andreyev, Leonid	1866	1944	Kandinsky, Vasilii	1829	1894	Rubinstein, Anton
1878	1927	Artshbashev, Mikhail	1783	1836	Kiprensky, Orest	1871	1915	Serbiann, Alex.
1860	1884	Baskirtsev, Maria	1878	1927	Kostodiev, Boris	1820	1871	Serov, Alex.
1880	1921	Blak, Alexander	1861	1900	Levitan, Isaack	1856	1915	Taneyev, Sergei
1860	1904	Chekhov, Anton	1844	1918	Repin, Ilya	1840	1893	Tschalkovsky, Peter
1821	1881	Dostoevski, Feodor	1865	1911	Serov, Valentin	1746	1819	Baranov, Alexander
1891	1967	Ehrenburg, Ilya G.	1842	1904	Vereshchagin, Vasilii	1875	1946	Kalinin, Mikhail
1809	1852	Gogol, Nicholas V.	1890	1967	Zadkine, Ossip	1870	1924	Lenin, Vladimir
1812	1891	Goncharov, Ivan A.	BALLET-STAGE			1877	1952	Litvinov, Maxim
1868	1936	Gorky, Maxim	1872	1929	Diaghilev, Sergei	1845	1900	Muraviev, Michael
1812	1870	Herzen, Alexander	1896	1948	Eisenstein, Sergei	1744	1818	Noykov, Nicholas
1809	1842	Koltsov, Alexei	1890	1950	Nijinsky, Vasilav	1739	1791	Potemkin, G.
1853	1921	Korolenko, Vladimir	1885	1931	Pavlova, Anna	1863	1911	Stolypin, Peter
1768	1844	Krylov, Ivan	1822	1910	Petipa, Marius	1879	1940	Trotsky, Leon (Bronstein)
1870	1938	Kuorn, Alexander	1863	1938	Stanislavsky, Konst.	1849	1915	Witte, Sergei
1814	1841	Lermontov, Michael	COMPOSERS			SCIENTISTS		
1831	1895	Leskov, Nicholas	1861	1906	Arensky, Anton S.	1898	1967	Balandin, Aleksei
1821	1897	Maikov, Apollon	1846	1924	Arkhangelsky Alex.	1857	1927	Bekhterev, Vladimir
1819	1883	Melnikov, Paul	1836	1910	Balakirev, Milly	1779	1852	Bellingshausen, F.
1848	1936	Memirovich-Danchenko	1834	1887	Borodin, Alex.	1862	1916	Goltz, Boris
1865	1942	Merezhkovsky, D. S.	1835	1919	Cui, Cesar A.	1842	1921	Kropotkin, Peter
1821	1877	Nekrasov, Nicholas	1813	1869	Dargomizhsky, Alex.	1711	1765	Lomonosov, Michael
1824	1861	Nikolai, Vasilii	1865	1936	Glazunov, Alex.	1909	1967	Maitsev, Anatoli
1823	1886	Ostrovsky, Alexander	1803	1857	Glinka, Mikhail	1834	1907	Mendeleyev, Dmitri
1890	1960	Pasternak, Boris	1859	1935	Ippolitov-Ivanov, M.	1845	1916	Metchnikov, Elie
1857	1918	Plekhanov, Georgi	1855	1914	Lyadov, Anatol	1849	1936	Pavlov, Ivan
1799	1837	Pushkin, Alexander	1835	1881	Mussorsky, Modest	1810	1881	Prirogov, Nicholas
1856	1919	Rozanov, Vasilii	1892	1953	Prokofiev, Sergei	1839	1905	Popov, Alexander
1820	1879	Soloviev, Sergei	1866	1920	Rebikov, Vladimir	1907	1966	Sissakian, Norayr M.
1824	1919	Suvorin, Alexei						
1883	1945	Tolstoy, Alexei						
1828	1910	Tolstoy, Leo						
1811	1883	Turgenev, Ivan						

Italians

AUTHORS, DRAMATISTS, POETS, PHILOSOPHERS, HISTORIANS

Born	Died	Name	Born	Died	Name	Born	Died	Name
1749	1803	Alfieri, Vittorio	1866	1952	Croce, Benedetto	1785	1873	Mazzoni, Alessandro
1846	1900	Amiel, Edmond de	1863	1938	D'Annunzio, Gabriele	1805	1872	Mazzini, Giuseppe
1227	1274	Aquinas, Thomas	1265	1321	Dante, Alighieri	1698	1782	Metastasio (F. Trapassi)
1492	1556	Arentino, Pietro	1817	1883	De Sanctis, Francesco	1672	1750	Muratori, Ludovico
1474	1533	Ariosto, Ludovico	1909	1967	Emanuelli, Enrico	1848	1923	Pareto, Vilfredo
1929	1907	Ascoli, Graziadio	1842	1911	Fogazzaro, Antonio	1855	1912	Pascoli, Giovanni
1791	1863	Belli, Giuseppe	1778	1827	Foscolo, Ugo	1788	1854	Pellico, Silvio
1313	1375	Boccaccio, Giovanni	1809	1850	Giusti, Giuseppe	1304	1374	Petrarch, Francesco
1441	1494	Bolardo, Matteo Maria	1707	1793	Goldoni, Carlo	1867	1936	Pirandello, Luigi
1548	1599	Bruno, Giordano	1713	1786	Gozzi, Gaspare	1432	1484	Pulci, Luigi
1568	1639	Campanella, Tommaso	1843	1840	Guicciardini, Francesco	1626	1698	Redi, Francesco
1835	1907	Carducci, Giosue	1798	1837	Leopardi, Giacomo	1544	1592	Tasso, Torquato
1725	1798	Casanova, Giovanni	1836	1909	Lombroso, Cesare	1840	1927	Verga, Giovanni
1478	1529	Castiglione, Baldassarre	1469	1527	Machiavelli, Nicolo	1668	1744	Vico, Giambattista
1884	1966	Cecchi, Emilio	1449	1515	Manuzio, Aldo (Aldus)			

ITALIAN EXPLORERS, SCIENTISTS, POLITICAL LEADERS

1776	1856	Avogadro, Amedeo	1737	1798	Galvani, Luigi	1859	1953	Nitti, Francesco
1738	1794	Beccaria, Cesare	1807	1882	Garibaldi, Giuseppe	1254	1324	Polo, Marco
1835	1900	Beltrami, Eugenio	1881	1954	Gasper, Alcide de	1626	1698	Redi, Francesco
1476	1507	Borgia, Cesare	1882	1955	Graziani, Rodolfo	1835	1910	Schiaparelli, Giovanni
16th Cen		Cabot, John (Cabato)	1843	1840	Guicciardini, Francesco	1818	1878	Secchi, Angelo
1821	1910	Cannizzaro, Stanislao	1429	1521	Malpighi, Pierci	1873	1952	Storza, Carlo
1810	1861	Cavour, Camillo Benso	1874	1937	Marconi, Guglielmo	1729	1799	Palladiano, Lazzaro
1451	1506	Columbus, Christopher	1805	1872	Mazzini, Giuseppe	1608	1647	Torricelli, Evangelista
1830	1903	Cremona, Luigi	1389	1464	Medici, Cosimo di (1)	1485	1533	Verrazano, Giovanni
1881	1954	De Gasperi, Alcide	1519	1574	Medici, Cosimo di (2)	1454	1512	Vespucci, Amerigo
1901	1954	Fermi, Enrico	1449	1492	Medici, Lorenzo di	1745	1827	Volta, Alessandro
1847	1897	Ferrario, Galileo	1846	1910	Mosso, Angelo			
1564	1642	Carra, (G. Galilei)	1883	1945	Mussolini, Benito			

ITALIAN PAINTERS, SCULPTORS AND ARCHITECTS

1404	1472	Alberti, Leon Battista	1500	1571	Cellini, Benvenuto	1480	1528	Palma, Jacopo
1512	1572	Alessi, Galeazzo	1240	1302	Cimabue, Giovanni	1445	1523	Peruginio, Pietro
1447	1522	Amadeo, Giovanni	1489	1534	Correggio, Antonio da	1720	1778	Praxinos, Giovanni
1387	1455	Angelico, Fra	1429	1521	Cornelli, Piero di	1454	1513	Petrarchello, Jacopo
1591	1666	Barbieri, Giovanni	1397	1482	Della Robbia, Luca	1483	1520	Raphael (Raffaello)
1475	1517	Bartolomea, Fra	1486	1531	Del Sarto, Andrea	1575	1642	Rem, Guido
1426	1507	Bellini, Gentile	1386	1466	Donatello, Donato	1400	1482	Robbia, Luca della
1428	1516	Bellini, Giovanni	1378	1455	Ghiberti, Lorenzo	1615	1673	Rosa, Salvatore
1400	1470	Bellini, Jacopo	1449	1494	Ghirlandajo, Domenico	1460	1529	Sansovino, Andrea
1467	1516	Beltramo, Giovanni	1477	1510	Giorgione	1486	1570	Sansovino, Jacopo
1598	1680	Bernini, Gian Lor.	1260	1336	Giotta, Angelo	1858	1899	Segantini, Giovanni
1598	1680	Bernini, Lorenzo	1420	1497	Gozzoli, Benozzo	1883	1966	Severini, Gino
1445	1510	Botticelli, Sandro	1445	1469	Lippi, Fra Filippo	1696	1770	Tiepolo, Giambattista
1444	1514	Brancante, Donato	1459	1504	Lippi, Filippo	1454	1513	Tintoretto, Jacopo
1377	1446	Brunelleschi, Filippo	1827	1887	Mangoni, Giuseppe	1477	1576	Titian (Tiziano)
1697	1768	Canaletto (Canale)	1431	1506	Mantegna, Andrea	1397	1475	Uccello, Paolo
1757	1822	Canova, Antonio	1401	1428	Masaccio, Tommaso	1511	1574	Vasari, Giorgio
1570	1610	Caravaggio, Amerighi	1475	1564	Michelangelo, Buonarroti	1528	1588	Veronese, Paolo
1450	1522	Carpaccio, Vittore	1826	1901	Morelli, Domenico	1435	1488	Verrocchio, Andrea
1881	1966	Carra, Carlo	1518	1580	Palladio, Andrea	1452	1519	Vinci, Leonardo da

Additional European Personalities of the Past

A—Artist, C—Composer, E—Explorer, M—Musician, P—Philosopher, S—Scientist, St—Statesman, W—Writer

Born	Died	Name	Born	Died	Name	Born	Died	Name
Austrians			Belgians			Czechs; Slovaks		
AUTHORS			1827 1879 De Coster, Chas.—W.			1878 1932 Bata, Thos.		
1878	1965	Buber, Martin	1822	1890	Franck, Cesar.—C.	1884	1948	Benes, Eduard.—St.
1791	1872	Grillparzer, Frans	1883	1966	Janssen, Albert E.—St.	1762	1813	Bernolac, Anton.—W.
1874	1929	Hofmannsthal, H. V.	1862	1949	Maeterlinck, Maur.—W.	1890	1938	Capek, Karel.—W.
1883	1924	Kafka, Franz	1857	1931	Mont, Pol de.—W.	1592	1671	Comenius.—St.
1874	1936	Kraus, Karl	1836	1924	Picard, Edmond.—W.	1841	1904	Dorot, Anton.—C.
1801	1862	Nestroy, Johann	1823	1883	Pirmez, Octave.—W.	1825	1904	Hanslick, Eduard.—W.
1790	1836	Raimund, Ferdinand	1818	1902	Potvin, Chas.—W.	1890	1967	Heyrovsky, Jaroslav.—S.
1875	1926	Rilke, Rainer Maria	1850	1937	Thunins, Georges.—St.	1879	1952	Hrozny, Bedrich.—S.
1862	1931	Schnitzler, Artur	1861	1907	Van Lerberghe, Ch.—W.	1371	1415	Hus, Jan.
1805	1868	Stifter, Adalbert	1855	1916	Verhaeren, Emile.—W.	1854	1928	Janacek, Leos.—C.
1843	1914	Suttner, Berta v.				1810	1836	Macha, Karel.—W.
1565	1227	Walter v. d. Vogelweide				1838	1916	Mach, Ernest.—St.
1864	1918	Wedekind, Franz				1879	1966	Masaryk, Alice G.—St.
1881	1932	Wildgans, Anton				1887	1948	Masaryk, Jan.—St.
1890	1945	Welfel, Franz				1850	1937	Masaryk, Tomas.—St.
1881	1942	Zweig, Stefan				1848	1922	Myslbek, Josef.—S.
ARTISTS						1834	1914	Neruda, Jan.—W.
1657	1745	Altamonte, Martino				1885	1944	Niederle, Lubor
1840	1884	Makart, Hans				1798	1876	Palacky, Frantisek.—W.
1724	1796	Maulpertsch, Franz				1878	1869	Purkyne, Jan.—S.
1890	1918	Schleier, Egon				1845	1912	Sladec, Jos.—W.
1718	1801	Schmidt, Martin				1824	1884	Smetana, Bedrich.—C.
1804	1871	Schwind, Mortiz v.				1880	1919	Stefanik, Milan.—S.
1858	1899	Segantini, Gio.				Danes		
1793	1865	Waldmuller, Ferdinand				1805	1875	Anderson, Hans C.—W.
SCIENTISTS						1681	1741	Bering, Vitus J.—E.
1829	1894	Billroth, Theo.						
1803	1853	Doppler, Christian J.						
1856	1939	Freud, Sigmund						
1827	1818	Jacquelin, Nikolaas V.						
1838	1916	Mach, Ernst						
1822	1884	Mendel, J. Gregor						
1493	1541	Paracelsus, Theoph.						
1879	1929	Piquet, Clemens v.						
1793	1851	Ressel, Josef						
1887	1961	Schroedinger, Erwin						
1858	1929	Weisbach (Karl Auer)						
			Finns			Hungarians		
			1885	1962	Bohr, Niels.—S.	1877	1919	Ady, Andrew.—W.
			1546	1601	Brahe, Tycho.—S.	1823	1890	Andrassy, Gyula.—St.
			1842	1927	Brandes, Georg.—W.	1846	1933	Apponyi, Albert.—St.
			1885	1962	Dinesen, Isak.—W.	1817	1882	Arany, John.—W.
			1890	1966	Erichsen, Wolla.—S.	1881	1945	Bartok, Bela.—C.
			1893	1966	Fris, Astrid.—W.	1806	1849	Bathany, Lajos.—St.
			1857	1919	Gjellerup, Karl.—W.			
			1894	1967	Henningsen, Poul.—W.			
			1684	1754	Holberg, Ludvig.—W.			
			1884	1966	Host, Oluf.—W.			
			1813	1885	Kierkegaard, Soren.—P.			
			1894	1948	Moller, John C.—St.			
			1777	1851	Oersted, Hans, Ch.—S.			
			1857	1943	Pontoppidan, H.—W.			
			1140	1206	Saxo, Grammaticus.—W.			
			1770	1844	Thorsvaldsen, B.—A.			

Born	Died	Name
1844	1920	Benczur, Gyula—A.
1803	1876	Deak, Francis—St.
1877	1960	Dohnanyi, Erno—C.
1848	1919	Eotvos, Lorand—S.
1810	1893	Erkel, Ferenc—C.
1885	1966	Hevesy, Georg v.—S.
1868	1957	Horthy, Nicholas—St.
1387	1456	Hunyadi, John—S.
1825	1904	Jokai, Maurus—W.
1887	1967	Kallay, Miklos—St.
1887	1967	Kassak, Lajos—W.
1882	1967	Kodaly, Zoltan—C.
1792	1830	Katona, Joseph—W.
1790	1838	Kolcsey, Ferenc—W.
1802	1894	Kossuth, Louis—St.
1046	1095	Ladislav, St.—St.
1890	1967	Lakatos, Geza—St.
1811	1886	Liszt, Franz—C.
1823	1864	Madach, Emerik—W.
1443	1490	Matthias, Kolman—St.
1847	1910	Mikszath, Calvin—W.
1878	1952	Moltar, Ferenc—W.
1844	1901	Munkarsy, Miholy—A.
1823	1849	Petőfi, Sándor—W.
1676	1735	Rakoczi, Francis
1818	1865	Semmelweis, Ignaz—S.
975	1038	St. Stephen (1st king)
1791	1860	Szechenyi, Stephen—St.
1861	1918	Tisza, Stephen—St.
1900	1855	Voroshmarty, M.—W.
1849	1924	Zichy, Geza—C.

Irish

AUTHORS

1824	1889	Allingham, Wm.
1923	1964	Behan, Brendan
1832	1916	Brooke, Stopford A.
1843	1913	Dowden, Edward
1878	1957	Dunsany (E. J. Plunkett)
1878	1957	Gogarty, Oliver St. John
1728	1774	Goldsmith, Oliver
1852	1932	Gregory, Lady
1882	1941	Joyce, James
1905	1967	Kavanagh, Patrick
1891	1917	Ledwith, Francis
1806	1872	Lever, Charles
1797	1868	Lover, Samuel
1879	1949	Lynd, Robert
1916	1967	Macken, Walter
1852	1933	Moore, George
1779	1852	Moore, Thomas
1828	1862	O'Brien, Fitz-James
1911	1966	O'Brien, Flann
1884	1964	O'Casey, Sean
1903	1966	O'Connor, Frank
1844	1881	O'Shaughnessy, Arthur
1879	1916	Pearse, Padric
1886	1958	Robinson, Lennox
1867	1935	Russell, George
1856	1950	Shaw, G. Bernard
1751	1816	Sheridan, Richard B.
1866	1918	Sigerson, Dora
1882	1950	Stephens, James
1657	1745	Swift, Jonathan
1895	1909	Wynne, John M.
1652	1715	Tate, Nahum
1854	1900	Wilde, Oscar
1865	1939	Yeats, Wm. Butler

Netherlands

DUTCH PAINTERS

1450	1516	Bosch, Hieronymus
1410	1475	Bouts, Dirk
1620	1691	Cuyp, Albert
1613	1675	Douw, Gerard
1622	1654	Fabritius, Carel
1584	1666	Elms, Frans
1638	1709	Hobema, Meindert
1629	1685	Hooch, Pieter
1682	1749	Huyssum, Jan van
1872	1944	Mondrian, Piet
1610	1685	Ostade, Adr. van
1625	1654	Potter, Paul
1606	1669	Rembrandt van Rijn
1625	1682	Ruysdael, Jacob
1626	1679	Stein, Jan
1617	1681	Ter Borch, Gerard
1853	1890	Van Gogh, Vincent
1596	1656	Van Goyen, Jan
1494	1553	Van Leyden, Lucas
1632	1675	Vermeer, Jan

FLEMISH PAINTERS

1605	1638	Brouwer, Adriaen
1568	1625	Brueghel, Jan
1414	1684	Coucke, Gonzales
1640	1482	Goes, Hugo van der
1648	1727	Huysmans, Cornelis
1656	1696	Huysmans, Jacob
1593	1678	Jordaens, Jacob
1478	1533	Mabuse, Jan
1460	1531	Matsys, Quentin

1435	1495	Memling, Hans
1577	1640	Rubens, Peter Paul
1579	1657	Snyders, Frans
1582	1649	Teniers, David
1610	1694	Teniers, David (2)
1599	1641	Van Dyck, Anthony
1366	1426	Van Eyck, Hubert
1388	1440	Van Eyck, Jan
1399	1464	Weyden, Rogier v. d.

Norwegians

AUTHORS

1813	1896	Aasen, Ivar
1812	1885	Asbjornsen, Peter
1832	1910	Bjornson, Bjornstjerne
1872	1959	Bojer, Johan
1813	1895	Collett, Camilla
1879	1967	Falkberget, Johan
1851	1924	Garborg, Arne
1859	1952	Hamsun, Knut
1828	1906	Ibsen, Henrik
1849	1906	Kjelland, Alex. L.
1865	1926	Kjock, Hans E.
1833	1908	Lie, Jonas
1813	1882	Moe, Jorgen
1810	1863	Munch, Peter
1882	1949	Undset, Sigrid
1807	1873	Welhaven, Johan S.
1808	1845	Wergeland, Henrik

EXPLORERS

1872	1928	Amundsen, Roald
1861	1930	Nansen, Fridtjof
1854	1930	Sverdrup, Otto

Poles

1880	1957	Asch, Scholem—W.
966	1025	Boleslav, Chrobry—St.
1310	1370	Casimir the Great—St.
1810	1849	Chopin, Fryderyk—C.
1473	1543	Copernicus, Nich—S.
1857	1924	Korzeniowski, C.—W.
1746	1817	Kosciusko, Gen. T.—St.
1859	1859	Krasinski, Z.—W.
1879	1959	Landowska, Wanda—M.
1756	1861	Lelewel, Joachim—W.
1896	1966	Mackiewicz, Stanislaw—W.
1839	1895	Matejko, Jan.—A.
1798	1855	Mickiewicz, Adam—W.
1901	1966	Mikolajczyk, Stanislaw—St.
1867	1946	Moscicki, Ignace—St.
1860	1941	Padewski, Ignace—C.
1861	1935	Pilsudski, Jos.—St.
1847	1912	Prus, Boleslaw—W.
1748	1779	Pulaski, Casimir—St.
1868	1925	Reymont, W.—W.
1846	1916	Sienkiewicz, H.—W.
1867	1934	Skłodowska, Marie (Curie)—S.
1809	1849	Slowacki, Juliusz—W.
1892	1967	Smietlinski, Jan—M.
1642	1696	Sobieski, Jan.—St.
1869	1907	Szymanowski, S.—A.
1542	1605	Zamoyski, Jan—St.
1864	1925	Zeromski, Stefan—W.

Spanish

AUTHORS

1833	1891	Alarcon, Pedro de
1874	1967	Azorin (J. M. Ruiz)
1866	1954	Benavente, Jacinto
1180	1265	Berceo, Gonzalo de
1867	1928	Blasco, Ibanez, V.
1600	1681	Calderon de la Barca
1616	1616	Cervantes, Miguel de
1533	1594	Ercilla y Zuniga
1760	1828	Fernandez de Moratin
1899	1936	Garcia Lorca, Federico
1503	1536	Garcilaso, de la Vega
1561	1627	Gongora y Argote
1803	1839	Heredia y Campuzano
1881	1958	Jimenez, Juan R.
1528	1591	Leon, Luis de
1877	1943	Leon, Ricardo
1332	1407	Lopez de Ayala
1398	1458	Lopez de Alarcón
1440	1479	Manrique, Jorge
1282	1348	Manuel, Juan
1883	1955	Ortega y Gasset, Jose
1852	1921	Pardo Bazan, Emilia
1833	1906	Pereda, Jose Mario de
1843	1920	Perez Galdos, B.
1580	1645	Quevedo y Villegas, F.
1772	1857	Quintana, Manuel Jose
1465	1541	Rojas, Fernando de
1510	1566	Rueda, Lope de
1580	1639	Ruiz de Alarcón, J.
1864	1936	Unamuno, Miguel de
1503	1541	Valdes, Juan de
1824	1905	Valera y Alcalá
1870	1936	Valle-Inclan, D. del

1562	1635	Vega, Lope de
1579	1644	Velez de Guevara, L.

PAINTERS

1786	1827	Alvarez, Don Jose
1601	1667	Cano, Alonso
1641	1685	Carreno de Miranda
1838	1874	Fortuny, Mariano
1764	1828	Goya y Lucientes, F.
1815	1894	Madrazo, Federico
1509	1586	Morales, Luis de
1618	1682	Murillo, B. E.
1551	1609	Pantoja de la Cruz, Juan
1560	1628	Ribalta, Francisco de
1588	1656	Ribera, Jose
1520	1590	Sanchez Coello, Alonso
1863	1923	Sorolla y Bastida, J.
1548	1614	Theotocopuli, Domenigo "El Greco"

1622 1690 Valdes Le Juan
1599 1660 Velasquez, Diego
1870 1845 Zuloaga, Ignacio
*El Greco (the Greek) was born in Candia, Crete, between 1541-48, studied painting under Titian in Venice, became a leading Spanish painter and died in Toledo.

Swedes

1793	1866	Almqvist, C. J. L.—W.
1859	1927	Arrhenius, Svante A.—S.
1740	1795	Belman, C. M.—W.
1885	1967	Berg, Bengt—W.
1869	1967	Bergman, B. H.—W.
1895	1948	Bernadotte, Folke—St.
1779	1848	Berzelius, Jacob—S.
1801	1865	Bremer, Fredrika—W.
1866	1945	Cassel, Gustav—S.
1701	1744	Celsius, Anders—S.
1800	1889	Frieson, John—S.
1876	1966	Fries, Robert—S.
1860	1911	Froding, Gustaf—W.
1783	1847	Geller, E. G.—W.
1905	1961	Hammarskjöld, Dag—St.
1885	1946	Hansson, Per Albin
1865	1952	Hedin, Sven—E.
1891	1966	Josephson, Ragnar—W.
1864	1931	Karlfeldt, Erik Axel—W.
1858	1940	Lagerlot, Selma—W.
1707	1778	Linne, Carl von—S.
1875	1955	Milles, Carl—A.
1843	1921	Munthe, Oscar—W.
1857	1949	Munthe, Axel—W.
1833	1898	Nobel, Alfred B.—S.
1842	1919	Retzius, Gustaf—S.
1828	1895	Rydberg, Viktor—W.
1879	1966	Siren, Oswald—W.
1873	1823	Stagnelius, E. J.—W.
1849	1912	Strindberg, August—W.
1688	1772	Swedenborg, E.—W.
1782	1846	Tegner, Esalas—W.

Swiss

AUTHORS, SCHOLARS

1807	1873	Agassiz, Louis
1818	1897	Burckhardt, Jakob
1828	1910	Dunant, Henri
1848	1931	Forel Auguste
1797	1854	Gottlieb, Jeremias
1708	1777	Haller, Albrecht V.
1875	1961	Jung, Carl Gustav
1819	1890	Keller, Gottfried
1741	1801	Lavater, Johann K.
1825	1898	Meyer, Conrad F.
1493	1541	Paracelsus, Theophrastus
1746	1827	Pestalozzi, Johann H.
1712	1778	Rousseau, Jean Jacques
1740	1799	Saussure, Benedict
1845	1924	Spitteler, Karl
1766	1817	Stael, Madame de
1797	1847	Vinet, Alexandre

PAINTERS, SCULPTORS

1827	1901	Boecklin, Arnold
1810	1864	Celanja, Alexandre
1741	1825	Füssli (Fuseli), J. H.
1901	1966	Giacometti, Alberto
1806	1874	Gleyre, Charles
1853	1918	Hodder, Ferdinand
1741	1897	Kaufmann, Angelica
1879	1940	Klee, Paul
1702	1798	Lotard, Jean Etienne
1794	1835	Robert, Leopold

Ukrainians

1881	1946	Bogomolets, Alex.—S.
1866	1934	Hrushevsky, Mich.—W.
.....	1657	Khmelnitsky, B.—St.
.....	1709	Mezappa, Ivan—St.
1842	1912	Lysenko, Nicholas—C.
1871	1913	Ukrainka, Lesya—W.

U. S. Passport, Visa and Health Requirements

Source: Passport Office, U. S. Dept. of State and U. S. Public Health Service

Passports are issued by the United States Department of State to citizens and nationals of the United States for the purpose of documenting them for their foreign travel and to identify them as Americans. Some countries require a visa, or stamp of approval, to be affixed to the passport by the consulate of the country to be visited, while others waive this formality. Also some countries, which do not require visas, require tourist cards from visitors making a short stay.

Passports may not be used for travel into or through Cuba, Mainland China, North Korea or North Vietnam unless specifically endorsed for such travel.

HOW TO OBTAIN A PASSPORT

An applicant for a passport who has never been previously issued a passport in his own name, must execute an application in person before a clerk of a Federal court or a State court having naturalization jurisdiction, or before an Agent of the Passport Office or before a diplomatic or consular officer of the U. S. abroad. A spouse who is to be included in the application must appear with the applicant and execute the application. Passport Agents are located at Boston (John F. Kennedy Bldg., Government Center), Chicago (Fed. Office Bldg., 219 S. Dearborn); Honolulu (Fed. Bldg.); Los Angeles (Fed. Office Bldg., 300 N. Los Angeles St.); Miami (51 S.W. First Ave.); New Orleans (U. S. Customs House, 423 Canal St.); New York (630 Fifth Ave.); Philadelphia (401 N. Broad St.); San Francisco (Fed. Office Bldg., 450 Golden Gate Ave.); Seattle (1410 Fifth Ave.); Washington D. C. (Passport Office, 17th and H Sts., N. W.).

An applicant may submit a prior passport in lieu of evidence of citizenship. A native-born citizen must submit an acceptable birth certificate, or baptismal certificate. A notice by appropriate authorities indicating no birth record exists must be submitted with evidence other than birth certificate or baptismal certificate. A baptismal certificate or certified copy of record of baptism showing baptism occurred shortly after birth should bear the full name, date and place of birth, and the seal, name, and location of the church. In the absence of the above, other evidence, such as census records, newspaper files, school records or affidavits of persons having personal knowledge of the facts of birth may be submitted for consideration.

A person in the U. S. who has been issued a passport in his own name within the last eight years may obtain a new passport by filling out, signing and mailing a special application form together with his previous passport, two duplicate signed photographs taken within the last 6 months and the established fee to the nearest Passport Agency or to the Passport Office in Wash., D. C. If, however, an applicant is applying for a passport for the first time, if his prior passport was issued before his 18th birthday, if he wishes to include a person other than himself in the passport, or if he is applying for an official or diplomatic passport, he must execute a regular passport application in person before a clerk of court or Passport Agent.

A naturalized citizen should present his naturalization certificate. A person claiming citizenship through either a native-born or naturalized citizen must submit a certificate of citizenship issued by the Attorney General; or a Consular Report of Birth or Certification of Birth issued by the Dept. of State. If one of the above documents has not been obtained, he must submit evidence of citizenship of the parent(s) through whom citizenship is claimed and evidence which would establish the parent/child relationship. Additionally, if through birth to one American and one alien parent, an affidavit showing periods and places of residence in the United States and abroad, specifying periods in Armed Forces of U. S.; if through naturalization of parents, evidence of admission to the United States for permanent residence.

A married woman must submit evidence of citizenship and, under certain conditions, marriage. Special regulations govern women married prior to Dec. 22, 1922; check a Passport Agency.

The applicant shall establish his identity to the satisfaction of the Clerk of Court or Passport Agent. Proof of identity may be established

through a personal knowledge of the applicant by the Clerk or Agent or by an item which contains the signature and either a physical description or photograph of the applicant. The following items of identification are acceptable: Previous United States Passport; naturalization certificate; driver's license; a Federal, state, municipal identification card or pass; an industrial or business identification card or pass.

If the applicant is not able to establish his identity by personal knowledge or by one of the above items, he shall have an identifying witness who has known him at least 2 years. The witness himself must have acceptable identification.

Aliens—An alien leaving the U. S. must request passport facilities from his home government. He must have a permit from his local Collector of Internal Revenue, and if he wishes to return he should request a re-entry permit from the Immigration and Naturalization Service if it is required.

Contract Employees—Persons traveling because of a contract with the Government must submit with their applications letters from their employer stating position, destination and purpose of travel and Armed Forces contract number when pertinent.

Persons of military draft age may receive passports but should inform their draft boards of their travel plans.

PHOTOGRAPHS AND FEES

Photographs—Two recent duplicate photographs, both signed by the applicant and which are a good likeness, must accompany the passport application. A group photograph is preferred if more than one person is included in the passport. Photographs may be in color or in black and white. They must be full face, printed on thin, unglazed paper base on a light background and must be no smaller than 2½ x 2½ inches nor larger than 3 x 3 inches in size. They must also be capable of withstanding a mounting temperature of over 200° F.

Fees—The passport fee is \$10, plus an execution fee of \$2 whenever an application is executed in person before a clerk of court, Passport Agent or diplomatic or consular officer abroad. No execution fee is payable where a passport is applied for by mail. All applicants must pay the passport fee and, where applicable, the execution fee unless specifically exempted by law. A person who is proceeding abroad on official Government business should submit a sponsoring letter from his employing Agency instead of the passport fee. This letter will also excuse the payment of an execution fee if an application is executed before a Federal official. Where, however, an application is executed before a clerk of State court the latter is authorized by law to collect and retain the \$2 fee. Emergency clearance costs \$2 at all Passport Agencies except New York and Philadelphia where it is \$1. An emergency service fee of \$10 is charged in addition to all other fees where work must be performed after hours. The only other fees are for postage and emergency charges. "A passport is valid for five years. The validity period of all passports outstanding (i.e., unexpired passports) within five years of their issue dates) on Aug. 26, 1968 was automatically extended by Act of Congress to five years from the original date of issue without the need of renewal. Upon expiration, passports may no longer be renewed. New passports must be obtained."

During the calendar year 1967 the Passport Office, Dept. of State, issued 1,685,512 new and renewed passports to American citizens.

If passport is lost notify the Passport Office, Dept. of State, Wash., D. C. 20524. If lost abroad, report loss to U. S. Consul.

FOREIGN REGULATIONS

A visa is an endorsement or a notation, usually rubber stamped in a passport by a representative of the country to be visited. It certifies that the bearer of the passport is to be entitled to enter the country for a certain purpose and length of time. With the exception of the Iron Curtain countries, no visas are required for brief tourist travel to Western European countries. Authoritative visa information can be obtained by writing directly to foreign consular officials. The locations of foreign consular offices in the U. S. may be obtained by consulting the Congressional Directory available in most libraries. (Check appropriate city telephone directories for complete address.)

HEALTH ADVICE

Smallpox vaccination is required by most countries for entry and by the United States for re-entry. The United States does not require smallpox of travelers whose trips are restricted to Aruba, Bahamas, British Virgin Islands, Canada, Canal Zone, Curacao, Greenland, Iceland, Jamaica, Mexico, and St. Pierre and Miquelon. Vaccination is valid for three years.

Yellow fever is required for entry to certain infected countries and when traveling from infected to "receptive" areas. It can be performed only at certain Centers designated by the Public Health Service, and is valid for 10 years.

Cholera is generally required when traveling to or from infected areas. It is valid for 6 months only.

Smallpox, yellow fever, and cholera vaccinations must be recorded on PHS Form 731, International Certificates of Vaccination. These are generally available from state and local health departments and offices issuing passports (including clerks of courts), or from the Superintendent of Documents, U. S. Government Printing Office, Wash., D. C.

Liberalized U. S. Immigration Law in Effect

The national origins quota system disappeared from United States immigration procedures July 1, 1968, as provided by the Act. of Oct. 3, 1965, which amended the Immigration and Nationality Act.

The Immigration and Nationality Act, as amended, provides for numerical limitations on immigration from the Eastern and Western Hemispheres. Not subject to any numerical limitations, however, are immigrants who are spouses or children of U. S. citizens, or parents of citizens who are 21 years of age or older; returning residents; certain former U. S. citizens; ministers of religion; and certain long-term U. S. Government employees.

The Act of Oct. 3, 1965, established new controls to protect the American labor market from an influx of skilled and unskilled foreign labor. The primary responsibility was placed on the would-be immigrant to obtain the Secretary of Labor's clearance, prior to the issuance of a visa, establishing that there are not sufficient workers in the U. S. at the alien's designation who are able, willing and qualified to perform the skilled or unskilled labor; and that the employment of the alien will not adversely affect wages and working conditions of U. S. citizens similarly employed.

EASTERN HEMISPHERE IMMIGRANTS

Persons born in countries of the Eastern Hemisphere and dependent areas thereof are subject to an annual limitation of 170,000. Within this numerical limitation there is an annual limitation of 20,000 for each country and 200 for each dependent area. Applicants are classified as either preference or nonpreference.

The preference visa categories are based on certain relationships to persons in the U. S.: i.e., unmarried sons and daughters of United States citizens, spouses and unmarried sons and daughters of resident aliens, married sons and daughters of U. S. citizens, and brothers and sisters of U. S. citizens (first, second, fourth, and fifth preference, respectively); certain professions and skills (third preference); and certain categories of workers which are in short supply in the U. S. (sixth preference). Spouses and children of preference applicants are entitled to the same preference if accompanying or following to join such persons.

Preference status is based on approved petitions, filed with the Immigration and Naturalization Service, by the applicable relatives or employers. Visa numbers for qualified preference applicants are made available in the order of the preference classes and, within such classes, in the order of the

20402, for 10¢ apiece. The traveler and his physician should fill in the requested information, and the certificate then must be stamped to be valid. The stamp usually is applied by the state or local health department to which certificates may be either mailed or taken in person.

The following immunizations are suggested for all travelers: typhoid, tetanus, diphtheria, polio, and measles. Travelers to South and Central America (except urban Mexico), Africa, Asia and the South Pacific (except Japan, Australia, New Zealand) should receive Immune Serum Globulin (Human) for protection against hepatitis. Travelers to areas infected with malaria should receive preventive treatment. All travelers are advised to take adequate supplies of any medicines they may need and either an extra pair of or prescription for their glasses.

Specific requirements by country are published in "Immunization Information for International Travel" (Government Printing Office, 40¢). Additional information may be obtained from Foreign Quarantine Program, National Communicable Disease Center, Atlanta, Georgia 30333.

filing dates of the petitions.

Immigrants not entitled to classification within one of the above-mentioned preference groups are nonpreference applicants and receive only those visa numbers not needed by preference applicants.

As the preference categories appear likely to take all but a very few of the 170,000 immigrant visa numbers authorized, most applicants without preference status will be unable to immigrate to the United States in the foreseeable future under existing legislation. Further, a heavy demand in some of the preference classes has resulted in extended waiting periods for many applicants in those classes. Also, the higher preference categories may utilize the entire numerical limitation in some countries and dependent areas, which will prevent any visa numbers becoming available for persons from such countries or areas in any of the lower preference categories for that year.

WESTERN HEMISPHERE IMMIGRANTS

The Act establishes an annual ceiling of 120,000 on immigration by persons born in independent countries of the Western Hemisphere (Canada, Mexico, Central and South America and the Caribbean Area). Within this over-all ceiling there is no numerical limitation set for individual countries, and no preference classes have been established for such applicants. Visas within the 120,000 limitation will be made available to qualified applicants in the chronological order of their priority dates. An applicant's priority is based on the date a labor certification is approved or the date proof is received by the consular officer that a labor certification is not required.

EXCLUDABLE ALIENS

Among aliens who are excludable are persons mentally retarded, insane, psychopathic, mentally defective, sexual deviates, and those afflicted with any dangerous contagious disease or having a physical defect impairing the ability to earn a living. Also chronic alcoholics, narcotic addicts, paupers, beggars, stowaways and prostitutes. Also persons convicted of crimes such as narcotics trafficking or commercialized vice. Also persons who try to enter the U. S. by fraud, illiterates, and persons who left the U. S. to avoid military service. Also anarchists and those who teach or advocate overthrow of the U. S. Government by force or violence.

For more detailed information consult the nearest office of the U. S. Immigration & Naturalization Service, or any U. S. Consul abroad.

Great Seal of the United States

The Great Seal of the United States was first adopted by the Continental Congress, June 20, 1782, and by the Federal Government Sept. 16, 1789. The Secretary of State is its custodian. Only one face is used on documents.

A representation of the Great Seal is in the hands of every American citizen who possesses a \$1 bill. On the back of the bill both sides of the seal are shown. The face of the seal, on the right hand side of the bill, shows an American eagle with wings and talons outstretched. Above his head is a circle containing 13 "pieces argent," or silver buttons; the eagle's breast holds a shield with 13 stripes; the right talon holds an olive

branch and the left talon a bundle of 13 arrows. In its beak the eagle holds a ribbon with the motto E Pluribus Unum—Out of Many, One, referring to the union of the states.

On the reverse the seal shows an unfinished pyramid. Above the pyramid is a "glory" or burst of light, with an eye inside a triangle, referring to the Eternal Eye of God, and above it is the motto Annuit Coeptis, meaning He Has Favored Our Undertaking. The base of the pyramid bears the numerals MDCCLXXVI, or 1776, and below it is the motto Novus Ordo Seclorum, or A New Order of the Ages. The pyramid has 13 steps and signifies the strength of the union.

Naturalization: How to Become an American Citizen

Source: The Federal Statutes

A person who desires to be naturalized as a citizen of the United States may obtain the necessary application form as well as detailed information from the nearest office of the Immigration and Naturalization Service or from the clerk of a court handling naturalization cases.

There are no racial bars to naturalization. Women have the same right as men to become naturalized.

An applicant must be at least 18 years old. He must have been a lawful resident of the United States continuously for 5 years. For husbands and wives of U. S. citizens the period is 3 years in most instances. Special provisions apply to certain veterans of the Armed Forces.

An applicant must have been physically present in this country for at least one-half of the required 5 years' residence.

Every applicant for naturalization must:

(1) sign the petition in his own handwriting, if physically able to write;

(2) demonstrate an understanding of the English language, including an ability to read, write, and speak words in ordinary usage in the English language (persons physically unable to do so, and persons who were on December 24, 1952 over 50 years of age and had been residing in the United States for 20 years are excepted).

(3) have been a person of good moral character, attached to the principles of the Constitution, and well disposed to the good order and happiness of the United States for five years just before filing the petition or for whatever other period of residence is required in his case and continue to be such a person until admitted to citizenship; and

(4) demonstrate a knowledge and understanding of the fundamentals of the history, and the principles and form of government, of the U. S.

The petitioner also is obliged to have two credible citizen witnesses. These witnesses must have personal knowledge of the applicant's character, residence, loyalty, and other qualifications.

A person not of good moral character includes a habitual drunkard, an adulterer, a polygamist, a violator of criminal law, a gambler, one who gave false testimony to obtain a benefit under the immigration law, one in prison for 180 days or more, one convicted of murder.

Naturalization is denied to any person who, within 10 years, has been subversive, including communists and others who favor totalitarian government, and who were members of a proscribed organization, unless the petitioner was under 16 or joined under duress.

A law approved Aug. 20, 1953, provides for the expeditious naturalization of alien spouses and adopted children of U. S. citizens who are missionaries or performing religious duties and are stationed abroad.

When the applicant files his petition he pays the court clerk \$10. At the preliminary hearing he may be represented by a lawyer or social service agency. There is a 30-day wait. If action is favorable, there is a final hearing before a judge, who administers the following oath of allegiance:

OATH OF ALLEGIANCE

I hereby declare, on oath, that I absolutely and entirely renounce and abjure all allegiance and fidelity to any foreign prince, potentate, state or sovereignty, of whom or which I have heretofore been a subject or citizen; that I will support and defend the Constitution and laws of the United States of America against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I will bear arms on behalf of the United States when required by the law; that I will perform noncombatant service in the armed forces of the United States when required by the law; that I will perform work of national importance under civilian direction when required by the law, and that I take this obligation freely without any mental reservation or purpose of evasion; so help me God.

Customs Exemptions and Advice to Travelers

United States residents returning after a stay abroad of at least 48 hours are, generally speaking, granted customs exemptions of \$100 each. Each returning resident may bring home free of duty articles totaling \$100 in retail value in the country of acquisition, subject to limitations on liquors and cigars. These articles must accompany the traveler at the time of his return, must be for his personal or household use, must have been acquired as an incident of his trip, and must be properly declared to Customs. Not more than one quart of alcoholic beverages may be included in the \$100 exemption.

If a U. S. resident arrives directly or indirectly from American Samoa, Guam, or the Virgin Islands of the United States, his purchases may be valued up to \$200 fair retail value, but not more than \$100 of the exemption be applied to the value of articles acquired elsewhere than in such insular possessions, and one gallon of alcoholic beverages may be included in his exemption, but not more than 1 quart of such beverages may have been acquired elsewhere than in the designated islands.

The exemption for articles acquired in the Virgin Islands of the United States and in Mexico is not conditional upon the 48-hour absence requirement.

In either case, the exemption for alcoholic beverages is accorded only when the returning resident has attained 21 years of age at the time of his arrival. One hundred cigars may be included (except Cuban products) in either the \$100 or \$200 exemption only if the exemption, or any part of it, has not been used within the preceding 30-day period.

Bona fide gifts costing no more than \$10 fair retail value may be mailed to friends at home duty-free; addressee cannot receive in a single day gifts exceeding the \$10 limitation.

PRECAUTIONS FOR TRAVEL

In some cases naturalized United States citizens desiring to visit the countries of their birth, and sometimes their American-born children traveling to those countries, may be subject to military service and other regulations there. The United States Department of State advises such travelers to get specific information from the consulates of

the countries concerned before departure.

A Briton who becomes a naturalized United States citizen is considered a British citizen by the British until he makes a formal renunciation of British nationality before British authorities.

A French person who has attained majority loses French nationality by voluntary acquisition of U. S. or other nationality. However, French male persons with military service obligations do not lose French nationality unless authorized by the French Government. Authorization is granted when the applicant acquired a foreign nationality after age 50. A female U. S. citizen who marries a Frenchman acquires French nationality unless prior to her marriage she declined it.

Portugal will recognize U. S. naturalization of a Portuguese if the latter has resided five years in the United States.

Greece regards citizens: (1) former Greek nationals naturalized abroad after 1914 without authorization from Greece; (2) persons born abroad of parents considered by Greece to have Greek nationality, even though they may have acquired citizenship elsewhere; (3) Greeks who were former subjects of Turkish territory, except Istanbul; (4) Greeks formerly of Istanbul who left before Aug. 1, 1929 without Turkish passports.

Israel has two types of visas: visitors' visas and immigration visas. A visitor's visa is limited to 3 mos. and may be renewed. A person who wishes to live in Israel permanently must obtain an immigration visa. This person will be required to give military service if a male between 18 and 49, inclusive, or a female between 18 and 38, inclusive, and must obtain authorization from the Ministry of Defense if he or she desires to leave the country before completing military service. A U. S. citizen who voluntarily joins a foreign army loses his U. S. citizenship unless he has written consent of the U. S. Government to do so. Jews arriving in Israel with immigration visas or obtaining such visas while in Israel are automatically granted Israeli nationality unless they declare to a Consul of Israel or to the Israeli Government that they do not want to be nationals of Israel.

Immigrants Admitted From All Countries

Source: Immigration and Naturalization Service, U. S. Dept. of Justice

Year	Number	Year	Number	Year	Number
1820.....	385	1891-1900.....	3,687,564	1961.....	271,344
1821-1830.....	143,439	1901-1910.....	8,795,386	1962.....	283,763
1831-1840.....	599,125	1911-1920.....	5,735,811	1963.....	306,260
1841-1850.....	1,713,251	1921-1930.....	4,107,209	1964.....	292,248
1851-1860.....	2,598,214	1931-1940.....	528,431	1965.....	296,697
1861-1870.....	2,314,824	1941-1950.....	1,035,039	1966.....	323,040
1871-1880.....	2,812,191	1959.....	260,686	1967.....	456,614
1881-1890.....	5,246,613	1960.....	265,398	1820-1967.....	44,070,927

Immigration from the close of the Revolutionary War to 1820 is estimated at 250,000.

Passports Issued and Renewed

Source: Passport Office, Dept. of State

[Passports are actual count; other data based on a sample. Data refer to number of passports issued, not travelers (except as noted). A single passport may cover more than one trip and more than one person]

Item	1950	1960	1963	1964	1965	1966	1967
New and renewed passports.....	299,665	853,087	1,055,504	1,133,228	1,330,290	1,547,725	1,685,512
Object of travel: ¹							
Government.....	(N.A.)	115,910	145,034	180,328	191,140	215,585	161,122
Nongovernment.....	(N.A.)	737,177	910,470	952,900	1,139,150	1,332,140	1,524,390
Personal reasons ²	141,567	321,590	436,250	366,860	487,470	483,240	638,799
Pleasure ³	108,486	350,897	353,150	470,180	535,150	651,220	670,880
Business ⁴	27,364	24,540	86,000	78,300	76,210	135,250	140,700
Education.....	13,837	31,240	26,470	30,200	31,120	51,750	61,270
Religion.....	4,676	6,780	6,540	5,480	6,770	8,280	7,750
Health.....	1,069	1,460	1,350	1,140	500	710	2,280
Other.....	2,666	670	710	740	1,930	1,690	2,720
First area destination:							
Africa.....	4,827	8,440	12,350	16,120	19,580	22,680	19,580
Australia and Oceania.....	2,059	35,220	32,650	36,880	50,750	58,450	55,510
Europe.....	243,771	669,662	794,964	864,598	992,800	1,115,855	1,265,172
Far East.....	5,558	55,960	102,010	95,640	111,310	165,660	157,020
North, Central and South America.....	33,003	58,935	70,890	72,880	99,620	120,590	126,480
Middle-East.....	10,447	24,670	42,390	46,710	56,080	64,070	61,340
Not stated ⁵		200	250	400	150	420	.....
Mode of travel—departure:							
Ship.....	200,800	226,245	165,141	114,621	99,340	49,765	37,793
Air.....	96,565	626,842	890,363	1,018,607	1,290,950	1,497,960	1,647,719
Sex of traveler:							
Male.....	155,595	419,615	534,490	579,520	700,080	810,850	870,383
Female.....	144,070	433,472	521,014	553,708	630,210	736,875	815,129
Citizenship of traveler:							
Native.....	174,723	710,172	918,364	1,011,597	1,236,797	1,374,075	1,535,313
Naturalized.....	124,942	142,915	137,140	121,631	93,493	173,650	150,199

¹ Data not entirely comparable because of changes in classifications in 1956, 1958, and 1961.² Includes "Personal business," "Join husband," "Accompany husband," "Business and pleasure," and "Visit family." ³ Includes "Sightsee," "Vacation," "Visit," and "Tourist." ⁴ Includes applicants formerly listed under "Employment" and "Commercial business." ⁵ Beginning 1960, includes applicants who listed "World tour."

Status of American Woman Who Marries a Foreigner

Source: United Nations

She will automatically acquire the nationality of:

Afghanistan	Gabon*	Ivory Coast*	Liechtenstein	Philippines	Spain
Austria	Greece*	Italy	Monaco	Portugal*	Switzerland
Cambodia	Haiti	Jordan	Nepal	Rwanda (e)	Togo*
Ethiopia	Iran	Korea (Rep.)	Niger*	Saudi Arabia	Turkey
Finland	Iraq	Liberia	Peru	Somalia	

Automatically gains husband's nationality if she loses her own:

Belgium*	Sen. African	Congo (a)	Rep.*	Malagasy Rep.(b)	Tunisia
Cameroon*	Rep.*	Costa Rica (b)	France*	Mauritania*	
	China	Dominican	Laos*	Somalland	

May acquire husband's nationality if she chooses:

Algeria (c)	Ghana	Lebanon	New Zealand	Sierra Leone	United Kingdom
Andorra	Guyana	Libya	Nicaragua	Sudan	Upper Volta
Barbados	Indonesia	Luxemburg	Nigeria	Tanganyika	Venezuela
Bolivia	Ireland	Mali	Pakistan	Thailand	Vietnam, Rep.
Chad (d)	Jamaica	Mexico	Poland	United Arab	Zambia
Ecuador	Kenya	Morocco	San Marino	Rep.	
Gambia	Kuwait	Netherlands	Senegal		

May acquire husband's nationality more easily than other aliens:

Australia	Colombia	Hungary	Malta	Syrian Arab	Rep. of S.
Brazil	Cuba	India	Norway	Rep.	Africa
Burma	Czechoslovakia	Israel	Panama	Trinidad	Uruguay
Canada	Denmark	Japan	Singapore	Tobago	Western Samoa
Ceylon	El Salvador	Malawi	Sweden (b)	Uganda	Yugoslavia
Chile	Guatemala	Malaysia			

No effect on her nationality:

Albania	Argentina	Bulgaria	Honduras	Paraguay	USSR
		Germany (West)	Iceland	Romania	

^aShe may decline her husband's nationality. ^bShe may acquire her husband's nationality if she resides in the country 5 years following the marriage and unless she declines before the expiration of this date.^cShe may acquire her husband's nationality by declaration. ^dShe must formally declare before the marriage that she repudiates her nationality of origin. ^eApplies only to marriages celebrated in Chad.^fMarriage must be registered in civil office of Rwanda Government, which reserves right to oppose within one year the acquisition of nationality.

EXPLORATION

Arctic Operations—1967-1968

Source: National Geographic Society and contemporary records.

A National Geographic Society-National Museum of Canada expedition, under the leadership of Dr. Charles F. Merbs, University of Chicago anthropologist, began excavating historic Thule Eskimo sites along the coast of Roes Welcome Sound and the Wager Bay-Chesterfield Inlet areas in northern Canada to study their culture, burial patterns and gather skeletal remains for analysis. These areas are rich in artifacts.

Thule Eskimos, from which the modern Canadian Eskimo is descended racially and culturally, began migrating from the northern Alaska coast about 1,000 years ago, some settling in the Thule region of Greenland and others along the Hudson Bay's western shore and the Labrador coast.

In March, 1968, five Americans and a Canadian, driving motorized sleds, set out to retrace Commodore Peary's 1909 route to the North Pole. On Apr. 19, after 44 days of travel, all but two of the men reached the Pole, where they spent nearly a day before being picked up by plane and returned to their base camp on Ward Hunt Island.

Guided by Ralph Plaisted, who led a similar but unsuccessful expedition the previous year, the amateur explorers started out 15 miles from where Commodore Peary started. Although the Pole was only 475 miles distant on a straight line measurement from their starting point, they zig-zagged more than 800 miles to reach their destination.

A 4-man British expedition set out from Point Barrow, Alaska, on Feb. 21, 1968, with 4 sleds and 40 dogs for Vest Spitsbergen, north of Norway, via the North Pole, several thousand miles and an estimated 16 months away.

Sponsored by the Royal Geographical Society of Britain, the expedition is led by Wally W. Herbert of York, a veteran polar explorer, accompanied by Capt. K. Hedges of the Royal Army Medical Corps. Alan Gill of Bradford, a photographer, and Dr. Roy M. Koerner of Ohio State University, glaciologist. Cost of the expedition is estimated at \$150,000.

The men have been making daily weather observations, gathering data on ice, thickness snow density, measuring the disintegration and ablation of sea ice, sea temperatures and incoming reflected solar radiation, as well as recording physiological and psychological reactions. They are also keeping notes of bears, seals and birds shot and eaten. Little is known of the wanderings of polar bears and what they feed on. Also contemplated is a geophysical traverse across the sub-marine Lomonosov Ridge, during which they will record depth soundings and magnetometer and gravity measurements.

The hike has 5 phases. The first: hard sledding to cover as many miles as possible; the second, a "breather" during the summer, when open water and heavy fog often slowed their progress; the third, more sledding in the autumn, after correcting their course to place them in the best position to take advantage of the winter drift; the fourth, 5 months spent in a hut air-dropped to them; and the final phase begins when they abandon their hut in the spring of 1969 and start on the last leg of their hike.

At the start they had hoped to take advantage of favorable ice drift by using a route a few degrees west of true north to add two miles of travel per day to the 8 they hoped to average. Before starting out several days were spent in a plane looking for the "road" (flat ice on which they travelled east for about 60 miles) for their highway through a 100-mile stretch of shattered inshore ice to the safer polar ice. But shifting ice, winds, ridges 15 feet high, low temperatures and open water were all problems as soon as they set out. They had planned to traverse the 380 miles from Barrow in 4 weeks; they covered 50. By mid-May they were nearly 600 miles north of Point Barrow.

Huskies able to pull sleds long distances were purchased from Eskimos living about 160 miles north of Thule, Greenland. Two types of sleds are in use—the Greenland Eskimo sled (200 lbs.) and the Nansen-type (120 lbs.) with hickory runners. Both are convertible into boats by using skis for ribs and covering the new outline with canvas, thus broadening the beam.

Squadron Leader F. Church, RAF, set up a radio station at Barrow and kept in touch until the men were out of range (about 350 miles), then moved it to the U. S. weather station on Fletcher's

Ice Island T-3, drifting in the Arctic Ocean. He left T-3 in October, on orders, but hoped to return in Feb. 1969, to follow the men on the remainder of their trip.

Cape Morris Jesup, Greenland, may be an island and not a peninsula as well as being cartographically misplaced—if the findings of an expedition to Greenland are correct.

Sponsored by the Control Data Corporation and the National Broadcasting Company, a four-man team flew to Cape Morris Jesup in early May, the fourth party to visit there since it was discovered by Adm. Peary in 1900. Using surveying instruments, they took readings at a number of points where lines from the sun and the moon intersected.

If their findings and calculations are correct (and they are being reviewed by the Army Map Service, Washington, and the National Geodetic Institute of Denmark) Cape Jesup is a mile north and 12 miles east of where it is shown on maps; it is an island and not a peninsula, and maps of the area will have to be revised. Map revision is important for safe submarine navigation under the polar ice.

The new measurements, if verified, do not reflect unfavorably on the work of early surveyors but come from refinement of surveying equipment and methods.

An average of 7,500 sizable icebergs (frozen fresh water) break off glaciers along the west coast of Greenland each year. Of the 400 that drift south of the 48th parallel, the latitude of Newfoundland, about 40 will drift to the vicinity of the 42nd parallel. Drift speed ranges from 5 to 40 miles per day.

The U. S. Coast Guard has been operating the International Ice Patrol since 1914. Today it maintains continuous aerial reconnaissance over more than 33,000 square miles of the North Atlantic. Seventeen nations underwrite the cost, their payments being related to the tonnage of shipping each has in these waters.

When a pilot sees an iceberg he drops a gallon jug of dye on it, marking it for tracking purposes. No practical way has been found to destroy icebergs. As they approach the Gulf Stream sea temperature rises to more than 60°F. and they melt swiftly, usually within two weeks.

The tallest iceberg recorded was found by the Coast Guard icebreaker *Eastwind* in 1957. The portion above water (550 feet) was about one-eighth of its total mass.

To aid in preserving polar bears (more than 10,000 are estimated to be alive now), the International Union for the Conservation of Nature and Natural Resources has listed this creature with other endangered species, and is gathering information on the size and distribution of polar bear populations and migrations. Theo Larsen has reported on aerial surveying, trapping and tagging carried out on Norway's Svalbard archipelago under the sponsorship of Oslo University and the Norsk Polarinstitut. The aerial surveys point to a heavier population there than in Alaska. The numerous tracks sighted suggest there is a strong migration of bears eastward from Svalbard in the spring, leading to speculation that there is a connection between the polar bear populations of Svalbard and the western Soviet Arctic. This study began in 1966 and will continue into 1970.

The National Research Council announced that the United States, Canada, Denmark and France have joined in a study to find out how Eskimos have managed to survive in a hostile environment. The study will be under the auspices of the 56-nation International Biological Program.

Scientists, using a Convair jet plane, made a series of flights 8 miles above the Arctic land mass gathering data on the northern lights. NASA reports the flights were coordinated with observations from ground stations, with sounding rocket missions and with observations from its OGO-4 (Orbiting Geophysical Observatory) which is more than 250 miles above the earth. The "how" and "why" of the multicolored auroras, often hundreds of miles long and observed as much as 200 miles above the earth's surface, is unknown.

Several dozen men from the Patuxent Naval Air Station, Maryland, spent several weeks in July, 1968, flying over Arctic areas gathering data for the U. S. Naval Oceanographic Office.

The purpose of the flight (one of many these

men undertake for the Naval Oceanographic Office) is to record sea ice conditions and the distribution and spacing of pack ice, the latter information so important to submariners as well as to the planning of mine and undersea war strategy.

EARLY EXPLORERS

1587—John Davis (England). Davis Strait to Sanderson's Hope, 72°12'N.

1596—Willem Barents and Jacob van Heemskerck (Holland). Discovered Bear Island, touched northwest tip of Spitsbergen, 79°49'N., rounded Novaya Zemlya, wintered at Ice Haven.

1607—Henry Hudson (England). North along Greenland's east coast to Cape Hold-with-Hope, 73°30', then north of Spitsbergen to 80°23'. Returning he discovered Hudson's Trenches (Jan Mayen).

1616—William Baffin and Robert Bylot (England). Baffin Bay to Smith Sound.

1728—Vitus Bering (Russia). Proved Asia and America were separate by sailing through strait.

1733-40—Great Northern Expedition (Russia). Surveyed Siberian Arctic coast.

1741—Vitus Bering (Russia). Sighted Alaska from sea, named Mount St. Elias. His lieutenant, Chirikof, discovered coast.

1771—Samuel Hearne (Hudson's Bay Co.). Overland from Prince of Wales Fort (Churchill) on Hudson Bay to mouth of Coppermine River.

1778—James Cook (Britain). Through Bering Strait to Icy Cape, Alaska, and North Cape, Siberia.

1789—Alexander Mackenzie (North West Co., Britain). Montreal to mouth of Mackenzie River.

1806—William Scoresby (Britain). North of Spitsbergen to 81°30'.

1820-2—Ferdinand von Wrangel (Russia). Completed a survey of Siberian Arctic coast. His exploration joined that of James Cook at North Cape, confirming separation of the continents.

1845—Sir John Franklin (Britain) was one of many to seek the Northwest Passage—an ocean route connecting the Atlantic and Pacific via the Arctic. His two ships, (the Erebus and Terror), were last seen entering Lancaster Sound July 26.

1888—Fridtjof Nansen (Norway) Crossed Greenland's icecap. 1893-96—Nansen in Fram drifted from New Siberian Isls. to Spitsbergen; tried Polar dash in 1895, reached Franz Josef Land.

1896—Solomon A. Andrée (Sweden) and companion, in June, made first attempt to reach North Pole by balloon; failed and returned in August. On July 11, 1897, Andrée and 2 others started in balloon from Danes Is., Spitsbergen, to drift across Pole to America, and disappeared. Over 33 years later, Aug. 6, 1930, Dr. Gunnar Horn (Norway) found their frozen bodies on White Is., 82° 56' N, 29° 52' E.

1903-06—Roald Amundsen (Norway) first sailed Northwest Passage.

DISCOVERY OF NORTH POLE

Robert E. Peary began exploring in 1886 on Greenland, when he was 30. With his hq. at McCormick Bay he explored Greenland's coast 1891-92, tried for North Pole 1893, returned with large meteorites. In 1900 he reached northern

limit of Greenland and 83° 50' N.; in 1902 he reached 84° 17' N.; in 1906 he went from Ellesmere Is. to 87° 06' N. He sailed in the Roosevelt, July, 1908, to winter off Cape Sheridan, Grant Land. The dash for the North Pole began Mar. 1 from Cape Columbia, Ellesmere Land. Peary reached the Pole, 90° N., April 6, 1909.

Peary had several supporting groups carrying supplies until the last group, under Capt. Robt. A. Bartlett, turned back at 87°47'N. Peary, Matthew Henson and 4 Eskimos proceeded with dog teams and sleds. They crossed Pole several times, finally built an igloo at 90°, remained 36 hours. Started south Apr. 7 at 4 p.m. for Cape Columbia. Eskimos were Coqueeh, Ootah, Eginwah and Seegloo. Adm. Peary died Feb. 20, 1920. Henson, a Negro, born Aug. 8, 1866, died in New York, N. Y., Mar. 9, 1955, aged 88. Ootah, last survivor, died near Thule, Greenland, May, 1955, aged 80.

1914—Donald MacMillan (U. S.). Northwest, 200 miles, from Axel Heiberg Island to seek Peary's Crocker Land.

1915-17—Vilhjalmur Stefansson (Canada) discovered Borden, Brock, Meighen and Loughheed Islands.

1918-20—Amundsen sailed Northeast Passage.

1926—Richard E. Byrd and Floyd Bennett (U. S.). Reached 87°44'N. in attempt to fly to North Pole from Spitsbergen.

1926—Richard E. Byrd and Floyd Bennett (U. S.). First over North Pole by air, May 9.

1926—Amundsen, Ellsworth, and Umberto Nobile (Italy) flew from Spitsbergen over North Pole May 12, to Teller, Alaska, in dirigible Norge.

1928—Nobile crossed North Pole in airship Italia May 24, crashed May 25. Amundsen lost while trying to effect rescue by plane.

1928—Sir Hubert Wilkins and Eielson. Flew from Point Barrow to Spitsbergen, 84°N.

SUBMARINE RECORDS

On Aug. 3, 1958, the Nautilus, under Comdr. William R. Anderson, became the first ship to cross the North Pole beneath the Arctic ice.

On Aug. 12, 1958, the nuclear submarine Skate, Comdr. James F. Calvert, became the second ship to make an underwater crossing of the North Pole.

In March, 1959, the Skate returned to the Arctic and, on its third attempt broke through at the North Pole, the first time any ship had been on the surface at 90° N.

The nuclear-powered U. S. submarine Seadragon, Comdr. George P. Steele II, made the first east-west underwater transit through the Northwest Passage during August, 1960. It sailed from Portsmouth, N. H., headed between Greenland and Labrador through Baffin Bay, then west through Lancaster Sound and McClure Strait to the Beaufort Sea. Traveling submerged for the most part, the submarine made 850 miles from Baffin Bay to the Beaufort Sea in six days. The vessel made a 300-foot dive to sail under an iceberg in Baffin Bay.

In February, 1960, the nuclear submarine Sargo traveled under the Arctic ice pack to and around the North Pole. The Sargo departed from and returned to Honolulu, and spent 31 days and 4 hours under the ice. The submarine successfully smashed its way through ice three feet thick.

Polar Expeditions—Antarctic, 1967-1968

The water dripping from an ice core into a beaker in a laboratory at the U. S. Naval Academy on July 10, 1968, was originally snow falling on Antarctica while Christ walked the Holy Land.

Army Engineers from the Cold Regions Research and Engineering Laboratory, New Hampshire, who completed the first drilling through the Antarctic Ice Cap, 7,100 feet, removed this 15-foot ice core from 850 feet below the surface of Byrd Station. Scientists determined by radiation measurement and a count of the layers of ice formed by summer thaws that was one of the layers was formed the year Christ was born.

Penetration of the Ice Cap, which holds about 9/10ths of the world's fresh water, was accomplished about 1½ miles below the surface. Studies of portions of the core samples of air, volcanic ash, ice and some rock from near the bottom will reveal much about the rate of snowfall, temperature variations and composition of the earth's atmosphere for thousands of years. The isotopes trapped within the samples constitute a historical thermometer and can be compared with established temperature-isotope tables to determine age spans.

If this ice sheet ever melts the Statue of Liberty will have water up to her nose and all major

seaports will be flooded for the Oceans will have risen about 200 feet, scientists estimate.

Scientists found dormant algae, fungi and bacteria in soil removed from ice-free Taylor Valley, where there is no snow or ice. Inactive during the winter months' low temperatures, these life forms are activated by summer run-off waters from the glaciers in the mountains above the valleys.

This area—the Dry Valleys of Antarctica—is valued by scientists who are developing equipment capable of detecting life on Mars, for it most nearly duplicates a Mars-like atmosphere.

Ten of 21 men living in isolation under the ice and snow of the South Pole—and removed from contact with the outside world—are the subjects of intensive medical studies directed by two psychiatrists.

Working under a grant from the National Science Foundation, these men submitted to many tests to establish their "normal" physical and mental bases before leaving the United States. Their daily activities are being observed and periodic recordings are made of their brain waves, heart action and electrical resistance of their skin. It has been found that men who live closely for long times under stress are subject to drastic emotional upsets.

January, 1968, saw the completion of an 815-mile two-month traverse across barren Queen Maude Land, between the South Pole and the Princess Ragnhild Coast.

Sponsored by the U. S. Coast and Geodetic Survey and financed by the National Science Foundation, the personnel of the expedition made the trip on Sno-cats. Their trip began at Plateau Station and ended at a point about 900 miles from the South Pole, and took them through a wind-swept desert where the temperature was often 50° below zero. A new low temperature mark for U. S. Antarctic bases of —123.1 F. was set at Plateau Station July 29, 1968.

The National Science Foundation reports that the 12-year-old Amundsen-Scott Station, now under 16 feet of drifted snow, will have to be modernized or replaced. Plans are being made to build a new station in the next several years.

McMurdo Station, also a dozen years old, is beset with urban sprawl and renewal plans. Steel structures are replacing the huts and shacks of 1957, with several dozen more to be added in the next 10 years.

For the summer population, which exceeds 1,000 men, there are 3 bars, 3 theaters, a bus line, a gymnasium, a power plant, junk yard and a garbage dump! All water pipes to the buildings must be heated to prevent freezing. On July 26, 1968, a wind velocity of 116.15 mph was recorded, a record for the station.

Antarctic survey ships have been aided by the United States satellite ESSA 3, orbiting 200 miles above the South Pole. Photographs made each day by the satellite were sent to the British Antarctic Survey at Cambridge, where they were studied for the location of open water leads and thick ice.

The International Weddell Sea Oceanographic Expedition, (IWSOE) aided by the U. S. Coast Guard icebreaker Glacier and Argentina's icebreaker San Martin initiated a comprehensive survey of the Weddell Sea, the first major work in the area since Sir Ernest Shackleton visited it in 1915.

Satellite signals relayed to the Glacier were particularly helpful. The signal information as to ice pack and cloud cover conditions enabled the Glacier to move around with a minimum loss of time and scientists established 70 scientific stations (more than planned), 90% of them in areas where no previous oceanographic data had been obtained.

The signals also enabled the Glacier to navigate these waters with greater than normal precision.

Through the joint cooperation of the British Antarctic Survey, the National Science Foundation and the Scott Polar Research Institute, a three-summer program has been laid out to record airborne radio echo soundings of ice depth over the whole of Antarctica.

During the first season's operations it was found that bottom reflections were generally constant to an ice depth of 6,500 feet, intermittent beyond that. Also, greater depths were recorded in those areas where the surface elevation was more than 11,450 feet. The maximum depth recorded was 13,780 feet, in the vicinity of Sovetskaya station.

FOREIGN OPERATIONS

Australians set up the Amery Ice Shelf Glaciological Research Station, stocking it with more than 40 tons of materials and supplies and four men who wintered there. This site was selected after radar-mapping the entire 153-mile front of the shelf, a line of 130-foot high ice cliffs.

Four tons of snow—from the "cleanest spot on earth"—were shipped from Plateau Station to Brussels, Belgium.

Dr. E. E. Picciotto, an authority on snow chemistry, will analyze the snow to determine the rate of fall of dust particles to the earth in the hope of gaining insight into the evolution of the earth and the solar system.

A 6-foot core of this snow equals 25 years of history, and its purity greatly exceeds that of the highest quality distilled laboratory water.

Belgian and South African scientists worked together in geological, glaciological and photogrammetric studies 250 miles to the south of the SANAE base and 560 miles west of Belgium's Roi Baudouin base. Dog teams and tracked vehicles transported the men in the field. Supplies were dropped them by plane.

Chileans continued their marine biology studies by taking another census of marine mammals to

ascertain the seal population and the annual loss of same. Such counts have been made since 1965.

Twelve men making up Japan's Ninth Antarctic expedition sought to complete a more than 1,500-mile overland hike from Japan's Showa base to the South Pole by Christmas Day, 1968. Their leader is M. Murayama, director of Tokyo's National Science Museum, a prominent polar researcher and mountaineer.

New Zealanders re-surveyed for the final time the stations set on the McMurdo Ice Shelf in 1963-64, for some markers were buried as much as 5 feet. A major part of the survey work was devoted to measuring surface elevation, from which it is hoped to produce a contour map of the ice shelf, an unknown characteristic of the Shelf.

The USSR established its fifth permanent Antarctic base, Bellingshausen Station, on King George Island in the South Shetland group, joining Britain, Argentina and Chile in the warmest part of Antarctica. The other bases are Vostok, Mirny, Molodezhnaya and Novolazarevskaya.

The United Kingdom's survey and geological research in the vicinity of Palmer Land-Alexander Island was restored with the re-stocking and re-opening of the Fossil Bluff station in George VI Sound, and the establishment of other depots in Palmer Land. Geologists concentrated their work on the nunatak region along western Palmer Land and eastern Alexander Island's Ablation Valley. The surveyors extended their work northwards along George VI Sound. Geophysical studies continued at the observatory on Argentine Island.

A number of small groups continued glaciological studies of the Brunt Ice Shelf.

EARLY HISTORY

Antarctica has been approached since 1773-75, when Capt. Jas. Cook (Britain) reached 71°10' S. Many sea and landmarks bear names of early explorers. Bellingshausen (Russia), discovered Peter I and Alexander I Islands, 1819-21. Nathaniel Palmer (U. S.) discovered Palmer Peninsula, 60° W. 1820, without realizing that this was a continent. Jas. Weddell (Britain) found Weddell Sea, 74°15' S., 1823.

First to announce existence of the continent of Antarctica was Charles Wilkes (U. S.), who followed the coast for 1,500 mi., 1840. Adelle Coast, 140° E., was found by Dumont d'Urville (France), 1840. Ross Ice Shelf was found by Jas. Clark Ross (Britain), 1841-42.

1895—Leonard Kristensen, Norwegian whaling captain, landed a party on the coast of Victoria Land in Jan. 1895. They were the first ashore on the main continental mass. C. E. Borchgrevink, a member of that party, returned in 1899 with a British expedition, first to winter on Antarctica.

1902-04—Robert F. Scott (Britain) discovered Edward VII Peninsula. In 1902 he reached 82°17' S., 146°33' E. from McMurdo Sound.

1908-09—Ernest Shackleton in 1908 introduced the use of Manchurian ponies in Antarctic sledding. In 1909 he reached 86°23' S., discovering a route on to the plateau by way of the Beardmore Glacier and pioneering the way to the Pole.

DISCOVERY OF SOUTH POLE

1911—Roald Amundsen (Norway) with four men and dog teams reached the Pole Dec. 14, 1911.

1912—Capt. Scott reached the Pole from Ross Island Jan. 18, 1912, with four companions (Dr. E. A. Wilson, Lt. Bowers, Capt. Oates, and Petty Officer Edgar Evans), where they found Amundsen's tent. Of Scott's party, Oates and Evans died first; Scott, Wilson and Bowers died in a tent around March 29. They were found Nov. 12, 1912.

1928—First man to use an airplane over Antarctica was Hubert Wilkins (Britain).

1929—Richard E. Byrd (U. S.) established Little America on Bay of Whales. On 1600-mi. airplane flight begun Nov. 28 he crossed South Pole Nov. 29 with pilot Bernt Balchen, a radio operator and a photographer. Dropped U. S. flag over Pole, temp. 16° below zero.

1934-35—Richard E. Byrd (U. S.) led second expedition to Little America, which explored 450,000 sq. mi. Byrd wintered alone at an advance weather station in 80°08' S.

1934-37—John Rymill led British Graham Land expedition of 1934-37; discovered that Palmer Peninsula is part of Antarctic mainland.

1940—Richard E. Byrd (U. S.) charted most of coast between Ross Sea and Palmer Peninsula.

1946-47—U. S. Navy undertook Operation Highjump under Rear Admiral Byrd. Ships were commanded by Rear Admiral Richard H. Cruzen. Expedition included 13 ships and 4,000 men. 29

land-based flights from Little America and 35 by seaplanes from tenders, photomapped coastline and penetrated beyond Pole.

1946-48—Ronne Antarctic Research Expedition, Comdr. Finn Ronne, USNR, determined the Antarctic to be only one continent, with no strait between Weddell Sea and Ross Sea; discovered 250,000 sq. miles of land by flights to 79°S. Lat., and made 14,000 aerial photographs over 450,000 sq. miles of land. Mrs. Ronne and Mrs. H. Darlington, who accompanied their husbands, were the first women to winter on Antarctica.

1955-57—U. S. Navy's Operation Deep Freeze led by Adm. Richard E. Byrd. Supporting U. S. scientific efforts for the International Geophysical Year, the Operation was commanded by Rear Adm. George Dufek. It established five coastal stations fronting the Indian, Pacific, and Atlantic Oceans and also three interior stations; explored more

than 1,000,000 sq. miles in Wilkes Land. Seven Navy men under Adm. Dufek landed by plane at the Pole Oct. 31, 1956, and landed radar reflectors.

1957-58—During the International Geophysical Year, July, 1957 through Dec., 1958, scientists from 12 countries conducted ambitious programs of Antarctic research. A network of some 60 stations on the continent and sub-Arctic islands studied oceanography, glaciology, meteorology, seismology, geomagnetism, the ionosphere, cosmic rays, aurora and airglow. A party from Ellsworth IGY station (US) south of Weddell Sea under the direction of Captain Finn Ronne explored beyond 1947 flight and delineated Berkner Island imbedded in the Filchner Ice Shelf. Pensacola Mountains, first sighted by Argentines in Oct., 1955 and seen by U. S. Navy in Jan., 1956, were accurately located. New mountain ranges about 11,000 ft. high were discovered in Edith Ronne Land.

Mountaineering, 1968

Source: National Geographic Society, Washington, D. C.

The North Ridge of Mount Kennedy (13,905 feet), Canada, was scaled for the first time by 4 Dartmouth College students in July. Their efforts included climbing nearly a mile up a vertical face which did not have a ledge more than a foot wide and working their way around several overhangs. One man was buried by an avalanche of snow and came through it unharmed.

Climbing the North Ridge is considered by some to present more challenges than climbing Mount Everest.

A 72-year-old woman, accompanied by her 77- and 75-year-old brothers, defied sub-zero weather and high winds in mid-August and climbed to the peak of Mount Whitney (14,494 feet), California, in 7½ hours.

The efforts of a 10-man Japanese team to scale the unclimbed South Ridge of the Yukon's Mount Vancouver (15,750 feet) in mid-June terminated when 3 of the climbers were killed by an avalanche. The 7 survivors returned to Japan.

A 6-man team (5 New Zealanders and an Italian journalist) reached the summit of 12,450 foot Mount Erebus, Antarctica, early in January.

The primary purpose of their climb was to gather snow accumulation data for a glaciological study, from stations spaced 1,000 feet apart on the mountain. They also tested a new motorized toboggan being considered for field work.

After spending several hours at the peak the team went on to Mount Terra Nova, which they peaked the following day. Lack of fuel prevented their going an additional 15-20 miles to reach the upper slope of Mount Terror, 10,075 feet.

Mont Blanc, 15,771 feet, is being used as a cosmic ray filter. Approximately 6 tons of geiger counters and other electronic components have been parked along the sides of the highway tunnel between French Savoy and Italy's Valle d'Aosta to measure the intensity of incoming low angle cosmic rays. The data obtained will be correlated with known vertical arrival figures and, hopefully, this will yield insight into the source of cosmic rays.

At the end of August the government of Nepal partially lifted a ban on the climbing of Himalayan peaks and will now permit the scaling of 38, including Mount Everest. The ban was placed in effect in 1965 for security reasons.

A 10-woman Japanese-Indian climbing party scaled 22,028-foot Kailas, Tibet, in mid-May. They had planned to climb other Himalayan peaks but a combination of bad weather, the death of one guide and the injury of another cancelled the additional climbs.

Six Australians, 4 of them women, attempted to climb Mount Everest at the turn of the year. They climbed as far as Khumbu Glacier, about 18,000 feet, at which point they were forced to turn back for the lack of special equipment needed to climb higher.

SOME EARLIER RECORDS

Mt. Everest, 29,028 ft. (India survey) Nepal-Tibet, was conquered May 29, 1953, when Edmund Hillary, New Zealand, and Tenzing Norkay, a Sherpa of Nepal, scaled its southwest face. They were members of a Royal Geographical Society-Alpine Club expedition. See note on height of Everest, page 720.

Two successful climbs were made in May, 1956. Three more occurred in May, 1963, by members of an expedition led by Norman G. Dyhrenfurth,

sponsored by the National Geographic Society.

Mt. Godwin Austen (K2), 28,250 ft., Kashmir, was surmounted July 31, 1954.

Mt. Kanchenjunga, 28,208 ft., Nepal-Sikkim, was conquered May 25, 1955, by a British team. The final six feet were left unscaled as a concession to the natives.

Lhotse I, 27,923 ft., Nepal-Tibet, was scaled May 18, 1956, by a Swiss team.

Mt. Makalu, 27,824 ft., Nepal-Tibet, conquered by a French Alpine Club team in May, 1955.

Mt. Dhaulagiri, 26,810 ft., Nepal, was scaled by a Swiss team on May 13, 1960.

Mt. Manaslu, 26,760 ft., Nepal, was climbed May, 1956, by a Japanese team.

Mt. Cho Oyu, 26,750 ft., Nepal-Tibet, was climbed Oct. 19, 1954, by 3 Austrians and a Sherpa guide. In 1964 5 W. Germans and 2 Sherpas made camp at 10,000 ft. From there 2 Germans on skis and 2 ski-less Sherpas set out for the peak, a German and a Sherpa reaching it.

Mt. Nanga Parbat, 26,660 ft., Kashmir, was scaled July 4, 1953, by an Austrian.

Mt. Annapurna, 26,504 ft., Nepal, was conquered by a Frenchman on June 3, 1950.

Mt. Gasherbrum I, 26,470 ft., Kashmir, was scaled July 5, 1953.

Mt. Gosaithan, 26,291 ft., Tibet, Scaled May 2, 1964, by a Chinese team which reported placing a bust of Mao Tse-tung atop it.

Mt. Gyachung Kang, 25,910 ft., Nepal-Tibet peak, was bested in April, 1964, by a Japanese team.

Mt. Nuptse, 25,726 ft., Nepal-Tibet, first ascended May 16, 1961, by a British team.

Mt. Ishtoro Nal, 24,240 ft. W. Pakistan peak, was scaled June 8, 1955, by an American team.

Mt. Api, 23,399 ft., Nepal, bested by an Italian team in 1954.

Mt. Kokthang, 23,000 ft., Sikkim, scaled by an Indian team April 26, 1962.

Mt. Aconcagua, 22,834 ft., Argentina, was first scaled in 1897 by Mathias Zurbriggen.

Mt. Numbur, 22,800 ft., Nepal, scaled in May, 1963, by a Japanese team.

Mt. Ama Dablam, 22,500 ft., Nepal, was first scaled in March, 1961, by a 4-man team.

Mt. Kangtega, 22,340 ft., Nepal, was scaled by an American in June, 1963.

Mt. Thamserku, 21,730 ft., Nepal, scaled by Edmund Hillary in 1964.

Mt. McKinley, Alaska, 20,320 ft. South face climbed first in 1961 by Italian team. Two New Jersey men climbed southeast spur June, 1962. Six U. S. guides climbed east buttress, May, 1963.

Mt. Kilimanjaro, 19,340 ft., Tanzania, Africa, scaled in 1962.

Mt. St. Elias, 18,008 ft., Alaska, scaled in 1964 for third time. It was first scaled in 1897 and again in 1946.

Mt. Eiger, 13,025 ft., Switz. The difficult mile-high north face was scaled for the first time in the summer of 1964 by a woman and a companion. Other women have scaled it by easier routes. Swiss climbers scaled it in 1963. On Mar. 12, 1961, a German team made the first winter ascent of the north face.

Aiguille du Midi, 12,608 ft., France, was scaled in 1964 by 3 Frenchmen in the first successful winter climb up the southwest face.

Mt. Huntington, 12,240 ft., Alaska, was scaled for the first time in 1964.

El Capitan, 9,920 ft., Yellowstone National Park, was scaled by 2 Americans and a Canadian over its southwest face in 1962.

Early Explorers of the Western Hemisphere

The first men to discover the New World or Western Hemisphere are believed to have walked across a "land bridge" from Siberia to Alaska, an isthmus since broken by Bering Strait. From Alaska, these ancestors of the Indians spread through North, Central and South America. Anthropologists have placed these crossings at between 18,000 and 14,000 B.C.; but evidence found in 1967 near Pueblo, Mex., indicates mankind reached there as early as 35,000-40,000 years ago.

At first, these people were hunters using flint weapons and tools. In Mexico, about 7000-6000 B.C., they founded farming cultures, developing corn, squash, etc. Eventually, they created complex civilizations—Olmec, Toltec, Aztec and Maya and, in South America, Inca. In what is now the eastern U. S., others created the Hopewell Culture, also based on farming, about 1000 B.C.; remains of it are seen today in large mounds in Ohio and elsewhere.

Norsemen (Norwegian Vikings sailing out of Iceland and Greenland) are credited by most scholars with being the first Europeans to discover America, with at least five voyages around 1000 A.D. to areas they called Helluland, Markland and Vinland—possibly Labrador, Nova Scotia or Newfoundland, and New England.

The remains of a settlement at L'Anse-au-Meadow, near the northern tip of Newfoundland, were uncovered by Dr. and Mrs. Helge Ingstad, Norwegian archeologists, 1960-63, with the aid of a grant from the National Geographic Society. They identified the settlement as Norse. Carbon-14 tests from hearths and the remains of a smithy indicated the site was occupied about 900 A.D. and during several hundred years before and after.

In 1965 Yale University announced the discovery of a map, drawn about 1440 and apparently based on earlier maps, showing an area southwest of Greenland labeled Vinland. The map also bore an inscription crediting the discovery of Vinland to Leif Ericsson and Bjarni (Herjolafsson), who are among leaders named in early Norse sagas describing voyages to Vinland.

Christopher Columbus, most famous of the discoverers, was born at Genoa, Italy, but made his discoveries sailing for the Spanish rulers Ferdinand and Isabella. Dates of his voyages, places he discovered and other information follow:

1492—First voyage. Left Palos, Spain, Aug. 3 with 88 men (est.). Discovered San Salvador (Guanahani or Watling Isl., Bahamas) Oct. 12. Also Cuba, Hispaniola (San Domingo); built Fort La Navidad on latter.

1493—Second voyage, first part, Sept. 25, with 17 ships, 1,500 men. Dominica (Lesser Antilles) Nov. 3; Guadalupe, Montserrat, Antigua, San Martin, Santa Cruz, Puerto Rico, Virgin Islds. Settled Isabella on San Domingo. **Second part** (Columbus having remained in Western Hemisphere), Jamaica, Isle of Pines, La Mona Isl.

1498—Third voyage. Left Spain May 30, 1498, 6 ships. Discovered Trinidad, Saw South American continent Aug. 1, 1498, but called it Isla Sancta (Holy Island). Entered Gulf of Paria and landed, first time on continental soil. At mouth of Orinoco Aug. 14 he decided this was mainland.

1500—Fourth voyage, 4 caravels, 150 men. St. Lucia, Guanaja off Honduras; Cape Gracias a Dios, Honduras; San Juan R. and Laguna de Chiriqui, Costa Rica; Veragua, Puerto Bello, Almirante (Isthmus of Panama).

A.D.	Explorer	Nationality and Employer	Discovery or Exploration
1497	John Cabot	Italian-English	Cape Breton Isl.
1498	John and Sebastian Cabot	Italian-English	Labrador to Hatteras
1499	Alonso de Ojeda	Spanish	South American coast, Venezuela
1500, Feb.	Vicente y Pinzon	Spanish	South American coast, Amazon River
1500, Apr.	Pedro Alvarez Cabral	Portuguese	Brazil (for Portugal)
1500-02	Gaspar Corte-Real	Portuguese	Labrador
1501	Rodrigo de Bastidas	Spanish	Central America
1513	Vasco Nunez de Balboa	Spanish	Pacific Ocean
1513	Juan Ponce de Leon	Spanish	Florida
1515	Juan de Solis	Spanish	Rio de la Plata
1519	Alonso de Pineda	Spanish	Mouth of Mississippi River
1519	Hernando Cortes	Spanish	Mexico
1520	Fernando Magellan	Portuguese-Spanish	Straits of Magellan, Tierra del Fuego
1524	Giovanni da Verrazano	Italian-French	Atlantic Coast-New York harbor
1526-27	Sebastian Cabot	Italian-Spanish	Rio de la Plata (river)
1527	Panfilo de Narvaez	Spanish	Florida
1531	Alfonso de Souza	Portuguese	Rio de Janeiro (river)
1532	Francisco Pizarro	Spanish	Peru
1534	Jacques Cartier	French	Canada, Mont Real
1536	Pedro de Mendoza	Spanish	Buenos Aires (river)
1536	A. N. Cabeza de Vaca	Spanish	Texas coast and interior
1539	Francisco de Ulloa	Spanish	California coast
1539-41	Hernando de Soto	Spanish	Mississippi River near Memphis
1539	Marcos de Niza	Spanish	Southwest (now U. S.)
1540	Francisco V. de Coronado	Spanish	Southwest (now U. S.)
1540	Hernando Alarcón	Spanish	Colorado River
1540	García de L. Cardenas	Spanish	Grand Canyon of the Colorado
1541	Francisco de Orellana	Spanish	Amazon River
1541-43	A. N. Cabeza de Vaca	Spanish	Brazil, Paraguay River
1542	Juan Rodriguez Cabrillo	Portuguese-Spanish	San Diego harbor
1555	Pedro Menendez	Spanish	St. Augustine
1573	Pedro Barquez	Spanish	Chesapeake Bay
1576	Martin Frobisher	English	Frobisher's Bay, Canada
1577-80	Francis Drake	English	California coast
1582	Antonio de Espejo	Spanish	Southwest (named New Mexico)
1584	Amadas & Barlow (for Raleigh)	English	Virginia
1585-87	Sir Walter Raleigh's men	English	Roanoke Isl., N. C.
1595	Sir Walter Raleigh	English	Orinoco River
1602	Bartholomew Gosnold	English	Martha's Vineyard and Massachusetts
1603-09	Samuel de Champlain	French	Canadian interior, Lake Champlain
1604	Samuel de Champlain	French	Mt. Desert Island
1607	Capt. John Smith	English	Atlantic coast
1609-10	Henry Hudson	English-Dutch	Hudson River; Hudson Bay
1634	Jean Nicolet	French	Lake Michigan; Wisconsin
1659-68	Groscilliers and Radisson	French	Upper Mississippi, Hudson Bay
1669-82	Robt. Cavalier, de La Salle	French	St. Lawrence to Gulf
1673	Louis Jolliet—Jacques Marquette	French	Upper Mississippi River
1680	Louis Hennepin	French	Falls of St. Anthony
1687-1711	Eusebio Francisco Kino	Italian-Spanish	Southwest (now U. S.)
1728-41	Vitus Bering	Danish-Russian	Bering Strait; Alaska
1731	V. de la Verendrye	Canadian	Red River, Lake Winnipeg
1766-68	Jonathan Carver	English	West to St. Pierre River
1769	Gaspar de Portola	Spanish	Golden Gate Bay
1775	Bruno Hecata	Spanish	Pacific Coast; Oregon
1778	Capt. James Cook	English	Pacific coast, north
1792	George Vancouver	English	Pacific coast, north
1792	Robert Gray	American	Columbia River
1793	Alexander Mackenzie	English	Canadian west
1804-06	Meriwether Lewis, Wm. Clark	American	Missouri-Columbia Rivers
1806	Zebulon Montgomery Pike	American	Rockies, Pikes Peak
1831-36	Benj. de Bonneville	American	Rockies, California
1842	John C. Fremont	American	Rockies, Pacific Coast

Developments in the Earth Sciences

United States Geological Survey

Studying the Earth from Space: Photographs of the Earth's surface obtained from manned and unmanned satellites are providing scientists with new tools to investigate the Earth and its environment, to record changes in the environment, and to collect data that help to make the best use of the assets of our planet. Scientists of the U. S. Department of Interior's Geological Survey, in cooperation with the National Aeronautics and Space Administration (NASA), recently embarked on a program that will provide for the use of resources data acquired from Earth orbital satellites carrying remote-sensing instruments.

The first data to be applied to large operational resources problems will be acquired by an unmanned satellite. This satellite will use a multi-spectral television system to transmit pictures to receiving stations on the Earth. Each picture will cover an area 100 miles square with a ground resolution of 100-200 feet. Complete coverage of the globe would be achieved every 18 days. Later satellites will carry new, more highly sophisticated sensing devices to further enhance our ability to study the Earth from space. Sensing devices that may be carried by orbital satellites include photographic-cameras, radar, infrared and microwave imagers and radiometers, gravimeters, and luminescence sensors.

Hydrology: Implementation of the satellite program will provide a wide range of information that is important in water-resources planning and management, such as data on the runoff and water retention characteristics of drainage basins, measurements of evapotranspiration, water-surface roughness, the flow of major rivers, and groundwater discharge. It may become possible to determine rates of reservoir sedimentation and the growth of deltas; to assess some aspects of water pollution; and to monitor and assess erosion, sedimentation, and other changes in the hydrologic environment brought about by man's activities.

Geology: Satellite photography is unequalled for geologic interpretations of very large areas because geologic structures are easier to see on the synoptic, orbital-height photograph than on a mosaic of hundreds of aerial photographs. This is particularly true of long, linear features such as faults which are sometimes associated with deposits of valuable minerals.

Satellite studies can help in the search for new sources of petroleum by showing the broad, gentle folds in the Earth's crust that commonly serve as reservoirs for petroleum.

Airborne ultraviolet sensors are already helping scientists locate certain types of minerals, such as the highly luminescent phosphates. Infrared images from Nimbus satellites, for example, have provided information on the temperature and emissive characteristics of terrain and water surfaces and on volcanic activity. Radar images can be particularly useful in structural mapping. Because radar is remarkably sensitive to gross roughness, faults, fractures, and folds in the Earth's surface are generally well defined.

Cartography: A photomap of the southwestern United States, covering 270,000 square miles and compiled from photos taken by Gemini astronauts, was prepared in 1968. This 1:1,000,000 scale map is part of a program to show the feasibility and economy of evaluating earth features from space.

Space-acquired data about the Earth afford several advantages to map makers; particularly important are speed of data collection and economy of data utilization. Also data from satellites in a circular, sun-synchronous orbit are comparable for the entire earth, and provide a uniformly reliable basis for mapping and charting. By using orbital photography and other remote-sensor data, the publication of a truly up-to-date world map at the scale of 1:1,000,000 will be possible.

Ecology: Management and conservation of public lands will be greatly improved through the use of remote-sensing devices because detailed land studies of features or conditions that change with time (such as the distribution, health, and vigor of vegetation) will be supported by general views from space.

Flood-plain mapping: Mapping of the parts of flood plains inundated by major floods is a prerequisite to the delineation and possible flood-zoning

of these hazard-prone areas. The U. S. Geological Survey has published nearly 100 flood-plain maps and many other maps of this kind have been prepared in limited editions for the use of public officials and other interested citizens. The Survey's flood-mapping program is now being greatly accelerated under a cooperative effort being coordinated by the U. S. Army, Corps of Engineers.

Urban Hydrology: In 1968, the Geological Survey published "Water Data for Metropolitan Areas—a summary of data from 222 areas in the United States." For each Metropolitan area the report identifies the principal sources of municipal and industrial water supply, summarizes the principal water problems, and identifies the types of water data currently being collected by the Survey.

Regional water-resources appraisals: Comprehensive studies of water resources continued in the basins of the Arkansas, Brazos, Colorado, Patuxent, Potomac, and Willamette Rivers, and a 5-year study of the Delmarva Peninsula (Del.-Md.-Va.) was begun in 1968. These regional appraisals, when completed, will provide a quantitative analysis of the entire hydrologic system of which the river is a part, sufficient to explain and predict the flow characteristics of the river, the influence of ground water, and the effects of human activities upon the system.

Mineral Resources: The U. S. Geological Survey is conducting research in a wide variety of geological environments in a search for clues to new sources of ores, fertilizer minerals, fossil fuels and construction materials. These programs consist of field research in the distribution, structure, chemical and physical properties of the rocks of the earth, supported by laboratory research and development of new tools and techniques to aid in discovery of the needed mineral raw materials.

Existing analytical techniques have been extended and new techniques have been developed to determine very low concentrations (background levels) of certain chemical elements in rocks and minerals. Using these newly-developed tools and techniques, Survey scientists are identifying mineral target areas considering to be worthy of more detailed exploration and appraisal by private interests.

Natural Hazards: Cities and towns continue to encroach into areas susceptible to natural hazards, chief among which are earthquakes. Ways to live safely in earthquake-prone areas are being sought by the Survey through basic geologic studies of broad areas and intensive research on active fault zones, particularly in the western United States. Scientists from the National Center for Earthquake Research in Menlo Park, Calif., are using a wide array of refined seismographs, tiltmeters, strainmeters, magnetometers, and gravity meters to "take the pulse" of the earth along known zones of crustal weakness. Continued research on the causes and nature of volcanic activity and its dangers is concentrated at the Survey's Hawaiian Volcano Observatory, located on the rim of Kilauea Volcano on the island of Hawaii.

Research under the sea: Recognizing the sea floor as a likely target for mineral exploration, the Geological Survey is conducting a broad program of research in cooperation with universities and other Federal agencies, designed to decipher the geologic environment of the continental shelf areas and to identify favorable target areas which may become sources of metals, minerals, and oil and gas. In particular the shelf areas now under study include the Carolina coastal margins, the sea floor off Washington and Alaska, and the sea floor off Puerto Rico.

Lunar Geology: The Geological Survey is carrying out a program of lunar research in support of the goals of the National Aeronautic and Space Administration. The Survey's current work consists of lunar geologic mapping, studies in cosmic chemistry and petrography (meteorite, tektites, and cosmic dust), geologic study of terrestrial analogs of lunar features, and development of research instruments and techniques needed to effectively support manned and unmanned geologic exploration of the lunar surface. Based on interpretations of lunar geology, the Survey has recommended prime sites for the first Apollo moon landing.

International Cooperation: For more than 25 years the Geological Survey has provided developing nations with technical assistance in appraising their natural resources and in training their earth scientists at the request of the various foreign governments. During the past year the Geological Survey provided 144 specialists to 35 countries and arranged academic or practical training in the United States for 87 earth scientists and engineers from 25 foreign countries.

Topographic Mapping: The principal function of the Topographic Division of the Survey is to produce topographic maps of appropriate scale and accuracy to meet the Nation's many needs for general-purpose maps. The USGS publishes about 30,000 different maps in several standard scales and quadrangle sizes. These maps provide a wealth of information needed for planning and executing various projects. Nearly 8,000,000 copies were distributed in 1968.

Topographic map revision: A new "photorevision" technique has been developed by the Survey which will permit topographic maps to be updated more rapidly. Aerial photographs are used to locate various features such as new interstate highways, industrial plants, suburban housing, shopping centers, dams, and relocated streams. No field checking or contour line changes are involved. The newly added data are printed on the map in purple clearly showing the changes and additions which have occurred, thus providing a historical comparison that is useful to city planners, geographers, earth scientists, and engineers.

"Orthophotomapping"—A New Technique: Ortho-

photomaps have been officially introduced into the National Topographic Program. This new map product, as prepared by the Survey, is a topographic map on which the natural and cultural features are portrayed by color-enhanced photographic images in true position. Cartographic symbols are added as needed for interpretation by map users. In 1968 the last of the 16 orthophotomaps covering the entire Okefenokee Swamp were published. Hence, for the first time in nine decades, an entirely new map product has replaced the standard topographic map.

National Atlas: The USGS continues its preparation of a 500-page National Atlas of the United States, which in a single volume will provide an accurate composite record of the physical environment of the nation, its resources, economy, industry, population, history and social culture, and political subdivisions. All pages of this unique reference and research tool were in some phase of preparation in late 1968 and 18 maps had been published and were available for purchase. Publication of the bound volume is planned for the fall of 1969.

Conservation: The Federal outer continental shelves off Louisiana, Texas, and California continue to attract the attention of the petroleum industry. Bonuses for the right to explore and develop offshore oil and gas lease tracts amounted to nearly \$1.2 billion in fiscal 1968. Recent discoveries on the Arctic Slope of Alaska confirm the existence of large hitherto unknown deposits of petroleum on both state and Federal lands which will substantially increase the nation's energy resources.

Mineral Production, Value and Royalty (Fiscal Year 1968a)

Lands	Oil	Gas	Gas Liquids		Value	Royalty
			Gallons	Tons		
Public	189,000,000	1,000 cu. ft.	500,000,000	25,600,000	\$829,000,000	\$85,000,000
Acquired	11,000,000	28,000,000	500,000	265,000	51,000,000	6,000,000
Indian	31,000,000	125,000,000	65,000,000	11,628,000	132,000,000	16,000,000
Military	1,500,000	48,000,000	50,000,000		15,500,000	2,200,000
Outer continental shelf	260,000,000	1,400,000,000		1,900,000	1,103,000,000	180,000,000
Naval petroleum res. no. 2	3,000,000	5,000,000	14,000,000		10,000,000	1,200,000
Total	495,500,000	2,506,000,000	629,500,000	39,393,000	2,139,500,000	290,400,000

*Estimated in part. ^bAll minerals except petroleum products; includes coal, potassium, sodium, etc.

The Continental Divide

Source: U. S. Geological Survey, Department of the Interior

Continental Divide: watershed, created by mountain ranges or table-lands of the Rocky Mountains, from which the drainage is easterly or westerly; the easterly flowing waters reaching the Atlantic Ocean chiefly through the Gulf of Mexico, and the westerly flowing waters reaching the Pacific Ocean through the Columbia River, or through the Colorado River, which flows into the Gulf of California.

The location and route of the Continental Divide across the United States may briefly be described as follows:

Beginning at point of crossing the United States-Mexican boundary, near long. 108° 45' W., the Divide, in a northerly direction, crosses New Mexico along the western edge of the Rio Grande drainage basin, entering Colorado near long. 106° 41'.

Thence by a very irregular route northerly across Colorado along the western summits of the Rio Grande and of the Arkansas, the South Platte, and the North Platte River basins, and across Rocky Mountain National Park, entering Wyoming near long. 106° 52'.

Then in a northwesterly direction, forming the western rims of the North Platte, Big Horn, and Yellowstone River basins, crossing the southwestern portion of Yellowstone National Park.

Thence in a westerly and then a northerly direction forming the common boundary of Idaho and Montana, to a point on said boundary near long. 114° 00' W.

Thence northeasterly and northwesterly through Montana and the Glacier National Park, entering Canada near long. 114° 04' W.

World's Tallest Known Trees

The world's tallest living thing, the *Howard Libbey Tree*—a California redwood—was found by Dr. Paul A. Zahl, staff member of the National Geographic, on the east bank of Redwood Creek in Humboldt County, Calif., in 1963. When discovered it measured 367.8 ft. high with a girth of 44 ft. Remeasured four years later, it was found to be 367.6 ft. high. The *Harry W. Cole Tree* was

originally 367.4 ft. but on remeasurement found to be 365.4 ft., and the *National Geographic Tree* was originally 364.3 ft., but is now 364.5 ft. high.

Only California and a pocket in southern Oregon produce earth's tallest living things—the coast redwoods, *Sequoia sempervirens*. Trees grow in a belt 500 miles long and about 30 miles wide.

Forest monarchs of three other species grow in Pacific Coast States, Australia and Tasmania. They include a 324-foot Douglas Fir (*Pseudotsuga Taxifolia*) at Rydewater, Wash.; a 322-foot Eucalyptus tree (*Eucalyptus Regnans*) in the Styx River Valley of Tasmania; a 306-foot tree of the same species in Victoria, Australia; the 291-foot McKinley Tree and the 272-foot General Sherman, both redwoods (*Sequoia Gigantea*) in Sequoia National Park, Calif.

Height	All in California	
367.6	Howard Libbey Tree....	In Redwood
365.4	Harry W. Cole Tree....	Creek grove
364.5	National Geographic Tree	Humboldt Co.
356.5	Rockefeller Tree....	Humboldt Red-
352.6	Founders Tree....	woods State Park
352.3	Redwood Creek grove	

Undersea Craft to Observe Marine Life in Gulf Stream

Construction continues on the PX-15 mesoscaph, a new undersea craft designed by Dr. Jacques Piccard. In this 48-foot vessel he and several associates will drift for 6 weeks along the west

edge of the Gulf Stream, from South Florida to Nova Scotia (about 1,500 miles) at depths up to 2,000 feet, observing marine life through 29 portholes.

1968 Oceanographic Events

Source: National Geographic Society, Washington, D. C.

The third open-ocean phase of the U. S. Navy's "Man in the Sea" program began in the fall of 1968. In preparation for the use of Sealab III, aquanauts tested experimental salvage techniques, conducted oceanographic and marine biological research and ran a series of physiological and human performance tests on the ocean bottom off San Clemente Island, Calif.

Each of five 8-man diving teams, made up of scientists and Navy divers, spent 12 days in the submerged Sealab III, which was anchored in 600 feet of water. Fifty-seven feet long and 12 feet in diameter, this non-propelled vessel is cylinder-shaped, with two rooms attached to the top of it. The teams travel back and forth between the craft and the mother ship in a special pressurized elevator.

Specially designed equipment, called the Bottom Environmental Sensing System, was lowered to gather bottom data around the Sealab III site. It photographed the bottom, recorded current information, took temperature readings and measured sediment and visibility. The bottom in this area is generally sandy and alternates from smooth and flat to steep and boulder-strewn.

The Glomar Challenger, which has in place of a mast an oil field tower rig that stands 170 feet above the waterline, is drilling into ocean floors at 50 sites around the world to gather data on the oceans and their record of changing climates and evolving life.

First drillings were in the Atlantic Ocean. Core samples were taken from the first 3 borings only because the process is so time-consuming. The ship then moved to the southern half of the Gulf of Mexico to explore an unusual formation there that may be an oil field comparable to the one in the Louisiana-Texas region.

Sonic sounding devices have located under the sediment in the deepest part of the Gulf a number of domes similar to salt domes typical of oil fields. Since these domes have never been tapped, there is uncertainty as to what will happen when the drill penetrates and releases oil which is under great pressure. The highest oil well pressure recorded is 8,000 pounds to the square inch—and some think that if the drill does penetrate an untapped dome where there is oil under such pressure the pipe would be blown out, wrecking the equipment. Others believe that the 6,000 pounds per square inch water pressure at the bottom of the Gulf would dampen any such explosion. But no one knows for sure.

The general plan calls for drilling each hole until the bit wears out, then moving to the next site. Hopefully, the floors can be drilled to 2,500 feet beyond a water depth of as much as 4 miles.

Sound waves emanating from two sonar beacons dropped to the bottom are picked up by hydrophones attached to the ship's hull and the signal is fed into a shipboard computer which controls the position of the ship. A pair of large-diameter tubes pass sideways through the hull, one such pair built into the bow area and another pair in the stern area, and each tube has a computer-controlled propeller. The computer determines the direction and distance the ship is to be rotated and actuates the propellers within the tubes to move the ship the required distance; at the same time it controls the main screws to keep the ship headed into the wind and current.

Guinea Tide

The recently discovered and little-known Guinea Tide, which originates in the Gulf of Guinea, just beneath Africa's western land bulge, is the Atlantic home of the highly prized yellowfin and skipjack tuna. Discovery of the Tide was accidental—it came to light when fishing boats working an area of the Atlantic new to them made repeated substantial catches of yellowfins.

Oceanographers spent 4 months and traveled nearly 18,000 miles on the Bureau of Commercial Fisheries' Undaunted to study this phenomenon. They ascertained that this is a different temperature body of water moving into adjoining water and not a true tide. They also ascertained that its movement is seasonal and powerful; that when it does begin to move it heads southward and has a force as strong as any oceanic tide: its daily speed rate averages 7 to 8 miles and it is centered in a little-traveled and little-fished area.

Pacific waters are also being searched for these fish (abundant until 1966) by the Bureau of Commercial Fisheries, the Scripps Institution of Oceanography and scientists from Chile, Ecuador, Mexico and Peru. The search area is some 7,000,000 miles and extends as much as 3,000 miles from the coast lines of these countries. Information is also being gathered on the unexplained shift of current which occurs every 10 years off the coast of Peru.

Underwater archeological excavation of Port Royal, Jamaica, continues into its fourth year, under the guidance of Robert Marx.

An earthquake in 1692 dropped Port Royal beneath the sea. Marx and his aides have recovered many rare and valuable objects from the bottom—watches, church-warden clay pipes with hallmarks, onion bottles, human hair, and a tobacco leaf.

French archeologists will probe the bottom of St. Ann's Bay, Jamaica, to see whether or not two wrecks under 10 feet of mud are caravels abandoned by Columbus in 1503, on his last trip to the New World.

One of the wrecks was found in 1966 by Marx, who removed from the hulk some wood, nails, ceramics, and flint for analysis.

Columbus' records do not give the exact measurements of the ships, but his general description suggests they were about 70 feet long, drew 9 feet of water, had a 23-foot beam, and carried a crew of 30-40 men.

It is not expected that the hulks will contain highly valuable treasures, but if enough of the keel and ribs can be salvaged reconstruction will be fairly easy.

The oceanographic ships USNS Kane and the USS San Pablo spent the summer surveying the Caribbean and the Gulf of Mexico. The data gathered (which included such things as water chemistry, acoustical measurements, bathymetric, seismic and magnetic measurements, etc.) were fed into a computer. When the data are published they will be released through the Naval Oceanographic Office and the National Oceanographic Data Center in Washington.

For the first time in history a sea-borne IBM computer and a Navy satellite have been joined together in a year-long geological-geophysical study of the Atlantic, Indian and Pacific Oceans. Feeding satellite navigation signals into the computer enabled scientists aboard the research

ship *Argo* to pin-point scientific data gathered within a tenth of a mile of the ship's exact position. Upon completion of the cruise in March, 1969, the *Argo* will have traveled 61,000 miles to make this study for the Scripps Institution of Oceanography.

The U. S. Coast and Geodetic Survey ship Oceanographer found 25 new submerged mountains in the South Pacific Ocean, some standing 10,800 feet above the bottom; also a number of north-south fractures (at right angles to those found in the North Pacific), and areas of the ocean basin that are as much as 3,000 feet deeper than expected.

A 180-foot buoy was attached to the top of Cobb Seamount, an underwater "island" about 250 miles west of Washington state. Cobb rises to within about 120 feet of the surface of the Pacific Ocean. Various instruments for gathering weather and oceanographic information have been attached to the 60-foot portion of the buoy above water. Since most of the Pacific Northwest weather passes over this area en route east, the climatological instruments will give advance notice of weather conditions.

Penetration of Daylight

The Navy Oceanographic Office reports that data gathered by 5 different research submarines show that daylight penetrates the ocean as much as 2,300 feet. Maximum penetration was observed when the research submarine *Alvin* descended in the Tongue of the Ocean, Bahamas, between 2,100 and 2,300 feet. Personnel working in another vessel reported that natural light at a 600-foot depth off the coast of San Diego, Calif., offered a greater viewing range than the vessel's artificial lighting offered because of the lesser effects of scattering.

Four men in the 40-foot submarine *Deep Quest* set a new submarine diving record when they descended more than 8,100 feet in Pacific waters, 90 miles southwest of San Diego. An American flag was attached to the outside of the vessel and

when it reached bottom one of the men within it actuated a firing mechanism which not only released the flag but drove the flagstaff into the ocean bottom.

The Scottish Oceanographic Laboratory began a 5-year study of the top 300 feet of the North Atlantic Ocean. Cargo and weather ships will tow special equipment about 120,000 miles each year to gather data on temperature, chemical pollution, salinity, plankton, etc. It is hoped that the information gathered will aid the world's food supply.

Scientists are evaluating data gathered pertaining to a 175-mile long sea channel, which they believe once joined the Aleutian Abyssal Plain with the North American continent. They are hopeful that this channel, 3 miles beneath the surface of the Pacific Ocean, will provide substantial new information on the geology of the area. It is thought that the same geological shifts which formed the Aleutian Trench nearly 15,000,000 years ago broke the channel.

A representative of the Woods Hole Oceanographic Institution suggests that legal changes are necessary to encourage private industry to raise food in the sea, for in the United States most fishing grounds are in the public domain. He points out that under 5% of U. S. oyster grounds are privately owned (about 165,000 acres) but more oysters are harvested from them than from more than 4,000,000 public acres.

An area the size of Long Island Sound, maintained for the raft culture of shellfish, could produce an annual crop of mussel meat equal to the entire World's commercial fish landings.

Minerals of 35 of the major elements can be extracted from sea water or mined economically; means will be found to use tides for power generation, and fish farming will double within the decade and redouble by 1975, predicts Dr. N. Fleming of the United Kingdom's National Institute of Oceanography after an 18-month study of the potential benefits which may be harvested from the sea.

The Average Rise and Fall of Tides

Source: Coast and Geodetic Survey, ESSA

Places	Feet	In.	Places	Feet	In.	Places	Feet	In.
Bahoa, Panama....	12	7	Mobile, Ala.....	1	6	San Diego, Calif..	4	1
Baltimore, Md....	1	1	New London, Conn.	2	7	Sandy Hook, N. J.	4	1
Boston, Mass.....	9	6	New Orleans, La..	See Pg. 294		San Francisco, Calif.	4	0
Charleston, S. O....	5	2	Newport, R. I.....	3	6	Savannah, Ga.....	7	5
Colon, Panama.....	1	1	New York, N. Y....	4	6	Seattle, Wash.....	7	7
Eastport, Me.....	13	2	Old Pt. Comfort, Va.	2	6	Tampa, Fla.....	2	10
Galveston, Tex....	1	5	Philadelphia, Pa..	5	11	Washington, D. C..	2	11
Key West, Fla.....	1	4	Portland, Me.....	9	0			

U. S. Coastline by States*

Source: ESSA, Department of Commerce

State	General coastline ¹	Tidal shoreline ²	State	General coastline ¹	Tidal shoreline ²
Atlantic coast.....	2,069	28,673	Gulf coast.....	1,631	17,141
Connecticut.....	(—)	618	Alabama.....	53	607
Delaware.....	28	381	Florida.....	770	5,095
Florida.....	580	2,331	Louisiana.....	397	7,721
Georgia.....	100	2,344	Mississippi.....	44	359
Maine.....	228	3,478	Texas.....	367	3,999
Maryland.....	31	3,190	Pacific coast.....	7,623	40,298
Massachusetts.....	192	1,519	Alaska.....	5,580	31,383
New Hampshire.....	13	131	California.....	840	3,427
New Jersey.....	130	1,792	Hawaii.....	750	1,052
New York.....	127	1,850	Oregon.....	296	1,110
North Carolina.....	301	3,375	Washington.....	157	3,026
Pennsylvania.....	(—)	89	Arctic coast, Alaska	1,060	2,521
Rhode Island.....	40	384	United States....	12,383	88,633
South Carolina.....	187	2,876			
Virginia.....	112	3,316			

*In statute miles (April 1, 1961). (—) Represents zero.

¹ Figures are lengths of general outline of seacoast. Measurements were made with a unit measure of 30 minutes of latitude on charts as near the scale of 1:1,200,000 as possible. Coastline of sounds and bays is included to a point where they narrow to width of unit measure, and includes the distance across at such point.

² Figures obtained in 1939-40 with a recording instrument on the largest-scale charts and maps then available. Shoreline of outer coast, offshore islands, sounds, bays, rivers, and creeks is included to the head of tidewater or to a point where tidal waters narrow to a width of 100 feet.

How Deep Is the Ocean?

Principal Ocean Depths. Source: U. S. Naval Oceanographic Office

Name of Area	Location	Depth			Ship and/or Country	Year
		Meters	Fathoms	Feet		
PACIFIC OCEAN						
Mariana Trench.....	11°21'N, 142°12'E.....	11,034	6,033	36,198	Vityaz (USSR).....	1957
	11°19'N, 142°15'E.....	10,863	5,939	35,631	HMS Challenger.....	1951
	11°20'N, 142°16'E.....	10,815	5,910	35,460	" (U. K.).....	1951
	11°21'N, 142°12'E.....	10,912	5,967	35,800	Bathyscaph Trieste*.....	1960
Tonga Trench.....	23°15.3'S, 174°44.7'W.....	10,882	5,950	35,702	Vityaz (USSR).....	1957
	24°00'S, 175°00'W.....	10,850	5,933	35,598	Nat'l Geographic.....	1965
	23°16'S, 174°46'W.....	10,633	5,814	34,884	US Horizon.....	1953
Kuril Trench.....	44°15.2'N, 150°34.2'E.....	10,542	5,764	34,587	Vityaz (USSR).....	1954
	44°18'N, 150°30'E.....	10,382	5,677	34,062	Vityaz (USSR).....	1953
Philippine Trench.....	10°27'N, 126°39.5'E.....	10,539	5,763	34,578	Galathea (Danish).....	1951
(Mindanao)	10°27'N, 126°39.5'E.....	10,497	5,742	34,116	USS Cape Johnson.....	1945
Izu Trench.....	30°32'N, 142°31'E.....	10,374	5,673	34,038	USS Ramapo.....	1932
	30°30'N, 132°30'E.....	9,985	5,459	32,721	Bathymetric Map (USSR).....	1964
	30°49'N, 142°18'E.....	9,441	5,159	30,954	Mansyu (Japan).....	1924
Kermadec Trench.....	31°52.8'S, 177°20.6'W.....	10,047	5,494	32,964	Vityaz (USSR).....	1957
	31°51'S, 177°02'W.....	9,994	5,465	32,790	Galathea (Danish).....	1952
Bonin Trench.....	24°30'N, 143°24'E.....	9,156	5,005	30,332	Vityaz (USSR).....	1964
	24°17'N, 143°23'E.....	9,150	5,002	30,012	USS Salt Lake City.....	1945
New Britain Trench.....	06°34'S, 153°55'E.....	9,140	4,998	29,988	Planet (German).....	1910
	06°18'S, 153°48'E.....	9,103	4,976	29,858	Bathymetric (USSR).....	1964
	06°18'S, 153°43'E.....	8,936	4,886	29,316	USS Blackfin.....	1959
Yap Trench.....	08°33'N, 138°02'E.....	8,527	4,662	27,976	Vityaz (USSR).....	1958
	08°08'N, 137°49'E.....	8,028	4,390	26,340	USCGC Kukui.....	1965
	07°55'N, 137°39'E.....	8,028	4,390	26,340	USS Greenish.....	1965
Japan Trench.....	36°08'N, 142°43'E.....	8,412	4,597	27,591	Bathymetric (USSR).....	1964
Palau Trench.....	07°40'N, 135°04'E.....	8,138	4,449	26,693	Stefan (Germany).....	1905
	07°31'N, 134°56'E.....	7,324	4,005	24,030	USCGC Ironwood.....	1966
Aleutian Trench.....	50°53'N, 176°23'E.....	8,100	4,429	26,574	USCGC Bering Strait.....	1953
	51°13'N, 176°48'E.....	7,882	4,276	25,656	USCGC Chelan.....	1936
	50°51'N, 172°16'E.....	7,679	4,199	25,194	Coast & Geodetic.....	1966
	50°41'N, 177°11'E.....	7,666	4,192	25,152		1966
Peru Chile Trench.....	23°18'S, 71°41'W.....	8,064	4,409	26,454	US Spencer F. Baird.....	1957
(Atacama Trench).....	23°27'S, 71°21'W.....	8,064	4,409	26,454	IGY.....	
	21°00'S, 71°15'W.....	7,920	4,330	25,980	US Atlantis.....	1955
New Hebrides Trench.....	20°36'S, 168°37'E.....	7,570	4,138	24,830	Planet (Germany).....	1910
Ryukyu Trench.....	25°15'N, 128°32'E.....	7,507	4,105	24,629	Mansyu (Japan).....	1925
	24°00'N, 126°48'E.....	7,181	3,926	23,554	Bathymetric (USSR).....	1964
Mid. America Trench.....	14°02'N, 93°39'W.....	6,669	3,642	21,852	USS Epce.....	1952
ATLANTIC OCEAN						
Puerto Rico Trench.....	19°35'N, 68°17'W.....	8,648	4,729	28,374	USS Archerfish.....	1961
	19°45'N, 67°49'W.....	8,523	4,663	27,978	USS Rehoboth.....	1955
	19°44'N, 67°22'W.....	8,497	4,646	27,876	USS Rehoboth.....	1955
	19°53'N, 66°55'W.....	8,476	4,635	27,810	USS San Pablo.....	1955
	19°42'N, 67°05'W.....	8,381	4,583	27,498	US Vema.....	1954
Cayman Trench.....	19°12'N, 80°00'W.....	7,535	4,120	24,720	US Vema.....	1960
	18°59'N, 80°12'W.....	7,211	3,943	23,658	(British Admiralty).....	1955
	18°59'N, 80°23'W.....	7,191	3,932	23,592		1955
	19°03'N, 80°22'W.....	7,491	4,096	24,576	(Germany).....	1937
So. Sandwich Trench.....	55°14'S, 26°29'W.....	8,252	4,512	27,072	USS Etilanin.....	1963
	55°08'S, 26°04'W.....	8,246	4,509	27,054	USS Etilanin.....	1963
	55°08'S, 26°05'W.....	8,219	4,494	26,964	USS Etilanin.....	1963
	55°07'S, 26°46'W.....	8,264	4,518	27,113	Meteor (Germany).....	1926
Romanche Gap.....	05°16'S, 18°35'W.....	7,864	4,300	25,800	US Vema.....	1957
	00°13'S, 18°20'W.....	7,729	4,226	25,356	USS Albatross.....	1948
Brazil Basin.....	09°10'S, 23°02'W.....	5,119	3,346	20,076	US Vema.....	1956
INDIAN OCEAN						
Java Trench.....	(no position).....	7,725	4,224	25,344	Nat'l Geographic.....	1967
	10°20'S, 110°10'E.....	7,450	4,073	24,442	(British Admiralty).....	1928
	10°00'S, 108°05'E.....	6,459	3,528	22,068	Planet (Germany).....	1906
Ob Trench.....	(no position).....	6,374	3,759	22,553	Nat'l Geographic.....	1967
Vema Trench.....	(no position).....	6,402	3,501	21,004	Nat'l Geographic.....	1967
Agulhas Basin.....	(no position).....	6,195	3,388	20,325	Nat'l Geographic.....	1967
Diamantina Trench.....	35°00'S, 105°35'E.....	6,062	3,315	19,890	Nat'l Geographic.....	1967
ARCTIC OCEAN						
Eurasia Basin.....	82°23'N, 19°31'E.....	5,450	2,980	17,880	Fidor Lithke (USSR).....	1955
MEDITERRANEAN SEA						
Ionian Basin.....	36°32'N, 21°06'E.....	5,150	2,816	16,896	USS Taner.....	1955
	35°51'N, 22°18'E.....	5,005	2,737	16,420	Calypso (French).....	1955
*Deepest descent was made Jan. 23, 1960, when the bathyscaph Trieste of the U. S. Navy dove 35,800 ft. in the Mariana Trench, 250 mi. SW of Guam. On board were Lt. Don Walsh, USN, and Jacques Piccard, whose father built the Trieste. A depth of 31,350 ft. was reached by two Frenchmen, Huot and Willm, in a bathyscaph S of Urup Is. in the Kuriles, July 15, 1962.						
Ocean Area and Average Depth						
Four major bodies of water are recognized by geographers and mapmakers. They are: the Pacific, Atlantic, Indian and Arctic Oceans.						
The Atlantic and Pacific Oceans are considered divided at the equator into the No. Atlantic and So. Atlantic; the No. Pacific and So. Pacific.						
	Sq. Miles	Avg. Depth		Sq. Miles	Avg. Depth	
Pacific Ocean.....	64,186,300	13,739	Hudson Bay.....	281,900	305	
Atlantic Ocean.....	33,420,000	12,257	East China Sea.....	256,600	620	
Indian Ocean.....	28,350,500	12,704	Andaman Sea.....	218,100	3,667	
Arctic Ocean.....	3,662,200	4,362	Black Sea.....	196,100	3,906	
South China Sea.....	1,148,500	4,802	Red Sea.....	174,900	1,764	
Caribbean Sea.....	271,400	8,448	North Sea.....	164,800	308	
Mediterranean Sea.....	969,100	4,926	Baltic Sea.....	187,800	180	
Bering Sea.....	873,000	4,893	Yellow Sea.....	113,500	121	
Gulf of Mexico.....	582,100	5,297	Gulf of California.....	54,100	2,375	
Sea of Okhotsk.....	537,500	3,192	Persian Gulf.....	88,800	328	
Sea of Japan.....	319,100	5,468				

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The Atlantic and Pacific Oceans are considered divided at the equator into the No. Atlantic and So. Atlantic; the No. Pacific and So. Pacific.

The Arctic Ocean is the name for waters north of the continental land masses in the region of the Arctic Circle. The term Antarctic Ocean is used by some cartographers to describe the waters around Antarctica, but no fixed geographic points locate its northern limits.

	Sq. Miles	Avg. Depth		Sq. Miles	Avg. Depth
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Sea of Japan.....	319,100	5,468			

The Malayan Sea is not considered a geographical entity but a term used for convenience for waters between the South Pacific and the Indian Ocean.

Geologic Time—The Age of the Earth

by William L. Newman, Geologist, U. S. Geological Survey

The earth is at least four and a half billion years old, according to recent estimates. This vast span of time, called geologic time by earth scientists and believed by some to reach back to the birth of the Solar System itself, is difficult if not impossible to understand in the familiar units of months and years, or even centuries. How then do scientists reckon geologic time and why do they believe the earth is so old?

The evidence for an ancient earth is concealed in the rocks so liberally displayed on the earth's surface. Their ages vary widely but, like pages in a long and complicated history, they record the earth-shaping events of the past such as mountain building, cycles of erosion and deposition, and sea encroachment.

Two scales are used to date the various episodes and to measure the age of the earth—a relative time scale, based on the sequence of layering of the rocks and the slow but progressive development of life as displayed by fossils preserved in the rocks; and an atomic time scale, based on the natural radioactivity of chemical elements in the rocks.

James Hutton, in 1785, first proposed the most fundamental principle used to determine the relative ages of rocks: the law of superposition. He proposed that wherever untruncated layers of rocks are exposed, the bottommost layer was deposited first and is, therefore, the oldest exposed; each succeeding layer is progressively younger.

William Smith discovered in 1798 that certain layers of rocks contained fossils unlike those in other layers, and that rocks of the same age could be identified by their similar or related fossil assemblages. By combining the study of fossils (paleontology) with the study of rock layers (stratigraphy), geologists are able to match or "correlate" strata of the same age throughout a large region and even throughout the world.

Recurring events in the earth's history such as mountain building and sea encroachment, of which the rock layers themselves are records, comprise units of geologic time even though the actual dates of the events are unknown. Human events are commonly dated in relative terms as having taken place either B.C. or A.D.—broad divisions of time. Shorter spans are measured by the dynasties of ancient Egypt or by the reigns of kings and queens in Europe. Similarly, geologists have divided relative time into *Eras*—broad spans based on the general character of life that existed during those times, and *Periods*—shorter spans based partly on evidence of major disturbances of the earth's crust. Periods are further subdivided into *Epochs*.

The atomic time scale is an outgrowth of Henri Becquerel's discovery in 1896 of the natural radioactive decay of uranium. Radioactive decay is a spontaneous process in which an atom (the parent) loses particles from its nucleus to form an atom (the daughter) of a different element. The rate of decay is conveniently expressed in terms of the atom's *half-life*. The atoms (isotopes) of certain elements decay slowly and several of these are used as atomic clocks:

Parent (isotope)	Daughter (isotope)	Currently accepted Half-life values
Potassium ⁴⁰	Argon ⁴⁰	1.3 billion years
Rubidium ⁸⁷	Strontium ⁸⁷	50 billion years
Thorium ²³²	Lead ²⁰⁸	14.1 billion years
Uranium ²³⁵	Lead ²⁰⁷	713 million years

Dating rocks by the atomic clock method is simple in theory but the laboratory procedures are complex. The numbers of parent and daughter atoms in each specimen must be determined in order to tell how long the radioactive process has been going on, or—in other words—the age of the rock. The principal difficulty lies in measuring precisely very tiny amounts of atoms.

Interweaving the relative time scale with atomic time poses certain problems because not all types of rocks can be dated directly by atomic methods. Igneous rocks, such as granite and basalt which crystallize from a molten state, are most useful for this purpose. By bracketing sedimentary rock layers within time zones determined by dating appropriately selected igneous rocks, however, the following time chart combining both relative geologic time and atomic time has been constructed:

RELATIVE GEOLOGIC TIME

Era	Period		Epoch	Atomic time*
Cenozoic	Quaternary		Holocene	2-3
			Pleistocene	23
	Tertiary		Pliocene	12
			Miocene	26
			Oligocene	37-38
			Eocene	53-54
		Paleocene	65	
Mesozoic	Cretaceous		Late	136
			Early	
	Jurassic		Late	190-195
			Middle	
	Triassic		Early	225
			Late	
Paleozoic	Permian		Late	280
			Early	
	Carboniferous Systems	Pennsylvanian	Late	—
			Middle	
	Mississippian		Early	345
			Late	
	Devonian		Early	395
			Late	
	Silurian		Middle	430-440
			Early	
Ordovician		Late	500	
		Middle		
Cambrian		Early	570	
		Late		
Precambrian				3,600+

*Estimated ages of time boundaries (millions of years)

12,000,000-year-old Stone Hammer Found by Dr. Leakey

Source: National Geographic Society, Washington, D. C.

A pre-human African hominid, *Kenyapithecus wickeri*, added animal food to his diet by hammering open skulls and bones to reach brains and marrow, using a crude stone hammer found at Fort Ternan, Kenya, by Dr. Louis S. B. Leakey.

The hammer, which shows considerable damage along two angular edges as a result of usage, is an important milestone in our understanding of man's evolution as a toolmaker. Also found at the site were fossil bones of animal skulls and bones which showed evidence of deliberate fracture.

The discoveries were made under a grant from the National Geographic Society, a long-time sponsor of Dr. Leakey's research.

Homo habilis had a kit of several kinds of stone tools. However, the much older find suggests that, in time, stone tools made during the Pliocene age will be found, thus dating the start of toolmaking as much as 10,000,000 years before *Homo habilis*.

Work at the site exposed a rich fossil deposit of the Upper Miocene age, also about 12,000,000 years old.

Another discovery was that of a complete fossil elephant, 2,000,000 years old, found in 1967 in the Baringo area of Kenya by the Leakeys' son and daughter-in-law. The brittle fossil stood 13 ft. high at the shoulder, two feet taller than today's largest elephants, and had straight tusks which reached to the ground. It is now in the collection of the Kenya National Museum Centre for Pre-history and Paleontology at Nairobi.

The most famous of discoveries by Dr. and Mrs. Leakey were remains of the three species of hominids found in Olduvai Gorge, Tanzania, where they may have lived alongside one another nearly 1,800,000 years ago. The Gorge is a rich fossil site near Serengeti National Park, cut away by erosion; its cliffs reveal the geological sediments of 2,000,000 years.

Volcanoes of the World: Eruptions of 1968

Source: National Geographic Society, Washington, D. C.

(E) Eruption, year in parentheses (R) Rumbling (St) Steaming (D) Dormant

Another volcano in Antarctica made itself known Dec. 4, 1967, when a 10-mile-wide crater-lake began erupting about a mile and a half from the Chilean Antarctic Station on Deception Island, some 6.3 miles south of Tierra del Fuego. Personnel manning Argentina's, Chile's and Great Britain's stations on the island were forced to flee their buildings and await evacuation by helicopter. Rescue ships could not enter the horseshoe-shaped bay because the water rose and fell rapidly, the heat was intense and the bay was being showered with rock and ash; the helicopters were forced to fly shuttle trips across the bay.

In the month prior to the initial eruption, a seismograph at the Chilean base recorded nearly 350 tremors.

The Chilean station was covered with nearly a foot of ash. One crater was found only three-fourths of a mile from the Chilean base. About two inches of ash settled on the British station.

The eruptions created a new 200-foot-high island in Telefon Bay which measures about a half-mile wide by three-quarters of a mile long and is composed of volcanic ash and scoriae. British scientists are studying this island.

Of particular interest is the fact that penguins and skua gulls fled their rookeries several hours before the men on the island felt the first tremors. Scientists would like to know whether or not their departure was coincidence or if they have an "early warning system" that is better than man-made machines.

Antarctica has been one of the quietest areas on the earth so far as earthquakes and volcanoes are concerned. But this may be changing with the discovery several years ago of the active volcano Mount Melbourne, 8,500 feet, nearly 200 miles from Mount Erebus, and now Deception's shift from passive to active. Recently made infrared aerial photographs show molten lava in the summit crater of Mount Erebus.

One theory about the change of role is that the harbor area of Deception Island is a water-covered volcano, just as is Crater Lake, Oregon, and that, with the passage of time, enough water seeped through and became so highly heated that it created sufficient steam to cause the eruptions. Another thought is that internal pressures may have caused it to become active.

On July 29, 1968, for the first time in more than 500 years, Mount Arenal, 5,092 feet, Costa Rica, erupted, with blasts continuing over several days. Some of the smoke and ash was projected 45,000 feet into the sky and carried as far as 250 miles to the north to fall on Managua, Nicaragua.

Puerto Nuevo, a village of more than 8,000 residents near the base of the volcano and about 50 miles north of San José, was partially destroyed. Nearly 100 persons have been killed by this volcano.

It is estimated that it will take Costa Rica 20 years to recover from the nearly \$50,000,000 damages these eruptions have caused.

The U. S. Geological Survey advises that Mount Shasta and Lassen Peak, Calif., and Mount St. Helens, Wash., are volcanoes similar to Arenal: dormant, not necessarily dead. It is also believed that Mount Rainier erupted about the same time as Arenal did 500 or so years ago.

Mayon, 8,284 feet, in the Philippines, erupted in 1968, its first eruption since 1947 and its 32nd eruption since 1814. It erupted 82 times in the 10 days following its initial eruption in April, 1968, causing tens of thousands of its residents to leave their homes because of the danger of hot mud flows and floods.

One blast was reportedly so strong that it jolted the recording pen off a nearby seismograph.

Four refugees returning to their homes died from inhaling volcanic ash, causing police to arrest refugees trying to enter the evacuated areas.

Also in the Philippines, 984-foot Mount Taal, south of Manila erupted again on Jan. 31, the fourth time in a year.

Mount Etna continued its rumblings, with an occasional mild eruption. As of mid-year none of the eruptions had been violent nor had the lava flow threatened nearby towns.

Kilauea volcano's Hiiaaka crater erupted the morning of Aug. 22 with 75-foot fountains, the first time in history this crater had erupted.

Name	Location	Ht. Ft.	Name	Location	Ht. Ft.
AFRICA					
Kibo, Kilimanjaro (D).....	Tanzania.....	19,340	Puetszagoe (D).....	Sumatra.....	9,121
Cameron Mt. (E-1959).....	Cameroon.....	13,350	A vachinskaya (St).....	U.S.S.R.....	9,026
Nyiragongo (E-1948)....	Rep. of the Congo.....	11,385	Big Ben (E-1950).....	Heard Island..	9,007
Nyamulagira (E-1958)....	Rep. of the Congo.....	10,028	Baldi (D).....	Solomons.....	9,000
Fogo (E-1951).....	Cape Verde Is.	9,281	Papandajan (St).....	Java.....	8,602
Tristan da Cunha (E-1961).....	Atlantic Ocean.....	6,760	Gueraodon (E-1924)....	Sumatra.....	8,497
San Juan (D).....	La Palma, Canary Is.....	2,612	Asama (E-1965).....	Java.....	8,340
ANTARCTICA					
Erebus (St).....	.....	12,450	Mayon (E-1968).....	Philippines....	8,284
Deception Island (E-1967) .....	.....	8,966	Sumbing (E-1928).....	Sumatra.....	8,225
Melbourne (St).....	.....	8,966	Tandikat (E-1924)....	Sumatra.....	8,166
ASIA—OCEANIA					
Klyuchevskaya (E-1962) U.S.S.R.....	.....	15,584	Yake Dake (E-1963)....	Japan.....	8,064
Kerintji (St).....	Sumatra.....	12,484	Sinabung (St).....	Sumatra.....	7,913
Fuji (D).....	Japan.....	12,388	Bromo (St).....	Java.....	7,848
Rindjani (E-1964).....	Indonesia.....	12,224	Idjen (D).....	Java.....	7,828
Tolbachik (E-1941).....	U.S.S.R.....	12,080	Ulawa (D).....	New Britain....	7,532
Semeru (E-1963).....	Java.....	12,060	Ngauruhoe (E-1956)....	New Zealand....	7,515
Jeiniskaya.....	U.S.S.R.....	11,580	Guntur (D).....	Java.....	7,379
Kronotskaya (D).....	U.S.S.R.....	11,575	Bamus (D).....	New Britain....	7,338
Koryakskaya (E-1957)....	U.S.S.R.....	11,339	Galunggung (E-1920)....	Java.....	7,113
Slamat (E-1963).....	Java.....	11,247	Amburambi (E-1924)....	Indonesia.....	7,051
Raung (St).....	Java.....	10,932	Sorikmarapu (E-1917)....	Sumatra.....	7,037
Shiveluch (E-1964).....	U.S.S.R.....	10,771	Petarangan (E-1939)....	Java.....	7,005
Dempo (St).....	Sumatra.....	10,364	Sibajak (St).....	Sumatra.....	6,870
Welirang (D).....	Java.....	10,354	Tokachi (E-1962).....	Japan.....	6,813
Azung (E-1964).....	Ball.....	10,308	Tangkubanperabu (R)....	Java.....	6,637
Sundoro (D).....	Java.....	10,285	Bagana (E-1968).....	Solomons.....	6,560
Tiarere (E-1935).....	Java.....	10,098	Tongariro (E-1950)....	New Zealand....	6,458
Gede (E-1949).....	Java.....	9,705	Sangeang (E-1953)....	Indonesia.....	6,394
Apo (D).....	Philippines....	9,690	Kaba (E-1941).....	Sumatra.....	6,358
Merapi (E-1962).....	Java.....	9,551	Awu (E-1966).....	Indonesia.....	6,102
Bezymyannaya (E-1961)....	U.S.S.R.....	9,514	Soputan (E-1947).....	Celebes.....	5,994
Marapi (D).....	Sumatra.....	9,485	Slau (E-1949).....	Indonesia.....	5,853
Tambora (D).....	Indonesia.....	9,353	Kelud (E-1966).....	Java.....	5,679
Ruapehu (St).....	New Zealand....	9,175	Batur (E-1963).....	Ball.....	5,636
			Belelang (St).....	Sumatra.....	5,636
			Ternate (E-1935).....	Halmahera.....	5,627
			Hibok Hibok (E-1960)....	Philippines....	5,619
			Lewotobi Perampuan (E-1935).....	Indonesia.....	5,591
			Kirishima (St).....	Japan.....	5,577
			Mutu (D).....	Indonesia.....	5,545
			Lamongan (St).....	Java.....	5,482

Name	Location	Ht. Ft.	Name	Location	Ht. Ft.
ASIA—OCEANIA (Continued)					
Boleng (E-1950).....	Indonesia.....	5,443	Shishaldin (St.).....	Aleutians.....	9,337
Gamkonora (E-1949)....	Bahmahera.....	5,364	Veniaminof (D.).....	Alaska.....	8,225
Aso (E-1958).....	Japan.....	5,223	Pavlov (E-1950).....	Alaska.....	8,215
Lewotobi Lakilaki (E-40)	Indonesia.....	5,217	Griggs (St.).....	Alaska.....	7,600
Lokon (D.).....	Celebes.....	5,184	Paricutin (D.).....	Mexico.....	7,451
Bulusau (E-1966).....	Philippines.....	5,115	Mageik (St.).....	Alaska.....	7,244
Sarycheva (E-1960).....	Kuril Is.	4,960	Douglas (St.).....	Alaska.....	7,064
Meakan (E-1959).....	Japan.....	4,931	Chignagak (D.).....	Alaska.....	7,031
Ibu (D.).....	Halmahera.....	4,921	Kumai (E-1962).....	Alaska.....	6,715
Karymskaya (E-1963)...	U. S. S. R.	4,869	Kukak (St.).....	Alaska.....	6,700
Lewotolo (D.).....	Indonesia.....	4,757	Makushin (D.).....	Aleutians.....	6,580
Lopevi (E-1960).....	New Hebrides..	4,755	Pogromni (E-1961)...	Aleutians.....	6,568
Ambrim (E-1951).....	New Hebrides..	4,376	Martin (E-1960).....	Alaska.....	6,100
Mahawu (D.).....	Celebes.....	4,367	Trident (E-1963).....	Alaska.....	6,010
Lone Island (E-1953)...	Bismarck Ar.	4,278	Tanaga (D.).....	Aleutians.....	5,925
Maitani (E-1968).....	Bismarck Ar.	4,265	Great Sitkin (St.).....	Aleutians.....	5,710
Tonkoko (D.).....	Celebes.....	3,770	Cleveland (E-1944)...	Aleutians.....	5,675
Werung (E-1948).....	Indonesia.....	3,678	Farol (D.).....	Aleutians.....	5,334
Sakurajima (E-1967)...	Japan.....	3,668	Korovin (D.).....	Aleutians.....	4,852
Lanzka (E-1965).....	New Britain.....	3,586	Kanaga (D.).....	Alaska.....	4,416
Dukono (E-1950).....	Halmahera.....	3,566	Aniakchak (D.).....	Alaska.....	4,275
Lamington (E-1951)....	New Guinea.....	3,500	Akutani (E-1952)....	Aleutians.....	4,275
Minaami (E-1963).....	Japan.....	3,478	Kiska (1962).....	Alaska.....	4,275
Yasur (D.).....	New Hebrides..	3,420	Augustine (E-1935)...	Alaska.....	3,927
Loibabu (D.).....	Bismarck Ar.	3,058	Little Sitkin (St.).....	Aleutians.....	3,897
Asuncion (St.).....	Marianas.....	2,923	Okmok (E-1958).....	Aleutians.....	3,519
Paloe (E-1964).....	Indonesia.....	2,871	Seguam (D.).....	Aleutians.....	3,158
Sirung (E-1947).....	Indonesia.....	2,828	Yunaska (D.).....	Aleutians.....	3,133
O Yama (E-1962).....	Japan.....	2,674	Kagamil (D.).....	Aleutians.....	2,930
Krakatau (E-1953).....	Indonesia.....	2,667	Novarupta (St.).....	Alaska.....	2,760
Bam Island (D.).....	Bismarck Ar.	2,625	Cerberus (D.).....	Alaska.....	2,541
Nila (E-1932).....	Indonesia.....	2,562	Boqueron (E-1955)...	Revilla Gigeo Is. (Mexico)...	1,280
Batu Tara (St.).....	Indonesia.....	2,454	CENTRAL AMERICA—CARIBBEAN		
Alamagan (E-1945)....	Marianas.....	2,444	Tajumulco (R.).....	Guatemala.....	13,812
Ruang (E-1949).....	Indonesia.....	2,379	Tacaná (R.).....	Guatemala.....	13,333
Bango (D.).....	New Britain.....	2,375	Acateango (R.).....	Guatemala.....	12,992
Tinakula (D.).....	Santa Cruz Is. ..	2,200	Fuego (E-1967).....	Guatemala.....	12,582
Ija (St.).....	Indonesia.....	2,162	Santa Maria (R.).....	Guatemala.....	12,362
Banda (D.).....	Indonesia.....	2,152	Artian (R.).....	Guatemala.....	11,565
Teua (D.).....	Indonesia.....	2,149	Irazu (E-1964).....	Costa Rica.....	11,500
Seru (D.).....	Indonesia.....	2,103	San Pedro (R.).....	Guatemala.....	9,921
Mihara (E-1964).....	Japan.....	2,028	Poás (St.).....	Costa Rica.....	9,940
Pagan (D.).....	Marianas.....	1,870	Pacaya (E-1965).....	Guatemala.....	8,446
Tofua (D.).....	Tonga Islands..	1,660	Izalco (E-1967).....	El Salvador.....	7,828
Unauna (E-1960).....	Indonesia.....	1,640	San Miguel (E-1967)...	El Salvador.....	6,994
Farallon de Pajaros (E-1952).....	Marianas.....	1,096	Ometepe (Concepción) (E-1967).....	Nicaragua.....	5,106
Guguan (D.).....	Marianas.....	988	Arenal (E-1968).....	Costa Rica.....	5,092
Taal (E-1968).....	Philippines.....	984	Pelee (D.).....	Martinique.....	4,383
Didicas (E-1952).....	Philippines.....	900	Momotombo (E-1952)...	Nicaragua.....	4,126
Niuafou (E-1946).....	Tonga Islands..	853	Conchagua (E-1947)...	El Salvador.....	4,100
Tavurvur (E-1941)....	New Britain.....	741	Soufriere (D.).....	St. Vincent Isl.	4,048
Ponape (E-1939).....	Tonga Islands..	600	Telica (E-1965).....	Nicaragua.....	3,109
Matthew Island (D.)...	Loyalty Is.	580	Negro (E-1962).....	Nicaragua.....	3,204
Anak Krakatau (E-1960)	Indonesia.....	510	Santiago (St.).....	Nicaragua.....	1,969
MID-PACIFIC					
Mauna Loa (E-1950)....	Hawaii.....	13,680	SOUTH AMERICA		
Kilauea (E-1968).....	Hawaii.....	4,090	Gualatiri (E-1959)....	Chile.....	19,882
EUROPE					
Etna (E-1968).....	Sicily, Italy.....	10,958	Lascar (E-1951).....	Chile.....	19,632
Askja (E-1961).....	Iceland.....	4,954	Cotopaxi (St.).....	Ecuador.....	19,347
Hekla (St.).....	Iceland.....	4,892	Misti (D.).....	Peru.....	19,031
Vesuvius (St.).....	Italy.....	4,190	Cayambe (D.).....	Ecuador.....	18,946
Katla (E-1918).....	Iceland.....	3,182	Tupungatito (E-1959)...	Chile.....	18,504
Stromboli (E-1967)....	Italy.....	3,038	Sangay (E-1946).....	Ecuador.....	17,159
Thira (St.).....	Greece.....	1,860	Tungurahua (R.).....	Ecuador.....	16,512
Vulcano (D.).....	Italy.....	1,637	Cotacachi (E-1955)...	Ecuador.....	16,204
Surtsey (E-1965).....	Iceland.....	568	Feichina (D.).....	Ecuador.....	15,696
Illa Nova (E-1958)....	Azores.....	200	Purace (E-1950).....	Colombia.....	15,001
NORTH AMERICA					
Popocatepetl (St.).....	Mexico.....	17,887	Lautaro (St.).....	Chile.....	11,090
Wrangell (St.).....	Alaska.....	14,005	Ilalima (E-1955).....	Chile.....	10,239
Colima (St.).....	Mexico.....	13,993	Villarica (E-1964)...	Chile.....	9,318
Spurr (E-1953).....	Alaska.....	11,069	Osorno (E-1960).....	Chile.....	8,730
Torbert (E-1953).....	Alaska.....	10,600	Shoshoneo (E-1960)...	Chile.....	7,713
Lassen (D.).....	California.....	10,157	Puyehue (E-1960).....	Chile.....	7,319
Redoubt (E-1966).....	Alaska.....	10,137	Calbuco (E-1961).....	Chile.....	6,611
Illamna (St.).....	Alaska.....	10,092	Casablanca (E-1960)...	Chile.....	6,529
			Cauye (E-1950).....	Chile.....	4,642
			Alcedo (E-1954).....	Galapagos Is. ..	3,599
			Klinianhue (E-1955)...	Chile.....	1,004

Mt. Vesuvius, dominating the Bay of Naples, is the most famous of volcanoes. In August, 79 A. D., it buried Pompeii (c. 20,000 pop.) under hot ash and Herculaneum and Stabiae under mud flows. Three-fifths of Pompeii has been excavated; also part of Herculaneum, most of which lies under Resina. Stabiae has been Castellammare. There was a big eruption in 1139, and a major one in December, 1631, when 15 towns were destroyed and 4,000 people killed. Minor eruptions have occurred in 1779, 1793, 1872, 1906 and 1944, sometimes with loss of life.

Krakatau on an island in the Sunda Strait between Sumatra and Java exploded Aug. 27, 1883, creating a depth of 1,000 ft. in the ocean. The explosion was heard 2,500 mi. away, and tidal waves killed 35,000. In 1927 Krakatau formed the island of Anak Krakatau, which exploded, 1929, depositing an island in the hole caused in 1883.

Mont Pelee, Martinique, destroyed St. Pierre and more than 30,000 people May 8, 1902. Eruptions slightly less powerful occurred May 20 and Aug. 30, 1902. A major eruption began Sept. 16, 1929, and lasted 3 years.

Mt. Agung, 10,308 ft., on the island of Bali, erupted in January, March and May, 1963; the last two eruptions claimed a total of more than 1,500 lives and a third of Bali's farm land, and left 87,000 homeless. Bali's Mt. Batur, 5,636 ft., erupted in September, 1963, forcing 1,200 persons to leave their homes at its base; rumblings and explosions could be heard for 50 miles.

In Alaska's Valley of 10,000 Smokes, the lowest of Mt. Trident's 3 peaks erupted Apr. 1, 1963; the cloud of smoke and dust was visible 100 miles away.

The Great Lakes

Source: U. S. Army Engineer District, Lake Survey, Detroit, Mich.

The Great Lakes form the largest body of fresh water in the world and with their connecting waterways are the largest inland water transportation unit. Draining the great North Central basin of the U. S., they enable shipping to reach the Atlantic via their outlet, the St. Lawrence R., and also the Gulf of Mexico via the Illinois Waterway, from Lake Michigan to the Mississippi R. A third outlet connects with the Hudson R. and thence the Atlantic via the N. Y. State Barge Canal System.

Only one of the lakes, Lake Michigan, is wholly in the United States; the others are shared with Canada. Ships carrying grain, lumber and iron ore move from the shores of Lake Superior to Whitefish Bay at the east end of the lake, thence through the Soo (Sault Ste. Marie) locks, through the St. Mary's River and into Lake Huron. To reach the steel mills at Gary, Ind. and South Chicago, Ill., ore ships move west from Lake Huron to Lake

Michigan through the Straits of Mackinac.

Lake Huron discharges its waters into Lake Erie through a narrow waterway, the St. Clair R., Lake St. Clair and the Detroit R. Lake St. Clair, a marshy basin, is 26 miles long and 24 miles wide at its maximum. A ship channel has been dredged through the lake. Detroit lies on the east side of Michigan. The Detroit-Canada tunnel provides vehicular access to Canada under Detroit R. and the Ambassador Bridge links Detroit and Windsor.

Lake Superior is 600 feet above mean water level at Father Point, Quebec, on the International Great Lakes Datum (1955). From Duluth, Minn., to the eastern end of Lake Ontario is 1,156 mi.

The Lake Survey is one of the 3 nautical charting agencies of the U. S. Govt. Besides charting, it maintains water level records, makes special hydraulics and hydrology studies, and conducts oceanographic-type research on the Gt. Lakes.

	Superior	Michigan	Huron	Erie	Ontario
Length in miles.....	350	307	206	241	193
Breadth in miles.....	160	113	101	57	53
Deepest soundings in feet.....	1,333	923	750	215	802
Volume of water in cubic miles.....	2,935	1,180	849	110	393
Area (sq. miles) water surface—U. S.....	20,700	22,300	9,100	4,980	3,460
Canada.....	11,100	.....	13,900	4,930	3,888
Total Area (sq. miles) U. S. and Canada.....	31,800	22,300	23,000	9,910	7,340
Area (sq. miles) entire drainage basin—U. S.....	37,400	67,900	25,300	23,700	16,800
Canada.....	42,600	.....	49,500	9,880	15,300
Total Area (sq. miles) U. S. and Canada.....	80,000	67,900	74,800	33,580	32,100
Mean surface above mean water level at Father Point, Quebec, average level in feet (108 years).	600.37	578.68	578.69	570.36	244.77
Latitude, North.....	48° 25'	41° 37'	43° 00'	41° 23'	43° 11'
	49° 00'	46° 06'	46° 17'	42° 52'	44° 15'
	84° 22'	84° 45'	79° 43'	78° 51'	76° 03'
	92° 06'	88° 02'	84° 45'	83° 29'	79° 53'
Longitude, West.....	282.8	None	260.8	251.5	174.6
National boundary line in miles.....	282.8	None	260.8	251.5	174.6
United States shore line (Mainland only) miles.....	909	1,395	564	424	294

Lakes of the World

Source: National Geographic Society, Washington, D. C.

A lake is a body of water surrounded by land. Although some lakes are called seas, they are lakes by definition. The Caspian Sea is bounded by the Soviet Union and Iran and is fed by eight rivers.

Name	Continent	Area sq. mi.	Length mi.	Depth feet	Elev. feet
Caspian Sea.....	Asia-Europe.....	143,550	760	3,224	-92
Superior.....	North America.....	31,800	350	1,333	600
Victoria.....	Africa.....	26,828	250	265	3,720
Aral Sea.....	Asia.....	25,300	280	223	174
Huron.....	North America.....	23,000	206	750	579
Michigan.....	North America.....	22,400	307	923	579
Tanganyika.....	Africa.....	12,700	420	4,710	2,534
Great Bear.....	North America.....	12,275	192	1,356	512
Baykal.....	Asia.....	11,780	395	5,315	1,493
Nyasa.....	Africa.....	11,430	360	2,226	1,550
Great Slave.....	North America.....	10,980	298	2,015	512
Erie.....	North America.....	9,910	241	210	570
Winnipeg.....	North America.....	9,464	266	60	713
Ontario.....	North America.....	7,600	193	80	245
Ladoga.....	Europe.....	6,835	120	738	13
Balkhash.....	Asia.....	6,720	373	85	1,115
Chad.....	Africa.....	6,300	175	24	787
Maracaibo.....	South America.....	5,127	96	115	S. L.
Onega.....	Europe.....	3,710	145	361	108
Volta.....	Africa.....	3,276	250	.....	.....
Titicaca.....	South America.....	3,200	122	922	12,506
Athabasca.....	North America.....	3,120	208	407	899
Nicaragua.....	North America.....	3,100	102	230	105
Eyre.....	Australia.....	2,970	90	4	-52
Rudolf.....	Africa.....	2,473	154	200	1,230
Reindeer.....	North America.....	2,467	143	.....	1,150
Issyk Kul.....	Asia.....	2,355	115	2,303	5,279
Torrens.....	Australia.....	2,230	130	.....	106
Vänern.....	Europe.....	2,156	91	328	144
Winnipegosis.....	North America.....	2,103	141	38	833
Albert.....	Africa.....	2,075	100	54	2,030
Kariba.....	Africa.....	2,050	175	390	1,590
Nettilling.....	North America.....	1,956	67	.....	100
Nipigon.....	North America.....	1,870	72	540	855
Gairdner.....	Australia.....	1,840	90	.....	112
Manitoba.....	North America.....	1,817	140	12	814
Urmia.....	Asia.....	1,815	90	49	4,180
Mweru.....	Africa.....	1,770	76	84	3,010
Kyoga.....	Africa.....	1,710	50	25	3,400
Khanka.....	Asia.....	1,700	55	33	228
Lake of the Woods.....	North America.....	1,695	72	.....	1,015
Koko (Tsing).....	Asia.....	1,625	68	125	10,515
Dubawnt.....	North America.....	1,600	69	.....	764
Great Salt.....	North America.....	1,500	75	48	4,200
Tungting.....	Asia.....	1,430	75	.....	36
Van Goli.....	Asia.....	1,419	80	82	5,643

The Largest Lake in Each State of the United States

Source: National Geographic Society, Washington, D. C.

(*) indicates Reservoir

State	Largest entirely within state	Largest partly in another state	Shared with	Origin	Area in square miles	Feet above sea level	Maximum depth feet	Shore-line length miles
Ala...	Wheeler.....			Man-made	104.84	556	58	1,063
Alaska	Illamna.....	Guntersville.	Tenn.....	Man-made	107.97	595	60	962
Ariz...	San Carlos*			Natural...	1,033	50	.....	188
Ark...	Ouachita.....	Powell.....	Utah.....	Man-made	30.6	2,523	249	.....
Calif.	Bull Shoals.....		Mo.....	Man-made	252	3,700	580	.....
				Man-made	62.65	578	207	690
				Man-made	111.31	695	243	1,050
				Natural...	360	-231	46	.....
				Natural...	192	6,229	1,685	71
				Man-made	28.72	3,765	118	86
				Man-made	8.46	429	85	65
				Man-made	.31	44	12	3.5
				Natural...	700	18.7	.....	110
				Man-made	57.96	1,035	180	540
				Man-made	111.09	330	190	1,057
				Man-made	.66	233	22.5	3.3
				Natural...	133	2,063	1,150	111.3
				Natural...	136	5,930	30	51.5
				Man-made	10.96	405	33	103
				Natural...	22,400	578.8	923	1,660
				Natural...	4.09	859	68	18
				Natural...	22,400	578.8	923	1,660
				Natural...	8.84	1,402	.....	.....
				Man-made	24.68	1,075	56	112
				Man-made	78.51	723	.....	1,255
				Man-made	247.34	375	145	2,380
				Natural...	630	S.L.	15	113
				Natural...	117	1,028	246	.....
				Man-made	7.03	2,462	.....	.....
				Man-made	38.6	530	180	118
				Natural...	31.3	1,139	20	30
				Natural...	31,800	600	1,333	2,980
				Natural...	451	1,175	31	123
				Natural...	31,800	600	1,333	2,980
				Man-made	15.31	234	.....	60
				Man-made	93.75	.....	125	1,375
				Man-made	111.31	695	243	1,050
				Man-made	382.81	2,250	220	1,600
				Man-made	55	3,276	150	50
				Natural...	187.5	3,800	330	70
				Man-made	247	1,221	589	550
				Natural...	71.55	504	120	128
				Man-made	4.19	924	58	35
				Man-made	58.85	4,450	193	250
				Natural...	80	370	60	52
				Natural...	9,910	570	210	856
				Man-made	50.78	760	115	520
				Man-made	76.4	300	100	800
				Man-made	608.38	1,850	200	1,600
				Man-made	20	869	12	60
				Natural...	9,910	570	210	856
				Man-made	160.16	585	87	600
				Man-made	149.06	617	94	540
				Natural...	140.63	4,139	40	105
				Man-made	9	1,182	50	45
				Natural...	9,910	570	210	856
				Man-made	5.68	284	80	38
				Man-made	157.03	75	35	299
				Man-made	111.09	330	190	1,057
				Man-made	160.31	1,375	140	540
				Man-made	60.31	745	80	783
				Man-made	247.34	375	145	2,380
				Man-made	46.56	225	39	141
				Man-made	149.06	617	94	540
				Natural...	1,500	4,200	48	350
				Natural...	252	3,700	580	.....
				Natural...	3.69	411	.....	.....
				Natural...	430	100	899	.....
				Man-made	31.25	795	200	500
				Man-made	76.4	300	100	800
				Man-made	123.44	1,288	375	302
				Man-made	5.37	1,010	.....	106
				Man-made	3.07	1,409	42	33
				Natural...	215.26	.....	21.6	91.96
				Natural...	31,800	600	1,333	2,980
				Natural...	137	7,735	.....	.....

Famous Waterfalls

Source: National Geographic Society, Washington, D. C.

Height=total drop in one or more leaps. †=falls of more than one leap; *=falls that diminish greatly seasonally; **=falls that reduce to a trickle or are dry for part of each year. If river names not shown, they are same as the falls. R.=river; L.=lake; (C)=cascade-type. See notes following list.

Name and Location	Ft.	Name and Location	Ft.	Name and Location	Ft.
AFRICA					
Angola		Norway		Kentucky	
Duque de Braganca.....		†Eastern Mardalsfoss....	1,696	Cumberland.....	68
Lucala R.....	344	Highest fall.....	974	Maryland	
Ruacana, Cunene R.....	406	Western Mardalsfoss....	1,535	Great Potomac R. (C)	90
Ethiopia		(Both on L. Elkesdal)...		Minnesota	
Baratieri, Ganale.....		Skjeggedal.....	525	*Minnehaha.....	54
Dorya R.....		Skykkje, Skykkjua R.....	820	Montana	
Dal Verme, Ganale.....	459	Vettis, Morkedöla R.....	1,214	Missouri.....	75
Dorya R.....	98	Highest fall.....	889	New Jersey	
Fincha.....	508	Vöring, Bjorela R.....	597	**Passaic.....	70
*Tessissat, Blue Nile R....	140	Sweden		New York	
Lesotho		†Handöl, Handöl Cr.....	345	Taughannock.....	215
Maletsunyane.....	630	†Stora Sjöfallet, Lule R...	130	Oregon	
Rhodesia-Zambia		Tannforsen, Are R.....	120	†Multnomah.....	620
*Victoria, Zambezi R.....	355	Switzerland		Highest fall.....	542
South Africa		†Gletroz (Glacier) (C)...	1,640	Tennessee	
*Aughables, Orange R....	400	†Diesbach.....	394	Fall Creek.....	256
Howick, Umgeni R.....	311	†Glessbach.....	1,312	Rock House Creek.....	125
†Tugela (5 falls).....	3,110	Handegg, Aare R.....	151	Washington	
Highest fall.....	1,350	Ifiken.....	394	Fairy Falls.....	700
Tanzania-Zambia		Pissevache, La Salante R...	213	Mt. Rainier Nat. Pk.	
*Kalambo.....	726	†Reichenbach.....	656	Narada, Paradise R...	168
Uganda		Rhine.....	65	Stuiskin, Paradise R...	300
Murchison, Victoria.....		†Simmen, Simme R.....	459	Palouse.....	198
Nile R.....	130	Stauber.....	590	Snoqualmie.....	270
Zambia		Staubach.....	984	Wisconsin	
Chilombo, Ielsa R.....	880	†Trümmelbach.....	1,312	Manitou, Black R.....	165
ASIA					
India —**Cauvery.....	330	NORTH AMERICA			
†**Gersoppa (Jog),.....		Canada		Yellowstone National	
Sharavati R.....	830	British Columbia		Pk.	
Japan		†Takakkaw (Daly		Tower.....	132
**Kegon, L. Chuzenji....	330	Glacier).....	1,650	Yellowstone (upper)...	109
Yudaki, L. Yuno.....	335	Highest fall.....	1,200	Yellowstone (lower)...	308
AUSTRALASIA					
Australia		Panther, Nigel Cr.....	600	Mexico —El Salto.....	218
New South Wales		Labrador		**Juanaacatlan, Rio	
†Wentworth.....	518	Churchill Falls,		Grande de Santiago....	66
Highest fall.....	360	Churchill R.....	245	SOUTH AMERICA	
Wollomombi.....	1,100	Mackenzie District		Argentina—Brazil	
Queensland		Quebec		Iguazu.....	230
Coomera.....	210	Montmorency.....	251	Brazil—Glass	1,325
Tully.....	450	Canada-United States		Herval.....	400
New Zealand		Ontario-New York		Paulo Afonso, São Fran-	
*Bowen (from Glaciers)..	540	Niagara: American....	193	cisco R.....	275
Helena.....	890	Horseshoe.....	186	Patos-Maribondo, Rio	
Stirling.....	505	United States		Grande.....	115
†Sutherland, Arthur R....	1,904	Arizona		Urubupunga, Alto	
EUROPE					
Austria —Upper Gastein... 207		Mooney, Havasu Cr... 220		Paraná R.....	40
Lower Gastein..... 280		California		Brazil-Paraguay	
(Both on Ache R.).....		Feather, Fall R..... 640		Sete Quedas, or Guaira	
†Golling, Schwarzbach R. 200		Illouette..... 370		Alto Paraná R.....	130
Krimml (Krimmler)..... 1,250		Nevada, Merced R..... 370		Colombia —Tequendama,	
France —†Gavarnie (C).... 1,385		*Ribbon..... 1,612		Bogotá R.....	427
Great Britain —Wales		Silver Strand..... 1,170		Catarata de Candelas,	
Pistyll Cain, Afon Gair R. 150		Vernal, Merced R..... 317		Cusiana R.....	984
Pistyll Rhaeadr..... 240		†Yosemite..... 2,425		Ecuador	
Scotland		Bridalveil..... 620		Agoyan, Pastaza R.....	200
Glenmach..... 370		*Yosemite (upper).... 1,430		Guyana	
Iceland —Dettif, Jokul R... 144		*Yosemite (lower).... 320		Kaieteur, Potaro R....	741
Gull, Hvita R..... 101		Colorado		King Edward VIII...	
Italy —Toce (C)..... 470		Seven..... 266		Semang R.....	840
		Georgia		King George VI, Utshi	
		*Tallulah..... 251		R.....	1,600
		Idaho		†Martina, Ipobe R.....	500
		Henry's Fork (upper).. 96		Highest fall.....	300
		Henry's Fork (lower) 90		Venezuela —†Angel.....	3,212
		**Shoshone, Snake R... 195		Highest fall.....	2,648
		**Twin, Snake R..... 125		Cuquenán.....	2,000

The earth has thousands of waterfalls, some of considerable magnitude. Their importance is determined not only by height but volume of flow, steadiness of flow, crest width, whether the water drops sheerly or over a sloping surface, and one leap or a succession of leaps. A series of low falls flowing over a considerable distance is known as a cascade.

Sete Quedas or Guaira is the world's greatest waterfall when its mean annual flow (estimated at 470,000 cusecs, cubic feet per second) is combined with height. A greater volume of water passes over Stanley Falls, though not one of its seven cataracts, spread over nearly 60 miles of the Congo River, exceeds 10 feet.

Estimated mean annual flow, in cusecs, of other major waterfalls are: Niagara, 212,200; Paulo Afonso, 100,000; Urubupunga, 97,000; Iguazu, 61,600; Patos-Maribondo, 53,000; Victoria, 38,400; Churchill, Labrador, 40,000; and Kaieteur, 23,400.

Cauvery, India, is the most variable of the world's known waterfalls. It fluctuates from a trickle in dry periods to 667,470 cusecs during monsoons.

The Niagara River carries the water of Lake Erie to Lake Ontario, a descent of about 326 feet in 36 miles. It flows over two cataracts at Niagara: the Horseshoe or Canadian Fall and the American Fall. Since the opening of new hydroelectric stations on both the United States and Canadian sides of the river, the height of the falls is constantly changing. As water is taken from the river by these stations the level of the pool below the falls rises and lowers by as much as 30 feet. At their maximum height, which is only at night and during the off-tourist season, the Canadian Fall is 186 feet high and the American Fall 193 feet high.

Highest and Lowest Continental Altitudes

Source: National Geographic Society, Washington, D. C. (In feet)

Continent	Highest Point	Elevation	Lowest Point	Below Sea Level
Asia	Mount Everest, Nepal-Tibet	29,028	Dead Sea, Israel-Jordan	1,296
South America	Mount Aconcagua, Argentina	22,834	Salinas Grandes, Peninsula Valdés, Argentina	131
North America	Mount McKinley, Alaska	20,320	Death Valley, California	282
Africa	Kibo (Kilimanjaro) Tanzania	19,340	Qattara Depression, Egypt	436
Europe	Mount El'brus U.S.S.R. Caucasus Mts.	18,481	Caspian Sea, U.S.S.R.	92
Antarctica	Vinson Massif (est.)	16,860	Sea level	
Australia	Mount Kosciuszko, New South Wales	7,310	Lake Eyre, South Australia	52

HEIGHT OF MOUNT EVEREST

Mt. Everest was 29,002 ft. tall when Edmund Hillary and Tenzing Norkey scaled it in 1953. This triangulation figure had been accepted since 1850. In 1954 the Surveyor General of the Republic of India set the height at 29,028 ft. plus or minus 10 ft. because of snow. The National Geographic Society accepts the new figure, but many mountaineering groups still use 29,002 ft.

HIGH PEAKS IN UNITED STATES, CANADA, MEXICO

Name	Place	Feet	Name	Place	Feet	Name	Place	Feet
McKinley	Alaska	20,320	La Plata	Colo.	14,336	Windom	Calif.	14,087
Logan	Can.	19,850	Blanca	Colo.	14,317	Russell	Calif.	14,086
Citlatépac	(Orizaba) Mexico	18,700	Uncompahgre	Colo.	14,309	Eolus	Calif.	14,084
St. Elias	Alaska	18,008	Crestone	Colo.	14,294	Columbia	Colo.	14,073
Popocatepetl	Mexico	17,887	Lincoln	Colo.	14,286	Augusta	Alaska	
Foraker	Alaska	17,400	Grays	Colo.	14,270		Can.	14,070
Iztacchuatl	Mexico	17,343	Antero	Colo.	14,269	Culebra	Colo.	14,069
Lucania	Can.	17,147	Torres	Colo.	14,267	Missouri	Colo.	14,067
King	Can.	17,130	Castle	Colo.	14,265	Humboldt	Colo.	14,064
Steele	Can.	16,644	Evans	Colo.	14,264	Bierstad	Colo.	14,060
Bona	Alaska	16,500	Quandary	Colo.	14,264	Sunlight	Colo.	14,059
Blackburn	Alaska	16,390	Longs	Colo.	14,256	Split	Calif.	14,058
Kennedy	Alaska	16,286	McArthur	Can.	14,253	Nauhaupatepetl	(Perote) Mexico	14,049
Sanford	Alaska	16,237	Mt. Wilson	Calif.	14,246	Hoades	Calif.	14,048
South Butress	Alaska	15,885	North Palisade	Calif.	14,242	Middle Palisade	Calif.	14,040
Wood	Can.	15,885	Cameron	Colo.	14,238	Little Bear	Colo.	14,037
Vancouver	Alaska		Shavano	Colo.	14,229	Sherman	Colo.	14,036
Churchill	Alaska	15,700	Belford	Colo.	14,197	Redcloud	Colo.	14,034
Fairweather	Alaska	15,638	Princeton	Colo.	14,197	Langley	Calif.	14,028
Zinacantan	(Totuca) Mexico	15,016	Yale	Colo.	14,196	Conundrum	Colo.	14,022
Hubbard	Alaska		Crestone Needles	Colo.	14,191	Tyndall	Calif.	14,018
	Can.	15,015	Bross	Colo.	14,172	Pyramid	Colo.	14,018
Bear	Alaska	14,831	Kil Carson	Colo.	14,165	Williamsthorn	Colo.	14,017
Walsh	Can.	14,780	Wraggell	Alaska	14,163	Wilson	Calif.	14,015
East Butress	Alaska	14,780	Shasta	Calif.	14,162	Muir	Calif.	14,015
Matalacueytl	Mexico	14,636	Sill	Calif.	14,162	North Maroon	Colo.	14,014
Hunter	Alaska	14,573	El Diente	Colo.	14,159	San Luis	Colo.	14,014
Alverstone	Alaska		Maroon	Colo.	14,156	Huron	Colo.	14,005
	Can.	14,565	Tabeguache	Colo.	14,155	Holy Cross	Colo.	14,005
Browne Tower	Alaska	14,530	Oxford	Colo.	14,153	Sunshine	Colo.	14,001
Whitney	Calif.	14,494	Snelfels	Colo.	14,150	Grizzly	Colo.	14,000
Elbert	Colo.	14,423	Point Success	Wash.	14,150	Collima	Mexico	13,993
Massive	Colo.	14,421	Nacimeto	Colo.	14,148	Barnard	Calif.	13,990
Harvard	Colo.	14,420	Liberty Cap	Wash.	14,133	Stewart	Calif.	13,980
Rainier	Wash.	14,410	Capitol	Colo.	14,130	Keith	Calif.	13,977
Williamson	Calif.	14,375	Linsey	Colo.	14,125	Le Conte	Calif.	13,960
			Pikes Peak	Colo.	14,110	Meeker	Colo.	13,911
			Snowmass	Colo.	14,092	Kennedy	Can.	13,905

SOUTH AMERICA

Peak	Country	Feet	Peak	Country	Feet	Peak	Country	Feet
Aconcagua, Argentina		22,834	Sajama, Bolivia		21,391	Gen. Manuel Belgrano		20,505
Bonete, Argentina		22,546	Nacimeto, Argentina		21,302	Pumasillo, Peru		20,492
Sargantay, Peru		22,542	Illimani, Bolivia		21,201	Solo, Argentina		20,492
Ojos del Salado, Argentina-Chile		22,539	Coropuna, Peru		21,079	Polleras, Argentina		20,456
Tupungato, Argentina-Chile		22,310	Lauda, Argentina		20,997	Pular, Chile		20,423
Pissis, Argentina		22,241	Ancocuma, Bolivia		20,958	Chañi, Argentina		20,341
Mercedario, Argentina		22,211	Ausangate, Peru		20,945	Ancashuque, Chile		20,295
Huascarán, Peru		22,205	Toro, Argentina-Chile		20,932	Juncal, Argentina		20,276
El Llullallaco, Argentina-Chile		22,057	Tres Cruces, Argentina-Chile		20,853	Negro, Argentina		20,184
El Libertador, Argentina		22,047	Huandoy, Peru		20,852	Quila, Argentina		20,128
Cachi, Argentina		22,047	Parícuta, Bolivia-Chile		20,745	Condoriri, Bolivia		20,085
Yerupaya, Peru		21,758	Tortolas, Argentina-Chile		20,745	Palermo, Argentina		20,079
Lincancaur, Argentina-Chile		21,719	Ampato, Peru		20,702	Sollimana, Peru		20,068
Galan, Argentina		21,654	Condor, Argentina		20,669	San Juan, Argentina		20,049
El Muerto, Argentina-Chile		21,457	Salcantay, Peru		20,574	Nevada, Argentina-Chile		20,023
			Chimborazo, Ecuador		20,561	Antofalla, Argentina		20,013
			Huancarhuas, Peru		20,531	Marmolejo, Argentina-Chile		20,013

The highest point in the West Indies is in the Dominican Republic.

EUROPE

Peak	Feet	Peak	Feet	Peak	Feet	Peak	Feet
Alps		Hohbergorn	13,842	Fiescherhorn	13,283	Pyrenees	
Mont Blanc	15,771	Almbühl	13,759	Grainhorn	13,266	Anco	11,168
Mont Rosa (highest peak of group)	15,203	Rimpfischhorn	13,776	Lauterahorn	13,261	Poetschi	11,073
Dom	14,913	Aletschhorn	13,763	Durrenhorn	13,238	Perdido	11,007
Liskamm	14,852	Strahlhorn	13,747	Allalhorn	13,213	Maladeta	10,886
Weisshorn	14,782	Dent d'Hérens	13,686	Weissmies	13,199	Vignemale	10,820
Taschhorn	14,733	Breithorn	13,665	Luggihorn	13,156	Long	10,171
Matterhorn	14,690	Hishorn	13,645	Fletschhorn	13,110	Estan	10,301
Dent Blanche	14,243	Jungfrau	13,642	Zupf	13,109	Montcalm	10,105
Nadelhorn	14,196	Rein	13,461	Adlerhorn	13,081	Caucasus (Europe-Asia)	
Graud Combin	14,134	Monte	13,446	Gletschhorn	13,068	El'brus	18,481
Lenzspitze	14,088	Pollux	13,422	Schalhorn	13,040	Shkars	17,064
Finsterarhorn	14,022	Schreckhorn	13,379	Sceerschen	13,028	Dykh Tau	17,054
Castor	13,865	Ober Gabelhorn	13,330	Elger	13,025	Kashitan Tau	16,877
Minalrothorn	13,849	Gran Paradiso	13,323	Jagerhorn	13,024	Kazbek	16,558
		Bernina	13,284	Rottahorn	13,022	Dzhaghi Tau	16,565

ASIA

Peak	Country	Feet	Peak	Country	Feet
Everest.....	Nepal-Tibet.....	29,028	Pobedy Peak.....	Sinking-U.S.S.R.....	24,406
K2 (Godwin Austen).....	Kashmir.....	28,250	Sia Kangri.....	Kashmir.....	24,350
Kanchenjunga.....	Nepal-Sikkim.....	28,208	Haramosh Peak.....	Pakistan.....	24,272
Lhotse I (Everest).....	Nepal-Tibet.....	27,923	Istoro Nal.....	Pakistan.....	24,240
Makalu I.....	Nepal-Tibet.....	27,824	Tent Peak.....	Nepal-Sikkim.....	24,088
Lhotse II (Everest).....	Nepal-Tibet.....	27,560	Chamlang.....	Nepal.....	24,012
Dhaulagiri.....	Nepal.....	26,810	Kabru.....	Nepal-Sikkim.....	24,002
Manaslu I.....	Nepal.....	26,760	Alung Kangri.....	Tibet.....	24,000
Cho Oyu.....	Nepal-Tibet.....	26,750	Chomo Lhari.....	Tibet-Bhutan.....	23,997
Nanga Parbat.....	Kashmir.....	26,660	Baltoro Kangri.....	Kashmir.....	23,990
Annapurna.....	Kepal.....	26,504	Muz Tagh.....	Sinking.....	23,890
Gasherbrum.....	Kashmir.....	26,470	Mana.....	India.....	23,860
Broad.....	Kashmir.....	26,400	Baruntse.....	Nepal.....	23,688
Gosanthahn.....	Tibet.....	26,291	Amne Machin.....	China.....	23,490
Annapurna II.....	Nepal.....	26,041	Nepal Peak.....	Nepal-Sikkim.....	23,458
Gyachung Kang.....	Nepal-Tibet.....	25,910	Pumori.....	Nepal-Tibet.....	23,442
Disteghil.....	Kashmir.....	25,868	Gauri Sankar.....	Nepal-Tibet.....	23,440
Himalchuli.....	Nepal.....	25,801	Badrinath.....	India.....	23,420
Nuptse (Everest).....	Nepal-Tibet.....	25,726	Nunkun.....	Kashmir.....	23,410
Masherbrum.....	Kashmir.....	25,660	Lenina Peak.....	U.S.S.R.....	23,405
Nanda Devi.....	India.....	25,645	Api.....	Nepal.....	23,399
Chomo Lonzu.....	Nepal-Tibet.....	25,640	Trisul.....	India.....	23,360
Rakaposhi.....	Kashmir.....	25,550	Kangto.....	India-Tibet.....	23,260
Kamet.....	India-Tibet.....	25,447	Nyenchen Thangha.....	Tibet.....	23,255
Namcha Barwa.....	Tibet.....	25,445	Tirsuli.....	India.....	23,210
Guria Mandhata.....	Tibet.....	25,355	Dunagiri.....	India.....	23,184
Ulugh Muz Tagh.....	Tibet-Sinkiang.....	25,340	Pauri.....	Sikkim-Tibet.....	23,180
Kangur.....	Sinkiang.....	25,325	Lombo Kangra.....	Tibet.....	23,165
Tirich Mir.....	Pakistan.....	25,230	Ama Dablam.....	Nepal.....	22,494
Makalu II.....	Nepal-Tibet.....	25,130	Pyramid.....	Nepal-Sikkim.....	22,430
Minya Konka.....	China.....	24,900	Cho Polu.....	Nepal.....	22,093
Kula Gangri.....	Tibet-Bhutan.....	24,784	Lingtren.....	Nepal-Tibet.....	21,972
Changtse (Everest).....	Nepal-Tibet.....	24,780	Khumbutse.....	Nepal-Tibet.....	21,785
Muz Tagn Ata.....	Sinkiang.....	24,757	Hlako Gangri.....	Tibet.....	21,265
Skyang Kangri.....	Kashmir.....	24,750	Mt. Grosvenor.....	China.....	21,190
Communism Peak.....	U.S.S.R.....	24,590	Thaghabab Gangri.....	Tibet.....	20,970
Jongsong Peak.....	Nepal-Sikkim.....	24,472	Damavand.....	Iran.....	18,934
			Ararat.....	Turkey.....	16,046

AFRICA, AUSTRALIA AND OCEANIA

Mountains and Country Feet	Mountains and Country Feet	Mountains and Country Feet
Killimanjaro (2 peaks).....	Mandala, New Guinea.....	15,420
Kibo, Tanzania.....	Ras Dashan, Ethiopia.....	15,158
Mawenzi, Tanzania.....	Meru, Tanzania.....	14,979
Kenya, Kenya.....	Wilhelm, New Guinea.....	14,793
Margherita, Uganda.....	Karlsimbi, Rep. of Congo.....	14,787
Rep. of Congo.....	Rwanda.....	14,178
Sukarno, New Guinea.....	Elgon, Kenya-Uganda.....	14,178
Pillimit, New Guinea.....	Batu, Ethiopia.....	14,131
Trikora, New Guinea.....		
	Gughe, Ethiopia.....	13,780
	Toubkal, Morocco.....	13,671
	Kinabalu, Malaysia.....	13,455
	Lesatima, Kenya.....	13,104
	Kerintji, Sumatra.....	12,484
	Cook, New Zealand.....	12,349
	Telde, Canary Isl.....	12,198
	Kosciusko, Australia.....	7,310

ANTARCTICA

Peak	Feet	Peak	Feet	Peak	Feet
Vinson Massif.....	16,860	Miller.....	13,648	Falls.....	12,549
Tyree.....	16,290	Long Gables.....	13,620	Rucker.....	12,520
Shinn.....	15,750	Dickerson.....	13,517	Goldthwait.....	12,510
Gardner.....	15,375	Giovnetto.....	13,412	Morris.....	12,500
Eperly.....	15,100	Wade.....	13,399	Erebus.....	12,450
Kirkpatrick.....	14,355	Fisher.....	13,386	Campbell.....	12,434
Elizabeth.....	14,698	Lister.....	13,205	Don Pedro Christophersen.....	12,355
Markham.....	14,275	Wexler.....	13,202	Lysaght.....	12,326
Bell.....	14,117	Shear.....	13,100	Huggins.....	12,247
Mackellar.....	14,098	Fridtjof Nansen.....	13,087	Sabine.....	12,201
Anderson.....	13,957	Odishaw.....	13,008	Astor.....	12,175
Bentley.....	13,934	Donaldson.....	12,894	Mohl.....	12,172
Kaplan.....	13,878	Ray.....	12,808	Frakes.....	12,064
Andrew Jackson.....	13,745	Sellery.....	12,779	Jones.....	12,040
Sidley.....	13,717	Waterman.....	12,730	Gjelsvik.....	12,008
Ostenso.....	13,710	Aune.....	12,703	Coman.....	12,000
Minto.....	13,658	Press.....	12,566		

The Seven Wonders of the Ancient World

The Pyramids of Egypt. These pyramids, the monumental tombs of ancient Egyptian pharaohs, were constructed 3000 B.C. to 1800 B.C. The oldest is at Sakkara. The largest are at Gizeh, near Cairo. Of these, the Great Pyramid of Cheops has a base covering over 13 acres; originally it was 481 ft. high, each base side was 754.5 ft. long; its size was reduced by removal of the facing stone and top stone, leaving its height 450 ft.

The Hanging Gardens of Babylon. Built by Nebuchadnezzar, King of Babylonia, about 600 B.C. in what is now Iraq, the gardens consisted according to legend of 5 terraces, each 50 ft. above the other. No traces remain.

The Statue of Zeus at Olympia. This 40-ft. marble statue decorated with ivory and beaten gold, was created by the Greek sculptor Phidias about 432 B.C. Considered the greatest masterpiece of Greek sculpture, the statue stood in the temple of Zeus at Olympia, in the western Peloponnese, scene of the ancient Olympic games. The statue was removed and destroyed.

The Temple of Artemis at Ephesus. South of what is now Izmir, Turkey, the Ionian Greeks erected this famous temple in the latter part of the 4th Century B.C., on the site of earlier temples, the last of which had been destroyed by one Herostratus in 356 B.C., supposedly on the night in which Alexander the Great was born. The new

temple had Ionic columns over 60 ft. tall. It was destroyed by the Goths in 262 A.D.

The Mausoleum at Halicarnassus. After Prince Mausolus of Caria in SW Asia Minor died, 353 B.C. his widow, Queen Artemisia, built a huge marble tomb, completed about 325 B.C. in his memory at Halicarnassus (Now Bodrum, Turkey). Its name, the Mausoleum, came to be the generic term for monumental tombs. It was destroyed by an earthquake. Fragments of the Greek sculptures from the edifice are on exhibit at the British Museum, London.

The Colossus of Rhodes. This huge bronze statue of Helios, the Greek god of the sun (usually identified with Apollo), stood in the harbor of Rhodes on the island of Rhodes, SW of Asia Minor. Constructed by the sculptor Chares, 282-280 B.C. it is variously reported as having been 105 to 117 ft. tall (New York's Statue of Liberty is 111 ft. from heel to top of head). Thrown down by an earthquake, about 224 B.C., it lay prone for hundreds of years before being sold off as scrap.

The Pharos of Alexandria. A white marble tower in pyramidal stages, this famous lighthouse was completed about 280 B.C. on the peninsula of Pharos (formerly an island) at Alexandria in Egypt. It was built during the reign of Ptolemy Philadelphus (Ptolemy II) and may have been designed by the architect Sostratus. It is variously reported as having been 400-600 ft. tall. It was destroyed by an earthquake, 1375 A.D.

Important Islands and Their Areas

Source: National Geographic Society, Washington, D. C.

Figure in parentheses shows rank among the world's ten largest islands. Some islands have not been surveyed accurately; in such cases estimated areas are shown. *See footnotes.

LOCATION-OWNERSHIP Area in Square Miles		LOCATION-OWNERSHIP Area in Square Miles		LOCATION-OWNERSHIP Area in Square Miles	
ARCTIC OCEAN		ARCTIC OCEAN		ARCTIC OCEAN	
Canadian Islands		Canadian Islands		Canadian Islands	
Axel Heiberg.....	15,779	Mount Desert, Me.	105.4	Diomedé, Big, U.S.S.R.	11.3
Baffin (5).....	183,810	land only.....	75.9	Diomedé, Little, U. S.	2.4
Banks.....	23,230	Nantucket, Mass.	57	Easter, Chile.....	63.9
Bathurst.....	7,609	land only.....	46.4	Formosa (Taiwan).....	13,885
Devon.....	20,861	Newfoundland, Canada....	43,359	Funafuti, U. K., U. S.* ..	
Ellesmere (9).....	82,119	Prince Edward, Canada....	2,184	Galapagos, Ecuador.....	2,868
Meville.....	16,366	St. Helena, U. K.	47	Guadalcanal, U. K.	1,130
Prince of Wales.....	12,530	South Georgia, U. K.	1,470	Hainan, China.....	13,000
Somerset.....	9,370	Tierra del Fuego, Chile ..	18,800	Hawaiian, U. S.*.....	6,439
Southampton.....	15,700	and Argentina.....	40.15	Hawaii.....	4,030
Victoria (10).....	81,930	Tristan da Cunha, U. K. ..		Oahu.....	604
USSR Islands		BALTIC SEA		Hong Kong, U. K.	92
Franz Josef Land.....	6,400	Aland, Finland.....	572	Japan.....	142,727
Novaya Zemlya (two Is.) ..	31,900	Bornholm, Denmark.....	217	Hokkaido.....	30,077
Wrangell.....	2,800	Gotland, Sweden.....	1,225	Honshu (7).....	88,000
Norwegian Islands		CARIBBEAN SEA		Iwo Jima.....	7.8
Svalbard.....	24,100	Antigua, U. K.	108	Kyushu.....	13,768
Nordaut Landet.....	5,792	Aruba, Netherlands.....	69.9	Shikoku.....	6,857
Vest Spitsbergen.....	15,251	Barbados.....	170	Marianas, U. S. trust terr.,	5,363
ATLANTIC OCEAN		Cuba.....	43,038	including Guam.....	184
Anticosti, Canada.....	3,043	Ile of Pines.....	1,180	Guam, U. S.	212
Ascension, U. K.	88	Curacao, Netherlands.....	173	Marquesas, France.....	492
Azores, Portugal.....	888	Dominica, U. K.	305	Marshall, U. S. trust terr.	69.8
Faial.....	66.2	Guadeloupe, France.....	687	Bikini*.....	
São Miguel.....	299	Hispaniola (Haiti and		New Caledonia, France....	7,335
Bahamas, U. K.	4,400	Dominican Republic)....	29,530	New Guinea (2).....	317,000
Bermudas, U. K.	20.46	Jamaica.....	4,232	New Hebrides, U. K.-Fr. ..	5,700
Block, Rhode Island.....	10.8	Martinique, France.....	425	New Zealand.....	103,736
land only.....	9.3	Puerto Rico, U. S.	3,435	Chatham.....	372
Canaries, Spain.....	2,808	Tobago.....	116	North.....	44,251
Fuerteventura.....	670	Trinidad.....	1,864	South.....	58,093
Gran Canaria.....	634	Virgins, U. S.	132	Stewart.....	670
Tenerife.....	919	INDIAN OCEAN		Okinawa.....	485
Cape Breton, Canada....	3,970	Andamans, India.....	2,508	Philippines.....	115,830
Cape Verde, Portugal....	1,657	Ceylon.....	25,332	Leyte.....	2,416
Faeroes, Denmark.....	540	Madagascar (Malagasy		Luzon.....	46,636
Falklands, U. K.	4,618	Republic) (4).....	230,035	Mindanao.....	39,191
Fernando de Noronha		Mauritius.....	720	Mindoro.....	3,891
(Archipelago), Brazil....	7.2	Pemba.....	380	Negros.....	5,041
British Isles		Reunion, France.....	969	Palawan.....	5,693
Great Britain, main-		Seychelles, U. K.	156	Panay.....	4,047
land (8).....	84,186	Zanzibar.....	640	Samar.....	5,309
Channel Islands.....	75	Persian Gulf		Quemoy, Formosa.....	50
Guernsey.....	30	Bahrain.....	231	Sakhalin, U.S.S.R.	28,597
Jersey.....	45	MEDITERRANEAN SEA		Samoa.....	1,173
Hebrides.....	1.9	Balearics, Spain.....	1,936	American Samoa.....	76
Ireland Island.....	32,698	Corfu, Greece.....	246	Western Samoa.....	1,097
Ireland, republic.....	27,136	Corsica, France.....	3,367	Santa Catalina, Calif.	74
Northern Ireland.....	5,462	Crete, Greece.....	3,207	Tahiti, France.....	402
Man.....	227	Cyprus.....	3,572	Tasmania, Australia.....	26,334
Orkneys.....	375	Elba, Italy.....	95	Tongas, U. K.	269
Scilly.....	6.3	Malta.....	95	Vancouver, Canada.....	12,408
Shetlands.....	549	Rhodes, Greece.....	545	Vanua Levi (Fiji).....	2,137
Skye.....	670	Sardinia, Italy.....	9,194	Viti Levu (Fiji).....	4,053
Wight.....	147	Sicily, Italy.....	9,817	East Indies	
Greenland, Denmark (1) ..		Euboea, Greece.....	1,456	Ball, Indonesia.....	2,269
Iceland.....	39,768	PACIFIC OCEAN		Borneo, Indonesia.....	
Surtsey.....	2.5	Aleutians, U. S.	6,821	Malaysia, U. K. (3).....	287,400
Long Island, N. Y.	1,723	Adak.....	289	Celebes, Indonesia.....	72,987
land only.....	1,401	Amchitka.....	114	Java, Indonesia.....	48,763
Maderias, Portugal.....	308	Kauai.....	135	Madag. Indonesia.....	2,113
Marajo, Brazil.....	1,553	Kiska.....	110	Moluccas, Indonesia.....	23,767
Martha's Vineyard, Mass. ..	108.7	Tanaga.....	185	New Britain, Aust.....	14,600
land only.....	92.8	Unimak.....	675	New Ireland, Aust.....	3,340
Australia, often called an island, is a continent. Its mainland area is 2,967,909 sq. mi. Census Bureau gives 6,542 sq. mi. as 1967 preliminary land area of Hawaiian Islands.		Unalaska.....	1,064	Sumatra, Indonesia (6)....	182,860
Islands in minor waters: Manhattan (31 sq. mi.), Staten (64 sq. mi.) and Governors (173 acres), all in New York Harbor, U. S.; Isle Royale (209.9 sq. mi.), Lake Superior, U. S.; Manitoulin (1,068 sq. mi.), Lake Huron, Canada; Penang (110 sq. mi.), Strait of Malacca, Malaysia; Singapore (224 sq. mi.), Singapore Strait, Singapore.		Unimak.....	1,600	Timor.....	13,071
Atolls: Bikini (lagoon 20 sq. mi., land 4.3 sq. mi.), U. S. and U. K.; Christmas (lagoon 89 sq. mi., land 184 sq. mi.), U. S. and U. K.; Funafuti (lagoon 84 sq. mi., land 17 sq. mi.), U. S. and U. K.		Canton, U. S., U. K.* ..		Indonesian Timor.....	5,800
		Caroline, U. S. trust terr.,	463	Portuguese Timor.....	5,762
		Christmas, U. S., U. K.* ..			

Australia, often called an island, is a continent. Its mainland area is 2,967,909 sq. mi. Census Bureau gives 6,542 sq. mi. as 1967 preliminary land area of Hawaiian Islands. Islands in minor waters: Manhattan (31 sq. mi.), Staten (64 sq. mi.) and Governors (173 acres), all in New York Harbor, U. S.; Isle Royale (209.9 sq. mi.), Lake Superior, U. S.; Manitoulin (1,068 sq. mi.), Lake Huron, Canada; Penang (110 sq. mi.), Strait of Malacca, Malaysia; Singapore (224 sq. mi.), Singapore Strait, Singapore. Atolls: Bikini (lagoon 20 sq. mi., land 4.3 sq. mi.), U. S. and U. K.; Christmas (lagoon 89 sq. mi., land 184 sq. mi.), U. S. and U. K.; Funafuti (lagoon 84 sq. mi., land 17 sq. mi.), U. S. and U. K.

Earthquakes Perform Necessary Function

Earthquakes continue to cause damage and loss of life around the globe but scientists point out that they are vital to the continued development of our earth. There are more than 1,200 seismograph stations around the world, which detect 500,000 tremors a year, the National Geographic Society says. Of these, 100,000 can be heard or felt and some 1,000 cause damage. Scientists assert that this repeated uplifting of the earth's crust, with the quakes that go with it, is essential to life. With mountains constantly eroding, if they were not raised again the world would become a place of stagnant seas and swamps.

No place is immune from the possibility of an earthquake, but four out of five occur around the edge of the Pacific Ocean. A second major trouble zone extends from the West Indies across the Atlantic and Mediterranean to the Himalayas and the East Indies. Today's most widely accepted theory of quakes holds that they are caused by titanic shifts in the earth's crust along cracks or fracture lines called faults. When the rock gives way under the strain at some weak point, often far below the surface, powerful shock waves are released. Some circle the globe; others pass through the earth, at 8 miles a second.

Important Rivers of the United States

River	Source, or Upper Limit of Length	Outflow	Miles
Alabama.....	Junction of Coosa and Tallapoosa Rivers, Elmore County, Ala.....	Mobile River.....	315
Allegheny.....	Potter County, Pa.....	Ohio River.....	325
Altamaha.....	Junction of Oconee and Ocmulgee Rivers, Montgomery County, Ga.....	Atlantic Ocean.....	137
Altamaha-Ocmulgee.....	Junction of Yellow and South Rivers, Newton County, Ga.....	Atlantic Ocean.....	392
Androscoggin.....	Umbagog Lake, Maine.....	Atlantic Ocean.....	171
Apalachicola-Chattahoochee.....	Towns County, Ga.....	Gulf of Mexico, Fla.....	500
Arkansas.....	Lake County, Colo.....	Mississippi River, Ark.....	1,450
Big Black (Miss.).....	Webster County, Miss.....	Mississippi River.....	330
Big Horn.....	Junction of Wind and Popo Agie Rivers, Fremont County, Wyo.....	Yellowstone Riv., Mont.....	336
Black (Mo.-Ark.).....	Junction E.&W. Forks, Reynolds Cty., Mo.....	White River.....	280
Black Warrior.....	Junction of Locust and Mulberry Forks, Jefferson County, Ala.....	Tombigbee River.....	178
Brazos.....	Junction of Salt and Double Mountain Forks, Stonewall County, Tex.....	Gulf of Mexico.....	870
Canadian.....	Colfax County, N. Mex.....	Arkansas Riv., Okla.....	906
Cape Fear.....	Junction of Haw and Deep Rivers, Chatham County, N. C.....	Atlantic Ocean.....	202
Cedar (Iowa).....	Dodge County, Minn.....	Iowa River, Iowa.....	329
Cheyenne.....	Junction of South Fork and Beaver Creek, Fall River County, S. Dak.....	Missouri River.....	290
Chippewa.....	Junction of East and West Forks, Sawyer County, Wis.....	Mississippi River.....	183
Cimarron.....	Colfax County, N. Mex.....	Arkansas Riv., Okla.....	600
Clark Fork-Pend Oreille.....	Silver Bow County, Mont.....	Columbia R., B. C. Can.....	595
Colorado (Ariz.).....	Rocky Mountain National Park, Colo..... (90 miles in Mexico)	Arizona-Sonora line.....	1,360
Colorado (Texas).....	Dawson County, Texas.....	Gulf of Calif.....	1,450
Columbia.....	Columbia Lake, British Columbia.....	Matagorda Bay.....	840
Columbia, Upper.....	Columbia Lake, British Columbia.....	Pac. Ocean, Bet. Ore. & W.....	1,214
Colville.....	Brooks Range.....	To mouth of Snake River.....	890
Connecticut.....	Third Connecticut Lake, N. H.....	Beaufort Sea.....	350
Coosa.....	Junction of Etowah and Oostanaula Rivers, Floyd County, Ga.....	L. I. Sound, Conn.....	407
Cumberland.....	Junction of Poor and Clover Forks, Harlan County, Ky.....	Alabama River.....	286
Delaware.....	Junction of East and West Branches, at Hancock, N. Y.....	Ohio River.....	687
Deschutes.....	Lava Lake, Deschutes County, Oreg.....	Liston Point at head of Delaware Bay.....	280
Des Moines.....	Junction of East and West Forks, Humboldt County, Iowa.....	Columbia River.....	250
Dolores.....	Dolores County, Colo.....	Mississippi River.....	327
Flint.....	Junction of Mud and Camp Creeks, Fayette County, Ga.....	Colorado River.....	230
Fox (Wis.).....	Columbia County, Wis.....	Apalachicola River.....	265
French Broad.....	Junction of North and West Forks, Transylvania County, N. C.....	Green Bay.....	175
Genesee.....	Potter County, Pa.....	Tennessee River.....	210
Gila.....	Catron County, N. Mex.....	Lake Ontario.....	144
Grand (Mich.).....	Jackson County, Mich.....	Colorado River, Ariz.....	630
Green (Ky.).....	Lincum County, Ky.....	Lake Michigan.....	260
Green (Utah-Wyo.).....	Junction of Wells and Trail Creeks, Sublette County, Wyo.....	Ohio River, Ky.....	360
Gunnison.....	Junction of Taylor and East Rivers, Gunnison County, Colo.....	Colorado River, Utah.....	730
Holston.....	Junction of North and South Forks, Sullivan County, Tenn.....	Colorado River.....	150
Houstonville.....	Town of Washington, Mass.....	Tennessee River.....	140
Hudson.....	Henderson Lake, Essex County, N. Y.....	Long Island Sound.....	148
Humboldt.....	Mouth of Bishop Creek, Elko Co., Nev.....	Upper N. Y. Bay, NY-NJ.....	306
Illinois.....	Junction of Kankakee and Des Plaines Rivers, Grundy County Ill.....	Humboldt Sink.....	290
Iowa.....	Junction of East and West Branches, Wright County, Ia.....	Mississippi River.....	273
James (N. Dak.-S. Dak.).....	Wells County, North Dakota.....	Mississippi River.....	291
James (Va.).....	Junction of Jackson and Cowpasture Rivers, Botetourt County, Va.....	Missouri River, S. D.....	710
Jefferson-Beaverhead-Red Rock.....	Source of Red Rock River in Beaverhead County, Mont.....	Hampton Roads.....	340
John Day.....	Blue Mountains, Grant County, Oreg.....	Missouri River.....	217
Kanawha-New.....	Junction of North and South Forks of New River, Ashe County, N. C.....	Columbia River.....	281
Kansas.....	Junction of Smoky Hill and Republican Rivers, Geary County, Kans.....	Ohio River.....	352
Kennebec.....	Moosehead Lake, Maine.....	Missouri River.....	169
Kentucky.....	Junction of North and Middle Forks, Lee County, Ky.....	Atlantic Ocean.....	164
Klamath.....	Lake Ewer, Klamath Falls, Oreg.....	Ohio River.....	259
Koyukuk.....	Brooks Range.....	Pacific Ocean.....	250
Kuskokwim.....	Alaska Range.....	Yukon River.....	500
Licking.....	Magoffin County, Kentucky.....	Kuskokwim Bay.....	550
Little Colorado.....	Latitude 34°, Apache County, Ariz.....	Ohio River.....	350
Little Missouri.....	Crook County, Wyo.....	Colorado River.....	300
Merrimack.....	Junction of Pemigewasset and Winnepesaukee Rivers, Franklin, N. H.....	Missouri River.....	560
Miami.....	Indian Lake, Logan County, Ohio.....	Atlantic Ocean.....	110
Milk.....	Junction of North and South Forks, Alberta Province.....	Ohio River.....	160
Minnesota.....	Big Stone Lake, Minn.....	Missouri River, Mont.....	625
Mississippi.....	Lake Itasca, Minn.....	Mississippi R., St. Paul.....	332
Mississippi, Upper.....	Lake Itasca, Minn.....	Mouth of S.W. Pass.....	2,348
Mississippi-Missouri-Red Rk.....	Source of Red Rock River, Mont.....	To mouth of Missouri R.....	1,171
Missouri.....	Junction Jefferson, Madison and Gallatin Rivers, Madison County, Mont.....	Mouth of S.W. Pass.....	3,710
Missouri-Red Rock.....	Source of Red Rock River, Mont.....	Mississippi River.....	2,315
Mobile-Alabama-Coosa.....	Junction of Etowah and Oostanaula Rivers, Floyd County, Ga.....	Mississippi River.....	2,533
		Mobile Bay.....	639

River	Source, or Upper Limit of Length	Outflow	Miles
Alohuak	Junction of East and West Branches, Oneida County, N. Y.	Hudson River	148
Monongahela	Junction of West Fork and Tygart Rivers, Marion County, W. Va.	Ohio River	128
Muskingum	Junction of Tuscarawas and Walhonding Rivers, Coshocton County, Ohio	Ohio River	110
Neches	Van Zandt County, Tex.	Sabine Lake	280
Neosho	Morris County, Kans.	Arkansas River, Okla.	460
Neuse	Junction of Eno and Flat Rivers, Durham County, N. C.	Pamlico Sound	260
New	Junction of North and South Forks, Ashe County, N. C.	Kanawha River	255
Niobrara	Niobrara County, Wyo.	Missouri River, Nebr.	431
Noatak	Brooks Range	Kotzebue Sound	350
North Canadian	Union County, N. Mex.	Canadian River, Okla.	760
North Platte	Junction of Grizzly and Little Grizzly Creeks, Jackson County, Colo.	Platte River, Nebr.	618
Nueces	Edwards County, Tex.	Nueces Bay	338
Ohio-Allegheny	Junction of Allegheny and Monongahela Rivers, Pittsburgh, Pa.	Mississippi R., Ill.-Ky.	981
Osage	Potter County, Pa.	Mississippi River	1,306
Ouachita	Junction of Marais des Cygnes River and Little Osage River, Mo.	Missouri River, Mo.	250
Owyhee	Polk County, Ark.	Red River, La.	605
Pearl	Junction of East and South Forks, Owyhee County, Idaho	Snake River	250
Pecos	Neshoba County, Miss.	Gulf of Mexico, Miss.-La.	490
Pee Dee	Mora County, N. Mex.	Rio Grande, Texas	735
Pee Dee-Yadkin	Junction of Yadkin and Uwharrie Rivers, Montgomery County, N. C.	Winyah Bay	233
Penobscot	Watauga County, N. C.	Winyah Bay, S. C.	435
Platte	Junction of East and West Branches, Medway, Maine	Atlantic Ocean	101
Porcupine	Junction of North and South Platte Rivers, North Platte, Nebr.	Missouri River, Nebr.	310
Potomac	Yukon Territory (Canada)	Yukon River, Alaska	450
Powder	Junction of North and South Branches, Hampshire County, W. Va.	Chesapeake Bay	287
Rappahannock	Junction of South and Middle Forks, Johnson County, Wyo.	Yellowstone River, Mont.	375
Red (Okla.-Tex.-La.)	Fauquier and Rappahannock Counties, Va.	Chesapeake Bay	185
Red River of the North	Junction of Prairie Dog Town and North Forks, Okla.	Mississippi River	1,018
Republican	Junction of Otter Tail and Bois de Sioux Rivers, Wilkin County, Minn.	Lake Winnipeg, Man., Can.	545
Rio Grande	Junction of North Fork and Arikaree River, Dundy County, Nebr.	Kansas River, Kan.	445
Roanoke	San Juan County, Colo.	Gulf of Mexico	1,885
Rock (Ill.-Wis.)	Junction of North and South Forks, Montgomery County, Va.	Albemarle Sound, N. C.	380
Sabine	Washington County, Wis.	Mississippi River, Ill.	300
Sacramento	Junction of South and Caddo Forks, Hunt County, Tex.	Sabine Lake, Tex.-La.	380
St. Croix (Minn.-Wis.)	Siskiyou County, Calif.	Suisun Bay	382
St. Francis	Upper St. Croix Lake, Wis.	Mississippi River	163
St. Johns (Fla.)	Iron County, Mo.	Mississippi River, Ark.	425
St. Joseph	Lake Washington, Brevard County, Fla.	Atlantic Ocean	276
Salmon (Idaho)	Hillsdale County, Mich.	Lake Michigan	210
San Joaquin	Salmon County, Idaho	Snake River, Idaho	420
San Juan	Junction of South and Middle Forks, Madera County, Calif.	Suisun Bay	350
Santee	Silver Lake, Archuleta County, Colo.	Colorado River, Utah	360
Santee-Waterree-Catawba	Junction of Waterree and Congaree Rivers, Richland, S. C.	Atlantic Ocean	143
Savannah	McDowell County, N. C.	Atlantic Ocean, S. C.	538
Schuykill	Junction of Seneca and Tugaloo Rivers, Anderson County, S. C.	Atlantic Ocean, Ga.-S. C.	314
Scioto	Near Tuscarora, Schuykill County, Pa.	Delaware River	131
Smoky Hill	Auglaize County, Ohio	Ohio River	237
Snake	Cheyenne County, Colo.	Kansas River, Kan.	540
South Fork Shenandoah	Ocean Plateau, Teton County, Wyo.	Columbia River, Wash.	1,038
South Platte	Junction of North and South Rivers at Port Republic, Va.	Shenandoah River	100
Susquehanna	Junction of South and Middle Forks, Park County, Colo.	Platte River, Nebr.	424
Swansee	Osage Lake County, N. Y.	Chesapeake Bay, Md.	444
Tallahatchie	Junction of North and Log Rivers, Charlton County, Ga.	Gulf of Mexico	190
Tallahassee	Tippah County, Miss.	Yazoo River, Miss.	301
Tanana	Near Embury in Paulding County, Ga.	Alabama River	268
Tar-Pamlico	Wrangell Mts. (Yukon Territory, Can.)	Yukon River, Alaska	800
Tennessee	Person County, N. C.	Pamlico Bay	215
Tennessee-French Broad	Junction of French Broad and Holston Rivers, Knox County, Tenn.	Ohio River, Ky.	652
Tombigbee	Junction of North and West Forks of French Broad, Transylvania County, N. C.	Ohio River	862
Tongue	Junction of East and West Forks, Monroe County, Miss.	Mobile River, Ala.	409
Trinity	Junction of North and South Forks, Sheridan County, Wyo.	Yellowstone River	246
Wabash	Junction of East and West Forks, Kaufman County, Tex.	Galveston Bay, Texas	360
Washita	Darke County, Ohio	Ohio River, Ill.-Ind.	475
West Branch Penobscot	Hemphill County, Tex.	Red River, Okla.	500
White (Ark.-Mo.)	Junction of North and South Branches, Somerset County, Maine	Penobscot River	112
Willamette	Madison County, Ark.	Mississippi River	690
Wisconsin	Junction of Coast and Middle Forks, near Eugene, Ore.	Columbia River	190
Yazoo	Le Vieux Desert, Vilas County, Wis.	Mississippi River	430
Yellowstone	Junction of Tallahatchie and Yalobusha Rivers, Leflore County, Miss.	Mississippi River	188
Yukon	Park County, Wyo.	Missouri River, N. D.	671
	Junction of Lewes and Pelly Rivers, Yukon Territory, Canada	Bering Sea, Alaska	1,800

Notable Bridges in the United States

Source: U. S. Coast Guard and other official sources

Asterisk (*) designates Railroad Bridge. Span of a bridge is distance between its supports.

Year	Bridge	Location	Span	Year	Bridge	Location	Span
SUSPENSION				CONCRETE ARCH			
1964	Verrazano-Narrows	New York, N. Y.	4,260	1938	Middletown	Connecticut	600
1937	Golden Gate	San Fran. Bay	4,200	1936	Yaquina Bay	Oregon	600
1957	Mackinac	Sta. of Mackinac	3,800	1954	Captree	Chesapeake Bay, N.Y.	600
1931	Geo. Washington	Hudson River	3,500	1963	Robert Moses	Pt. Isl., N.Y.	600
1952	Tacoma	Washington	2,800	1916	Colorado River	Ariz.-Calif.	592
1936	Transbay	San Fran. Bay	2,310	1917	Cuyahoga River	Cleveland, Ohio	591
1939	Bronx-Whitestone	East R., N.Y.C.	2,300	1949	Chesapeake City	Ches. & Del. Can.	540
1951	Del. Memorial	Wilmington, Del.	2,150	1941	St. Georges	Ches. & Del. Can.	540
1968	Del. Mem. (new)	Wilmington, Del.	2,150	1874	Eads, St. Louis	Mississippi R.	520
1957	Walt Whitman	Phila., Pa.	2,000	1888	Washington, N.Y.C.	Harlem River	509
1929	Ambassador	Detroit-Canada	1,850	1962	Alex' of Hamilton	Harlem R., N.Y.	505
1961	Throgs Neck	Long Is. Sound	1,800	1951	Hastings, Minn.	Mississippi R.	502
1926	Benjamin Franklin	Philadelphia	1,750	1961	Duluth Harbor	Lake Superior	500
1924	Bear Mt., N. Y.	Hudson River	1,632	1848	High Bridge, N.Y.C.	Harlem River	496
1952	Chesapeake Bay	Sandy Point, Md.	1,600	1956	Wabash Memorial	Mt. Vernon, Ind.	441
1903	Williamsburg	East R., N.Y.C.	1,600	TWIN CONCRETE TRESTLE			
1883	Brooklyn	East R., N.Y.C.	1,595	1931	Westinghouse	Pittsburgh	425
1938	Thousand Islands	St. Lawrence R.	(note)	1923	Cappelen	Minneapolis	400
1930	Mid-Hudson, N. Y.	Poughkeepsie	1,500	1930	Jack's Run	Pittsburgh	400
1964	San Pedro-Ter. Isle	Los Angeles Har.	1,500	CONTINUOUS TRUSS			
1909	Manhattan	East R., N.Y.C.	1,470	1957	Mackinac	Sta. of Mackinac	2,082
1936	Triborough	East R., N.Y.C.	1,380	1966	S. N. Pearson Mem	Charleston, S.C.	1,350
1931	St. Johns	Portland, Ore.	1,207	1966	Astoria, Ore.	Columbia R.	1,232
1929	Mount Hope	Rhode Island	1,200	UC	Commodore Pt.	Jacksonville, Fla.	1,088
1939	Deer Isle	Maine	1,080	1943	Dubuque, Ia.	Mississippi R.	845
1931	Maysville	Ohio River	1,060	1963	Brent Spence	Ohio River	831
1867	Cincinnati	Ohio River	1,057	1953	John E. Mathews	Jacksonville, Fla.	810
1900	Minamipi	Mexico	1,030	1944	St. Louis	Mississippi R.	804
1849	Wheeling	Ohio River	1,010	1957	Kingston-Rhinecliff	Hudson R., N.Y.	800
1929	Royal Gorge	Colorado	880	1961	Sherman Minton	New Albany, Ind.	800
1933	Anthony Wayne	Ohio	782	1918	*Sciotoville	Ohio River	775
1933	South 10th St.	Pittsburgh, Pa.	750	1964	John F. Kennedy	Louisville, Ky.	700
1932	Waldo-Hancock	Maine	750	1966	Matthew E. Welsh	Mauckport, Ind.	707
1935	Bettendorf, Iowa	Mississippi R.	710	1929	Chain of Rocks	Mississippi R.	699
1921	Rondout	Kingston, N. Y.	705	1956	Penn.-N.J. T'n'p'ke	Delaware River	682
CANTILEVER				1938	Port Arthur-Orange	Texas	680
UC	Chester, Pa.	Delaware River	1,644	1929	*Cincinnati	Ohio River	675
1958	New Orleans, La.	Mississippi R.	1,575	1928	Cape Girardeau, Mo.	Mississippi R.	672
1936	Transbay	San Fran. Bay	1,400	1946	Chester, Ill.	Mississippi R.	670
UC	Baton Rouge, La.	Mississippi R.	1,235	1930	Quincy, Ill.	Mississippi R.	628
1955	Nyack-Tarrytown	Hudson River	1,212	1934	Bourne	Cape Cod Canal	616
1930	Longview	Columbia River	1,200	1935	Sagamore	Cape Cod Canal	616
1909	Queensboro	East R., N.Y.C.	1,182	1936	Meredosia	Illinois River	567
1927	Carquinez Strait	California	1,100	1936	Hannibal, Mo.	Mississippi R.	562
1958	Parallel Span	San Fran. Bay	1,070	1937	Homestead	Pittsburgh	553
1957	Richmond	Charleston, S.C.	1,050	1961	Ship Canal	Seattle, Wash.	552
1963	Newburgh-Beacon	Hudson R., N.Y.	1,000	1932	Pulaski Skyway	Fayette R., N.J.	550
1951	East St. Louis, Ill.	Mississippi R.	964	1927	Ross Island	Port, Ore.	535
1940	Natchez	Mississippi R.	875	1935	South Omaha	Missouri R.	535
1938	Bluewater	Pt. Huron, Mich.	871	1962	Martinez, Calif.	Carquinez Str.	475
1954	St. Petersburg, Fla.	Tampa Bay	864	SIMPLE TRUSS			
1940	*Baton Rouge	Mississippi R.	848	1917	*Metropolis	Ohio River	720
1899	*Cornwall	St. Lawrence R.	843	1929	Paducah, Ky.	Ohio River	716
1940	Greenville	Mississippi R.	840	1922	*Tanana River	Nenana, Alaska	700
1961	Helena, Ark.	Mississippi R.	840	1911	*MacArthur	St. Louis	688
1930	*Vicksburg	Mississippi R.	825	1933	*Henderson	Ohio River	665
1929	Louisville	Ohio River	820	1919	Louisville	Ohio River	644
1935	Rip Van Winkle	Catskill, N.Y.	800	1933	Atchafalaya	Morgan City, La.	608
1932	Lake Union	Seattle	800	1924	*Castleton	Hudson River	598
1938	Calro, Ill.	Ohio River	800	1906	Elizabethtown	Great Mnd R.	586
1940	Ludlow Ferry	Potomac R.	800	1929	*Louisville	Ohio River	546
1932	Washington Mem.	Seattle, Wash.	800	1889	*Cincinnati	Ohio River	542
1936	North Bend, Ore.	Coos Bay	793	1914	Pittsburgh	Allegheny R.	531
1935	Huey P. Long	New Orleans	790	1930	*Martinez	California	526
1916	*Memphis (Harahan)	Mississippi R.	790	1927	Peace, Buffalo	Niagara River	360
1892	*Memphis	Mississippi R.	790	PLATE GIRDER			
1949	Memphis-Arkansas	Mississippi R.	790	1943	Gold Star	New London	540
1904	*Mingo, W. Va.	Ohio River	769	1963	Lake Charles B'pass	Louisiana	399
1910	*Beaver, Pa.	Ohio River	767	1957	Conn. Turnpike	Quinnipiac R.	387
1911	Sewickley, Pa.	Ohio River	750	1952	Newark-Kearny	Passaic R., N.J.	375
1928	Outerbridge, N.Y.C.	Arthur Kill	750	1952	Kearny-Saucus	Hackensack N.J.	375
1964	Sunshine, Donville	Mississippi, La.	750	1966	LeClaire	LeClaire, Iowa	370
UC	Delair, N. J.	Delaware River	730	1942	Charter Oak	Hartford, Conn.	300
1940	Bridge of the Gods	Oregon	705	1940	Lakefront	Cleveland, Ohio	271
1930	Calro, Ill.	Mississippi R.	700	1966	Hansen	Hansen, Idaho	258
1927	Rim to Rim	Idaho Falls, Ida.	700	1965	Susitna River	Alaska	250
1928	Goethals, N.Y.C.	Arthur Kill	672	1940	Thomas A. Edison	Ararat River	250
1905	Thebes, Ill.	Mississippi R.	671	1954	Garden St. Pkwy.	Ararat River	250
1957	Rappahannock	White Stone, Va.	648	1965	Knk River	Alaska	202
1960	Summit	Ches. & Del. Can.	600	1964	Herbert C. Bonner	Oregon, N. C.	180
1959	Castleton	Hudson R., N.Y.	600	1917	W'r Wilson Mem.	Potomac River	175
STEEL ARCH				VERTICAL LIFT			
1931	Bayonne, N.J.	Kill van Kull	1,652	1959	*Arthur Kill	N.Y.-N.J.	558
1959	Glenn Canyon	Colorado River	1,028	1935	*Cape Cod Canal	Massachusetts	544
1962	Lewiston-Queenston	Lewiston, N. Y.	1,000	1960	*Delair, N.J.	Delaware River	542
1917	*Hell Gate	East R., N.Y.C.	977	1937	Marine Parkway	New York City	540
1941	Rainbow	Niagara Falls	966	1931	Burlington, N.J.	Delaware R.	534
1966	Lincoln Trail	Cannelton, Ind.	806	1912	*A-S-B Pratt	Kansas City	428
1936	Henry Hudson	Harlem River	800				
1931	West End	Pittsburgh	778				
1931	Croton Lake, N. Y.	Westchester	750				
1931	McKees Rocks	Pittsburgh	750				
1956	Newark-Bayonne	Newark Bay, N.J.	670				
1924	*Michigan Central	Niagara Falls	640				

Length of bridge. *Two spans each 707 feet.

Year	Bridge	Location	Span	Year	Bridge	Location	Span
1945	*Harry S. Truman.	Kansas City....	427	1928	James River.....	Newport News....	300
1932	*M-K-T R. R.....	Missouri R.....	414	1929	San Mateo.....	California.....	300
1930	Duluth.....	Minnesota.....	386	1926	*Missouri Pacific..	Kragen, Ark.....	300
1941	St. Johns River....	Jackville, Fla....	386	1924	Piscataqua River..	Portsmouth, N. H.	300
1958	*Norfolk, Va.....	Elizabeth River..	384	SWING SPAN			
1922	*Cincinnati.....	Ohio River.....	365				
1961	Corpus Christi, Tex.	Port Aransas.....	344	1927	*Fort Madison.....	Mississippi R.....	525
	R. R. Highway.....	Corpus Christi....	341	1908	*Willamette R.....	Portland, Ore.....	521
1933	Albany-Rensselaer..	Hudson River.....	341	1903	*East Omaha.....	Missouri R.....	519
1933	Troy-Menands.....	Hudson River.....	341	1952	Yorktown.....	York River, Va....	500
1941	Passaic River.....	New Jersey.....	332	1897	*Duluth, Minn.....	St. Louis Bay.....	486
1930	*Martinez.....	California.....	328	1899	*C. M. & N. R. St.	Chicago.....	474
1929	*Penn.-Lehigh.....	Newark Bay.....	322	1955	Sloux City, Ia.....	Missouri R.....	470
1920	*Chattanooga.....	Tennessee R.....	310	1914	*Coos Bay.....	Oregon.....	458
1936	Triboro, N.Y.C.....	East River.....	310	FLOATING PONTOON			
1936	Hardin.....	Illinois River....	309				
1957	Claborn Ave.....	New Orleans.....	305	1963	2nd Lake Wash.....	Seattle, Wash.....	7,998
1927	Cochrane.....	Mobile, Ala.....	300	1961	Hood Canal.....	Pt Gamble, Wash	7,014
				1940	Lake Washington..	Seattle.....	6,566

Construction Details of Large Bridges

Verrazano-Narrows Bridge, between Staten Island and Brooklyn, N. Y., has a suspension span of 4,260 ft., longest in the world and exceeding the Golden Gate Bridge, San Francisco, by 60 ft. One level in use November, 1964. The name is a compromise; it spans the Narrows and commemorates a visit to New York harbor in April, 1524, deduced from certain general notes left by Giovanni da Verrazano, Italian navigator sailing for Francis I of France. Second level to be opened in 1969.

Angostura, suspension type, span 2,336 feet, 1967, at Ciudad Bolivar, Venezuela. Total length 5,507. **Braga Bridge** over Taunton River between Fall River and Somerset, Mass. It is 5,800 feet long.

Bendorf Bridge on the Rhine River, 5 mi. n. of Coblenz, completed 1965, is a 3-span cement girder bridge, 3,378 ft. overall length, 102 ft. wide, with the main span 682 ft.

Champlain Bridge at Montreal crossing the St. Lawrence River was opened 1962. It is 4 mt. long. Three other connect Montreal with the South Bank, the Jacques Cartier, Victoria and Mercier bridges. **Corpus Christi**, Texas, has a high level port entrance bridge. It is a cantilever truss with anchor spans 310 ft. and main span 620 ft., total length approx. 5,862 ft.

Delaware Memorial Bridge over Delaware River near Wilmington. A twin suspension bridge paralleling the original 250 ft. upstream has a 2,150-ft. main span suspended from 440-ft. towers.

Gerald Desmond Bridge at Long Beach Harbor, Calif., a cantilever, 1,050 feet long.

Gladesville Bridge at Sydney, Australia, has the longest concrete arch in the world (1,000 ft. span).

George Washington Bridge, New York City, 4th longest suspension bridge in the world, spans the Hudson River between W. 178th St., Manhattan, and Ft. Lee, N. J.; 4,760 ft. between anchorages, two levels, 14 traffic lanes. **Triborough Bridge** connects Manhattan, the Bronx and Queens; project comprises a suspension bridge, a vertical lift bridge, and a fixed bridge, all connected by long viaducts. The famous **Brooklyn Bridge** over the East River, connecting Manhattan and Brooklyn, was completed in 1883, breaking all previous records by spanning 1,595 ft.

Golden Gate Bridge, crossing San Francisco Bay, has the second longest single span, 4,200 ft.

Hampton Roads Bridge-Tunnel, Va. A crossing completed in 1957 consisting of two man-made islands, two concrete trestle bridges, and one tunnel, under Hampton Roads with a length of 7,479 ft.

Lake Pontchartrain Causeway, a concrete trestle bridge, 24 miles long, carries traffic to New Orleans. **Lake Washington Floating Bridge**, Seattle, is built on 25 floating concrete sections. Floating structure 6,566 feet long. Bridge with approaches 8,583 feet.

Narragansett Bridge between Newport and Jamestown, R. I. Total length 11,225 ft., a main suspension span of 1,600 feet, two side suspension spans each 687 feet long.

New York City bridges, see **Verrazano-Narrows Bridge** and **George Washington Bridge** above.

Oosterscheldebrug, opened Dec. 15, 1965, is a 3,125-mile causeway for automobiles over a sea arm in Zeeland, the Netherlands. It completes a direct connection between Flushing and Rotterdam.

Quebec Road, suspension, span 2,190 feet, 1969, Quebec, Canada.

Royal Gorge Bridge, 1,053 ft. above the Arkansas River in Colorado, is the highest bridge above water. Opened Dec. 8, 1929, it is 1,260 ft. long with a main span of 880 ft., width 18 ft.

San Mateo-Hayward Bridge across San Francisco Bay is first major orthotropic bridge in U. S. It is 6.7 miles long, 4.9-mile low-level concrete trestle and 1.8 miles high-level steel bridge.

Seaway Skyway Bridge across the St. Lawrence River from Ogdensburg, N. Y., to Johnston, Ont., opened 1960, is 13,510 ft. long with approaches and 7,260 ft. between abutments.

Seven Mile Bridge is the longest of an expanse of bridges connecting the Florida Keys. It was built by the Florida East Coast Railway between 1904 and 1916, now a state highway.

Seyvern Bridge, with a main span of 3,240 ft., crosses the Seyvern River, linking England and Wales.

Straits of Mackinac Bridge, opened June 28, 1958, is the longest suspension bridge between anchorages and with approaches extends nearly 5 mi. between Mackinaw City and St. Ignace, Mich.

Sunshine Skyway, a 15-mile-long bridge-causeway with twin roadbeds that crosses Tampa Bay at St. Petersburg, Fla., a system of twin bridges 864 feet long and 4 smaller bridges with 6 causeways.

Tagus River Bridge near Lisbon, Portugal, longest suspension bridge outside the United States, has a 3,323-ft. main span. Opened Aug. 6, 1966, it was named Salazar Bridge for the former premier.

Thatcher Ferry Bridge, opened 1962, spans Panama Canal 201 ft. above the water, level near Balboa.

Thomas A. Edison Memorial Bridge (causeway) across Sandusky Bay between Martin Point and Danbury, Ohio, is 2,67 miles long. The main bridge is 2,044 feet long.

Thousand Island Bridge, St. Lawrence River. American span 800 ft.; Canadian 750 ft.

Woodrow Wilson Memorial Bridge across the Potomac River at Staunton, Va. is over a mile long.

Zoo Bridge across the Rhine at Cologne, with steel box girders, has a main span of 850 ft.

Land Vehicular Tunnels in United States

over 1,500 feet long

Name	Location	Lgh. Ft.	Name	Location	Lgh. Ft.
Straight Creek.....	Route 70, Colorado.	8,950	Mail Tunnel.....	Dist. of Columbia..	3,400
Copperfield.....	Copperfield, Utah....	6,989	Low Level.....	Broadway, Calif.....	2,944
Sideling Hill.....	Penna. Turnpike.....	6,782	Kalihi.....	Honolulu, Hawaii....	2,760
Liberty Tubes.....	Pittsburgh, Pa.....	6,336	West Virginia.....	W. Va. Turnpike.....	2,669
Allegheny.....	Penna. Turnpike.....	6,070	Cross-Town.....	178 St. N.Y.C.....	2,414
Zion Natl. Park....	Rte. 1, Utah.....	5,786	E.D. Roosevelt Dr..	81-89 Sts. NYC.....	2,400
Tuscarora.....	Penna. Turnpike.....	5,326	Battery Park.....	New York City.....	2,300
Kittatinny.....	Penna. Turnpike.....	4,727	Big Oak Flat.....	Seattle, Wash.....	2,140
Laurel Hill.....	Penna. Turnpike.....	4,541	Yosemite Natl. Pk..	Yosemite Natl. Pk....	2,083
Evans.....	Penna. Turnpike.....	4,379	Prudential.....	Boston, Mass.....	1,980
Blue Mountain.....	Penna. Turnpike.....	4,339	Internatl. Underpass	Los Angeles, Calif..	1,910
Wawona.....	Yosemite Natl. Pk....	4,233	Street-Car.....	Providence, R. I.....	1,793
Squirrel Hill.....	Pittsburgh, Pa.....	4,225	Broadway.....	San Francisco, Calif.	1,616
Big Walker Mt.....	Route 1-77, Va.....	4,200	E.D. Roosevelt Dr..	42-48 Sts. N.Y.C.	1,600
Fort Pitt.....	Pittsburgh, Pa.....	3,600	Mt. Baker Ridge (3)	Seattle, Wash.....	1,577
Rays Hill.....	Penna. Turnpike.....	3,532			

Japanese Plan Undersea Tunnel Linking Hokkaido and Honshu

Preliminary engineering studies began in 1963 on a project for a 22.5-mile undersea tunnel to link Hokkaido, Japan's northern island, with the main Japanese island of Honshu. The tunnel, to be used by electric trains, would be the longest of its kind in the world. Completion by 1975 was contemplated.

Meanwhile, plans were being pushed for construction of a tunnel under the English Channel to link Britain and France. Construction was expected to begin in 1969 and to take 6 years. Two tubes enclosing railroad tracks are planned, with automobiles to be carried on special railroad cars. Cost of the tunnel between Dover and Calais was estimated at \$600,000,000. Distance between terminals would be some 40 miles, 20 of it under water.

Orange-Fish Rivers Tunnel, expected to be the world's longest, is under construction as part of a \$602,000,000 project to irrigate and develop the arid heart of South Africa. Preliminary excavation

for the 51½-mile tunnel began in 1967.

Canadian Bridge-Tunnel. The Canadian Government started construction early in 1966 of a \$148,-000,000 tunnel-bridge-causeway project across Northumberland Strait linking New Brunswick and Prince Edward Island. The 9-mile crossing will carry both a railway and a highway. Completion is expected in 1971.

Chesapeake Bay Bridge-Tunnel, 17.6 mi. long, was opened for traffic April 15, 1964. It has 12½ mi. of concrete trestles 30 ft. above mean low water, 2 one-mile tunnels, 2 steel bridges, 4-man-made islands, 1½ mi. of earthfill causeway and approx. 5½ mi. of approach roadway, most of the latter 28 ft. wide. It connects Cape Charles, on the Eastern Shore of Virginia, with Chesapeake Beach between Norfolk and Virginia Beach on the mainland, thus providing a new route to Florida via the New Jersey Turnpike and U. S. 13. Cost of the project was over \$200,000,000.

Underwater Vehicular Tunnels in United States

Over 1,000 feet in length

Name	Location	Waterway	Length Feet
Bart Trans-Bay Tube.....	San Francisco	S. F. Bay	3,6 mile
Brooklyn-Battery.....	New York, N. Y.	East River	9,117
Holland Tunnel.....	New York, N. Y.	Hudson River	8,557
Lincoln Tunnel.....	New York, N. Y.	Hudson River	8,216
Harbor Tunnel.....	Baltimore, Md.	Patapsco River	7,650
Hampton Roads.....	Norfolk, Va.	Hampton Roads	7,479
Queens Midtown.....	New York, N. Y.	East River	6,414
Thimble Shoal Channel.....	Cape Henry, Va.	Chesapeake Bay	5,738
Sumner Tunnel.....	Boston, Mass.	Boston Harbor	5,650
Detroit-Windsor.....	Detroit, Mich.	Detroit River	5,135
Chesapeake Channel.....	Cape Charles, Va.	Chesapeake Bay	5,450
Callahan Tunnel.....	Boston, Mass.	Boston Harbor	5,046
Elizabeth River.....	Norfolk, Va.	Elizabeth River	4,194
Posey Tube.....	Oakland, Calif.	Oakland Estuary	3,500
Bankhead Tunnel.....	Mobile, Ala.	Mobile River	3,109
Baytown Tunnel.....	Baytown, Tex.	Houston Ship Channel	3,009
Washburn Tunnel.....	Houston, Tex.	Ship Channel	2,936
Harvey Tunnel.....	Louisiana	Intracoastal Canal	1,080

World's Longest Railway Tunnels

Source: 1967-68 Railway Directory & Year Book. Tunnels over 4 miles in length.

Tunnel	Date	Length Miles Yd.	Operating Railway	Country
Simplon No. II....	1922	12 559	UC under construction.	
Simplon No. I....	1906	12 537	Swiss Fed. & Italian St.	Switz.-Italy
Apennine.....	1934	11 892	Italian State.....	Italy
Gotthard.....	1882	9 562	Swiss Federal.....	Switzerland
Lötschberg.....	1913	9 140	Bern-Lötschberg-Simplon	Switzerland
Hokuriku.....	1962	8 1,089	Japanese National.....	Japan
Mont Cenis (Fréjus).....	1871	8 855	Italian State.....	France-Italy
Cascade.....	1929	7 1,397	Great Northern.....	United States
Montana.....	UC	7 1,397	Great Northern.....	United States
Arlborg.....	1884	6 650	Austrian Federal.....	Austria
Moffat.....	1928	6 373	Denver & Rio Grande.....	United States
Shimizu.....	1931	6 50	Japanese National.....	Japan
Kvineshel.....	1943	5 1,112	Norwegian State.....	Norway
Rimutaka.....	1955	5 821	New Zealand Gov.....	New Zealand
Ricken.....	1910	5 608	Swiss Federal.....	Switzerland
Grenchenberg.....	1915	5 581	Swiss Federal.....	Switzerland
Otrra.....	1923	5 564	New Zealand Gov.....	New Zealand
Tauern.....	1909	5 551	Austrian Federal.....	Austria
Laeghestad.....	1943	5 467	Norwegian State.....	Norway
Ronco.....	1889	5 277	Swiss Federal.....	Italy
Hauenstein (Lower).....	1916	5 95	Swiss Federal.....	Switzerland
Connaught.....	1916	5 39	Canadian Pacific.....	Canada
Karawanken.....	1906	4 1,683	Austrian Federal.....	Austria-Yugo.
New Tanna.....	1964	4 1,663	Japanese National.....	Japan
Somport.....	1928	4 1,572	French National.....	France-Spain
Tanna.....	1934	4 1,493	Japanese National.....	Japan
Ulrikken.....	1964	4 1,338	Norwegian State.....	Norway
Hoosac.....	1875	4 1,230	Boston & Maine.....	United States
Monte Orso.....	1927	4 1,250	Italian State.....	Italy
Lupatino.....	1958	4 1,178	Italian State.....	Italy
Vivola.....	1927	4 1,004	Italian State.....	Italy
Monte Adone.....	1934	4 760	Italian State.....	Italy
Jungfrau.....	1912	4 750	Jungfrau.....	Switzerland
Borgallo.....	1884	4 700	Italian State.....	Italy
Severn.....	1886	4 628	Western Region.....	Great Britain
Lusse (Vosges).....	1937	4 474	French National.....	France
Marianopoli.....	1885	4 42	Italian State.....	Italy
Turichino.....	1894	4 10	Italian State.....	Italy

U. S. Geodetic Datum Point

The geodetic datum point of the United States is the Coast and Geodetic Survey's triangulation station *Meades Ranch* in Osborne County, Kansas, at latitude 39°13'26".686 N and longitude 98°32'30".506 W. (Frequently this is referred to as the geodetic center of the U. S., which has no meaning.) This geodetic datum point is a fundamental point from which all latitude and longitude computations originate for North America and Central America.

Dams and Reservoirs; Water Conservation

Source: Bureau of Reclamation

Colorado River Storage Project. Morrow Point Dam on the Gunnison River in Colo. was completed in 1968 by the Bureau of Reclamation. A principal feature of the Curecanti Storage Unit of the Colorado River Storage Project, the concrete dam is 468 feet high and 720 feet long. It is a landmark structure, incorporating three "firsts" for the Bureau: use of a thin-arch, double curvature design; location of the powerplant underground; and a free-fall spillway employing gates at the top of the dam (creating a waterfall twice as high as Niagara Falls). The powerplant is under construction. Also on the Curecanti Unit, the second of the two 30,000 kilowatt generators of the Blue Mesa powerplant went into operation in 1968. **Blue Mesa Dam** on the Gunnison River has been in operation several years. The unit's **Crystal Dam** and powerplant are still to be built. The other three storage units of the CRSP are fully in operation: **Glen Canyon Dam**, reservoir, and powerplant on the Colorado River in Utah and Arizona; **Flaming Gorge Dam**, reservoir, and powerplant on the Green in Utah and Wyoming; and **Navajo Dam** and reservoir in New Mexico and Colorado.

The **Azotea Tunnel**, a feature of the San Juan-Chama participating project in New Mexico, was "holed through" 1,200 feet beneath the crest of the Continental Divide during the year. It will be capable of conveying water by gravity at the rate of 950 cfs from the tributary streams of the Colorado River basin on the west side of the Rockies into the Rio Grande basin on the east. The project's two other tunnels, which will funnel water to the Azotea, were also virtually completed in 1968. Construction began on **Heron Dam** high up on the eastern slope. It will impound the water from the western slope and release it to flow down the Rio Chama and the Rio Grande for municipal and industrial use in Albuquerque and for the irrigation of farmlands in the Rio Grande basin.

Since authorization of the Colorado River Storage Project in 1956, about \$696,000,000 of Federal funds has been converted into dams, reservoirs, powerplants, transmission facilities systems, and other facilities of the five-state project.

Central Valley Project, California. Pre-construction work began in 1968 on the Bureau of Reclamation's \$200,000,000 **Auburn Dam**, chief feature of the Auburn-Folsom South Unit of the Central Valley Project. On the North Fork of the American River, this structure will be Reclamation's longest and highest double curvature concrete dam, spanning 3,500 feet at its crest 680 feet above bedrock. Its reservoir, with 2,500,000 acre-feet storage capacity, will yield 390,000 acre-feet of water annually to irrigate 413,000 acres and to supply municipal and industrial water for communities in the area, as well as to furnish recreational and fish and wildlife benefits. A powerplant having an initial capacity of 300,000 kilowatts will be constructed at the toe of the dam. Another unit feature, the 67-mile long **Folsom South canal** on the American River downstream from the dam will deliver the water to the farmlands and communities and will serve as the first reach of the Eastside division of the Central Valley Project planned for future development.

Three features of the San Luis unit were dedicated in 1968: the 382-foot high **San Luis Dam**, most massive earth-filled dam ever constructed by Reclamation; O'Neill regulating dam; and the **San Luis Pumping-Generating plant**. This complex will store winter-time run-off from northern California streams. The river-size **San Luis Canal** will start it on its way to beneficial use in the southern two-thirds of the state. Construction has continued on the gigantic **Westlands Irrigation system**, which has made initial deliveries to farmlands in the San Joaquin Valley. Ultimately this system will contain more than 1,000 miles of pipeline.

The **San Luis Unit** will make some 1,200,000 acre-feet of irrigation water available to about 614,000 acres of agricultural land and will provide 45,000 acre-feet (14.6 billion gallons) of municipal and industrial water annually. This unit is a unique joint Federal-State development, which not only will serve the Federal irrigation project, but will store and transport California State Water Project water. **Oroville Dam**, chief feature of the State project, was dedicated in 1968. The highest earth-fill dam in the world, the 770-foot structure

straddles the Feather River about 60 miles north of Sacramento.

Water deliveries through the 500-mile-long **Central Valley project** in 1967 reached 2,700,000 acre-feet, largely for irrigating some 1,600,000 acres of land which produce crops valued at nearly \$600,000,000. Project powerplants produce about 5.5 billion kilowatt hours a year, and approximately 7,600,000 visitor days' recreation use is recorded at the project's man-made lakes.

Third Powerplant at Grand Coulee Dam. Excavation for the third powerplant has commenced and contracts have been let for the first three turbines and generators, largest ever manufactured. These three units are the first of six which will be installed in the Grand Coulee facility to bring its present 2,000,000 kilowatt capacity to 5,600,000. The plan now is to double the capacity of the third powerplant at some future date to bring the total capacity of Grand Coulee to 9,200,000 kilowatts. Congressional authorization will be needed for this addition.

Fryingpan-Arkansas Project. Construction continued in 1968 on **Sugar Loaf** and **Ruedi Dams**, major earthfill impoundment structures. The former, east of the Continental Divide, will result in the enlargement of **Turquoise Lake** from 17,000 to 130,000 acre-feet. **Ruedi Dam** on the western slope will create a 101,000 acre-foot impoundment on the **Fryingpan River**, compensating water users in western Colorado for the supply diverted at higher elevations through the **Divide Tunnel** into **Turquoise Lake** for use in the **Arkansas basin**. The 5.3-mile-long tunnel under the Continental Divide and two small shorter tunnels were virtually completed in 1968, and pre-construction work commenced for **Pueblo Dam** and reservoir on the eastern slope. **Pueblo Reservoir** will impound 357,000 acre-feet of water.

The multiple-purpose **Fryingpan-Arkansas Project** will provide water for supplemental irrigation of 280,000 acres and for domestic and industrial uses, will generate 111,000 kilowatt hours of hydroelectric power, and will provide flood control, fish and wildlife, and recreation benefits.

Missouri River Basin Project. Construction began on the **Snake Creek pumping plant**, key feature of the **Garrison Diversion Unit**, which will provide irrigation for 250,000 acres of land in North Dakota, will supply municipal and industrial water to 14 towns and cities, and will provide recreation and fish and wildlife enhancement benefits. The **Snake Creek plant** will pump water from the reservoir behind the **Corp of Engineers Garrison Dam** on the **Missouri** into an adjacent lake from where it will be conveyed to the farms and communities.

Two other units of the **Missouri River Basin Project** were authorized in fiscal year 1968 for construction. **Nebraska Midstate**, which will provide a surface and groundwater supply to irrigate approximately 140,000 acres along the **Platte River** and will replenish the groundwater which is being rapidly depleted; and **Oahe Unit** in **South Dakota** which will pump water from the **Corps of Engineers Oahe reservoir** on the mainstream to irrigate, in its first stage, about 190,000 acres, furnish municipal and industrial water supply, and provide flood control, recreation opportunities, and fish and wildlife benefits.

Pacific Northwest-Pacific Southwest Intertie. The 500-transmission kilovolt line from the Oregon border 94 miles south to **Round Mountain** in California has been completed by the Bureau of Reclamation and the first electric energy was transported from the **Pacific Northwest** to the **Central Valley project**. The intertie, most extensive electrical transmission system ever undertaken in the United States, is being built by Federal, other public, and private utilities to tie together, for their mutual benefit, the transmission systems of 11 western states.

Southern Nevada Water Project. Construction began on a 4-mile tunnel through the **River Mountains**, which lie between the **Las Vegas Valley** and **Lake Mead** behind **Hoover Dam** on the **Colorado River**. The project will pump water from **Mead** and distribute it to meet municipal and industrial water needs of **Las Vegas**, **Nellis Air Force Base**, and other communities and industries in the area.

Project "Skywater." During 1968 the Bureau of Reclamation continued its "Project Skywater," an

extensive program of research in atmospheric water resources. The project, financed by appropriations of \$5,015,000 during fiscal 1968 and with \$4,750,000 allotted for 1969, involves investigations of weather modification—principally precipitation from clouds when they are transporting large quantities of moisture. The runoff produced by the precipitation obtained from the air masses can be subsequently stored in reservoirs for many beneficial uses on Reclamation projects in the western states. Advances in technology indicate a capability of adding some 475,000,000 acre-feet of new water annually to the nation's water supply. Production costs of \$1 to \$4 per acre-foot are expected, with benefits ranging from \$5 to \$50 and higher per acre-foot.

Federal Reclamation Program

The Federal Reclamation program was authorized in 1902 to reclaim arid lands of the West by developing irrigation water supplies. The scope of its purpose was subsequently enlarged to include hydropower generation, municipal and industrial water supply, flood control, river regulation, water quality control, fish and wildlife enhancement, and recreation. To provide these benefits the Bureau has completed or has under construction 273 storage dams and dikes, with reservoirs having a combined total capacity of nearly 135,000,000 acre-feet of water. 53 hydroelectric plants with an ultimate installed capacity of 11,300,000 kilowatts; 16,150 circuit miles of transmission line; 98 major pumping plants; 6,800 miles of supply canals; nearly 200 miles of tunnels; and various other physical structures to carry out its prescribed functions.

Nearly unique among Federal programs, Reclamation in large measure pays its own way. Close to 90% of the Federal cost of construction is returned to the Treasury by project beneficiaries. The water-using beneficiaries also assume operation and maintenance of project water delivery systems.

The Bureau of Reclamation markets power from 51 Bureau-built powerplants, 6 Corps of Engineers plants, and the Falcon Plant of the International Boundary and Water Commission. During fiscal year 1968 the Bureau sold 42.6 billion kilowatt-hours of electric power, with revenues of \$136,200,000, including sales associated with power deliveries to Bonneville Power Administration for marketing.

Power Administration

Southeastern Power Administration (Dept. of the Interior) markets power produced at projects controlled by the Corps of Engineers in Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Alabama, Mississippi, and Tennessee. Power is sold to 159 customers from plants in operation at Allatoona, Georgia; Buford, Georgia; Clark Hill, Georgia-South Carolina; Hartwell, Georgia-South Carolina; Jim Woodruff, Georgia-Florida; Walter F. George, Georgia-Alabama; John H. Kerr, Virginia-North Carolina; Philpott, Virginia; Wolf Creek, Kentucky; Barkley, Kentucky; Dale Hollow, Tennessee-Kentucky; Center Hill, Tennessee; Old Hickory, Tennessee; and Cheatham, Tennessee, with a capacity of 1,807,000 kilowatts. Seven plants are under construction with 905,375 kws capacity.

During the year ended June 30, 1968, SEPA sold 6,323,558,728 kilowatt-hours, gross revenue \$31,709,992.37.

Southwestern Power Administration, with hq in

Tulsa, Okla., is the agency of the Dept. of the Interior designated to market surplus hydroelectric power and energy generated at Federal multiple purpose reservoirs in the southwest. Of 23 hydroelectric plants 15 are in commercial operation, and 8 are under construction.

SPA operates 1,515 miles of high-voltage transmission line and 35 substations and switching stations, including a 161,000 volt interconnection with the Bureau of Reclamation. This inter-tie, the first between federally owned systems, permits interchange of up to 50,000 kw between the two agencies by taking advantage of the daily and seasonal diversities between the two areas served.

During fiscal year 1968, SPA energy sales amounted to 4,462,000,000 kwh, compared to 3,035,598,542 kwh in 1967, an increase of 1,426,401,458 kwh. Gross revenues for 1968 totaled \$32,187,197, as opposed to \$28,924,961 for the same period in 1966-67, an 11.3% increase. In 1968, 51% of the energy marketed by SPA was sold to REA Cooperatives, 13% to municipalities, 3% to public authorities, 13% to aluminum industry and 20% to private utility companies.

[A kilowatt hour (kwh) represents 1 hour of 1,000 watts. A kilowatt (kw) equals about 1½ horsepower.]

Tennessee Valley Authority

TVA is a corporate agency of the Federal government, established by Congress in 1933 to develop the Tennessee River system and to aid in the development of other resources of the Tennessee Valley region. This includes work in flood control, navigation, electric power, recreation, agriculture, forestry, and water quality resource development.

TVA has built or acquired 26 major dams on the Tennessee and its tributary rivers, and by agreement with Alcoa controls water releases at 6 of its major dams. These structures make the main stream of the Tennessee navigable over its 650-mile length from Knoxville to the Ohio River, regulate flood waters, and generate hydroelectric power.

TVA is wholesale power supplier to 160 local electric systems serving 2 million customers in parts of 7 states, and sells power directly to several large atomic, military, and industrial installations. Fiscal year 1968 power sales were \$5 billion kwh, about 60 times as much electricity as the region used in 1933. Since about 1950, when the region's hydroelectric potential was largely developed, most of the additional generating capacity built to meet this rapid growth in power demands has been in coal-fired steam plants. In 1968 system capacity was 18,000,000 kw, with another 9,500,000 kw in nuclear and coal-fired power plants scheduled for operation by 1974.

The TVA power system is financially self-supporting and self-liquidating and power funds are accounted for separately from funds used for non-power activities. Funds for new power construction are obtained primarily from the earnings of the system and bonds and notes sold in the public markets. U.S. appropriations for power purposes are being repaid to the Treasury on a regular schedule, plus a return on the portion unrepaid. The repayment in 1968 was \$15,000,000 and the return, computed at a rate of 4.1% was \$46,862,000. Substantial payments are made to state and local governments in lieu of taxes.

At the end of fiscal 1968, TVA had 19,717 employees.

California State Water Project

Source: California Resources Agency, Department of Water Resources

California's State Water Project is the nation's first statewide water resources development, according to its builder and operator, the California Department of Water Resources. That agency says the California project will move more water a longer distance than any other distribution system; that it is the first water supply system to have recreation features planned from the beginning and built along with delivery works. Its key facility is Oroville Dam, highest dam in the United States. The project stretches from 5 small dams and reservoirs in Northern California to the terminal reservoir at Perris in Southern California, a distance of about 650 miles.

Water conserved behind the giant embankment at Oroville Dam will move through the Feather and Sacramento River channels to the Sacramento-San Joaquin Delta.

From that point the State Water Project water will travel through the 444-mile-long California Aqueduct for distribution to homes, farms and

factories in Central, Coastal and Southern California.

Part of the Calif. Aqueduct contains the San Luis unit, a joint-use facility of dams, pumping plants and canals in which the State and Federal Governments share costs, operation and maintenance.

Water deliveries to the San Joaquin Valley began in 1968 and are scheduled to be made to Castaic Lake in Los Angeles County in 1971 and to Lake Perris in Riverside County in 1972.

Water deliveries have been made since 1962 to water agencies south of San Francisco Bay through the South Bay Aqueduct, first completed aqueduct of the project.

At the Tehachapi Mountains, which the California Aqueduct crosses enroute to Southern California, the Edmonston Pumping Plant will pump more water higher than any other pumping plant in the world—110,000,000 gallons per hour one-third of a mile up—according to the California Department of Water Resources.

Major World Dams

Source: Bureau of Reclamation, Dept. of the Interior (Revised Oct. 1, 1968). *Replaces existing dam. Volume in cubic yards. Capacity (Gross) in acre feet. Year of completion. U.C. under construction. Type A—Arch. B—Buttress. C—Cupola. E—Earthfill. G—Gravity. R—Rockfill. MA—Multi-arch.

Name of Dam	Type	Year	River and Basin	Country	Height	Crest Length	Volume	Res. Cap.
Almendra (Villarino)	A.G.	UC	Tormes-Douro	Spain	Feet	Feet	(1,000)	(1,000)
Alpe Gera	G.	1965	Cormor-Adda-Po	Italy	623	13,284	3,275	2,005
Beas	E.	UC	Beas-Indus	India	584	1,710	2,265	53
Bhakra	G.	1963	Sutlej-Indus	India	380	5,000	44,200	6,600
Bhumphol (Yanhee)	G.	1964	Ping-Chao Phraya	Thailand	740	1,700	5,400	8,000
Bratsk	G.E.	1964	Angara-Yenisey	USSR	505	1,595	1,268	9,800
Butler's Bar*	A.	UC	N. Yuba-Sacramento	U.S.A.	410	16,200	21,180	137,230
Cabard-Basset	MA.	UC	Zambezi	Mozambique	645	1,800	2,700	930
Canelles	E.	1960	Noguera Ribagorçana	Spain	492	750	NA	54,000
Castale	E.	UC	Noguera-Santa Clara	U.S.A.	508	689	436	549
Charvak	E.R.	UC	Chirchik-Syr Darya	U.S.A.	335	5,200	42,600	350
Chirkey	C.R.	UC	Sulak	USSR	551	2,500	24,994	1,626
Cochiti	E.	UC	Rio Grande	U.S.A.	764	1,109	1,604	2,350
Contra	A.	1965	Verzasca-Ticino-Po	Switzerland	241	28,050	53,000	602
Curnera	A.	1966	Rein de Curnera	Switzerland	754	1,246	863	70
Dneprodzerzhinsk	G.E.	1964	Dnleper	USSR	499	1,115	824	32
Don Pedro*	R.	UC	Tuolumne-San Joaquin	U.S.A.	115	121,120	28,985	1,986
Dworschak	G.	UC	Clearwater-Columbia	U.S.A.	580	1,900	16,535	2,030
Flaming George	A.	1964	Green-COLORADO	U.S.A.	693	3,302	7,200	3,453
Fort Peck	E.	1940	Missouri	U.S.A.	502	1,285	987	3,789
Fort Randall	E.	1956	Missouri	U.S.A.	250	21,026	125,600	19,100
Garrison	E.	1956	Missouri	U.S.A.	165	10,700	50,200	6,100
Gatun	E.	1912	Chagres	Panama	110	12,000	66,000	24,400
Gepatsch	A.	1964	Faggenbach	Austria	215	7,700	22,958	4,413
Glen Canyon	A.	1964	Colorado	U.S.A.	500	2,070	9,250	114
Glenn-Colusa (Cleerozo)	CR.	UC	Sakarya	Turkey	710	1,560	4,901	27,000
Gorky	G.E.	1955	Volga	USSR	518	1,460	920	746
Goschenenclap	G.	1960	Goschenenreuss-Rhone	Switzerland	112	42,340	7,969	7,055
Grand Coulee	G.	1942	Dixence-Rhone	U.S.A.	508	1,771	12,230	61
Grande Dixence	G.	1962	Dixence-Rhone	U.S.A.	550	4,773	10,585	9,562
Gran Suarna	A.	UC	Navia	Spain	932	2,296	7,792	324
Gurl	RE.	UC	Caroni	Venezuela	490	1,148	884	567
Hirakud	G.E.	1956	Mananadi	India	512	2,326	3,854	14,154
Hoover (Boulder)	G.	1936	Colorado	U.S.A.	202	15,748	25,100	6,600
Hungry Horse	A.G.	1953	S.F. Flathead-Columbia	U.S.A.	726	1,244	4,400	31,250
Ikkki	C.R.	UC	Peryar	India	564	2,115	3,086	3,468
Inguir	E.G.	1937	Inguir	USSR	560	1,100	740	1,375
Ivanovo	E.	1967	Jarj-Indus	USSR	988	2,240	3,920	1,257
Jarl	E.	1955	Dneper	Pakistan	98	31,398	20,207	908
Kakhovka	E.	1955	Dneper	USSR	234	5,700	42,000	4,500
Kanev	E.	UC	Dneper	USSR	121	12,467	46,617	14,755
Karadji	CR.	1962	Karadji-Nur	Iran	82	52,950	49,530	19
Kariba	A.	1959	Zambezi	Rhodesia	584	1,430	430	139
Keban	G.R.	UC	Kuphrates	Turkey	420	2,025	1,330	130,000
Kiev	E.	1964	Dneper	USSR	672	3,592	16,782	24,724
King Paul (Kremasta)	E.R.	1965	Acheloos	Greece	62	134,180	58,630	3,024
Kremenchug	E.G.	1961	Dneper	USSR	925	1,496	10,202	3,648
Kurobe No. 1	C.	1964	Kurobe	Japan	58	35,727	36,282	10,945
Luzzone	A.	1963	Brennod-Luzzone	Switzerland	610	1,603	1,782	162
Mangla	E.	1967	Jhelum-Indus	Pakistan	682	1,738	1,766	70
Manicouagan No. 5	MA.	1967	Manicouagan-St. Law.	Canada	11,000	108,360	5,900	
Mauvoisin	C.	1958	Durance de Bagnes-Rho.	Switzerland	380	4,500	2,850	115,000
Melones*	E.R.	UC	Stanislaus-San Joaquin	U.S.A.	703	7,06	2,655	146
Mica	E.R.	UC	Columbia	Canada	777	1,500	17,860	2,400
Mingehaur	E.	1953	Kurd-Caspian S.	USSR	800	2,550	40,000	19,800
Montanolo	A.	UC	Mijares	Spain	252	5,085	20,400	13,000
Monteynard	A.	1962	Dromet-Rhone	France	544	820	164	203
Mossyrock	C.	UC	Cowit-Columbia	U.S.A.	509	705	596	195
Mratnje	A.	UC	Piva-Drina-Danube	Yugoslavia	605	1,750	1,270	1,586
Nagarjunasagar	G.E.	1966	Krishna	India	721	938	770	722
Nagawado	CA.	UC	Azusa	Japan	406	15,326	73,572	9,177
Navajo	E.	1963	San Juan-Colorado	U.S.A.	508	1,300	1,005	100
Nurek	E.	UC	Vakhsh-Amu Darya	USSR	402	3,648	26,841	1,709
Oahe	E.	1963	Missouri	U.S.A.	1,017	2,280	75,900	8,430
Okutadami	G.	1961	Agano-Tadami	U.S.A.	245	9,300	92,000	23,600
Oroville	E.R.	UC	Feather-Sacramento	Japan	515	1,575	2,145	487
Portage Mountain	E.	1963	Dece-Mackenzie	U.S.A.	770	7,600	80,325	3,484
Portas	A.	UC	Peace-Mackenzie	Iran	668	787	608	2,717
Rosend	A.B.	1961	Cambla	Canada	600	6,700	56,680	57,000
Sadd-El-Aali (High dam)	R.	UC	Doron de Beaufort-Rho.	France	409	1,588	979	609
Sakuma	G.	1956	Nile	U.A.R.	492	2,650	1,236	152
San Luis	E.	1967	Tenryu	Japan	364	11,808	56,287	125,600
Santa Justina	A.	1950	San Luis-San Joaquin	U.S.A.	510	963	1,465	265
Saratov	E.	UC	Nace-Adige	U.S.A.	382	18,500	78,000	2,095
Sayansk	A.	UC	Volga-Caspian S.	Italy	500	407	146	148
Shasta	A.	UC	Yenisey	USSR	131	4,130	34,500	10,860
Sotela Island	C.	1945	Sacramento	U.S.A.	774	3,500	11,925	12,400
South Saskatchewan	E.G.B.	UC	Parana-Rio de la Plata	U.S.A.	602	3,460	8,400	4,493
Specheri	E.	1966	So. Saskatchewan	Brazil	262	20,293	32,914	17,187
Suapiti	E.	1957	Leno di Vallarsa-Adige	Canada	223	16,700	86,328	8,000
Swift	E.	1958	Konkoure	Italy	514	631	1,553	8
Takane No. 1	B.	UC	Lewis-Columbia	Gulnea	394	3,511	32,609	8,918
Talbingo (Yalwal)	R.	UC	Hidd	U.S.A.	512	2,100	15,431	756
Tarbela	E.	UC	Indus	Japan	436	884	438	37
Tignes	A.	1952	Indus	Australia	530	2,300	19,000	700
Toktogul	C.R.	UC	Dere-Rhone	Pakistan	485	9,000	159,000	11,100
Trinity	E.	1962	Naryn-Syr Darya	France	592	1,230	831	186
Tsimlanskaya	E.G.	1962	Trinity-Klamath	USSR	705	1,352	3,480	15,800
Twin Buttes	E.G.	1953	Don	U.S.A.	537	2,600	29,251	2,448
Ukal	E.G.	UC	Concho-Colo. of Texas	U.S.A.	135	43,418	44,323	17,715
Valont	C.	1961	Tapti	U.S.A.	134	42,450	21,450	641
Vidaru	A.	1963	Valont-Plave	India	225	16,164	33,370	6,900
Volga-22nd Cong.	E.R.G.	1958	Arges-Danube	Italy	858	624	460	137
Volga-V. I. Lenin	E.G.	1955	Volga	Romania	545	1,000	654	377
Yelowtail	A.	1960	Volga	USSR	154	13,038	33,020	27,160
Zervreila	A.	1957	Waghenreln-Rhone	USSR	148	12,405	44,298	47,020
Zeuzter	A.	1957	Lienne-Rhone	U.S.A.	525	1,450	1,460	1,375
				Switzerland	495	1,653	819	41
				Switzerland	512	918	392	41

Major Public and Private Dams and Reservoirs in U. S.

HEIGHT—OVER 250 FEET, VOLUME—OVER 1,000,000 CUBIC YARDS

Source: Bureau of Reclamation, Dept. of the Interior Corps of Engineers, U. S. Army and Tennessee Valley Authority

Where reservoir name is different it is shown in italics

Height—Difference in elevation in feet, between lowest point in foundation and top of dam, exclusive of parapet or other projections.

Length—Overall length of barrier in feet; main dam and its integral features as located between natural abutments.

Volume—Total volume in cubic yards of all material in main dam and its appurtenant works.

Year—Date structure was originally completed for use. (1) Under construction subject to revision.

River—Main stream.

Purpose: Irr or I—Irrigation; FC—Flood Control; P—Power Production; N—Navigation; WS—Water Supply; RR—River Regulation; DC—Debris Control.

Parentheses after name indicate type of dam as follows: (C)—Concrete; (E)—Earth; (G)—Gravity; (M)—Masonry; (R)—Rock Fill.

*Replacing existing dam.

Name of dam	State	River	Ht.	Lth.	Vol.	Purpose	Yr.
Oroville (E)	Calif.	Feather	770	770	(1,000)	Irr-WS-P-FC	1968
Hoover (C) <i>Mead</i>	Ariz.-Nev.	Colorado	726	1,244	7,600	FC-I-P-RR-N	1936
Dworshak (C)	Idaho	N. Fork Clearwater	717	3,287	6,600	FC-P-N	(1)
Glen Canyon (C) <i>Powell</i>	Ariz.	Colorado	710	1,560	4,901	P-RR	1964
Bullards Bar*	Calif.	North Yuba	645	1,800	2,700	P	(1)
New Bullards Bar (C)	Calif.	North Yuba	635	2,220	2,600	I-WS-P	(1)
Melones*	Calif.	Stanislaus	608	1,500	17,860	I-P	(1)
Mossy Rock (G)	Wash.	Cowlitz	605	1,750	1,270	P	(1)
Shasta (C & E)	Calif.	Sacramento	602	3,460	8,400	FC-I-P-RR-N	1945
Don Pedro*	Calif.	Tuolumne	580	1,900	16,535	I-FC-P	(1)
Hungry Horse (C)	Mont.	South Fork Flathead	564	2,115	3,086	Irr-P-FC-N	1953
Grand Coulee (C)	Wash.	Columbia	550	4,173	10,585	I-P-RR-FC-N	1942
F. D. Roosevelt	Wash.	Skagit	537	1,300	909	FC-P	1947
Ross	Calif.	Trinity	537	2,600	29,511	I-P	1962
Yellowtail (C)	Mont.	Bighorn	525	1,450	1,460	I-P-FC	1966
Cougar Reservoir (E)	Oreg.	So. Fork McKenzie	515	1,730	12,572	FC-P	1964
Swift (E)	Wash.	Lewis	512	2,100	15,431	Irr	1958
Flaming Gorge	Utah	Green	502	1,285	987		1964
Fontana (G)	N. C.	Little Tennessee	480	2,365	3,576	FC-P-RR	1944
New Exchequer (R)	Calif.	Merced	479	1,240	5,169	I-P-RR	1967
Anderson Ranch (E)	Idaho	South Fork Boise	456	1,350	9,653	FC-Irr-P	1950
Detroit (C)	Oreg.	North Santiam	454	1,580	1,350	FC-N-P-Irr-WS-RR	1953
Carters (R)	Georgia	Coosawattee	445	2,053	15,950	FC-P-RR	1954
Pine Flat (C)	Calif.	Kings	430	1,820	2,200	FC-Irr-RR	1953
Mud Mt. (Stevens) (E)	Wash.	White	425	700	2,300	FC	1953
Mammoth Pool (E)	Calif.	San Joaquin	411	820	5,355	P-WS	1960
Lower Hell Hole (R)	Calif.	Rubicon	410	1,550	8,315	P-I-WS-RR	(1)
Union Valley (E)	Calif.	Silver Creek	408	1,800	10,000	P	1963
Navajo (E)	N. Mex.	San Juan	402	3,648	26,841	I-FC-RR	1963
Brownlee (G)	Idaho	Snake	395	1,320	6,000	P	1906
Navajo (G)	N. M.	San Juan	385	3,800	27,000	I-FC-RR	1963
Summersville (R)	W. Va.	Gauley	384	2,280	11,000	FC-RR	1966
San Luis (E)	Calif.	San Luis Cr.	382	18,500	78,000		1967
Merriman (E) <i>Rondout</i>	N. Y.	Brook Creek	375	3,800	8,897		1939
Neversink (E)	N. Y.	Neversink	355	4,420	11,484	WS-P-FC-RR	1954
Lucky Peak (E)	Idaho	Boise	340	2,940	6,300	FC-Irr	1955
Folsom (C)	Calif.	American	340	10,200	9,010	FC-Irr-P	1955
Blue Mesa (E)	Colo.	Gunnison	340	770	3,000	Irr-P-FC	1966
Green Peter (G)	Oreg.	Mid. Santiam	340	1,350	1,145	I-P-FC-N	1967
Hills Creek Dam (E)	Oreg.	Mid. Fk. Willamette	338	2,150	10,830	FC-P-WS-N-Irr	1962
Castale (E)	Calif.	Castale Cr.	335	5,200	42,600	WS	(1)
Castias (E)	Calif.	Coyote Creek	334	2,000	9,110	I-WS	1959
Yale (E)	Wash.	Lewis	328	2,590	4,300	FC	1953
Salt Springs (R)	Calif.	No. Fk. Mokelumne	328	1,300	3,000	P	1931
Abiquiu (E)	N. M.	Rio Chama	325	1,500	7,600	FC	1962
San Gabriel (E)	Calif.	San Gabriel	320	1,520	10,600	FC	1938
Beardsley (E)	Calif.	Stanislaus	320	960	3,250	IP	1957
Hell's Canyon (R)	Idaho	Snake	320	860	3,000	P	1967
Friant (C) <i>Mullerton</i>	Calif.	San Joaquin	319	3,488	2,135	Irr-FC	1942
Watauga	Tenn.	Watauga	318	900	3,578	FC-P-RR	1948
Cherry Valley (E) <i>L. Lloyd</i>	Calif.	Cherry Creek	315	2,630	7,000	I-WS-P	1956
Sultan No. 1 (G)	Wash.	Sultan	310				1952
Green Mountain (E)	Colo.	Blue	309	1,150	4,360	Irr-P	1943
Kensico (G)	N. Y.	Brook	307	1,843	2,975	WS	1915
Hiwassee	N. Y.	Hiwassee (Texas)	307	1,376	801	FC-P-RR	1940
R. D. Bailey (R)	W. Va.	Guyandot	305	1,350	6,648	FC	(1)
Downsville (E)	N. Y.	East branch, Delaware	304	3,250	10,470	FC-RR-WS-P	1955
Upper Baker (G)	Wash.	Baker	308	1,200	628	P	1959
Granby (E)	Colo.	Colorado	298	861	2,974	Irr-P	1950
New Croton (G) <i>Croton</i>	N. Y.	Croton	297	2,168	1,450	WS	1905
Courtright (R)	Calif.	Helms Creek	295	862	1,560	P	1958
Winsor (E) <i>Quabbin</i>	Mass.	Swift	295	2,640	4,000	PWS	1940
Blue River (E)	Oreg.	Blue	283	1,170	4,660	I-FC-N	(1)
Wishon (R)	Calif.	N. F. Kings	280	3,350	3,700	P	(1)
Lewis Smith (R)	Ala.	Black Warrior	280	2,200	4,850	P	1961
South Holston (ER)	Tenn.	South Fork, Holston	285	1,600	5,995	FC-P-RR	1950
Ruedi	Colo.	Fryingpan	285	1,060	3,823		1968
Lemon (E)	Colo.	Florida	284	1,360	3,042		1963
Laurel River (R)	Ky.	Laurel	282	1,420	3,200	P	(1)
Whiskeytown (E)	Calif.	Clear Creek	282	4,070	4,535	I-P	1964
Cogswell (R)	Calif.	West Fork, San Gabriel	280	484	1,044	FC	1935
Diablo (E)	Texas	Rio Grande	280	43,240	30,000	I-P-FC	(1)
Muddy (E)	Oreg.	Lewis	280	7,400	10,600	FC	(1)
Cachuma (E)	Calif.	Santa Ynez	279	3,350	6,695	Irr-FC-WS	1953
Marshall Ford (C & E) <i>Travis</i>	Texas	Colorado (Texas)	278	5,083	3,393	FC-RR-N	1943
Santa Felicia (E) <i>Ptru</i>	Calif.	Piru Creek	275	1,260	3,900	I-FC	1955
Dix River (RR)	Ky.	Dix	275	1,080	1,740	P	1925
Gorge High	Wash.	Skagit	275	670	287	P	1960
Sly Creek (E)	Calif.	Lost Creek	271	2,100	5,232	I-WS-P	1961
Palladas (E)	Idaho	South Fork, Snake	270	2,100	13,571	Irr-P-FC	1957
El Capitan (ER)	Calif.	San Diego	270	1,200	2,680	WS	1934
Nacimiento (E)	Calif.	Nacimiento	270	1,470	3,412	I-FC	1957

Name of dam	State	River	Ht.	Lth.	Vol.	Purpose	Yr.
Briones (E)	Calif.	Bear Creek	268	2,100	9,912	WS-RR	1964
Ball Mountain Res. (E)	Vt.	West	265	915	2,135	FC	1961
Alcova (E)	Wyo.	North Platte	265	763	1,635	Irr-P	1938
Norris (G)	Tenn.	Clinch	265	1,860	1,181	FC-P-RR	1936
Mathews (E)	Calif.	Cajalco Creek	264	6,522	9,560	WS	1938
Quabbin Dike (E)	Mass.	Swift	264	2,140	2,500	WS-P	1937
Wyman (G)	Me.	Upper Kennebec	263	2,650	2,610	P	1930
Table Rock (C & E)	Calif.	White	261	6,423	4,620	FC-P	1959
Leroy Anderson (ER)	Calif.	Coyote Ck.	260	1,383	3,329	FC	1950
The Dalles (C & E)	Oreg-Wash	Columbia	260	8,875	5,061	N-P	1961
Lookout Point (C & E)	Oregon	Middle Fork, Willamette	258	3,381	9,027	Irr-P-N-FC-	
					(1,000)	WS-RR	1954
Bull Shoals (G)	Ark.	White	258	2,256	2,100	FC-P	1962
Wolf Creek (C & E)	Ky.	Cumberland	258	5,736	11,569	FC-RR	1950
John W. Flannagan (R)	Va.	Pound	258	960	2,387	FC	1966
Gratnight (R)	Va.	Jackson	257	1,172	2,100	FC-RR	(1)
Greers Ferry Dam (C & E)	Ark.	Little Red	253	1,627	4,930	FC-P	1962
Olive Bridge (G)	N. Y.	Esopus Creek	252	4,650	8,200	WS	1915
Ashokan (G)	N. Y.	Esopus Creek	252	4,650	2,471	WS	1912
Fort Peck (E)	Mont.	Missouri	251	21,026	125,628	FC-P-N-Irr	1940
Tygart River (G)	W. Va.	Tygart	250	1,921	1,380	FC	1938
Terminus Reservoir (E)	Calif.	Kaweah	250	2,375	6,450	FC-Irr	1962
Center Hill (C & E)	Tenn.	Caney Fork	250	2,160	3,582	FC-P	1951
Nantahala (RR)	N. C.	Nantahala	250	1,042	2,265	P	1948
Osgood (E)	Colo.	Crystal	250	1,660	5,363	I	(1)

International Dams and Reservoirs

Source: International Boundary and Water Commission U. S. and Mexico

Amistad Dam and Reservoir (C & E)	Tex.-Mex.	Rio Grande	254	32,022	20,055	I-FC	1969
Falcon Dam and Reservoir (C & E)	Tex.-Mex.	Rio Grande	150	26,294	13,242	I-FC-P	1954

Non-Federal Hydroelectric Plants in U. S.

CAPACITIES OF 100,000 KILOWATTS OR MORE AS OF JANUARY 1, 1968

Auxiliary and Pumped Storage Units are not included in Hydroelectric Capacities

Source: Federal Power Commission, Bureau of Power

Plant	State	Owner	Kilowatts
Robert Moses Niagara	N. Y.	Power Authority State of N. Y.	1,953,900
Robert Moses (Massena)	N. Y.	Power Authority State of N. Y.	912,000
Wanapum	Wash.	Grant County Dist. No. 2	831,250
Nixon Rapids	Wash.	Grant County Dist. No. 2	788,500
Rocky Reach	Wash.	Chelan County Dist. No. 1	711,550
Wells	Wash.	Douglas County PUD No. 1	542,010
Conowingo	Md.	Philadelphia Electric Co.	474,480
Hells Canyon	Ore.	Idaho Power Co.	391,500
Brownlee	Idaho	Idaho Power Co.	360,400
Ross	Wash.	Seattle Dept. of Lighting Co.	360,000
Cowans Ford	N. C.	Duke Power Co.	350,000
Upper Smith Mt.	Va.	Appalachian Power Co.	300,200
Nixon Rapids	Ore.	The Washington Water Power Co.	282,880
Round Butte	Ore.	Portland Gen. Elec. Co.	247,050
Safe Harbor	Pa.	Safe Harbor Water Power Corp.	226,500
Walter Bouldin	Ala.	Alabama Power Co.	225,000
Rock Island	Wash.	Chelan County Dist. No. 1	212,100
Saluda	S. C.	So. Carolina Electric and Gas Co.	208,750
Swift No. 1	Wash.	Pacific Power and Light Co.	204,000
Cabinet Gorze	Idaho	The Washington Water Power Co.	200,000
Oxbow	Ore.	Idaho Power Co.	190,000
Caribou No. 1 & 2	Calif.	Pacific Gas and Electric Co.	184,800
Gaston	N. C.	Virginia Electric and Power Co.	177,920
Ossage	Mo.	Union Electric Co. of Mo.	172,000
Kerr	Mont.	The Montana Power Co.	168,000
Lewis Smith	Ala.	Alabama Power Co.	157,500
James B. Black	Calif.	Pacific Gas and Electric Co.	154,800
Martin Dam	Ala.	Alabama Power Co.	154,200
Comerford	N. H.	New England Power Co.	140,400
S. C. Moore	N. H.	New England Power Co.	140,400
Merwin	Wash.	Pacific Power and Light Co.	135,000
D. R. Holm	Calif.	San Francisco Utilities Commission	135,000
Hase	Calif.	Pacific Gas and Electric Co.	135,000
Gorke	Wash.	Seattle Department of Lighting Co.	134,400
Jaybird	Calif.	Sacramento Mun. Util. Dist.	133,000
Pinopolis	S. C.	So. Carolina Public Service Authority	132,615
Mammoth Pool	Calif.	Southern California Edison Co.	129,360
Lozan-Martin	Ala.	Alabama Power Co.	128,250
Balch No. 1 & 2	Calif.	Pacific Gas and Electric	128,000
Pitt No. 5	Calif.	Pacific Gas and Electric Co.	128,000
Keokuk	Iowa	Union Electric Co.	124,800
Poe	Calif.	Pacific Gas and Electric Co.	124,200
Mayfield	Wash.	City of Tacoma	121,500
Calderswood	Tenn.	Tapoco Inc.	121,500
Diablo	Wash.	Seattle Department of Lighting Co.	118,000
Lay Dam	Ala.	Alabama Power Co.	118,000
Rock Creek	Calif.	Pacific Gas and Electric Co.	113,400
Cheeah	N. C.	Tapoco Inc.	110,000
Markham Ferry	Okla.	Grand River Dam Auth.	108,000
Walters	N. C.	Carolina Power and Light Co.	108,000
Yale	Wash.	Pacific Power and Light Co.	108,000
Holtzcliff	Ore.	Portland General Electric Co.	108,000
Holtzcliff	Pa.	Pennsylvania Power and Light Co.	107,000
Big Creek No. 3	Calif.	Southern California Edison Co.	106,500
Pitt No. 7	Calif.	Pacific Gas and Electric Co.	104,400
Hawes Nest	W. Va.	Union Carbide Corp.	102,000
Rosnoke Rapids	N. C.	Virginia Electric and Power Co.	100,080
Jordan No. 1	Ala.	Alabama Power Co.	100,000

Hydroelectric Stations and Power Plants in U. S.

Built And Operated By Corps Of Engineers, U S. Army (as of Sept. 25, 1968)

Project	First power product.	Existing install. (KW)	Under construct. (KW)	Ultimate (KW)
Albeni Falls Reservoir, Idaho.....	1955	42,600	.....	42,600
Allatoona Reservoir, Georgia.....	1950	74,000	.....	110,000
Barkley Lock and Dam, Kentucky-Tennessee.....	1966	130,000	.....	130,000
Beaver Reservoir, Arkansas.....	1965	112,000	.....	112,000
Big Bend Reservoir, South Dakota.....	1964	468,000	.....	468,000
Blakely Mountain Reservoir, Arkansas.....	1955	75,000	.....	75,000
Bonneville Dam, Oregon-Washington.....	1938	518,400	.....	518,400
Broken Bow, Okla.....	1969	.....	100,000	100,000
Dworshak, Idaho.....	1972	.....	400,000	1,060,000
Buford Dam, Georgia.....	1957	86,000	.....	86,000
Bull Shoals Reservoir, Arkansas-Missouri.....	1952	340,000	.....	340,000
Carters, Ga.....	1972	.....	500,000	500,000
Center Hill Reservoir, Tennessee.....	1950	135,000	.....	135,000
Cheatham Lock and Dam, Tennessee.....	1959	36,000	.....	36,000
Chief Joseph Dam, Washington.....	1955	1,024,000	.....	1,728,000
Clarence K. Cannon, Missouri.....	1974	.....	54,000	54,000
Clark Hill Reservoir, Georgia-South Carolina.....	1953	280,000	.....	280,000
Cordell Hull, Tenn.....	1971	.....	100,000	100,000
Cougar Reservoir, Oregon.....	1964	25,000	.....	60,000
Dale Hollow Reservoir, Tennessee.....	1948	54,000	.....	54,000
Dardanelle Lock and Dam, Arkansas.....	1965	124,000	.....	124,000
DeGray, Ark.....	1971	.....	68,000	108,000
Denison Dam (Lake Texoma), Oklahoma-Texas.....	1945	70,000	.....	175,000
Detroit Reservoir, Oregon.....	1953	118,000	.....	118,000
Eufaula Reservoir, Oklahoma.....	1964	90,000	.....	90,000
Fort Gibson Reservoir, Oklahoma.....	1953	45,000	.....	67,000
Fort Peck Dam, Montana.....	1943	165,000	.....	165,000
Fort Randall Reservoir, South Dakota.....	1954	320,000	.....	320,000
Garrison Reservoir, North Dakota.....	1956	400,000	.....	400,000
Gavins Point Reservoir, South Dakota-Nebraska.....	1956	100,000	.....	100,000
Green Peter Reservoir, Oregon.....	1967	100,000	.....	100,000
Greers Ferry Reservoir, Arkansas.....	1964	96,000	.....	96,000
Hartwell Reservoir, Georgia-South Carolina.....	1962	264,000	.....	330,000
Hills Creek Reservoir, Oregon.....	1962	30,000	.....	30,000
Ice Harbor Lock and Dam, Washington.....	1961	270,000	.....	602,880
Jim Woodruff Lock and Dam, Georgia.....	1967	30,000	.....	67,000
John Day Lock and Dam, Oregon-Washington.....	1968	270,000	1,910,000	2,700,000
John H. Kerr Reservoir, North Carolina-Virginia.....	1952	264,000	.....	204,000
Jones Bluffs, Alabama.....	1974	.....	68,000	68,000
J. Percy Priest, Tenn.....	1968	.....	28,000	28,000
Kaysinger Bluff, Missouri.....	1974	.....	160,000	160,000
Keystone, Okla.....	1968	70,000	.....	70,000
Laurel River Res., Kentucky.....	1973	.....	61,000	61,000
Libby, Montana.....	1973	.....	420,000	800,000
Little Goose, Wash.....	1970	.....	405,000	810,000
Lookout Point Reservoir, Oregon.....	1954	135,000	.....	135,000
Lost Creek, Oregon.....	1972	.....	49,000	49,000
Lower Granite, Washington.....	1973	.....	405,000	810,000
Lower Monumental Lock & Dam, Washington.....	1969	.....	405,000	810,000
McNary Lock and Dam, Oregon-Washington.....	1953	980,000	.....	1,400,000
Millers Ferry, Ala.....	1969	.....	75,000	75,000
Narrows Reservoir, Arkansas.....	1950	17,000	8,500	25,500
New Melones, California.....	1974	.....	150,000	150,000
Norfolk Reservoir, Arkansas-Missouri.....	1944	70,000	.....	140,000
Oahe Reservoir, South Dakota-North Dakota.....	1962	595,000	.....	595,000
Old Hickory Lock and Dam, Tennessee.....	1957	100,000	.....	100,000
Ozark Lock and Dam, Arkansas.....	1972	.....	100,000	100,000
Philpott Reservoir, Virginia.....	1953	14,000	.....	14,000
Robert S. Kerr.....	1970	.....	110,000	110,000
St. Mary's River, Michigan.....	1951	18,400	.....	18,400
Sam Rayburn, Texas.....	1965	52,000	.....	52,000
Snettisham, Alaska.....	1972	.....	46,700	70,000
Stockton, Mo.....	1970	.....	45,200	45,200
Table Rock Reservoir, Missouri-Arkansas.....	1959	200,000	.....	200,000
Tenkiller Ferry Reservoir, Oklahoma.....	1953	34,000	.....	34,000
The Dalles Dam, Oregon-Washington.....	1957	1,119,000	687,800	1,806,800
Valley F. George Lock and Dam, Alabama-Georgia.....	1963	130,000	.....	130,000
Webbers Falls, Oklahoma.....	1972	.....	60,000	60,000
West Point, Georgia.....	1972	.....	73,780	108,780
Whitney Reservoir, Texas.....	1953	30,000	.....	30,000
Wolf Creek Reservoir, Kentucky.....	1951	270,000	.....	270,000

World's Largest Hydroelectric Generating Plants

Source: Bureau of Reclamation

UC—Under Construction. NA—Not Available

Name (Ultimate capacity of 1,000,000 kilowatts or more.)	Present (Megawatts)	Ultimate (Megawatts)	Year of Initial Operation
Sayansk, USSR.....	NA	6,300	UC
Krasnoyarsk, USSR.....	NA	6,000	1967
Grand Coulee, U.S.A.....	1,974	5,574	1941
Churchill Falls, Canada.....	NA	4,500	UC
Bratsk, USSR.....	4,500	4,500	1961
Sukhovo, USSR.....	NA	4,500	UC
Ust-Ilimsk, USSR.....	720	4,320	UC
Kettle Rapids, Canada.....	1,018	3,240	UC
Ilha Solteira Island, Brazil.....	NA	3,200	UC
John Day, U.S.A.....	2,160	2,700	UC
Nurek, USSR.....	NA	3,000	UC
Volga—22nd Congress, USSR.....	2,543	2,543	1953
Portage Mountain, Canada.....	1,150	2,300	UC
Iron Gate, Romania-Yugoslavia.....	NA	2,160	UC
Volga—V. I. Lenin, USSR.....	2,100	2,100	1955
Sadd-El-Aali, (High Aswan), UAR.....	1,750	2,100	1967
Mica, Canada.....	NA	2,000	UC
Robert Moses Niagara, U.S.A.....	1,950	1,950	1961
St. Lawrence Power Dam, Canada-U.S.A.....	1,880	1,880	1958
Guri, Venezuela.....	627	1,757	1967

Name (Ultimate capacity of 1,000,000 kilowatts or more.)	Present (Megawatts)	Ultimate (Megawatts)	Year of Initial Operation
Dalles, U.S.A.	1,119	1,743	1957
Chief Joseph, U.S.A.	1,024	1,728	1956
Kemano, Canada	835	1,670	1954
Beauharnois, Canada	1,586	1,641	1951
Inguri, USSR	NA	1,600	UC
Kariba, Rhodesia-Zambia	600	2,500	1959
Luklaasia, China	NA	1,500	1963
Tumut—3, Australia	NA	1,500	UC
Jupia, Brazil	NA	1,400	1961
Sir Adam Beck No. 2, Canada	900	1,370	1954
Hoover, U.S.A.	1,345	1,345	1936
Wanapum, U.S.A.	831	1,330	1963
Manicouagan No. 5, Canada	NA	1,320	UC
Saratov, USSR	NA	1,300	UC
Pleet Rapids, U.S.A.	789	1,262	1959
Keban, Turkey	820	1,240	UC
Rocky Reach, U.S.A.	775	1,215	1961
Furnas, Brazil	900	1,200	1963
Toktogul, USSR	NA	1,200	UC
Manicouagan No. 3, Canada	NA	1,120	UC
Sanmen Hsia, China	NA	1,100	UC
Nizhne-Kamskaya, USSR	NA	1,090	UC
Dworshak, U.S.A.	NA	1,060	UC
Bersimis No. 1, Canada	1,050	1,050	1956
Bakara, India	450	1,050	UC
Zeya, USSR	NA	1,020	UC
Manicouagan No. 2, Canada	NA	1,016	1965
Mangla, Pakistan	300	1,000	UC
Chirkey, USSR	NA	1,000	UC
Votkinsk, USSR	NA	1,000	1961
Kettle Rapids, Canada	NA	1,000	UC

TVA Hydroelectric Power Plants

Source: Tennessee Valley Authority

Projects	State	River	Initial Operation	Existing Capacity	KWS Ultimate
Wilson (a)	Ala.	Tenn.	1925	629,840	629,840
Wheeler	Ala.	Tenn.	1936	356,400	356,400
Fontana	N. C.	Little Tenn.	1945	205,500	205,500
Pickwick Landing	Tenn.	Tenn.	1938	216,000	216,000
Kentucky	Ky.	Tenn.	1944	160,000	160,000
Watts Bar	Tenn.	Tenn.	1942	150,000	150,000
Fort Loudon	Tenn.	Tenn.	1943	128,000	128,000
Cherokee	Tenn.	Holston	1942	120,000	120,000
Hiwassee	N. C.	Hiwassee	1940	117,100	117,100
Douglas	Tenn.	French Broad	1943	112,000	112,000
Chickamauga	Tenn.	Tenn.	1940	108,000	108,000
Norris	Tenn.	Clinch	1936	100,800	100,800
Guntersville	Ala.	Tenn.	1939	97,200	97,200
Nickajack	Tenn.	Tenn.	1968	97,200	97,200
Apalachia	N. C.	Hiwassee	1943	75,000	75,000
Boone	Tenn.	S. Fork Holston	1953	75,000	75,000
Melton Hill	Tenn.	Clinch	1964	72,000	72,000
Watauga	Tenn.	Watauga	1949	50,000	50,000
Tims Ford	Tenn.	Elk	UC	UC	45,000
Fort Patrick Henry	Tenn.	S. Fork Holston	1953	36,000	36,000
South Holston	Tenn.	S. Fork Holston	1951	35,000	35,000
Great Falls ab.	Tenn.	Corn	1916	31,860	31,860
Ocoee No. 3	Tenn.	Ocoee	1943	27,000	27,000
Ocoee No. 2a	Tenn.	Ocoee	1913	21,000	21,000
Blue Ridge e	Ga.	Toccoa	1931	20,000	20,000
Ocoee No. 1a	Tenn.	Ocoee	1912	18,000	18,000
Nottely	Ga.	Nottely	1956	15,000	15,000
Chatuge	N. C.	Hiwassee	1954	10,000	10,000
Tellico	Tenn.	Little Tenn.	UC	c	c

UC Under construction. *Not built by TVA. bIn Cumberland Valley. cNo powerhouse, diverts river flow for increased generation at Fort Loudon Dam.

Hydroelectric Power Plants in U. S.

BUREAU OF RECLAMATION
Capacity of 15,000 Kilowatts or more, June 30, 1967

State	Project	Name of plant	Year of initial operation	Existing (kilowatts)	Ultimate (kilowatts)
Ariz.-Nevada	Boulder Canyon	Hoover	1936	1,344,800	1,344,800
Ariz.-Nevada	Parker-Davis	Davis	1951	225,000	225,000
Arizona	Colorado River Sto.	Glenn Canyon	1964	900,000	900,000
Ariz.-Cal.	Parker-Davis	Parker	1942	120,000	120,000
California	Central Valley	Kolsom	1955	162,000	162,000
California	Central Valley	Keswick	1949	75,000	75,000
California	Central Valley	Shasta	1944	379,000	379,000
California	Central Valley	Judge Francis Carr	1963	134,000	134,000
California	Central Valley	San Luis	1967	106,000	424,000
California	Central Valley	O'Neill	1967	21,000	25,200
California	Central Valley	Auburn	1975	.....	240,000
California	Central Valley	Spring Creek	1964	150,000	150,000
California	Central Valley	Trinity	1964	100,350	100,350
Colorado	Colo. R. Sto.	Blue Mesa	1967	.....	60,000
Colorado	Colo.-Big Thompson	Estes	1950	45,000	45,000
Colorado	Colo.-Big Thompson	Flatiron	1954	71,500	71,500
Colorado	Colo.-Big Thompson	Green Mountain	1943	21,800	21,800
Colorado	Colo. River Sto.	Crystal	1973	.....	28,000
Colorado	Colo. R. Sto.	Morrow Point	1969	.....	120,000
Colorado	Colo.-Big Thompson	Pole Hill	1954	33,250	33,250
Idaho	Boise	Anderson Ranch	1950	27,000	40,500
Idaho	Palisades	Palisades	1957	114,000	114,000
Montana	Mo. River Basin	Canyon Ferry	1953	50,000	50,000
Montana	Hungry Horse	Hungry Horse	1952	285,000	285,000
Montana	Mo. River Basin	Yellowtail	1966	250,000	250,000
New Mexico	Rio Grande	Elephant Butte	1940	24,300	24,300
Oregon	Rogue River Basin	Green Springs	1960	16,000	16,000
Utah	Colorado River Sto.	Flaming Gorge	1963	108,000	108,000

State	Project	Name of plant	Year of initial operation	Existing (kilowatts)	Ultimate (kilowatts)
Washington.....	Columbia Basin.....	Grand Coulee.....	1941	1,974,000	5,574,000
Wyoming.....	Kendrick.....	Alcoa.....	1955	36,000	36,000
Wyoming.....	Kendrick.....	Seminole.....	1939	32,400	32,400
Wyoming.....	Mo. River Basin.....	Boysen.....	1952	15,000	15,000
Wyoming.....	Mo. River Basin.....	Fremont Canyon.....	1960	48,000	48,000
Wyoming.....	Mo. River Basin.....	Glendo.....	1953	24,000	24,000
Wyoming.....	Mo. River Basin.....	Kortes.....	1950	36,000	36,000

Nuclear Power Reactors in U. S.

Source: U. S. Atomic Energy Commission (June 30, 1968)

State	Site	Cap. (kws)	Utility	Start up
Alabama.....	Browns Ferry.....	1,065,000	Tenn. Valley Authority	1970
	Browns Ferry.....	1,065,000	Tenn. Valley Authority	1971
	Browns Ferry.....	1,064,500	Tenn. Valley Authority	1972
Arkansas.....	Dardanelle Lake.....	850,000	Ark. Power & Light Co.	1972
California.....	Humboldt Bay.....	68,500	Pacific Gas & Elec. Co.	1963
	San Clemente.....	430,000	So. Calif. Edison & San Diego Gas & Elec. Co.	1967
	Corral Canyon.....	462,000	L. A. Dept. of Water & Power	1973
	Diablo Canyon.....	1,080,000	Pacific Gas & Electric Co.	1971
	Sacramento County.....	850,000	Sacramento Municipal Dist.	1973
Colorado.....	Plateauville.....	330,000	Public Service Co. of Colorado	1971
Connecticut.....	Haddam Neck.....	462,000	Conn. Yankee Atomic Power Co.	1967
	Waterford No. 1.....	652,100	Northeast Utilities..	1969
	Waterford No. 2.....	828,000	Northeast Utilities..	1974
Florida.....	Turkey Point No. 3.....	651,500	Florida Power & Light Co.	1970
	Turkey Point No. 4.....	651,000	Florida Power & Light Co.	1971
	Red Level.....	825,000	Florida Power Corp.	1972
	Hutchinson Island.....	800,000	Florida Power & Light Co.	1973
Georgia.....	Baxley.....	786,000	Georgia Power Co.	1973
Illinois.....	Morris No. 1.....	200,000	Commonwealth Edison Co.	1959
	Morris No. 2.....	715,000	Commonwealth Edison Co.	1968
	Morris No. 3.....	715,000	Commonwealth Edison Co.	1969
	Zion No. 1.....	1,050,000	Commonwealth Edison Co.	1972
	Zion No. 2.....	1,050,000	Commonwealth Edison Co.	1973
	Quad Cities No. 1.....	715,000	Comm. Ed. Co.—Ia.-Ill. Gas & Elec. Co.	1970
	Quad Cities No. 2.....	715,000	Comm. Ed. Co.—Ia.-Ill. Gas & Elec. Co.	1971
Indiana.....	Burr Harbor.....	515,000	No. Indiana Public Service Co.	1962
Iowa.....	Cedar Rapids.....	537,600	Iowa Electric & Power Co.	1973
Maine.....	Wiscasset.....	790,000	Maine Yankee Atomic Power Co.	1972
Maryland.....	Lusby.....	800,000	Baltimore Gas & Electric	1973
	Lusby.....	800,000	Baltimore Gas & Electric	1974
Massachusetts.....	Rowe.....	175,000	Yankee Atomic Electric Co.	1960
	Plymouth.....	625,000	Boston Edison Co.	1971
Michigan.....	Big Rock Point.....	70,400	Consumers Power Co.	1962
	South Haven.....	700,000	Consumers Power Co.	1969
	Lagoona Beach.....	60,900	Power Reactor Development Co.	1963
	Bridgman.....	1,060,000	Indiana & Michigan Electric	1962
	Bridgman.....	1,064,000	Indiana & Michigan Electric	1973
	Midland.....	650,000	Consumers Power Co.	1974
	Midland.....	650,000	Consumers Power Co.	1975
Minnesota.....	Elk River.....	22,000	Rural Cooperative Power Assoc.	1962
	Monticello.....	471,700	Northern States Power Co.	1970
	Red Wing No. 1.....	550,000	Northern States Power Co.	1972
	Red Wing No. 2.....	550,000	Northern States Power Co.	1974
Nebraska.....	Fort Calhoun.....	457,400	Omaha Public Power District	1971
	Brownville.....	778,000	Consumers Public Power	1972
New Jersey.....	Toms River.....	515,000	Jersey Central Power & Light Co.	1968
	Toms River.....	800,000	Jersey Central Power & Light Co.	1973
	Artificial Island.....	1,050,000	Public Service	1971
	Artificial Island.....	1,050,000	Public Service	1973
New York.....	Indian Point No. 1.....	285,000	Consolidated Edison Co.	1962
	Indian Point No. 2.....	873,000	Consolidated Edison Co.	1969
	Indian Point No. 3.....	965,300	Consolidated Edison Co.	1971
	Scriba.....	500,000	Niagara Mohawk Power Co.	1968
	Easton.....	765,800	Niagara Mohawk Power Co.	1971
	Rochester.....	420,000	Rochester Gas & Electric Co.	1969
	Shoreham.....	523,000	Long Island Lighting Co.	1973
	Lansing.....	829,000	N. Y. State Electric & Gas Co.	1973
	*	1,115,000	Consolidated Edison	1973
North Carolina.....	*	800,000	Carolina Power & Light	1973
	*	800,000	Carolina Power & Light	1974
	*	800,000	Carolina Power & Light	1974
Pennsylvania.....	Peach Bottom No. 1.....	40,000	Philadelphia Electric Co.	1966
	Peach Bottom No. 2.....	1,065,000	Philadelphia Electric Co.	1971
	Peach Bottom No. 3.....	1,065,000	Philadelphia Electric Co.	1973
	*	1,065,000	Philadelphia Electric Co.	1975
	*	1,065,000	Philadelphia Electric Co.	1977
	Shippingport.....	90,000	Duquesne Light Co.	1957
	Shippingport No. 2.....	783,000	Duquesne Light Co.	1963
	Three Mile Island.....	831,000	Metropolitan Edison Co.	1971
	*	1,100,000	Penna. Power & Light	1975
	*	1,100,000	Penna. Power & Light	1977
Puerto Rico.....	Punta Higueras.....	16,500	Puerto Rico Water Resources Authority	1964
South Carolina.....	Hartsville.....	663,000	Carolina Power & Light Co.	1970
	Lake Keowee No. 1.....	841,100	Duke Power Co.	1971
	Lake Keowee No. 2.....	841,100	Duke Power Co.	1972
	Lake Keowee No. 3.....	841,100	Duke Power Co.	1973
South Dakota.....	Sioux Falls.....	58,500	Northern States Power Co.	1964
Tennessee.....	Squoyah.....	1,125,000	Tenn. Valley Authority	1973
	Squoyah.....	1,125,000	Tenn. Valley Authority	1974
Vermont.....	Vernon.....	513,900	Vermont Yankee Nuclear Corp.	1970
Virginia.....	Hog Island.....	783,000	Virginia Electric & Power Co.	1971
	Hog Island.....	783,000	Virginia Electric & Power Co.	1972
	Louisa County.....	800,000	Virginia Electric & Power Co.	1974
Washington.....	Richland.....	790,000	Washington Public Power Supply System	1966
Wisconsin.....	Genoa.....	50,000	Dairyland Power Cooperative	1966
	Two Creeks No. 1.....	454,600	Wisc. Mich. Power Co.	1970
	Two Creeks No. 2.....	454,600	Wisc. Mich. Power Co.	1971
	Carlton.....	527,000	Wisc. Public Service Co.	1972

Nuclear plant capacity (kilowatts): In operation 2,798,700; being built 22,501,000; planned reactors ordered 34,980,000, reactors not ordered 12,660,000; total 72,939,700

* Site not selected.

Centennial Planned for Grand Canyon Explorer

The United States will honor one of its most remarkable pioneers, explorer-scientist John Wesley Powell, with a national centennial in 1969.

The one-armed veteran of the Civil War survived boat crashes and near-drowning to make the pioneer exploration of the Green and Colorado Rivers through forbidding canyon country from Wyoming to Nevada. He set out from Green River, Wyo., with 9 men and 4 boats in May, 1869.

Major Powell's bold exploration of the Colorado traversed an unknown region of 56,000 square miles. A self-made scientist, he alone comprehended the potential of the arid West, and made far-reaching contributions to knowledge of its resources and also its Indian tribes.

To pay homage due to this man, the U. S. Department of the Interior, the Smithsonian Institution, and National Geographic Society are joint sponsors of the centennial on the 100th an-

niversary of Major Powell's journey down the perilous river through the Grand Canyon.

Conquest of the Colorado in 1869 made the former geology teacher a romantic and respected hero. His journals, scientific works and lectures spread his fame.

Major Powell became the most powerful scientist in the nation's capital. He helped found the Interior Department's Geological Survey and the Smithsonian's Bureau of American Ethnology, serving both as director. He helped establish the Geological Society of America and the National Geographic Society.

Soon after Major Powell's death in 1902, the National Geographic wrote: "Few men in the history of the United States have left behind them such a deep and lasting impression on the scientific work of the Nation." Yet knowledge of his adventures and achievements has faded in the 20th century.

World's Highest Dams

C—Concrete; E—Earth; UC—Under Construction

Name	Height (ft.)	Year	Name	Height (ft.)	Year
Nurek, USSR.....	1017 E	UC	Toktogul, USSR.....	705	UC
Juguri, USSR.....	988 C	UC	Manicouagan No. 5, Canada..	703	C
Grand Dixence, Switzerland..	932 C	1962	Dworshak, U.S.A.....	693	C
Valent, Italy.....	858 C	1961	Luzzone, Switzerland.....	682	C
Mica, Canada.....	800 E	UC	Auburn, U.S.A.....	680	C
Mauvoisin, Switzerland.....	777 C	1958	Keban, Turkey.....	672 E	UC
Sayansk, USSR.....	774 C	UC	Pahlevi, Iran.....	668 C	1963
Oroville, U.S.A.....	770 E	1968	Bullards Bar, U.S.A.....	645 C	UC
Chirkey, USSR.....	764 C	UC	Almendra, Spain.....	623 C	UC
Contra, Switzerland.....	754 C	1965	Kurobe No. 4, Japan.....	610 C	1964
Bhakra, India.....	740 C	1962	Melones, U. S. A.....	608 E	UC
Hoover, U.S.A.....	726 C	1936	Mossyrock, U.S.A.....	605 C	UC
Matinjé, Yugoslavia.....	721 C	UC	Shasta, U.S.A.....	602 C	1945
Glen Canyon, U.S.A.....	710 C	1964	Portage Mountain, Canada..	600 E	UC

World's Largest Dams

Source: Bureau of Reclamation, Dept. of the Interior

Based on total volume of structure. All dams listed are predominantly earthfill or rockfill and may contain concrete sections. UC—Under Construction.

Name	Cubic Yards	Year	Name	Cubic Yards	Year
Tarbella, Pakistan.....	159,000,000	UC	Sadd-El-Aali (High Dam), UAR	56,300,000	UC
Fort Peck, U. S. A.....	125,600,000	1940	Cochiti, U. S. A.....	53,250,000	UC
Mangla, Pakistan.....	108,300,000	1967	Fort Randall, U. S. A.....	50,200,000	1956
Oahe, U. S. A.....	92,000,000	1963	Kanev, USSR.....	49,500,000	UC
South Saskatchewan, Can.....	86,300,000	1966	Kakhovka, USSR.....	46,600,000	1955
Oroville, U. S. A.....	80,300,000	UC	Tsimlyansk, USSR.....	44,300,000	1952
San Luis, U. S. A.....	78,000,000	1967	Volga, V. I. Lenin, USSR.....	44,300,000	1955
Nurek, USSR.....	75,900,000	UC	Beas, India.....	44,200,000	UC
Nagajanasagar, India.....	73,600,000	1966	Castalc, U. S. A.....	42,600,000	UC
Garrison, U. S. A.....	66,500,000	1956	Jarl, Pakistan.....	42,000,000	1967
Kiev, USSR.....	57,000,000	1964	Mica, Canada.....	40,000,000	UC
Gorky, USSR.....	58,000,000	1955	Kremenchug, USSR.....	36,300,000	1961
Portage Mountain, Canada..	56,700,000	UC	Saratov, USSR.....	34,500,000	UC

World's Greatest Man-Made Lakes¹

UC—Under Construction. 1. Formed by dam construction. 2. Represents increase in natural lake.

Name of dam	Capacity-acre-feet	Year	Name of dam	Capacity-acre-feet	Year
Owen Falls, Uganda (2).....	166,000,000	1954	Irkutsk, USSR (2).....	37,300,000	1956
Bratsk, USSR.....	137,200,000	1964	Hoover, U. S. A.....	33,250,000	1936
Kariba, Rhodesia-Zambia.....	130,000,000	1959	Sunda, Congo.....	28,375,000	1961
Sadd-El-Aali (High Dam).....	125,600,000	UC	Volga-22nd Cong, USSR.....	27,200,000	1958
Akosombo, Ghana.....	120,000,000	1965	Glen Canyon, U. S. A.....	27,000,000	1964
Manicouagan No. 5, Canada..	115,000,000	1967	Zeyskaya, USSR.....	26,000,000	UC
Krasnoyarsk, USSR.....	59,400,000	UC	Valerio Trujano, Mexico.....	26,000,000	1964
Portage Mountain, Canada..	57,000,000	UC	Keban, Turkey.....	24,700,000	UC
Sanmen Hsia, China.....	52,700,000	1962	Garrison, U. S. A.....	24,400,000	1956
Ust-Ilim, USSR.....	48,100,000	UC	Froquols, U. S. A.-Canada (2)	24,300,000	1959
Volga-V. I. Lenin, USSR.....	47,000,000	1955	Oahe, U. S. A.....	23,600,000	1963
Bukhtarna, USSR.....	43,000,000	1960	Rybinsk-Sheksna, USSR.....	20,600,000	1941
Tanklangkow, China.....	41,800,000	1962			

Size and Dimensions of the Continents

Source: U. S. Naval Oceanographic Office

	Sq. mi.	Miles			Sq. mi.	Miles	
		N to S	E to W			N to S	E to W
No. America (Inc. Islands)...	9,300,000	5,300	4,000	Africa.....	11,500,000	5,000	4,700
South America.....	6,800,000	4,750	3,100	Australia.....	2,950,000	1,970	2,400
Europe.....	3,750,000	2,400	3,800	Antarctica.....	5,300,000	.....	.....
Asia (Inc. Islands).....	16,900,000	5,300	6,000				

Fertile regions occupy 33,000,000 sq. mi. Steppes 19,000,000 sq. mi. Deserts 5,000,000 sq. mi.

Latitude, Longitude and Altitude of United States Cities

Source: Coast and Geodetic Survey (ESSA) for geographic position.

Altitudes U. S. Geological Survey and various sources. *Approx. altitude at Downtown Business Area.

City	Lat.	Long.	Alt.*	City	Lat.	Long.	Alt.*
	° "	° "	Feet		° "	° "	Feet
Akron, Ohio.....	41 05 00	81 30 44	874	Jersey City, N. J.....	40 43 50	74 03 56	20
Albany, N. Y.....	42 39 01	73 45 01	20	Johnstown, Pa.....	40 19 35	78 55 03	1,185
Albuquerque, N. M.....	35 05 01	106 39 05	4,945	Kalamazoo, Mich.....	42 17 29	85 35 14	755
Allentown, Pa.....	40 36 11	75 28 06	255	Kansas City, Kan.....	39 07 04	94 38 24	750
Altoona, Pa.....	40 30 55	78 24 03	1,180	Kansas City, Mo.....	39 04 56	94 35 20	750
Amarillo, Tex.....	35 12 27	101 50 04	3,685	Kenosha, Wis.....	42 35 43	87 50 11	610
Anchorage, Alaska.....	61 10 00	149 59 00	118	Key West, Fla.....	24 33 30	81 48 12	5
Ann Arbor, Mich.....	42 16 59	83 44 52	880	Knoxville, Tenn.....	35 57 39	83 55 07	890
Asheville, N. C.....	35 35 42	82 33 26	1,985	Lafayette, Ind.....	40 25 11	86 53 39	550
Ashtabula, Ky.....	38 28 36	82 38 25	536	Lancaster, Pa.....	40 02 25	76 18 29	355
Atlanta, Ga.....	33 45 10	84 37 37	1,050	Lansing, Mich.....	42 44 01	84 33 13	830
Atlantic City, N. J.....	39 21 32	74 25 53	10	Laredo, Tex.....	27 30 22	99 30 30	440
Augusta, Ga.....	33 28 20	81 58 00	143	Las Vegas, Nev.....	36 10 20	115 08 37	2,030
Augusta, Me.....	44 18 53	69 46 29	45	Lawrence, Mass.....	42 42 16	71 10 08	65
Austin, Tex.....	30 16 09	97 44 37	505	Lexington, Ky.....	38 02 50	84 29 46	955
Baltimore, Md.....	39 17 26	76 36 45	20	Lima, Ohio.....	40 44 35	84 06 20	865
Bangor, Me.....	44 48 13	68 46 18	20	Lincoln, Nebr.....	40 48 59	96 42 15	1,150
Baton Rouge, La.....	30 26 58	91 11 00	57	Little Rock, Ark.....	34 44 42	92 16 37	300
Battle Creek, Mich.....	42 38 58	85 10 48	595	Long Beach, Calif.....	33 46 14	118 11 18	35
Bay City, Mich.....	43 33 14	82 53 13	820	Lorain, Ohio.....	41 28 06	83 10 40	610
Beaumont, Tex.....	30 05 20	94 06 09	20	Los Angeles, Calif.....	34 03 15	118 14 28	340
Bellingham, Wash.....	48 54 02	122 28 36	60	Louisville, Ky.....	38 14 47	85 45 49	450
Berkeley, Calif.....	37 52 10	122 16 17	40	Lowell, Mass.....	42 38 25	71 19 14	100
Bethlehem, Pa.....	40 37 16	75 22 34	235	Lubbock, Tex.....	33 35 05	101 50 33	3,195
Billings, Mont.....	45 47 00	108 30 04	3,120	Macon, Ga.....	32 50 12	83 37 36	335
Binghamton, N. Y.....	42 06 03	75 54 47	865	Madison, Wis.....	43 04 23	89 22 55	860
Birmingham, Ala.....	33 31 01	86 48 36	600	Manchester, N. H.....	42 59 28	71 27 41	175
Bismarck, N. D.....	46 48 23	100 47 17	1,674	Memphis, Tenn.....	35 08 46	90 03 10	275
Boise, Idaho.....	43 37 37	116 58 58	2,705	Miami, Fla.....	25 46 37	80 34 15	10
Boston, Mass.....	42 21 24	71 03 25	21	Milwaukee, Wis.....	43 02 49	87 54 55	635
Bridgport, Conn.....	41 10 49	73 11 22	10	Minneapolis, Minn.....	44 58 57	93 15 43	815
Brockton, Mass.....	42 05 02	71 01 25	130	Mobile, Ala.....	30 41 36	88 02 33	5
Brownsville, Tex.....	25 54 07	97 29 58	35	Moline, Ill.....	41 30 31	90 30 49	585
Buffalo, N. Y.....	42 52 52	78 52 21	585	Montgomery, Ala.....	32 22 33	86 18 31	160
Burlington, Vt.....	44 28 34	73 12 46	110	Montpelier, Vt.....	44 15 36	72 34 41	485
Butte, Mont.....	46 01 06	112 32 11	5,765	Muncie, Ind.....	40 11 28	85 23 16	950
Cambridge, Mass.....	42 22 01	71 06 22	20	Nashville, Tenn.....	36 09 33	86 46 55	450
Camden, N. J.....	39 56 41	75 37 34	30	Newark, N. J.....	40 44 14	74 10 19	55
Cincinnati, Ohio.....	39 06 07	84 30 35	550	New Bedford, Mass.....	41 38 47	70 55 41	1,195
Cedar Rapids, Iowa.....	41 58 01	91 39 53	730	New Britain, Conn.....	41 40 08	72 49 59	200
Champaign, Ill.....	40 07 05	88 14 48	740	New Haven, Conn.....	41 18 25	72 55 30	40
Charleston, S. C.....	32 46 35	79 55 53	9	New Orleans, La.....	29 56 53	90 04 10	5
Charleston, W. Va.....	38 21 01	81 37 52	601	New York, N. Y.....	40 45 06	73 59 39	55
Charlotte, N. C.....	35 13 14	80 50 45	720	Niagara Falls, N. Y.....	43 05 34	79 03 26	570
Chattanooga, Tenn.....	35 02 41	85 18 32	675	Norfolk, Va.....	36 51 10	76 17 21	10
Cheney, Wyo.....	41 08 09	104 49 07	6,100	Oakland, Calif.....	37 48 03	122 15 54	25
Chicago, Ill.....	41 52 28	87 38 22	595	Ogden, Utah.....	41 13 31	111 58 21	4,295
Cincinnati, Ohio.....	39 06 07	84 30 35	550	Oklahoma City.....	35 28 26	97 31 04	1,195
Cleveland, Ohio.....	41 29 51	81 41 50	660	Omaha, Neb.....	41 15 42	96 46 14	1,040
Colorado Springs.....	38 50 07	104 49 16	5,980	Orlando, Fla.....	28 32 42	81 22 38	30
Columbia, Mo.....	38 57 03	92 19 46	730	Paducah, Ky.....	37 05 13	88 35 56	345
Columbia, S. C.....	34 00 02	81 02 00	190	Pasadena, Calif.....	34 08 44	118 08 41	830
Columbus, Ga.....	32 28 07	84 59 24	265	Paterson, N. J.....	40 55 01	74 10 21	100
Columbus, Ohio.....	39 57 47	83 00 17	780	Pensacola, Fla.....	30 24 51	87 12 56	15
Concord, N. H.....	43 12 22	71 32 25	290	Peoria, Ill.....	40 41 42	89 35 33	470
Corpus Christi, Tex.....	27 47 51	97 23 45	35	Philadelphia, Pa.....	39 56 58	75 09 21	100
Dallas, Tex.....	32 47 09	96 47 37	435	Phoenix, Ariz.....	33 37 12	112 04 28	1,090
Davenport, Iowa.....	41 31 19	90 34 33	590	Pittsburgh, Pa.....	40 26 13	80 00 00	745
Dayton, Ohio.....	39 45 32	84 11 13	574	Pittsfield, Mass.....	42 26 53	73 15 41	1,055
Daytona Beach, Fla.....	29 12 44	81 01 10	7	Port Arthur, Texas.....	29 52 30	93 56 15	10
Decatur, Ill.....	39 50 42	88 56 47	682	Portland, Me.....	43 39 33	70 15 19	25
Denver, Colo.....	39 44 58	104 59 22	5,280	Portland, Ore.....	45 31 06	122 40 35	77
Des Moines, Iowa.....	41 35 14	93 37 00	805	Portsmouth, Va.....	36 50 07	76 18 14	10
Detroit, Mich.....	42 19 48	83 02 57	585	Providence, R. I.....	41 49 32	71 24 41	80
Dodge City, Kans.....	37 45 17	100 01 09	2,480	Pueblo, Colo.....	38 16 17	104 36 33	4,690
Duluth, Minn.....	46 46 56	92 06 25	610	Racine, Wis.....	42 43 49	87 47 12	630
Durham, N. C.....	36 00 00	78 54 45	405	Raleigh, N. C.....	35 46 38	78 38 21	365
El Paso, Tex.....	31 45 36	106 29 11	3,695	Reading, Pa.....	40 20 09	75 55 40	260
Elizabeth, N. J.....	40 39 43	74 12 59	21	Reno, Nev.....	39 31 27	119 08 00	4,800
Erie, Pa.....	42 07 15	80 04 57	685	Richmond, Va.....	37 32 15	77 26 09	160
Eugene, Ore.....	44 03 16	123 05 30	422	Roanoke, Va.....	37 16 13	79 56 44	905
Evansville, Ind.....	37 58 20	87 34 21	385	Rochester, Minn.....	44 01 21	92 28 03	990
Fairbanks, Alaska.....	64 48 00	147 51 00	448	Rochester, N. Y.....	43 09 41	77 36 21	515
Fall River, Mass.....	41 42 06	71 09 18	40	Rockford, Ill.....	42 17 07	89 05 48	715
Fargo, N. D.....	46 52 30	96 47 18	900	Sacramento, Calif.....	38 34 57	121 29 41	30
Flint, Mich.....	43 00 50	83 41 33	715	Saginaw, Mich.....	43 25 52	83 56 05	595
Fort Wayne, Ind.....	41 04 21	85 08 26	760	St. Joseph, Mo.....	39 45 57	94 51 02	855
Fort Worth, Tex.....	32 44 55	97 10 33	670	St. Louis, Mo.....	38 37 44	90 12 42	450
Fresno, Calif.....	36 44 12	119 47 11	255	St. Paul, Minn.....	44 57 19	93 06 07	780
Gadsden, Ala.....	34 00 57	86 00 41	555	St. Petersburg, Fla.....	27 46 18	82 38 19	20
Galveston, Tex.....	29 18 10	94 47 43	5	Salt Lake City.....	40 45 23	111 53 26	4,390
Gary, Ind.....	41 36 12	87 20 19	590	San Angelo, Tex.....	31 27 39	100 26 03	1,845
Grand Rapids.....	42 58 03	85 40 13	610	San Antonio, Tex.....	29 25 37	98 29 06	650
Green Bay, Wis.....	44 30 48	88 00 50	590	San Bernardino.....	34 06 30	117 17 28	1,080
Greensboro, N. C.....	36 04 17	79 47 25	839	San Diego, Calif.....	32 42 53	117 09 21	20
Greenville, S. C.....	34 50 50	82 24 01	966	San Francisco.....	37 46 39	122 24 40	65
Gulfport, Miss.....	30 22 04	89 05 36	60	San Jose, Calif.....	37 20 16	121 53 24	90
Hamilton, Ohio.....	39 23 59	84 33 47	600	Santa Barbara.....	34 25 18	119 41 55	100
Harrisburg, Pa.....	40 15 43	76 52 59	365	Santa Fe, N. M.....	35 41 11	105 56 06	6,950
Hartford, Conn.....	41 46 12	72 40 49	40	Savannah, Ga.....	32 04 42	81 05 37	20
Helena, Mont.....	46 35 33	112 02 24	4,155	Schenectady, N. Y.....	42 48 42	73 55 42	245
Holyoke, Mass.....	42 12 29	72 36 36	115	Scranston, Pa.....	41 24 32	75 39 46	725
Honolulu.....	21 18 22	157 51 35	21	Seattle, Wash.....	47 36 32	122 20 12	10
Houston, Tex.....	29 45 26	95 21 37	40	Shreveport, La.....	32 30 46	93 44 58	204
Huntington, W. Va.....	38 25 12	82 26 33	665	Sioux City, Iowa.....	42 29 46	96 24 30	1,110
Indianapolis, Ind.....	39 46 07	86 09 46	710	Sioux Falls, S. D.....	43 32 35	96 43 35	1,395
Iowa City, Iowa.....	41 39 37	91 31 53	685	Somerville, Mass.....	42 23 15	71 06 07	13
Jackson, Mich.....	42 14 43	84 24 22	940	South Bend, Ind.....	41 40 42	83 33 33	100
Jackson, Miss.....	32 17 56	90 11 06	298	Spartanburg, S. C.....	34 57 03	81 56 06	875
Jacksonville, Fla.....	30 19 44	81 39 42	20	Spokane, Wash.....	47 39 32	117 25 33	1,890

City	Lat.	Long.	Alt.*	City	Lat.	Long.	Alt.*
Springfield, Ill.	39 47 58	89 38 51	610	Tulsa, Okla.	36 09 12	95 59 34	804
Springfield, Mass.	42 06 21	72 35 52	85	Utica, N. Y.	43 06 12	75 13 33	415
Springfield, Mo.	37 13 03	93 17 32	1,300	Waco, Tex.	31 33 12	97 08 00	405
Springfield, Ohio	39 55 38	83 48 29	980	Walla Walla, Wash.	46 04 03	118 20 24	936
Stamford, Conn.	41 03 09	73 32 24	35	Washington, D. C.	38 53 51	77 00 33	25
Steubenville, Ohio	40 21 42	80 36 53	660	Waterbury, Conn.	41 33 13	73 02 21	260
Stockton, Calif.	37 57 30	121 17 16	20	Waterloo, Iowa	42 29 40	92 20 20	850
Superior, Wis.	46 43 14	92 06 07	630	Wheeling, W. Va.	40 04 03	80 43 20	650
Syracuse, N. Y.	43 03 04	76 09 14	400	Wichita, Kan.	37 41 30	97 20 16	1,290
Tacoma, Wash.	47 14 59	122 26 15	110	Wichita Falls, Tex.	33 54 34	98 29 23	945
Tampa, Fla.	27 56 58	82 27 25	15	Wilkes-Barre, Pa.	41 14 32	75 53 17	640
Terre Haute, Ind.	39 28 03	87 24 26	406	Wilmington, Del.	39 14 46	75 32 51	135
Toledo, Ohio	41 39 14	83 32 39	585	Winston-Salem, N. C.	36 05 52	80 11 42	860
Topeka, Kan.	39 03 16	95 40 23	930	Worcester, Mass.	42 15 37	71 48 17	475
Trenton, N. J.	40 13 14	74 16 13	35	Yonkers, N. Y.	40 55 55	73 53 54	10
Troy, N. Y.	42 43 45	73 40 58	35	York, Pa.	39 57 35	76 43 36	370
Tucson, Ariz.	32 13 15	110 58 08	2,390	Youngstown, Ohio	41 05 57	80 39 02	840

Highest and Lowest Altitudes in the United States

Source: U. S. Geological Survey. (Minus sign means below sea level; elevations are in feet.)

State	Highest Point			Lowest Point		
	Name	County	Elev.	Name	County	Elev.
Alabama	Cheaha Mountain	Cleburne	2,407	Gulf of Mexico		Sea level
Alaska	McKinley (South)		20,320	Pacific Ocean		Sea level
Arizona	Humphreys Peak	Cocino	12,633	Colorado R.	Yuma	70
Arkansas	Magazine Mountain	Logan	2,753	Ouachita R.	Ashley Union	55
California*	Mount Whitney	Inyo-Tulare	14,994	Death Valley	Inyo	-282
Canal Zone	Cerro Gaitera	Balboa District	1,205	Atlantic Ocean		Sea level
Colorado	Mount Elbert	Lake	14,333	Arkansas R.		3,350
Connecticut	Mount Frissell	Litchfield	2,380	L. Sound		Sea level
Delaware	On Ebright Road	New Castle	442	Atlantic Ocean		Sea level
Dist. of Col.	Tenleytown	N. W. part	410	Potomac R.		Sea level
Florida	West boundary	Walton	345	Atlantic Ocean		Sea level
Georgia	Brasstown Bald	Towns-Union	4,784	Atlantic Ocean		Sea level
Guam	Mount Lamlam	Agat District	1,329	Pacific Ocean		Sea level
Hawaii	Mauna Kea	Kauai	13,796	Pacific Ocean		Sea level
Idaho	Borah Peak	Custer	12,662	Snake R.	Nez Perce	710
Illinois	Charles Mound	Jo Davies	1,235	Mississippi R.	Alexander	279
Indiana	Franklin Township	Wayne	1,257	Ohio R.	Fowey	320
Iowa	Ocheyedan Mound	Osceola	1,675	Mississippi R.	Lee	480
Kansas	Mount Sunflower	Wallace	4,039	Verdigris R.	Montgomery	680
Kentucky	Black Mountain	Harlan	4,145	Mississippi R.	Fulton	257
Louisiana	Briskill Mountain	Blenville	555	New Orleans	Orleans	-5
Maine	Mount Katahdin	Piscataquis	5,285	Atlantic Ocean		Sea level
Maryland	Backbone Mountain	Garret	3,360	Atlantic Ocean		Sea level
Massachusetts	Mount Greylock	Berkshire	3,491	Atlantic Ocean		Sea level
Michigan	Mount Curwood	Baraga	1,980	Lake Erie		Sea level
Minnesota	Eagle Mountain	Cook	2,301	Lake Superior		572
Mississippi	Woodall Mountain	Tishomingo	806	Gulf of Mexico		Sea level
Missouri	Taum Sauk Mt.	Iron	1,772	St. Francis R.	Dunklin	230
Montana	Granite Peak	Park	12,799	Kootenai R.	Lincoln	1,800
Nebraska	Johnson Township	Kimball	5,426	S.E. cor. State	Richardson	840
Nevada	Boundary Peak	Esmeralda	13,140	Colorado R.	Clark	470
New Hampshire	High Point	Cocoes	6,288	Atlantic Ocean		Sea level
New Jersey	Wheeler Peak	Essex	1,803	Atlantic Ocean		Sea level
New Mexico	Mount Marcy	Essex	13,161	Red Bluff Res.	Eddy	2,817
New York	Mount Mitchell	Yancey	5,334	Atlantic Ocean		Sea level
North Carolina	White Butte	Slope	3,506	Red River	Pembina	Sea level
North Dakota	Campbell Hill	Logan	1,550	Ohio R.	Hamilton	750
Ohio	Black Mesa	Cimarron	4,973	Little River	McCurtain	287
Oklahoma	Mount Hood	Clackamas-H.R.	11,235	Pacific Ocean		Sea level
Oregon	Cerro de Punta	Somerset	3,213	Delaware R.	Delaware	Sea level
Pennsylvania	Jerimoth Hill	Providence	4,899	Atlantic Ocean		Sea level
Puerto Rico	Lata	Tau Island	812	Atlantic Ocean		Sea level
Rhode Island	Sassafras Mountain	Pickens	3,560	Atlantic Ocean		Sea level
Samoa	Harney Peak	Pennington	7,242	Big Stone Lake	Roberts	Sea level
South Carolina	Clingmans Dome	Sevier	6,643	Mississippi R.	Shelby	962
South Dakota	Guadalupe Peak	Culberson	8,751	Gulf of Mexico		Sea level
Tennessee	Kings Peak	Duchene	13,528	Beaverdam Cr.	Washington	2,000
Texas	Mount Rogers	Lamoille	4,393	Lake Champlin	Franklin	95
Utah	Crown Mt.	Grayson-Smyth	5,729	Atlantic Ocean		Sea level
Vermont	Mount Rainier	Pierce	1,556	Atlantic Ocean		Sea level
Virginia	Spruce Knob	Pendleton	14,410	Pacific Ocean		Sea level
Virgin Islands	Timms Hill	Price	1,952	Lake Michigan	Jefferson	240
Washington	Gannett Peak	Fremont	13,785	B. Kourie R.	Crook	581
West Virginia						3,100
Wisconsin						
Wyoming						

*Highest and lowest points in the conterminous U. S. (48 states) are only 85 miles apart.

Niagara Power Project

With an installed capacity of 2,190,000 kw., the Niagara Power Project of the Power Authority of the State of New York is the largest in the Western World. That huge capacity is reached with the Robert Moses Niagara Power Plant, whose 13 generators have a total capacity of 1,950,000 kw., and the 12 generating units of the Lewiston Pump Generating Plant, total capacity 240,000 kw. First power was delivered as scheduled on Feb. 10, 1961, and the final generating unit was placed on the line Nov. 11, 1962. The project was certified as completed Nov. 30, 1963.

Water for the operation is obtained from the Niagara River, 2½ miles above Niagara Falls. Two huge conduits conveying water under the city of Niagara Falls to the plants 4 miles below the

Falls. Under the 1950 treaty with Canada more water may be drawn at night and during winter than during daylight hours of the summer tourist season. Power is sold to municipalities, rural electric cooperatives, industries and private utilities.

Niagara Power Project was financed by \$37,000,000 worth of bonds sold to private investors and no government credit or tax money is used. The bonds are paid from revenue derived from the sale of power.

The Power Authority also financed, built and is operating the United States half of the St. Lawrence Power Project, at Massena, N. Y., which has a total (United States and Canada) installed capacity of 1,824,008 kw.

NATIONAL DEFENSE

Data as of Aug. 1, 1968

Chairman, Joint Chiefs of Staff General Earle G. Wheeler (Army)

ARMY

Chief of Staff—General William C. Westmoreland
Generals of the Army
Bradley, Omar N. Sept. 20, 1950
Eisenhower, Dwight D. Dec. 20, 1944

Generals

Abrams, Creighton W., Jr. Sept. 4, 1964
Beach, Dwight E. July 1, 1965
Besson, Frank S., Jr. May 27, 1964
Bonesteel, Charles H., 3rd Sept. 1, 1966
Conway, Theodore J. Nov. 1, 1966
Goodpaster, Andrew J. July 3, 1968
Haines, Ralph E., Jr. June 1, 1967
Lemnitzer, Lyman L. Mar. 25, 1955
Parker, Theodore W. July 1, 1963
Polk, James H. May 31, 1967
Porter, Robert W., Jr. Mar. 18, 1965
Wood, Robert J. Sept. 1, 1962
Woolnough, James K. July 1, 1967

Lieutenant Generals

Alger, James D. Aug. 1, 1967
Betts, Austin W. Apr. 1, 1966
Bowen, John W. Sept. 14, 1963
Boyle, Andrew J. May 27, 1967
Bunke, William S. May 9, 1966
Carter, Marshall S. Apr. 1, 1962
Cassidy, William F. June 30, 1965
Chesarek, Ferdinand J. Aug. 1, 1966
Collins, Arthur S. Jan. 6, 1967
Connor, Albert O. June 28, 1967
Critz, Harry H. June 1, 1967
Davis, John J. Oct. 19, 1966
Doleman, Edgar C. Mar. 18, 1965
Engler, Jean E. May 27, 1967
Hughm, M. July 29, 1967
Harrell, Ben Feb. 28, 1963
Heaton, Leonard D. Sept. 9, 1959
Hershey, Lewis B. June 23, 1956
Hointges, John A. Aug. 1, 1965
Hutchins, Claire E., Jr. June 30, 1967
Kelly, John E. July 3, 1968
Kinnard, Harry W. D. June 29, 1967
Lambert, James B. Jan. 7, 1966
Larsen, Stanley R. July 15, 1966
Sackton, Harry J., Jr. Sept. 1, 1966
Lincoln, Lawrence J. July 30, 1964
Mather, George R. Aug. 18, 1965
Michaels, John H. May 7, 1962
Mildren, Frank T. July 1, 1965
Mock, Vernon P. June 1, 1965
Palmer, Bruce, Jr. July 29, 1964
Peers, William R. June 26, 1968
Rich, Charles W. G. Aug. 1, 1964
Rosson, William B. July 28, 1967
Sackton, Frank J. Aug. 1, 1966
Seaman, Jonathan O. July 14, 1966
Spivy, Berton E. Jr. Apr. 1, 1965
Starbird, Alfred D. Oct. 30, 1962
Throckmorton, John L. July 31, 1964
Underwood, George V., Jr. July 1, 1968
Unger, Ferdinand T. Nov. 1, 1966
Weyand, Frederick July 1, 1967
York, Robert H. July 30, 1967

Chief of Staff—General John P. McConnell

Generals

Brown, George S. Aug. 1, 1968
Burchinal, David A. July 31, 1966
Disosway, Gabriel P. Aug. 1, 1963
Estes, Howell M., Jr. July 19, 1964
Ferguson, James July 30, 1966
Holloway, Bruce K. Aug. 1, 1965
Momyer, William W. Dec. 13, 1967
Nazzaro, Joseph J. Feb. 1, 1967
Reeves, Raymond J. July 29, 1966
Ryan, John D. Dec. 1, 1964
Stone, William S. July 28, 1966
Wade, Horace M. July 31, 1968

Lieutenant Generals

Agan, Arthur C. June 29, 1966
Breitwieser, Robert A. June 29, 1967
Carroll, Joseph F. Feb. 1, 1960
Catton, Jack J. June 26, 1967
Clark, Albert P. June 21, 1965
Clay, Lucius D., Jr. June 30, 1968
Compton, Keith K. June 30, 1964
Davis, Benjamin O., Jr. Apr. 30, 1965
Dean, Fred M. Dec. 29, 1963
Donovan, Stanley J. June 10, 1967
Edmundson, James V. Feb. 17, 1965
Friedman, Robert J. Feb. 18, 1965

Gideon, Francis C. May 23, 1968
Gillem, Alvan C. 2nd May 25, 1968
Graham, Gordon M. July 2, 1968
Hardy, John S. Nov. 1, 1966
Harrison, Bertram C. July 1, 1968
Hedlund, Earl C. June 28, 1967
Holzapfel, Joseph R. May 27, 1964
Kieffer, William B. Mar. 1, 1967
Klocko, Richard P. Dec. 13, 1967
Lavelle, John D. May 29, 1968
Maddux, Sam, Jr. June 23, 1965
Martin, Glen W. Sept. 1, 1965
McGehee, Thomas K. May 28, 1968
McKee, Seth J. July 12, 1966
McNickle, Marvin L. June 28, 1966
McPherson, John B. May 26, 1968
Meyer, John C. June 12, 1967
Milton, Theodore R. Feb. 17, 1967
Moore, Joseph H. June 25, 1965
Moorman, Thomas S. Dec. 12, 1961
Mundell, Lewis L. June 22, 1965
O'Neill, John W. June 27, 1967
Phillips, Samuel C. May 27, 1968
Pletcher, Kenneth E. Dec. 1, 1967
Ruegg, Robt. G. June 11, 1967
Russell, Austin J. June 30, 1966
Smith, Robert N. May 24, 1968
Terhune, Charles H., Jr. May 1, 1967
Warren, Robert H. July 3, 1968
Wilson, James W. July 1, 1966

NAVY

Chief of Naval Operations

Admiral Thomas H. Moorer

Admirals

Clarey, Bernard A. Jan. 17, 1968
Galantin, Ignatius J. May 19, 1967
Holmes, Ephraim P. June 17, 1967
Hyland, John J. (Aviation) Dec. 1, 1967
McCain, John S., Jr. May 1, 1967
Rivero, Horacio, Jr. July 31, 1964
Wendt, Waldemar F. A. July 31, 1968

Vice Admirals

Ashworth, Frederick L. (Aviation) May 11, 1966
Baumberger, Walter H. (Aviation) Mar. 17, 1967
Bennett, Fred. G. Jan. 17, 1968
Blouin, Francis J. July 27, 1966
Booth, Charles T. (Aviation) Apr. 1, 1965
Bowen, Harold G., Jr. July 7, 1967
Bringle, William F. (Aviation) Nov. 6, 1967
Caldwell, Turner F., Jr. (Aviation) Nov. 1, 1967
Chew, John L. Nov. 25, 1965
Colwell, John B. Jan. 18, 1964
Connolly, Thomas F. (Aviation) Jan. 1, 1965
Duncan, Charles K. June 1, 1965
Ellis, William E. (Aviation) June 2, 1964
Ensey, Lot. Sept. 1, 1964
Gayler, Noel A. M. (Aviation) Sept. 28, 1967
Hayward, John T. (Aviation) Apr. 25, 1959
Heinz, Luther C. Sept. 1, 1965
Jackson, Andrew McB. (Aviation) July 20, 1964
Johnson, Neils C. May 8, 1967
Lee, John M. Feb. 17, 1967
Lowrance, Vernon L. Aug. 31, 1964
Martin, William I. (Aviation) June 10, 1967
Masterson, Kleber S. Apr. 17, 1964
Masterton, Paul (Aviation) Nov. 1, 1967
Mustin, Lloyd M. Aug. 21, 1964
Needham, Ray C. (Aviation) Aug. 1, 1963
Ramage, Lawson P. July 15, 1963
Roeder, Bernard F. Mar. 25, 1965
Schade, Arnold F. Nov. 19, 1966
Semmes, Benedict J., Jr. Apr. 1, 1964
Shiffey, Ralph L. (Aviation) Sept. 1, 1967
Sinn, Allen M. (Aviation) Nov. 1, 1966
Smith, John V. June 7, 1968
Stearns, Bernard M. (Aviation) July 31, 1968
Taylor, Rufus L. June 1, 1966
Tyree, John A., Jr. July 26, 1968

MARINE

Corps Commandant, with rank of General

Chapman, Leonard F., Jr. Jan. 1, 1968

Lieutenant Generals

Buse, Henry W., Jr. Dec. 26, 1964
Cushman, Robt. W., Jr. June 1, 1967
Fields, Lewis J. July 1, 1968
Nickerson, Herman, Jr. Mar. 19, 1968
Van Ryzin, William J. June 1, 1968
Walt, Lewis W. Mar. 7, 1966
Weede, Richard G. July 1, 1967

COAST GUARD

Commandant, with rank of Admiral

Smith, Willard J. July 1, 1966
Asst. Commandant, with rank of Vice Admiral
Trimble, Paul E. July 27, 1966

How the Military Hand Salute Originated

Hand-raising as a formal greeting probably originated with the cavemen, who wanted to prove to one another that they carried no weapons, according to the National Geographic Society. Later an armored knight raised his right arm to lift his helmet visor and to show friendship by keeping his sword hand away from the weapon. Before the 19th Century, British soldiers saluted by tipping their hats. In the modern U. S. military salute the right hand is raised smartly so the forefinger touches the forehead just above and to the right of the right eye, thumb and fingers extended, forearm and wrist at a 45-degree angle. This salute, with variations, is common among military forces around the world.

Hall of Heroes for Medal of Honor Winners

The names of all recipients of the Medal of Honor, the nation's highest military award for heroism, are now enshrined in a Hall of Heroes in the Pentagon in Washington, D. C. The Hall of Heroes is located in the "A" ring of the Pentagon at the end of the corridor from the Mall entrance. Its walls are lined with plaques bearing the names of the more than 3,200 recipients of the Medal of Honor. When the Hall was dedicated on May 14, 1968, the totals by Service were: Army 2,215, Navy 731, Marine Corps 245, Air Force 46, and Coast Guard 1.

Medal of Honor Winners in Vietnam War

(Chronologically through presentation of Oct. 17, 1968)

- Capt. Roger H. C. Donlon**, U. S. Army, of Saugerties, N. Y.
- *Sgt. Larry F. Pierce**, U. S. Army, of Wasco, Calif.
- *Pfc. Milton F. Olive 3rd**, U. S. Army, of Chicago, Ill.
- Lt. Charles Q. Williams**, U. S. Army, of Vance, S. C.
- *Seabee Marvin Glen Shields**, U. S. Navy, of Port Townsend, Wash.
- Sgt. Robert E. O'Malley**, U. S. Marine Corps, of Woodside, Queens (New York City).
- First Lt. Walter J. Marm, Jr.**, U. S. Army, of Washington, Pa.
- Maj. Bernard F. Fisher**, U. S. Air Force, of Kuna, Idaho.
- *Second Lt. Robert J. Hibbs**, U. S. Army, of Cedar Falls, Iowa.
- *First Lt. Frank S. Reasoner**, U. S. Marine Corps, of Kellogg, Idaho.
- *Lance Corp. Joe C. Paul**, U. S. Marine Corps, of Vandalia, Ohio.
- Capt. Harvey C. Barnum, Jr.**, U. S. Marine Corps, of Cheshire, Conn.
- Specialist 6 Lawrence Joel**, U. S. Army, of Winston-Salem, N. C.
- *Specialist 4 Daniel Fernandez**, U. S. Army, of Los Lunas, N. M.
- *Staff Sgt. Peter S. Connor**, U. S. Marine Corps, a native of Orange, N. J.
- *Sgt. James W. Robinson, Jr.**, U. S. Army, of Annandale, Va.
- Gunnery Sgt. Jimmie E. Howard**, U. S. Marine Corps, of San Diego, Calif.
- *Staff Sgt. Jimmy G. Stewart**, U. S. Army, of Columbus, Ga.
- Sgt. David C. Dolby**, U. S. Army, of Oaks, Pa.
- *First Lt. James A. Gardner**, U. S. Army, of Dyersburg, Tenn.
- Maj. Howard V. Lee**, U. S. Marine Corps, of New York City.
- Staff Sgt. Charles B. Morris**, U. S. Army, of Galax, Va.
- *Capt. Joseph X. Grant**, U. S. Army, of Cambridge, Mass.
- *Capt. Hilliard A. Wilbanks**, U. S. Air Force, of Glen Allan, Miss.
- *Seaman David G. Ouellet**, U. S. Navy, of Wellesley, Mass.
- Maj. Merlyn H. Dethlefsen**, U. S. Air Force, of Derby, Kan.
- *Sgt. Donald R. Long**, U. S. Army, a native of Blackfork, Ohio.
- *Pfc. Lewis Albanese**, U. S. Army, of Seattle, Wash.
- Maj. Robert J. Modrzejewski**, U. S. Marine Corps, of Annapolis, Md.
- 2nd Lt. John J. McGinty, 3rd**, U. S. Marine Corps of Laurel Bay, S. C.
- *Pfc. Douglas E. Dickey**, U. S. Marine Corps, a native of Greenville, Ohio.
- Sgt. John F. Baker, Jr.**, U. S. Army, a native of Davenport, Iowa.
- Capt. Robert F. Foley**, U. S. Army, a native of Newton, Mass.
- Capt. Gerald O. Young**, U. S. Air Force, of Anacortes, Wash.
- Boatswain's Mate 1st Cl. James E. Williams**, U. S. Navy, of Darlington, S. C.
- Sgt. Richard A. Pittman**, U. S. Marine Corps, of Stockton, Calif.
- Specialist 5 Charles C. Hagemeister**, U. S. Army, of Lincoln, Neb.
- *Specialist 4 Donald W. Evans, Jr.**, U. S. Army, a native of Covina, Calif.
- *1st Lt. George K. Sisler**, U. S. Army, of Dexter, Mo.
- *Capt. Euripides Rubio, Jr.**, U. S. Army, of Ponce, Puerto Rico.
- *Pfc. Billy L. Lauffer**, U. S. Army, of Tucson, Ariz.
- *Pfc. James Anderson, Jr.**, U. S. Marine Corps, of Compton, Calif.
- *2nd Lt. John P. Bobo**, U. S. Marine Corps, of Niagara Falls, N. Y.
- *Sgt. Walter K. Singleton**, U. S. Marine Corps, of Memphis, Tenn.
- *Pfc. Louis E. Willett**, U. S. Army, a native of Brooklyn, N. Y.
- Staff Sgt. Delbert O. Jennings**, U. S. Army, of Stockton, Calif.
- Sgt. Leonard B. Keller**, U. S. Army, of Rockford, Ill.
- Specialist 4 Raymond R. Wright**, U. S. Army, of Mineville, N. Y.
- 1st Sgt. David H. Mc Nerney**, U. S. Army, of Fort Dix, N. J.
- Staff Sgt. Kenneth E. Stumpf**, U. S. Army, of Menasha, Wis.
- *Lance Corp. Roy M. Wheat**, U. S. Marine Corps, of Moselle, Miss.
- *Sgt. Elmelindo Rodrigues Smith**, U. S. Army, a native of Hawaii.
- *Pfc. James H. Monroe**, U. S. Army, of Wheaton, Ill.

*Awarded posthumously.

Medal of Honor Awarded to Skipper of U.S.S. Liberty

The Medal of Honor was presented June 11, 1968, to Capt. William L. McGonagle of the U. S. Navy, skipper of the U.S.S. Liberty, which was nearly destroyed by Israeli warplanes and torpedo boats in the Mediterranean Sea in 1967, with the loss of 34 American lives. Secy. of the Navy Paul R. Ignatius said McGonagle "was responsible for saving the lives of many of his crew and for saving the ship."

The Medal of Honor: Other Top U. S. Military Awards

The Medal of Honor is the highest military award for bravery that can be given to any individual in the United States of America. It is presented to its recipients, usually by the President, "in the name of the Congress of the United States," and for this reason it is often called the Congressional Medal of Honor.

The law, as amended in 1963, provides that the President may award the Medal of Honor to any person who, while a member of the armed forces, "distinguished himself conspicuously by gallantry and intrepidity at the risk of his life above and beyond the call of duty—(1) while engaged in an action against an enemy of the United States; (2) while engaged in military operations involving conflict with an opposing foreign force; or (3) while serving with friendly foreign forces engaged in an armed conflict against an opposing armed force in which the United States is not a belligerent party."

Criteria for awarding the medal to officers or enlisted men of the Army, Navy, Marine Corps, Air Force and Coast Guard are identical although the actual medals vary slightly in design. On rare occasions, Congress has enacted special legislation to award the Medal of Honor for individual exploits in peacetime. The Navy Medal of Honor has been awarded for heroism by noncombatants on several occasions.

Distinguished Service Cross, Navy Cross, Air Force Cross. These decorations, all ranked on the same level, may be awarded to a person who, while serving in any capacity with the Army, Navy, Marine Corps or Air Force, "distinguishes himself by extraordinary heroism not justifying the award of a Medal of Honor."

Distinguished Service Medal. Awarded to any person who, while serving with the armed forces in any capacity, "distinguishes himself by exceptionally meritorious service to the United States in a

duty of great responsibility."

Silver Star. Awarded to a person who, while serving in any capacity with the armed forces, "is cited for gallantry in action that does not warrant a Medal of Honor or Distinguished Service Cross."

Other Awards. Lesser awards for heroism or extraordinary achievement include the Bronze Star, Distinguished Flying Cross, Soldiers Medal, Navy and Marine Corps Medal, and Airman's Medal. The Purple Heart, originally for bravery, is now given to those wounded in action.

United States Army

Source: Department of the Army

ARMY MILITARY PERSONNEL ON ACTIVE DUTY^a

June 30 (b)	Total strength	Commissioned officers			Warrant officers		Enlisted personnel		
		Total	Male	Female (c)	Male (d)	Female	Total	Male	Female
1930.....	138,452	13,062	12,255	807	1,089	.....	124,301	124,301	.....
1935.....	138,569	12,646	12,043	603	825	.....	125,098	125,098	.....
1940.....	267,767	17,563	16,024	939	763	.....	249,441	249,441	.....
1942.....	3,074,184	203,137	190,662	12,475	3,285	.....	2,867,762	2,867,762	.....
1943.....	7,993,102	557,657	521,435	36,222	21,019	.....	6,413,526	6,358,200	55,326
1944.....	7,993,868	740,077	692,351	47,726	36,893	10	7,215,888	7,144,601	71,287
1945.....	8,266,373	835,403	772,511	62,892	56,216	44	7,374,710	7,283,930	90,780
1946.....	1,889,690	257,300	240,643	16,657	9,826	18	1,622,546	1,605,847	16,699
1950.....	591,387	67,784	63,375	4,409	4,760	22	518,921	512,370	6,551
1954.....	1,403,011	116,483	110,728	5,755	11,673	52	1,274,803	1,268,016	6,787
1955.....	1,107,606	111,347	106,173	5,174	10,552	48	985,659	977,943	7,716
1956.....	1,024,075	107,273	102,441	4,832	11,047	44	905,711	897,941	7,770
1957.....	986,243	100,051	95,520	4,531	11,093	43	885,056	877,900	7,156
1958.....	897,224	93,597	89,246	4,351	11,080	39	792,508	785,494	7,014
1959.....	860,148	91,048	86,756	4,292	10,603	39	758,458	750,621	7,837
1960.....	871,348	91,056	86,832	4,224	10,141	39	770,112	761,833	8,279
1961.....	856,853	90,066	85,853	4,213	9,817	38	756,932	748,372	8,560
1962.....	1,064,647	105,225	100,920	4,305	10,777	48	948,597	939,876	8,721
1963.....	974,070	98,622	94,810	3,812	9,640	40	865,768	857,476	8,292
1964.....	971,384	100,640	96,905	3,735	10,193	37	860,514	852,556	7,958
1965.....	967,049	101,812	98,029	3,783	10,285	23	854,924	846,409	8,520
1966.....	1,197,468	106,468	102,347	4,121	11,296	22	1,079,682	1,070,503	9,170
1967.....	1,440,120	127,400	122,700	4,700	16,090	34	1,296,600	1,256,900	9,709
1968.....	1,567,408	145,988	139,680	6,308	20,158	27	1,401,727	1,391,016	10,711

(a) Represents strength of the active Army, including Philippine Scouts, retired Regular Army personnel on extended active duty, and National Guard and Reserve personnel on extended active duty; excludes U.S. Military Academy cadets, contract surgeons, and National Guard and Reserve personnel not on extended active duty.

(b) Data for 1930 to 1947 include personnel in the Army Air Forces and its predecessors (Air Service and Air Corps).

(c) Includes: Women Doctors, Dentists and Medical Service Corps Officers for 1946 and subsequent years, Women in the Army Nurse Corps for all years, and the Women's Army Corps and Women's Medical Specialists Corps (dietitians, physical therapists and occupational specialists) for 1943 and subsequent years.

(d) Includes Army field clerks and field clerks, Quartermaster Corps as follows: 1925, 377. Act of Congress approved April 27, 1926, directed the appointment as warrant officers, of field clerks still in active service. Includes Flight Officers as follows: 1943, 5,700, 1944, 13,615, 1945, 31,117, 1946, 2,880.

ARMY EXPENDITURES FOR MILITARY FUNCTIONS (a)

(in millions of dollars)

Fiscal year	Amount	Fiscal year	Amount	Fiscal year	Amount	Fiscal year	Amount
1935.....	366	1947.....	8,027	1955.....	8,901	1962.....	11,427
1940.....	669	1948.....	6,482	1956.....	8,703	1963.....	11,199
1942.....	14,805	1950.....	3,985	1957.....	9,063	1964.....	12,050
1943.....	42,573	1951.....	7,478	1958.....	9,051	1965.....	11,600
1944.....	49,289	1952.....	15,708	1959.....	9,467	1966.....	14,810
1945.....	49,750	1953.....	16,241	1960.....	9,392	1967.....	21,012
1946.....	27,176	1954.....	12,910	1961.....	10,130	1968.....	25,251

(a) Excludes expenditures for all civil functions as defined in "The Budget of the United States Government." Data for fiscal years to 1947 include all Army Air Force expenditures.

U. S. Army Insignia and Chevrons

Source: Department of the Army

Grade Insignia

General of the Armies

(General John J. Pershing, the only person to have held this rank, was authorized to prescribe his own insignia, but never wore in excess of four stars. The rank originally was established by Congress for George Washington in 1799, but no record has been found to show that the appointment was made.)

General of the Army..... Five silver stars fastened together in a circle and the coat of arms of the United States in gold color metal with shield and crest enameled

General..... Four silver stars
Lieutenant General..... Three silver stars
Major General..... Two silver stars
Brigadier General..... One silver star
Colonel..... Silver eagle
Lieutenant Colonel..... Silver oak leaf
Major..... Gold oak leaf
Captain..... Two silver bars
First Lieutenant..... One silver bar
Second Lieutenant..... One gold bar

Warrant officers

Grade Four—Silver bar with three enamel brown bands
Grade Three—Silver bar with two enamel brown bands
Grade Two—Gold bar with three enamel brown bands
Grade One—Gold bar with two enamel brown bands

Non-commissioned officers

Sergeant Major of the Army (E-9)..... Three

chevrons above the three arcs with a five-pointed star between the chevrons and arcs.

Sergeant Major (E-9)..... Three chevrons above the three arcs with a five-pointed star between the chevrons and arcs.

First Sergeant (E-8)..... Three chevrons above three arcs with a lozenge between the chevrons and arcs.

Master Sergeant (E-8)..... Three chevrons above three arcs.

Platoon Sergeant or Sergeant First Class (E-7)..... Three chevrons above two arcs.

Staff Sergeant (E-6)..... Three chevrons above one arc.

Sergeant (E-5)..... Three chevrons.

Corporal (E-4)..... Two chevrons.

Specialists

Specialist Nine (E-9)..... Three arcs above the eagle device and two chevrons below.

Specialist Eight (E-8)..... Three arcs above the eagle device and one chevron below.

Specialist Seven (E-7)..... Three arcs above the eagle device.

Specialist Six (E-6)..... Two arcs above the eagle device.

Specialist Five (E-5)..... One arc above the eagle device.

Specialist Four (E-4)..... Eagle device only.

Other Enlisted

Private First Class (E-3)..... One chevron above one arc.

Private (E-2)..... One chevron.

Private (E-1)..... None.

U. S. Navy Insignia

NAVY
Stripes and corps device are of gold embroidery.

	Stripes
Fleet Admiral.....	1 two inch with 4 one-half inch.
Admiral.....	1 two inch with 3 one-half inch.
Vice Admiral.....	1 two inch with 2 one-half inch.
Rear Admiral.....	1 two inch with 1 one-half inch.
Commodore	
(war time only).....	1 two inch.
Captain.....	4 one-half inch.
Commander.....	3 one-half inch.
Lieut. Commander.....	2 one-half inch. with 1 one quarter inch between.
Lieutenant.....	2 one-half inch.
Lieutenant (j.g.).....	1 one-half inch with 1 one quarter inch above.
Ensign.....	1 one-half inch.
Warrant Officers—One ½" (¾" for warrant officer W-1) broken with ½" intervals of blue as follows:	
Chief Warrant Officer W-4—1 break	

Chief Warrant Officer W-3—2 breaks, 2" apart
Chief Warrant Officer W-2—3 breaks, 2" apart
Warrant Officer W-1—3 breaks, 2" apart
(on ¼" gold)

Enlisted personnel... A rating badge worn on the left arm, consisting of a spread eagle and chevrons, with the appropriate specialty centered between.

MARINE CORPS

Marine Corps and Army have similar insignia except for color and fewer Marine Corps subdivisions. Its distinctive cap and collar ornament is the combination of the American eagle, anchor and globe.

COAST GUARD

Coast Guard insignia follow Navy custom, with certain minor changes such as the officer cap insignia. The Coast Guard shield is worn on both sleeves of officers and on the right sleeve of all enlisted men.

United States Navy Personnel on Active Duty

Source: Department of the Navy (*Excludes Nurses)

June 30	Officers*	Nurses	Enlisted	Off. Cand.	Total
1940.....	13,162	442	144,324	2,569	160,997
1945.....	320,293	11,086	2,988,207	61,231	3,380,817
1950.....	42,687	1,954	3,31,880	5,037	381,538
1955.....	72,423	2,104	579,864	6,304	660,695
1960.....	67,456	2,103	544,040	4,885	617,984
1965.....	75,996	1,870	587,183	6,399	671,448
1966.....	77,757	2,048	658,635	6,765	745,205
1967.....	79,574	2,328	663,831	5,886	751,619
1968.....	81,970	2,355	673,610	6,422	764,357

United States Naval Expenditures

Source: Department of the Navy

Fiscal year	Total amount expended	Shipbuilding, conversion and modernizations	Aircraft and missile procurement	Military construction	All other expenditures
1940.....	\$885,769,794	\$328,819,394	\$24,011,998	\$72,503,151	\$460,435,251
1945.....	29,380,421,832	7,228,192,871	3,541,009,589	1,576,096,922	17,035,122,450
1950.....	4,065,484,778	281,328,056	462,723,293	86,054,932	3,245,378,557
1955.....	9,637,637,835	903,303,717	1,834,511,038	238,631,005	6,661,192,075
1960.....	11,848,690,002	1,380,031,231	2,027,098,025	284,928,383	8,228,632,362
1966.....	16,514,579,307	1,482,321,612	2,520,327,140	451,006,486	12,060,893,707
1967.....	19,291,496,385	1,396,414,838	3,006,902,022	522,638,470	14,363,540,958
1968.....	22,106,320,837	1,355,850,877	3,642,007,920	92,966,944	17,015,495,095

Marine Corps Personnel on Active Duty

Source: Department of the Navy (Navy Comptroller as of June 30)

Yr.	Officers	Enl.	Total	Yr.	Officers	Enl.	Total	Yr.	Officers	Enl.	Total
1955...	18,417	186,753	205,170	1965...	17,258	172,955	190,213	1967...	23,592	261,677	285,269
1960...	16,203	164,242	170,621	1966...	20,512	241,204	261,716	1968...	24,555	282,697	307,252

Primary U. S. Military Training Centers

ARMY

Name—P.O. Address	Zip	Nearest City	Name—P.O. Address	Zip	Nearest City
Fort Benning, Ga.....	31905	Columbus	Fort Knox, Ky.....	40121	Louisville
Fort Bliss, Texas.....	79906	El Paso	Fort Leonard Wood, Mo.....	63475	Jackson City
Fort Bragg, N. C.....	28307	Fayetteville	Fort Lewis, Wash.....	98433	Olympia
Fort Campbell, Ky.....	42223	Clarksville, Tenn.	Fort McClellan, Ala.....	36205	Anniston
Fort Dix, N. J.....	08640	Trenton	Fort Ord, Calif.....	93941	Monterey
Fort Gordon, Ga.....	30905	Augusta	Fort Polk, La.....	71459	Leesville
Fort Huachuca, Ariz.....	85613	Tucson	Fort Sam Houston, Tex.....	78234	San Antonio
Fort Huachuca, S. C.....	29207	Columbia	Fort Sill, Okla.....	73503	Lawton

NAVY

Bainbridge, Md. (Waves).....	21905	Baltimore	San Diego, Calif.....	92136	San Diego
Great Lakes, Ill.....	60088	Waukegan	Orlando, Fla.....	32813	Orlando

MARINE CORPS

Camp Lejeune, N. C.....	28542	Fayetteville	Camp Pendleton, Calif.....	92055	Los Angeles
Parris Island, S. C.....	29905	Beaufort	San Diego, Calif.....	92140	San Diego

AIR FORCE

Maxwell AFB, Ala.....	36112	Montgomery	MacDill AFB, Fla.....	33608	Tampa
Randolph AFB, Tex.....	78148	San Antonio	Nellis AFB, Nev.....	89110	Las Vegas
Edwards AFB, Calif.....	93523	Rosamond	Pope AFB, N. C.....	28308	Fayetteville
Eglin AFB, Fla.....	32542	Valparaiso	Shaw AFB, S. C.....	29132	Sunter
Kirtland AFB, N. M.....	87117	Albuquerque	Vandenberg AFB, Calif.....	93437	Lompoc
Holloman AFB, N. M.....	88330	Alamogordo	Keesler AFB, Miss.....	39534	Biloxi
Lackland AFB, Tex.....	78236	San Antonio			

Armed Services Appoint Senior Enlisted Adviser

The U. S. Army, Navy and Air Force in 1966-67 each created a new position of senior enlisted adviser whose primary job is to represent the point of view of his services' enlisted men and women on matters of welfare, morale and any problem concerning enlisted personnel. The senior adviser will have direct access to the military chief of his branch of service and policy-making bodies. The Marine Corps has had such a position for many years.

The senior enlisted adviser for each of the four Military Departments is:

Army—Sgt. Major of the Army George W. Dunaway.

Navy—Master Chief Gunner's Mate Delbert D. Black.

Air Force—Chief Master Sgt. of the Air Force Paul W. Airey.

Marines—Sgt. Major Herbert J. Sweet.

United States Air Force

Source: Department of the Air Force

The Army Air Forces were started Aug. 1, 1907, as the Aeronautical Division of the Signal Corps, U. S. Army. The division consisted of one officer and two enlisted men, and it was more than a year before it carried out its first mission in an airplane of its own. When the U. S. entered World War I (April 6, 1917), the Aviation Service, as it was called then, had 55 planes and 85 officers, only 35 of whom were fliers. On the day the Japanese

struck at Pearl Harbor (Dec. 7, 1941), the Army Air Forces, as they had been renamed six months previously, had 10,329 planes, of which only 2,848 were suited for combat service. But when the Army's air arm reached its peak during World War II (in July, 1944), it had 79,908 of all types of aircraft and (in May, 1945) 43,248 combat aircraft and (in March, 1944) 2,411,294 officers and enlisted men. The Air Force was established under the Armed Services Unification Act of July 26, 1947.

USAF PERSONNEL AT HOME AND OVERSEAS—OFFICERS AND ENLISTED MEN

	Continental U. S.	Overseas	Total		Continental U. S.	Overseas	Total
1940.....	40,229	10,936	51,165	1962.....	664,752	219,273	884,025
1945.....	1,153,373	1,128,886	2,282,259	1963.....	659,194	210,237	869,431
1950.....	317,816	93,461	411,277	1964.....	699,605	200,295	899,900
1955.....	689,635	270,946	959,581	1965.....	635,430	139,232	824,662
1957*.....	651,674	268,161	919,835	1966.....	641,957	245,396	887,353
1960 ¹	607,383	207,369	814,752	1967.....	617,632	279,862	897,494
1961.....	617,020	204,131	821,151	1968.....	616,163	255,035	901,198

*Since 1957 continental U. S. includes Air Force Academy Cadets as follows: (1957) 504; (1960) 1,949; (1961) 2,267; (1962) 2,520; (1963) 2,660; (1964) 2,838; (1965) 2,907; (1966) 3,152; (1967) 3,361; (1968) 3,652.

¹Since 1960 Overseas includes Alaska and Hawaii. All figures include Mobilized Personnel. Officers 2,158, enlisted 13,484.

USAF MILITARY PERSONNEL

June 30	Officers & Airmen	Male Commissioned Officers				Total Warrant Officers
		USAF (reg.) & RA	USAFR & ORC	ANG & NG	AFUS & AUS	
1950.....	411,277	19,735	33,585	14	55	2,085
1955.....	959,946	23,463	105,587	984	2	3,961
1960.....	814,752	49,584	72,115	248	3	4,069
1964.....	855,900	59,610	67,143	330	67	2,808
1965.....	824,662	62,076	62,537	280	54	2,532
1966.....	887,353	62,146	66,158	215	126	2,076
1967.....	897,494	62,876	72,287	151	161	1,689
1968.....	901,198	64,595	73,519	1,392	185	1,367

FEMALE COMMISSIONED OFFICERS, AND ENLISTED PERSONNEL

June 30	Female commissioned officers				Enlisted personnel		
	Total	WAF	Nurses	WMSG ¹	Female WO	Total	Female
1950.....	1,525	303	1,143	79	7	354,271	3,782
1960.....	3,858	679	3,093	79	6	685,063	5,651
1965.....	4,099	708	3,185	208	1	690,177	4,741
1966.....	4,189	696	3,271	222	.....	756,629	5,050
1967.....	4,670	762	3,678	230	.....	762,009	5,188
1968.....	4,991	893	3,863	235	.....	761,507	6,123

¹Since 1957 Includes Male Nurses and Male Medical Specialists.

Military Units, U. S. Army and Air Force

Army units. Squad. In infantry usually ten men under a staff sergeant. Platoon. Small military unit usually under a lieutenant. Company. Headquarters and three more platoons under a captain. Battalion. (Battalion-size unit in the cavalry is a squadron.) Headquarters and three or more companies (Company in the artillery is a battery; in the cavalry it is a troop), under a lieutenant colonel. Squadron. Headquarters and three or more troops of cavalry under a colonel (in time of war the Infantry Brigade is commanded by the brigadier general). Division. Headquarters and three infantry brigades with artillery and auxiliary troops under a major general. Army Corps. Two to five divisions with corps troops under a lieutenant general. Army. Headquarters and two or more corps with auxiliary troops under a general.

Air Force Units. Flight. Small components of a squadron organized for special purpose such as medical evacuation flights. Squadron. The basic organized unit of the Air Force, used by operational as well as support forces but not limited by numbers of personnel assigned; two to three tactical squadrons are assigned to a tactical wing. Group. Terminology used for special tactical forces and for many support elements. They do not necessarily have subordinate units assigned. Wing. Used for tactical and support forces. A tactical wing usually has two to three operational squadrons assigned. Division. An organizational component of operational numbered Air Forces consisting of two to three wings, also used to designate numerous support and research components. Air Force. An intermediate echelon of command directly under the headquarters of a large operational command, usually with four to seven subordinate divisions. Major command. A major subdivision of the Air Force that is assigned a major segment of the USAF mission, usually two to four subordinate Air Force elements in operational command.

National Guard of the United States

Source: National Guard Bureau, Washington, D.C. 20310

The National Guard of the United States originated with the Old North Regiment of the Colonial Militia in Massachusetts in 1636. It is the oldest military force in the country and has participated in all U.S. wars and conflicts from the Revolutionary War to the Vietnam war.

Today the Army and Air National Guard total over 450,000 men, serving in over 3,790 Army and Air National Guard units in more than 2,700 communities in all 50 States, Puerto Rico and the District of Columbia.

By act of Congress, the Guard is the primary reserve of the U. S. Army and Air Force. In peacetime, it is commanded by the State governors and serves in State emergencies, disasters, and civil disturbances.

The Army National Guard as of June 30, 1968, had Federal equipment and vehicles valued at \$1.6 billion and a Federal budget appropriation

of approximately \$89,000,000. The Air National Guard had Federal equipment and aircraft valued at \$2 billion and a budget of about \$370,670,000. The States provide substantial support to the Guard each year in various types of indirect support such as donation of land, police and fire protection, and maintenance of roads.

Besides being a reserve force available for war and civil emergencies, the Guard is now a full-time partner in the air defense network in the Nike Hercules missile sites around key cities and in the fighter-interceptor planes and pilots on round-the-clock runway alert.

The National Guard is administered by the National Guard Bureau, a joint office of the Departments of the Army and the Air Force, in the Pentagon. Chief of the Bureau is Major General Winston P. Wilson of Arkansas, first Air National Guard general to hold the office.

United States Military Academy, West Point, N. Y.

The United States Military Academy is located on the Hudson River some fifty miles from New York City. The service rendered to the nation by the Academy has been widely acclaimed during its 167 years in existence. Its graduates are loyal to its ideals of "Duty, Honor, Country."

The Academy was established on March 16, 1802 with the first class, numbering 10 cadets, entering on July 4, 1802. West Point has been a military post since Jan. 20, 1778.

Requirements for admission to the Military Academy differ somewhat from those for admission to a civilian college in that each prospective cadet must first be designated a candidate from one of the sources of nomination listed below. Usually the candidate obtains his nomination either from the Representative in Congress from his Congressional district or from one of his Senators.

Admission to the Military Academy may be gained only by appointment to one of the cadetships authorized by law. Graduation of the senior class normally leaves about 1000 vacant cadetships each year and candidates may be nominated for these vacancies only during the year preceding the admission day in the first week in July. The cadetships authorized are allocated among the various sources of nomination as follows:

CONGRESSIONAL

435 Representatives (5 each)	2175
100 Senators (5 each)	500

Other

Vice Presidential	5
District of Columbia	5
Canal Zone	1
Puerto Rico	6
Guam, Virgin Islands, American Samoa	1

COMPETITIVE

Army: Regular Components	Annually 85
Reserve Components	Annually 85
Presidential	Annually 100
Sons of Veterans	20
Honor Military and Honor Naval Schools	Annually 13

Sons of Medal of Honor Winners	Unlimited
Foreign Cadets	24

(The number of cadetships under the competitive category shown above will not be fully implemented until the early 1970s.)

For each vacancy from a State or Congressional District 10 candidates may be nominated by one of two methods. Either the Principal-Alternate method whereby candidates are listed in order of Priority as Principal, 1st, 2nd, 3rd, 4th, 5th Alternate etc., or the Congressional Competitive method whereby the best qualified nominee is selected by the Academic Board. USMA may be used. Selection of candidates is left to Senator or Representative.

Candidates must be U. S. citizens, and must not have reached 22nd birthday, good moral character, and must never have been married. After being designated candidates, they take three types of examination: academic, medical, and physical aptitude. The academic qualification for admission is determined by an analysis of the candidate's scholastic record and his performance on tests of the College Entrance Examination Board. The tests are: scholastic aptitude, achievement in English composition and mathematics.

Congressional candidates may offer for admission their scores on any of the College Board examinations: all competitive candidates, however, must take tests at specified dates in the year prior to entrance. All candidates also must qualify in a thorough medical examination and a test of physical aptitude designed to measure strength, agility, endurance, and muscular coordination. Upon receipt of a nomination, the candidate may immediately take the medical examination and thereby satisfy the medical entrance requirement. All three examinations are given in December, January and March at designated military installations located in this country and in certain foreign countries. Candidates should consult the USMA catalogue for test dates.

Prospective cadets who completed their entrance examinations are notified of the results of the examinations beginning Jan. 1 thru Apr. 15. Those fully qualified and for whom a vacancy exists report to West Point in the first week in July. Upon admission each cadet takes the oath of allegiance and agrees to serve as a commissioned officer for not less than 5 years immediately following graduation.

All expenses necessary to the education and training of cadets at the U. S. Military Academy are borne by the Government. Cadets, as members of the Regular Army, receive pay and allowances as provided by law (currently in excess of \$2,000 per year, plus rations). From this pay, cadets are required to purchase uniforms, textbooks, and some incidental items. To defray the cost of the initial issues of uniforms and equipment a deposit of \$300 is required.

Summer periods are primarily devoted to practical military instruction but approximately 4 weeks' leave is granted cadets each summer after completion of their first year. The academic year runs from September through May. Upon successful completion of the 4-year course, the graduate receives the B.S. degree and is commissioned a 2d Lieutenant in the Regular Army.

In addition to the U. S. citizens, the Secretary of the Army is authorized to permit not exceeding four Filipinos (one for each entering class), to be designated by the President of the Republic of the Philippines, to receive instruction at the Academy.

The act of June 26, 1946 (as amended) authorizes the President of the United States to permit not exceeding 20 persons at a time from the American republics to receive instruction at the Academy, provided not more than three from any one country are there at the same time.

Citizens of other foreign countries have been permitted from time to time to attend the Military Academy upon specific authorization of the United States Congress in each case but are not entitled by reason of their graduation therefrom to appointment to any office or position in the United States.

The Superintendent of the Military Academy is Maj. Gen. S. W. Koster, U. S. A., the Dean of the Academy Board is Brig. Gen. John R. Jannarone, U. S. A., the Commandant of Cadets is Brig. Gen. Bernard W. Rogers, U. S. A.

Requests for information and for the Academy catalog should be sent to the Director of Admissions, U. S. Military Academy, West Point, N. Y. 10996.

United States Naval Academy at Annapolis

The United States Naval Academy was established as the Naval School Oct. 10, 1845 at Annapolis, Maryland. It was renamed the U. S. Naval Academy in 1850. A four-year course was adopted a year later. From the first, the faculty has been composed about equally of officers and civilians.

The Academy is the undergraduate college of the U. S. Navy. Its purpose is to educate and train young men for careers in the naval service. Leadership and character development and physical fitness are stressed. The Academy is accredited by the Middle States Association of Colleges and Secondary Schools. Graduates of its 4-year course are awarded the Bachelor of Science degree and are commissioned ensigns in the U. S. Navy or second lieutenants in the U. S. Marine Corps.

The head and Superintendent is a Rear Admiral. A navy captain commands the 4,200-man Brigade of Midshipmen. The Academic Dean and head of the academic program is a civilian. Religious activities are headed by a senior navy chaplain.

The basic curriculum consists of a core curriculum (85%) devoted to basic courses in science, naval science, engineering, social sciences, and the humanities plus electives (15%) in the area of the midshipman's selected minor or major (23 minors/23 majors offered). Provision is made for validation of previous college-level work. In addition,

superior students may carry more than the required number of courses. Over 300 electives are offered.

Selected seniors, Trident Scholars, pursue independent study and research programs under a faculty advisor. In addition, graduate-level courses are offered which are creditable toward advanced degrees following graduation.

Majors offered include: Aerospace Engineering, Mechanical Engineering, Naval Engineering, History, Literature, Foreign Affairs, Politics and Economics, French, German, Italian, Portuguese, Russian, Spanish, Applied Mathematics, Theoretical Mathematics, Oceanography, Management, Operations Analysis, Chemistry, Physics, Applied Science, Electrical Science, and Systems Engineering (Weapons).

To have basic eligibility for admission a candidate must be: A citizen of the United States; of good moral character; at least 17 and not yet 22 years of age on July 1st of their entering year; a high school graduate or its equivalent; and unmarried and not previously married.

If basically eligible, candidates must: Obtain a nomination; qualify academically; qualify medically and physically; be selected for appointment. They may qualify academically by submitting an acceptable secondary record and acceptable scores on College Entrance Examination Board aptitude

(verbal and math) and achievement (Eng. composition and either Math I or II) tests, or, in the case of certain Congressional nominees, by presenting an acceptable secondary record and an acceptable transcript for one year of college.

Physically, candidates must be at least 5'4" and not over 6'6" tall. They must have 20/20 vision in both eyes. (The Academy will consider granting a limited number of waivers to 6'8" in height and to 20/100 in vision (correctable to 20/20 for candidates with outstanding academic and leadership accomplishments.)

The primary avenues to selection for appointment as midshipmen follow:

85, yearly, from regular armed forces personnel.

85, yearly, from Navy and Marine Corps reserves.

100, annually, to sons of regular members of the armed forces, active, retired, or deceased.

150, annually, selected from qualified congressional alternates.

20, annually, from honor military schools (10) and NROTC units, contract students only (10).

40 sons of deceased or disabled veterans may be at the Academy at any one time. Eligibility is limited to sons of veterans killed in action, or dead or with service-connected disability rated at 100% from wounds, injuries, or disease contracted in or aggravated by active service.

Congressman, the Vice President, the District (D. C.) Commissioner, and the Resident Commissioner of Puerto Rico may each have 5 midshipmen at the Academy at any one time. Congressmen may nominate 10 candidates for each vacancy. Over half of the 1,350 appointments as midshipmen made annually originate from these sources.

In addition there are limited numbers of appointments available (annually) from the Philippines (4); the Canal Zone (1); Virgin Islands/Guam/American Samoa (1); and the American republics (20).

The President appoints the best-qualified of the 40 sons of deceased veterans, and the 100 best-qualified sons of officers and enlisted men in the regular Armed Services. He also appoints sons of Medal of Honor holders.

The Secretary of the Navy awards the 170 (85+85) appointments to regular and reserve personnel, and the 150 to alternate congressional nominees,

all on a competitive, best-qualified basis. He may also make a limited number of additional appointments each year, to bring the Brigade to authorized strength, from among qualified congressional and competitive nominees, all on a best-qualified basis.

On being appointed a midshipman, candidates must subscribe (with consent of parent or guardian if a minor) to serve for at least six years (5 on active duty) following their graduation and commissioning. In addition, each civilian appointee assumes a separate 6-year military obligation under the Universal Military Service and Training Act under which he may be transferred to the Naval or Marine Corps Reserve if separated from the Academy prior to graduation. Those having an enlisted or officer status prior to appointment and who are separated prior to graduation must fulfill the military obligation assumed at the time of their initial enlistment, induction or appointment. Academy time counts toward fulfillment of total military obligation, but does not serve in place of required service under draft.

Tuition, board and lodging, and medical care are provided. Midshipmen receive \$171.10 per month for books, uniforms, and personal needs. Midshipmen may not marry while at the Academy.

For full information write: Dean of Admissions, Naval Academy, Annapolis, Md. 21402 or the Chief of Naval Personnel, Navy Dept., Wash., D. C. 20370.

Naval Academy Museum

The Naval Academy Museum is headed by a navy captain reporting directly to the Superintendent. The Museum serves as inspiration to the men of the Brigade by providing tangible evidence of some of the most glorious episodes in the nation's history. In addition, its collection of more than 50,000 items provides an important reference source for the study of naval history by faculty, midshipmen, and other interested scholars. Among the many original documents are the contracts for building our first naval ships; letters of John Paul Jones; and memorials of steamboat inventors John Fitch, James Rumsey, and Robert Fulton. In addition, the museum is well-known for its distinguished Rogers Collection of Ship Models; seascapes by Edward Moran; and the Beverly R. Robinson collection of over 1,000 historic naval prints.

United States Air Force Academy

The United States Air Force Academy, the nation's newest service academy, is located at the foot of the Rampart Range of the Rocky Mountains near Colorado Springs, Colo. Established April 1, 1954, the Academy occupied temporary quarters on Lowry Air Force Base in Denver till moved to the permanent campus in 1958. The first class of cadets was graduated in June, 1959.

Most of the Academy's graduates have gone on to Air Force pilot training. A percentage of each class has entered institutions of higher learning for graduate work in technical and professional fields.

To enter the Academy immediately after graduation from high school, a student should apply to nominating authorities during the spring months of his junior year. To qualify, an applicant must be at least 17 and not yet 22 on July 1 of the year he enters the Academy; be a male citizen of the United States, morally and physically fit, and must never have been married.

A resident of the United States who meets the eligibility requirements may apply for a nomination by writing to a U. S. Senator from his state or a U. S. Representative from his Congressional district. In such a letter the applicant should state briefly his qualifications, parents' name, place of residence, and educational background. Approximately 85% of the vacancies in each class are reserved for Congressional nominees.

Each member of Congress may nominate one principal and 9 alternate candidates for each existing vacancy. If the principal candidate qualifies on the entrance examinations, he will be selected. If he does not pass the examination, the

first qualified alternate will be chosen or a Senator or Representative may authorize the Academy to select the best qualified of his 10 candidates on a competitive basis.

Candidates are selected under several other nominating categories, primarily sons of career members of the armed forces and members of the Regular and Reserve components of the Air Force.

All candidates will be required to take the following examinations, usually scheduled from December through April: physical aptitude; the College Entrance Examination Board tests; and the Air Force medical examination.

Cadets spend four years at the Air Force Academy engaging in scientific and liberal arts studies, along with military training. Upon graduation they receive a Bachelor of Science degree, with a major in one or more of 28 fields of study, and a second lieutenant's commission in the Regular Air Force. Those physically qualified may elect to undergo a course in pilot or navigator training after graduation.

Cadets receive their education, quarters, medical and dental care at Government expense. In addition, they receive \$171.60 per month for books, clothing, and personal expenses.

The Cadets in the first class chose the falcon as the mascot of the Academy.

Superintendent of the Academy is Lt. Gen. Thomas S. Moorman, USAF. Commandant of Cadets is Brig. Gen. Robin Olds, USAF. Dean of the Faculty is Brig. Gen. William T. Woodyard, USAF.

Requests for catalog and information should go to Registrar, U. S. Air Force Academy, Colo. 80340.

U. S. Coast Guard Academy

The United States Coast Guard Academy, New London, Conn., was founded in 1876. The administration building is named Hamilton Hall in honor of Alexander Hamilton, first Secretary of the Treasury, who founded the Coast Guard (1790).

The Academy's four-year course embraces engineering, military science, cultural and other professional subjects. Cadets are paid \$1,823.40 a year with rations and are credited with the sum of \$600 to defray the cost of their initial clothing and equipment, this sum to be deducted subsequently

from their pay. In addition each cadet upon appointment is required to deposit \$300 with the Superintendent of the Academy to help defray additional clothing and equipment costs. Cadets are appointed solely on the basis of a nationwide competition which begins with December college board tests.

Upon graduation, a Cadet receives a bachelor of science degree and is commissioned by the President as an Ensign in the Coast Guard, receiving the same pay and allowances as an officer of similar rank in the other armed services.

The United States Marine Corps in 1968

On Jan. 1, 1968, Gen. Leonard F. Chapman, Jr., became Commandant of the Marine Corps.

By September, Corps strength was more than 307,000 with approximately 84,000 Marines in Vietnam. In their 4th year of fighting in Vietnam, Marines fought numerous sustained actions against Vietcong and North Vietnamese (NVA) forces in the northern provinces of South Vietnam. They inflicted heavy losses in the enemy-initiated Tet Offensive, notably in the battle of Hue. The 70-day action at the Khe Sanh prevented an estimated 20,000 North Vietnamese soldiers from gaining free access to the northern provinces. In February, because of the enemy's increased activity, the 27th Marine Regiment was deployed from Camp Pendleton to Vietnam temporarily. In August, Marines crossed the DMZ for the first time since July of 1967 in pursuit of fleeing NVA troops. As of September, 14 Marines had earned the Medal of Honor for heroism.

The Marines in Vietnam were members of the III Marine Amphibious Force (III MAF), comprised of the 1st and 3rd Marine Division reinforced by part of the 5th Marine Division, the heavily 1st Marine Aircraft Wing, and a Force Logistics Command. III MAF was the major part of Fleet Marine Force, Pacific (FMFPac), headquartered in Hawaii. Other FMFPac subordinate commands included the Okinawa-based 9th Marine Amphibious Brigade, which, in turn, was the parent unit for Special Landing Forces based aboard Navy 7th Fleet ships in the China Sea; the 1st Marine Brigade in Hawaii; and the California-based 3rd Marine Aircraft Wing, 5th Marine Division, and Force Troops, FMFPac (combat support units).

The Marine Corps' second complete air/ground team is Fleet Marine Force, Atlantic (FMFLant),

headquartered in Norfolk, Va. Its major elements include the 2nd Marine Division; 2nd Marine Aircraft Wing; and Force Troops, FMFLant, all based in North Carolina. FMFLant landing teams are constantly deployed with Navy ships in the Mediterranean and Caribbean, and as a defense force for the Naval Base, Guantanamo Bay, Cuba.

Marines returning from Vietnam raised the combat-experience level of the Corps and of the 48,000-man Marine Corps Reserve. The 4th Marine Aircraft Wing is the air/ground team of the Marine Corps Reserve, available for combat if called upon.

Recruit Depots at Parris Island, S.C. and San Diego, Calif., gave approximately 89,000 recruits 8 weeks of "boot camp." At the major Marine Corps bases—Camp Lejeune, N.C. and Camp Pendleton, Calif.—new Marines received an additional two to 4 weeks of individual combat, basic specialist, and Vietnam-oriented training. Officer candidate and basic officer classes were conducted at the Marine Corps Development and Education Command, Quantico, Va., and 2,881 officer candidates were commissioned.

Basic flight training was given at Naval Air Stations in Pensacola, Fla., and Corpus Christi, Tex.; and, since 1967, with all Air Force Air Training Command bases. A total of 665 Marine student pilots received their wings in 1968. In addition, Marine pilots received helicopter flight training at Army training bases in Texas and Georgia. Advanced aviation training was provided by Marine Aircraft Wings and Marine Air Stations at Cherry Point, N.C., and El Toro, Calif., and by the Marine Air Reserve Training Command at Glenview, Ill.

In 1968, a formal Computer Sciences School was established at Marine Corps Development and Education Command, Quantico.

United States Merchant Marine Academy

The United States Merchant Marine Academy—the fifth permanent Federal Academy for officer training—has an authorized peacetime complement of approximately 1000 Midshipmen from every state in the Union, Puerto Rico, District of Columbia, Canal Zone, Guam, American Samoa, and the Virgin Islands.

On completion of courses, graduates receive their original Merchant Marine license as deck or engineer officers qualified to serve in any ship in the United States Merchant Marine. Graduates also receive B.S. degrees and commissions as Ensigns in the U. S. Naval Reserve.

Appointments to the Academy are governed by a state and territory quota based on population. All candidates must be nominated by a member of Congress to compete for appointment, possess a minimum of 15 units from accredited schools, qualify in a national competitive examination, and pass a Naval Officer physical examination and security investigation. Each Member of Congress may nominate up to 10 candidates for each class.

A candidate must be an unmarried male citizen

of the U. S., not less than 17 years of age and not over 22 by July 1 of the year in which admission is sought. He must be of good moral character, sound constitution and not less than 5 ft. 4 in. or more than 6 ft. 6 in. in height. A candidate for appointment as a deck midshipman must have minimum uncorrected visual acuity of at least 20/40 in one eye and 20/70 in the other; as an engineering midshipman he must have at least 20/50 in one eye and 20/70 in the other. All candidates must have corrected visual acuity of 20/20 in each eye and normal color perception. Waivers for failure to meet physical requirements will not be granted.

Under Federal legislation the Academy is authorized to admit students from American republics for the four-year program. Enrollment is limited to 12 students at any time.

The Academy grounds at Kings Point, N. Y., covers 65 acres on the north shore of Long Island. The Superintendent of the Academy is Rear Admiral Gordon McIntock, USMS.

Requests for further information should be addressed to the Admission Office, U. S. Merchant Marine Academy, Kings Point, N. Y. 11024.

Personal Salutes and Honors

The national salute is 21 guns. It is also the salute to a national flag. The salute to the Union, commemorative of the Declaration of Independence and consisting of one gun for each State, will be fired at noon on July 4 at every post provided with suitable artillery.

A 21-gun salute on arrival and departure, with 4 ruffles and flourishes, is rendered to the President of the United States, to an ex-President and to a President-elect. The national anthem or *Hail to the Chief*, as appropriate, is played for the President, and the national anthem for the others. A 21-gun salute on arrival and departure, with 4 ruffles and flourishes, also is rendered to the sovereign or chief of state of a foreign country or a member of a reigning royal family; the national anthem of his or her country is played. The music is considered an inseparable part of the salute and will immediately follow the ruffles and flourishes without pause.

Rank	Salute—guns		Ruffles flourishes	Music
	Arrive	Leave		
Vice President of United States, Speaker of House.....	19	..	4	March
American or foreign ambassador.....	19	..	4	Nat. anthem, of official
Premier or prime minister.....	19	..	4	Nat. anthem, of official
Secretary of Defense, Army, Navy or Air Force.....	19	19	4	March
Other Cabinet members, Senate President pro tempore, Governor, or Chief Justice of U. S.....	19	19	4	March
Chairman, Joint Chiefs of Staff.....	19	19	4	General's or Admiral's March
Army Chief of Staff, Chief of Naval Operations, Air Force Chief of Staff, Marine Commandant.....	19	19	4	
Army General; Air Force General; Fleet Admiral.....	19	19	4	
Generals, Admirals.....	17	17	4	March
Assistant Secretaries of Defense, Army, Navy or Air Force.....	17	17	4	March
Chairman of a Committee of Congress.....	17	..	4	March

Other salutes (on arrival only) include 15 guns for American envoys or ministers and foreign envoys or ministers accredited to the United States; 15 guns for a lieutenant general or vice admiral; 13 guns for a major general or rear admiral; 13 guns for American ministers resident and ministers resident accredited to the U. S.; 11 guns for a brigadier general or commodore; 11 guns for American charges d'affaires and like officials accredited to U. S.; and 11 guns for consuls general accredited to U. S.

Women's Branches of the U. S. Military Service

WOMEN'S ARMY CORPS

Colonel Elizabeth P. Holsington, GS, Director, Department of the Army, Pentagon, Wash., D. C.

The Women's Army Corps, an outgrowth of the WAAC in World War II, was established as a component of the Regular Army and Army Reserve by Congress in 1948. The WAC makes available to the Army volunteer womanpower, trained in non-combat occupational skills to support the peacetime forces and to serve as a base upon which use of the nation's womanpower could be rapidly expanded in time of emergency. To be eligible for membership, applicants must be U. S. citizens (or have been lawfully admitted for permanent residence), have no dependents under 18 and meet certain specific standards. Enlistment is open to women between the ages of 18 to 34 inclusive, who have high school diplomas or equivalent. Students in their junior year of college may apply for the 4-week College Junior summer training program. Outstanding students of the program may be further selected for participation during their senior year of college in the Student Officer Program. Graduates of accredited colleges and universities, ages 20 to 30, may apply for direct appointment and active duty as officers. Enlisted women may also become officers through attendance at Officer Candidate School. Basic training for officers and enlisted women is given at the U. S. WAC Center and School, Fort McClellan, Alabama. In addition, WAC members receive advanced training along with men in the Army Service Schools.

ARMY NURSE CORPS

Colonel Anna Mae Hays, Chief, Army Nurse Corps, Office of The Surgeon General, Department of the Army, Main Navy Building, Washington, D. C., 20315.

The Army Nurse Corps, established in 1901 as a part of the Army Medical Service, is the oldest of the women's services in the Armed Forces. An officer corps of registered professional nurses, its proud history includes significant and courageous contributions to our Nation in two world wars and in the Korean and Vietnamese Conflicts. Army nurses serve in ranks from second lieutenant to colonel, based upon qualifications and length of service. Male nurses have been commissioned in the Corps since 1955.

Graduates of hospital or university schools of nursing accredited by the National League for Nursing and/or acceptable to The Surgeon General, who are currently registered to practice nursing in one state of the United States or in Puerto Rico may apply for a commission provided they are less than 35 years of age and U. S. citizens or have been admitted for permanent residence.

The Registered Nurse Student Program is available to nurses who can complete requirements for a baccalaureate or higher degree within 24 months. Participants receive pay and allowances of a commissioned officer and are obligated to serve on active duty for a period not to exceed three years.

The Army Student Nurse Program offers financial assistance to students enrolled in a hospital or university school of nursing. Participants in hospital programs in nursing may receive a maximum of 12 months financial assistance and are obligated to serve two years as an Army Nurse Corps officer following licensure to practice nursing. Participants in university programs of nursing may receive a maximum of 24 months of financial assistance. These participants are commissioned as officers six months prior to graduation and following graduation and licensure are obligated to serve as Army Nurse Corps officers for a period not to exceed three years.

The Walter Reed Army Institute of Nursing Program offers a unique opportunity to a limited number of high school graduates annually to acquire a baccalaureate degree in nursing. Selected candidates enroll in an accredited college of their choice for the first two years and transfer to the University of Maryland School of Nursing for the final two years to complete the requirements for a bachelor of science degree and obtain state licensure. Candidates are commissioned second lieutenants in the Army Nurse Corps and incur a three year obligation to serve on active duty.

Educational opportunities for Army Nurse Corps officers on active duty are available in advanced clinical specialization and education through pro-

fessional programs, postgraduate short courses and workshops conducted at military installations and civilian institutions.

Army nurses serve throughout the world wherever American troops are stationed.

ARMY MEDICAL SPECIALIST CORPS

Colonel Mary Lipscomb Hamrick, Chief, Army Medical Specialist Corps, Office of The Surgeon General, Dept. of the Army, Wash., D. C. 20315.

The Women's Medical Specialist Corps was established as a Regular Army component of the Medical Department in 1947. The name was changed to Army Medical Specialist Corps in 1955, when male dietitians, physical and occupational therapists were authorized for its Reserve Section. Regular Army commissions were established for male officers in 1956.

Direct commissions are available to qualified U. S. citizens with a bachelor's degree, who have completed the required specialty training and are under 35. Applicants with academic degrees may enroll for professional training courses offered by the Army Medical Dept. The dietetic internship and physical therapy course take 12 months; a 9-month clinical affiliation program in occupational therapy is available to students who have completed the didactic portion at an approved school.

Financial assistance during the last 2 years in approved colleges is available to qualified students in dietetic and occupational therapy courses. Participants are commissioned in the AMSC on graduation, and serve on active duty for 3 or 4 years.

Summer practicums, with no service obligation incurred, are available to college students in home economics, physical and occupational therapy courses at selected Army hospitals.

AMSC officers serve in Army hospitals in the United States and overseas.

NAVY AND NAVAL RESERVE

Capt. Rita Lenihan, Assistant Chief of Naval Personnel for Women and Director of the WAVES, Bureau of Naval Personnel, Navy Department, Washington, D. C. 20370.

WAVES is the popular name for the women in the United States Navy.

Women officers in the Navy must hold a baccalaureate degree to qualify for a commission and are required to serve on active duty for two years. They are assigned to duty in the Naval Shore Establishment in the same fields in which male officers serve, including personnel management, comptrollership, computer programming, intelligence and logistics. Staff officers (Medical Corps, Supply Corps, Medical Service Corps and Judge Advocate General Corps) are assigned duty in their specialties.

Enlisted women in the Navy must be a high school graduate and enlist for at least 3 years. There are over 20 different ratings open to enlisted women, including such specialties as: air traffic control, data processing, electronics, journalism, photography, radio and communications, weather forecasting, and yeoman (secretarial) duties.

Assignment of WAVES is made interchangeably with Navy men, excepting duties at sea. WAVES may not be assigned to duty aboard Navy ships other than hospital ships and transports, nor may they serve in aircraft engaged in combat missions. They are, however, assigned to duty overseas.

All provisions of law relating to pay, money allowances, leave, and other benefits applicable to male personnel also apply to women.

NURSE CORPS, USN AND USNR

Captain Veronica M. Bulshefski, NC, USN, Director, Navy Nurse Corps, Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

Navy Nurse Corps officers provide nursing care of patients, supervise and instruct hospital corpsmen and other nursing personnel. They serve in hospitals, dispensaries, Hospital Corps Schools, at domestic and overseas stations, and aboard USS Hospital Ships.

Female or male applicants for direct appointments between ages 20 to 34, must be registered professional nurses who meet eligibility requirements for commission in the Navy. All appointments are made in the Nurse Corps, U. S. Naval Reserve in ranks of ensign, lieutenant (j.g.), or lieutenant, depending on education, professional experience and age.

The Navy Nurse Corps Candidate Program provides financial assistance to those qualified junior and senior nursing students and registered nurses who are matriculated in a nurse baccalaureate de-

gree or higher degree program in approved universities. Students participating in the program receive tuition, fees, allowances for books and pay, quarters, and subsistence commensurate with the grade in which they serve. Six months prior to completion of degree requirements, students are commissioned as Ensign, 1905, USNR and receive the base pay and allowance of that rank. Following graduation participants will be ordered to the U. S. Naval Schools Command, Newport, R. I., for a 4 week indoctrination course after which they will be commissioned in the Naval Reserve as Nurse Corps officers (2905). The graduate will be commissioned to the grade of ensign, lieutenant (j.g.) or lieutenant (s.g.) depending on education, professional experience and age. Candidates serve on active duty for 2 years for one year of subsidized education or 3 years for more than one year of subsidized education.

WOMEN IN THE U. S. AIR FORCE (WAF)

Colonel Jeanne M. Holm, Director, Hq USAF, the Pentagon, Washington, D. C. 20330.

During World War II, 40,000 women served as members of the Air WAC on duty with the Army Air Corps and Army Air Forces. In September, 1947, the separate Department of the Air Force was established. The following year the Women's Armed Services Integration Act of 1948 authorized the appointment and enlistment of women in the Regular Air Force and the Air Force Reserve.

The WAF is not a constituted corps or a separate program but is an integral part of the Air Force military personnel program. In most cases, WAF are completely interchangeable with their male contemporaries on a job-for-job basis and the same general Air Force policies are equally applicable to men and women. Women in the Air Force serve at Air Force installations all over the U. S. and at many overseas locations, including Southeast Asia.

During 1968 there was 900 WAF officers and 6,500 enlisted women. By the mid-1970s, approximately 14,000 will be serving.

AIR FORCE NURSE CORPS

Colonel Ethel A. Hoefly, Chief, Office of the Surgeon General, USAF, Washington, D. C. 20333.

The Air Force Nurse Corps was established as an integral part of the Air Force Medical Service in 1949. The majority of Air Force Nurses are on duty in Air Force hospitals as general duty staff nurses. Others work in specialties such as, anesthesia, operating room, psychiatry, obstetrics, research, aerospace, or teaching. A limited number are assigned as flight nurses in the aeromedical evacuation of patients by air. A selected number of nurses are enrolled in both military and civilian schools and universities for advanced professional education. Nurses in the Air Force are assigned on a world wide basis.

An applicant must be a citizen, at least 20 but not more than 35 years of age; physically qualified for military nursing; a graduate of a school of nursing offering a minimum 3-year basic curriculum, acceptable to the Surgeon General, USAF, and registered to practice professional nursing. The rank she receives depends on professional experience and educational background. Initial appointments to the Regular Air Force are made from Reserve Nurses on active duty. Air Force Nurses have rank and pay as officers in the USAF.

AIR FORCE MEDICAL SPECIALISTS

Col. Frances G. Ballentine, Chief, Office of the Surgeon General, USAF, Washington, D. C. 20333.

The Medical Specialists as a corps was organized 1949 when the USAF Medical Service was established. In 1965 all medical specialists were transferred to the Biomedical Sciences Corps which was organized as a new corps within the Office of the Surgeon General. Air Force dietitians, occupational therapists and physical therapists continue to be identified as medical specialists within the new Biomedical Sciences Corps.

Initial appointments are made in the USAF Reserve. Eligibility for commissions require that the applicant must be a citizen, physically and educationally qualified, between 21 and 35 years of age.

The educational requirements for appointment require a minimum of a baccalaureate degree and completion of approved courses in the candidate's specialty.

Applicants between 21 and 28 years of age may be commissioned as Second Lieutenants for the purpose of completing an approved dietetic internship, physical or occupational therapy courses (not to exceed 12 months). Initial appointments to the Regular Air Force are selected from Reserve medical specialists on active duty. Air Force Medical Specialists enjoy the rank and pay as commissioned officers in the USAF.

WOMEN MARINES

The first women in the Marine Corps served for one year during World War I when 305 women, called Marinettes, performed primarily clerical duties in Washington, D. C. During World War II, twenty-five years later, women were again called upon to free Marines to fight. The Women Marine Reserve was authorized on February 13, 1943 and by 1945, a total of 23,145 women had answered the call to perform more than 200 different military duties from typists to parachute riggers to map makers. Following the war, a few volunteers remained on active duty and with the passage of the Womens Armed Services Integration Act of 1948, Women Marines became a component part of the Marine Corps. On June 30, 1968, there were approximately 225 women Marine officers and 2,555 enlisted women serving throughout the continental United States, Hawaii, England, Italy, Germany, Okinawa, Japan and Vietnam.

An applicant for enlistment must be between 18 and 28 years inclusive, a high school graduate or able to complete the General Educational Development test at a high school level, have parents' consent if under 21, and be single with no dependents, though she may marry after training at Parris Island, South Carolina.

Officer candidates must be over 18 to enroll for training and between 21 and 29 to be commissioned. Civilian trainees must receive a baccalaureate degree from an accredited college or university prior to commissioning. Enlisted Women Marines and Women Reservists may apply for officer training if they are college graduates or if they successfully complete an officer's selection test.

The Director of Women Marines, selected every 4 years from the senior women Marine Officers, is a member of the staff at Headquarters Marine Corps, Washington, D. C.

COAST GUARD SPARS

Headquarters for U. S. Coast Guard is Washington, D. C. Senior SPAR officer on duty is Commander Elizabeth B. Hall, stationed at Cape May, N. J.

The Coast Guard's SPAR organization was established during World War II on November 23, 1942. Recruit training was first at Hunter College, N. Y., then at Palm Beach, Florida. By war's end, approximately 1,000 officers and 10,000 enlisted women were serving in the Coast Guard.

After World War II, the SPARS were largely demobilized, but were reactivated by the outbreak of the Korean War. At that time a number of SPARS returned to active duty to take over specialized jobs. At present, there are nine SPAR officers and 34 enlisted women on active duty throughout the United States.

SPAR recruits must be between 20 and 30 and unmarried. They undergo basic training at the U. S. Naval Training School at Bainbridge, Maryland. On completion of their training, they are given specialized instruction in the Yeoman and Storekeeper rates at the Coast Guard training facility in Groton, Connecticut.

Public Fallout Shelter Space for 176,000,000 Located

Source: Office of Civil Defense, Dept. of the Army

Civil defense is a key element of national defense in the nuclear age. The U. S. civil defense effort is centered on providing protection for the population against the radioactive fallout that would accompany a nuclear attack. All the states and thousands of local governments participate in the national effort with guidance and assistance from the

Office of Civil Defense of the Department of Defense. The primary objective is to establish a system of shelters with supporting systems for warning people and sustaining them in shelter during a fallout emergency, for monitoring and reporting fallout and for initiating recovery efforts. In addition to attack preparedness missions, most state and

local civil defense organizations are charged by law with responsibility for preparedness against natural disaster and with the direction of natural disaster control and relief operations.

Shelters. By Mid-1968, public fallout shelter space for more than 176,000,000 persons had been located and survival supplies for sustaining almost 80,000,000 persons for up to eight days were stocked in marked public shelters.

These shelters are being established by virtue of the fact that many existing large buildings contain areas with inherent protective features against fallout radiation.

In 1966, the national shelter survey was expanded to include smaller buildings, including private dwellings, to add their shelter potential to the national inventory.

By mid-1968, home surveys had been undertaken in R. I., Maine, Minn., Iowa, Kan., W. Va., Colo., Wyo., N. H., Vt., Idaho, Wis., Wash., Mont., Alaska, S. D., N. D., Utah, Nebr., Mich., Ore., Va., Md., Del., Conn., Mass., Long Island and Dist. of Col.

To encourage the incorporation of shelter in new construction, OCD has developed design techniques which add protective features to structures such as

schools, office buildings and public buildings at little or no additional cost, without loss of esthetic values and without interfering with the normal, peacetime use of the shelter area in the buildings.

A-Community Shelter Planning (CSP) program, tested in every state in previous years, was deployed in 1966 as an essential part of emergency preparedness. The basic purpose of this program is to develop in each community—with the assistance of local or state planning professionals—practical procedures for making efficient use of the best fallout protection available in the event of attack, get this information to each citizen, and prepare each department of local government to support the plan and meet its responsibilities in time of major disaster. CSP projects are under way in 725 localities involving 60,000,000 people.

CD Organization. The Office of Civil Defense was created in 1961 with the transfer of civil defense responsibilities from the Executive Office of the President to the Secretary of Defense. In 1964, OCD was transferred to the Office of the Secretary of the Army. Joseph Romm is the acting national Director of Civil Defense. OCD has eight regional offices and operates a Staff College and three warning centers. The transfer of civil defense functions to the Office of the Secretary of the Army has facilitated plans for support of government by the armed services in a nuclear attack.

Civil Air Patrol Trains Pilots of Both Sexes

Civil Air Patrol, organized in 1941 by civilians to help the Office of Civil Defense, in 1948 became an auxiliary of the United States Air Force, not as an agency of the Government but as a civilian organization of adults and youngsters with interest in aviation and aerospace projects. It provides instruction and training for cadets, who may be male or female from age 13 to 18. It has 2,337 units in the various states and 85,000 members, including 47,000 teenage cadets; nearly 20% of its membership is female. It has a National Commander and Headquarters at Maxwell AFB, Alabama.

American Military Cemeteries and Memorials on Foreign Soil

Administered by the American Battle Monuments Commission, Washington, D. C.
(Numbers of graves, and numbers of commemorated missing in parentheses)

WORLD WAR I CEMETERIES

Aisne-Marne, near Belleau (Aisne) France (2288-1060)
Brookwood (Surrey) England (468-863)
Flanders Field, Waregem, Belgium (368-43)
Meuse-Argonne, Romagne (Meuse), France (14,246-954)
Oise-Aisne, Serignes (Aisne), near Fere-en-Tardenois (Aisne), France (8012-241)
St. Mihiel, Thiaucourt (M. et M.), France (4,152-284)
Somme, Bony (Aisne), France (1837-333)
Suresnes (Seine), France (1541-974). In this cemetery rest also 24 of our unknown Dead of World War II. The World War I chapel was, by the addition of two loggias, converted into a shrine to commemorate our Dead of both Wars. Senior representatives of the American and French governments assemble here on ceremonial occasions to pay homage to our military Dead of these wars.

MONUMENTS

Andenarde, Belgium.
Bellicourt (Aisne), France.
Brest (Finistère), France.
Cantigny (Somme), France.
Château-Thierry (Aisne), France
Gibraltar.
Kemmel, near Ypres, Belgium.
Montfaucon (Meuse), France.
Montsec (Meuse), France.
Sommepy (Marne), France.
Tours (Indre et Loire), France.

WORLD WAR II CEMETERIES

Ardennes, near Neuville-en-Condroz, Belgium (5,271-462)
Brittany, near St. James (Manche), France 4,410-498)
Cambridge, near Cambridge, England, (3,811-5125)
Epinal, near Epinal (Vosges), France (5,255-424)

National Cemeteries

Administered by the National Park Service, Department of the Interior.

Antietam (11.36), Sharpsburg, Md.
Battleground (1.03), Washington, D. C.
Fort Donelson (15.34), Dover, Tenn.
Fredericksburg (12.00), Fredericksburg, Va.
Gettysburg (20.58), Gettysburg, Pa.
Poplar Grove (8.72), Petersburg, Va.
Shiloh (10.25), Pittsburgh Landing, Tenn.
Stones River (20.09), Murfreesboro, Tenn.
Vicksburg (117.85), Vicksburg, Miss.

Fluence, near Florence (Tuscany), Italy (4,402-1409)
Henri-Chapelle, near Henri-Chapelle, Belgium (7,989-450)
Lorraine, St. Avold (Moselle), France (10,489-444)
Luxembourg, near Luxembourg (City) (5,076-170)
Manila, near Manila, Republic of the Philippines (17,206-36,279)
Netherlands, Margraten, Holland (8,301-1722)
Normandy, near St. Laurent (Calvados), France (9,386-1557)
North Africa, Carthage, Tunisia (2,840-3724)
Rhône, Dragunigan (Var), France (861-293)
Sicily-Rome, Nettuno, Italy (7,862-3094)

To commemorate those who met their deaths in the American coastal waters of the Atlantic and Pacific Oceans the Commission has erected a memorial in Battery Park, New York City, on which are inscribed 4,596 names, and at the Presidio of San Francisco, California, which carries 412 names.

World War II dead are also buried in Sitka National Cemetery, Sitka, Alaska, Puerto Rico National Cemetery, Bayamon, Puerto Rico, and the National Memorial Cemetery of the Pacific, Honolulu, Hawaii. These cemeteries, all on American soil, are under the jurisdiction of The Office of the Chief of Support Services, Department of the Army, Washington, D. C. 20315. At the Honolulu Cemetery the American Battle Monuments Commission has erected a memorial which records the names of 18,093 Missing of World War II and 8,187 Missing resulting from the Korean operations.

The Commission also maintains a cemetery in Mexico City where the remains of 750 Americans who gave their lives in the Mexican War (1846-1848) are buried.

The decoration of graves with natural cut flowers only, is permitted in the cemeteries under the control of The American Battle Monuments Commission. The Commission is glad to assist interested persons in arranging with local florists in foreign countries to furnish such decorations.

Arlington National Cemetery. Va., contains Tomb of the Unknown Soldier. See Index.
Yorktown (2.91), Yorktown, Va.
The Department of the Interior has jurisdiction over 86 other National Cemeteries (3,435 acres) situated in the United States and its possessions. The American Battle Monuments Commission administers the United States Military Cemeteries and Memorials on foreign soil.

United States Coast Guard

The U. S. Coast Guard dates its origin from Aug. 4, 1790, when the First Congress authorized the construction of a revenue fleet known as the Revenue Marine. The Revenue Marine, later known as the Revenue Cutter Service, ultimately developed into the present-day Coast Guard. However, the modern era of the Service began on Jan. 28, 1915, when Pres. Wilson signed legislation combining the Revenue Cutter Service and the historic Life Saving Service into a single organization to be called the U. S. Coast Guard.

The United States Coast Guard is responsible for a wide range of duties which are concerned with maintaining safety and order upon the high seas and navigable waters subject to the jurisdiction of the United States. The primary purpose of most of these duties is to prevent loss of life and property due to unsafe or illegal practices. The maintenance of safety and order is not limited to enforcement of laws. The Coast Guard also directs a program of education among ship operators and boatmen, and enlists their cooperation in the prevention of marine casualties. This role includes maintenance of more than 44,000 aids to navigation—lighthouses, buoys, bells, etc.—along 40,000 miles of waters; lifesaving activities; removal of derelicts and other menaces to navigation; marine inspection; Oceanographic Research; ice-breaking; medical aid to seamen; law enforcement on the high seas and navigable waters of the United States; the prevention of smuggling; patrol of the North Pacific Ocean and Bering Sea, to regulate the taking of fur-bearing sea mammals and fish; aid during flood and hurricanes; maintenance of the International Ice Patrol to report the amount of iceberg drift for the benefit of vessels crossing the North Atlantic; maintaining ocean weather stations; and supervising the engagement, records and discipline of officers and seamen serving in the Merchant Marine. To carry out its many functions, the Coast Guard has a fleet of more

than 2,900 floating craft of all types plus 166 fixed and rotary-wing aircraft.

The Coast Guard is administered by the Commandant of the Coast Guard, at Headquarters in Washington, D. C., through a field organization of 12 District Coast Guard Offices in the continental United States, Hawaii and Alaska. A military service constituting a branch of the armed forces of the United States at all times the Coast Guard operates as a service of the Transportation Dept., to which it was transferred on April 1, 1967. Until then it was in the Treasury Dept. In time of war, or on direction of the President it operates as part of the Navy.

The Coast Guard Auxiliary is a nonmilitary organization administered by the Commandant, with more than 25,000 members in about 700 communities. Its primary activity is to assist the Coast Guard in the promotion of safety and efficiency in the operation of small boats.

Training facilities include a recruit receiving center at Cape May, N. J., and at Alameda, Calif., various service schools for enlisted men, the Coast Guard Academy in New London, Conn., for officer candidates, and the Reserve Training Center at Yorktown, Va.

The Search and Rescue Agency has the Commandant of the Coast Guard as its head.

Congress on May 14, 1960, enacted a law to improve Coast Guard organization by (1) increasing present limitation of 4 years applicable to extension of enlistments to 6 years; (2) raising the limitation on 3,000 commissioned officer personnel to 3,500; (3) improving civilian teaching staff and commissioned teaching staff at Coast Guard Academy; (4) providing for increased grade of admiral for officer serving as commandant and of vice admiral for officer serving as asst. commandant; eliminating the position of engineer-in-chief and the term of four years for asst. commandant.

Coast Guard Personnel on Active Duty

Source: Treasury Department, U. S. Coast Guard

	Total	Officers ¹	Cadets	Enlisted		Total	Officers ¹	Cadets	Enlisted
1940..	13,756	1,351	144	12,261	1960..	30,616	4,020	405	26,191
1945..	171,192	12,683	219	158,290	1965..	31,700	4,425	440	26,832
1950..	23,190	2,906	296	19,888	1967..	35,631	3,889	804	30,535
1955..	28,607	3,520	533	24,554	1968..	36,683	5,372	799	31,311

¹Includes warrant officers.

Debt Owed U. S. Arising from World War I as of June 30, 1968

Source: Treasury Department

Country	Original Indebtedness	Interest thru June 30, 1968	Cumulative Payments		Unmatured Principal*	Principal and interest due and unpaid*
			Principal	Interest		
Armenia.....	\$ 11,959,917	\$ 29,185,065	\$ 17	.....	.....	\$ 41,144,965
Austria ¹	26,843,148	44,058	862,668	.....	.....	26,024,539
Belgium.....	419,837,630	327,260,720	19,157,630	33,033,043	\$ 189,780,000	505,067,077
Cuba.....	10,000,000	2,286,751	10,000,000	2,286,751	.....	.....
Czechoslovakia	18,007,023	112,847,578	19,829,914	304,175	83,400,000	197,184,509
Estonia.....	18,466,012	22,442,310	.....	1,248,432	8,639,000	29,020,280
Finland.....	8,999,999	11,637,950	24,484,999	211,637,950	4,515,000	.....
France.....	4,089,689,588	3,372,178,164	226,039,588	260,036,402	1,709,919,070	5,265,872,791
Great Britain.....	4,802,181,641	7,132,031,958	434,181,641	1,590,672,656	2,337,000,000	7,572,359,301
Greece.....	430,319,813	3,493,628	.....	3,496,251	20,790,141	12,567,376
Hungary ¹	1,982,555	2,841,815	73,995	482,924	1,054,635	3,213,816
Italy.....	2,042,361,319	354,784,720	37,464,319	63,365,360	1,127,400,000	1,168,919,159
Latvia.....	6,888,664	9,189,878	.....	752,349	3,648,300	11,968,694
Liberia.....	26,000	10,471	26,000	10,471	.....	.....
Lithuania.....	6,432,465	8,827,681	236,783	1,003,173	3,355,037	10,667,152
Nicaragua ¹	141,950	26,625	141,950	26,625	.....	.....
Poland.....	207,344,297	286,609,084	91,287,297	21,339,000	111,324,000	359,083,084
Rumania.....	65,359,192	53,076,784	24,498,632	292,375	30,794,000	85,850,969
Russia.....	192,601,297	485,719,744	.....	88,750,311	.....	669,570,729
Yugoslavia.....	63,577,712	27,982,152	1,952,712	639,050	34,138,000	54,533,093
Total.....	\$12,195,087,259	\$12,245,517,146	\$761,295,052	\$1,999,305,017	\$5,665,756,184	\$16,014,248,152

*To arrive at the total outstanding figure add the figures in the two columns together.

¹The Federal Republic of Germany has recognized liability for securities falling due between March 12, 1938 and May 8, 1945.

²\$7,419,970.26 has been made available for educational exchange programs with Finland pursuant to 20 U.S.C. 222-224.

³Includes \$13,155,921.00 refunded by the agreement of May 28, 1964. The agreement was ratified by Congress Nov. 5, 1966.

⁴Interest payments from December 15, 1932 to June 15, 1937 were paid in pengo equivalent.

⁵The indebtedness of Nicaragua was canceled pursuant to the agreement of April 14, 1938.

⁶Excludes claim allowance of \$1,813,428.69 dated December 15, 1929.

⁷Excludes payment of \$100,000.00 on June 14, 1940 as a token of good faith.

⁸Principally proceeds from liquidation of Russian assets in the United States.

Casualties in Principal Wars of the United States

SEE INDEX FOR VIETNAM CASUALTIES

Data prior to World War I are based upon incomplete records in many cases. Casualty data are confined to dead and wounded personnel and therefore exclude personnel captured or missing in action who were subsequently returned to military control. Dash (—) indicates information is not available.

Wars	Branch of service	Number serving	Casualties			
			Battle deaths	Other deaths	Wounds not mortal ⁸	Total ¹
Revolutionary War 1775-1783	Total	—	4,435	—	6,188	10,623
	Army	184,000	4,044	—	6,004	10,048
	Navy	to	342	—	114	456
	Marines	250,000	49	—	70	119
War of 1812 1812-1815	Total	9286,730	2,260	—	4,505	6,765
	Army	—	1,950	—	4,000	5,950
	Navy	—	265	—	439	704
	Marines	—	45	—	66	111
Mexican War 1846-1848	Total	978,718	1,733	11,550	4,152	17,435
	Army	—	1,721	11,550	4,102	17,373
	Navy	—	1	—	3	4
	Marines	—	11	—	47	58
Civil War (Union forces only) 1861-1865	Total	92,213,363	140,414	224,097	281,881	646,392
	Army	2,128,998	138,154	221,374	280,040	639,568
	Navy	84,415	2,112	2,411	1,710	6,233
	Marines	—	148	312	131	591
Confederate forces (estimate) ¹ 1863-1866	Total	—	74,524	59,297	—	133,821
	Army	600,000	—	—	—	—
	Navy	to	—	—	—	—
	Marines	1,500,000	—	—	—	—
Spanish-American War 1898	Total	306,760	385	2,061	1,662	4,108
	Army ⁴	280,564	369	2,061	1,594	4,024
	Navy	22,875	10	0	47	57
	Marines	3,321	6	0	21	27
World War I April 6, 1917 Nov. 11, 1918	Total	4,743,826	53,513	63,195	204,002	320,710
	Army ⁶	4,057,101	50,510	55,868	193,663	300,041
	Navy	589,051	431	6,856	819	8,106
	Marines	78,839	2,461	390	9,520	12,371
	Coast Gd.	8,835	111	81	—	192
	—	—	—	—	—	—
World War II Dec. 7, 1941— Dec. 31, 1946 ²	Total	16,353,659	292,131	115,185	670,846	1,078,162
	Army ⁶	11,260,000	234,874	83,400	565,861	884,135
	Navy ⁷	4,183,466	36,950	25,664	37,778	100,392
	Marines	669,100	19,733	4,778	67,207	91,718
	Coast Gd.	241,093	574	1,343	—	1,917
	—	—	—	—	—	—
Korean War June 25, 1950— July 27, 1953 ³	Total	5,764,143	33,629	20,617	103,284	157,530
	Army	2,834,000	27,704	9,429	77,596	114,729
	Navy	1,177,000	458	4,043	1,576	6,077
	Marines	424,000	4,267	1,261	23,744	29,272
	Air Force	1,285,000	1,200	5,884	—	7,452
	Coast Gd.	44,143	—	—	—	—

¹Authoritative statistics for the Confederate Forces are not available. An estimated 26,000-31,000 Confederate personnel died in Union prisons.

²Data are for the period Dec. 1, 1941 through Dec. 31, 1946 when hostilities were officially terminated by Presidential Proclamation, but few battle deaths or wounds not mortal were incurred after the Japanese acceptance of Allied peace terms on Aug. 14, 1945. Numbers serving from Dec. 1, 1941-Aug. 31, 1945 were: Total—14,908,213; Army—10,420,000; Navy—3,883,520; and Marine Corps—599,693.

³Tentative final data based upon information available as of Sept. 30, 1954, at which time 24 persons were still carried as missing in action.

⁴Number serving covers the period April 21-Aug. 13, 1898, while dead and wounded data are for the period May 1-Aug. 31, 1898. Active hostilities ceased on Aug. 13, 1898, but ratifications of the treaty of peace were not exchanged between the United States and Spain until April 11, 1899.

⁵Includes Air Service. Battle deaths and wounds not mortal include casualties suffered by American forces in Northern Russia to Aug. 25, 1919 and in Siberia to April 1, 1920. Other deaths cover the period April 1, 1917-Dec. 31, 1918. ⁶Includes Army Air Forces.

⁷Battle deaths and wounds not mortal include casualties incurred in Oct. 1941 due to hostile action.

⁸Marine Corps data for World War II, the Spanish-American War and prior wars represent the number of individuals wounded, whereas all other data in this column represent the total number (incidence) of wounds.

⁹As reported by the Commissioner of Pensions in his Annual Report for Fiscal Year 1903.

American Military Action, 1900-1968

1900—Occupation of Puerto Rico (annexed 1899).
1900—2,500 Marines help relieve Peking in Boxer Rebellion.

1900-1902—Occupation of Cuba.

1900-1902—Guerrilla war in Philippines.

1903—Sailors and Marines from U. S. S. Nashville stop Colombian Army at Panama.

1904—Brief intervention in Dominican Republic.

1906-1909—Intervention in Cuba.

1909—Brief intervention in Honduras.

1911—Intervention (to collect customs) in Honduras, Nicaragua, Dominican Republic.

1914—Apr. 21 to Nov. 23. Marines in Vera Cruz; also Atlantic fleet and Brig. Gen. Fredk. Funston.

1914—Marines enter Haiti, stay until 1934.

1916—Gen. John J. Pershing and 12,000 into Northern Mexico to stop raids by Villa, Mar. 15-Nov. 24.

1916-1924—Marines in Dominican Republic.

1917—Apr. 6 to Nov. 11, 1918. War with Germany, Austria-Hungary.

1918-1920—Expedition into Russia, Siberia.

1918-1923—Occupation of Germany.

1922-24—Marines in Nicaragua.

1926-33—Marines in Nicaragua.

1927—1,000 U. S. Marines in China.

1941-1945—War with Japan, Germany, Italy and allies. Army units posted in Japan and West Germany.

1950-1953—U. S. and other U.N. countries aid the Republic of Korea to repel North Korean invaders; U. S. Navy protects Taiwan.

1957—U. S. Fleet to Near East.

1958—Marines and Army units support Lebanon.

1960—Navy patrol in Caribbean to protect Guatemala and Nicaragua.

1961—Army units to Vietnam.

1962—Units of U. S. Navy on Cuban blockade duty. Marines in Thailand.

1962-65—U. S. Military Assistance Command, Vietnam; units of U. S. Army, Navy, Air Force, Marine Corps, Coast Guard.

1965—Marines, U. S. Army units to Dominican Republic.

1965—American commanders in Vietnam authorized to send U.S. Armed Force into combat.

Casualties of All Belligerents in World War I

Source: U. S. War Department

Country	Total Mobilized Forces	Killed and Died	Wounded Casualties	Prisoners and Missing	Total Casualties	Per cent
ALLIES						
Russia.....	Number 12,000,000	Number 1,700,000	Number 4,950,000	Number 2,500,000	Number 9,150,000	76.3
France.....	8,410,000	1,357,800	4,266,000	537,000	6,160,800	73.3
British Commonwealth.....	8,904,467	908,371	2,090,212	191,652	3,190,235	35.8
Italy.....	5,615,000	650,000	947,000	600,000	2,197,000	39.1
United States.....	4,355,000	126,000	234,300	4,500	364,800	8.0
Japan.....	800,000	300	907	2	1,210	.2
Romania.....	750,000	335,706	120,000	80,000	535,706	71.4
Serbia.....	707,343	45,000	133,148	152,958	331,106	46.8
Belgium.....	267,000	13,716	44,686	34,659	93,061	34.9
Greece.....	280,000	5,000	21,000	1,000	27,000	11.7
Portugal.....	100,000	7,222	13,751	12,318	33,291	33.3
Montenegro.....	50,000	3,000	10,000	7,000	20,000	40.0
Total.....	42,188,810	5,152,115	12,831,004	4,121,099	22,104,209	52.3
CENTRAL POWERS						
Germany.....	11,000,000	1,773,700	4,216,058	1,152,800	7,142,558	64.9
Austria-Hungary.....	7,800,000	1,200,000	3,620,000	2,200,000	7,020,000	90.0
Turkey.....	2,850,000	325,000	400,000	250,000	975,000	34.2
Bulgaria.....	1,200,000	87,500	152,390	27,020	266,919	22.2
Total.....	22,850,000	3,386,200	8,388,448	3,629,829	15,404,477	67.4
Grand total.....	65,038,810	8,538,315	21,219,452	7,750,919	37,508,686	57.9

Peak Strength of Armed Forces; Battle Deaths in World War II

Source: Peak strength from U. S. Department of the Army. Battle deaths from various sources.

ALLIES AND ASSOCIATED POWERS

Country	Peak strength	Battle deaths	Country	Peak strength	Battle deaths
Australia.....	680,000	23,365	New Zealand.....	157,000	10,033
Belgium.....	650,000	7,760	Norway.....	45,000	1,000
Canada.....	780,000	37,476	Poland.....	1,000,000	320,000
China.....	5,000,000	12,200,000	So. Africa, Union of.....	140,000	6,840
Denmark.....	25,000	3,006	United Kingdom.....	5,120,000	244,723
France.....	5,000,000	210,671	United States.....	12,300,000	291,557
Greece.....	414,000	773,700	U.S.S.R.....	12,500,000	7,500,000
India.....	2,150,000	24,338	Yugoslavia.....	500,000	410,000
Netherlands.....	410,000	6,238			

¹1937-1945 against Japan. *Includes 50,000 killed in guerrilla warfare. ²Peak strength of U. S. Army in World War II—May 31, 1945—8,291,336.

OTHER POWERS THAT DECLARED WAR ON AXIS

Forces engaged and losses, if any, not available.

Country	Peak strength	Country	Peak strength	Country	Peak strength	Country	Peak strength
Albania.....	25,000	Czechoslovakia.....	150,000	Honduras.....	3,500	Peru.....	40,000
Argentina.....	160,000	Dom. Republic.....	5,000	Iran.....	120,000	Philippines.....	200,000
Bolivia.....	10,000	Ecuador.....	9,000	Iraq.....	47,000	Turkey.....	850,000
Brazil.....	200,000	Egypt.....	54,000	Liberia.....	1,000	Uruguay.....	11,000
Chile.....	60,000	El Salvador.....	3,500	Luxembourg.....	1,000	Venezuela.....	15,000
Colombia.....	19,000	Ethiopia.....	38,000	Mexico.....	70,000		
Costa Rica.....	500	Guatemala.....	6,000	Nicaragua.....	3,500		
Cuba.....	20,000	Haiti.....	4,000	Paraguay.....	10,000		

AXIS

Country	Peak strength	Battle deaths	Country	Peak strength	Battle deaths
Bulgaria.....	450,000	10,000	Italy.....	3,750,000	*77,494
Finland.....	250,000	82,000	Japan.....	6,095,000	1,219,000
Germany (inc. Austria).....	10,200,000	3,500,000	Romania.....	600,000	300,000
Hungary.....	350,000	140,000	*Includes 17,494 on Allied side.		

NEUTRALS, Peak Strength—Afghanistan, 92,000; Portugal, 115,000; Saudi Arabia, 8,000; Siam, 126,500; Spain, 850,000; Sweden, 350,000; Switzerland, 650,000.

ADJUTANT GENERAL'S FIGURES OF CIVIL WAR DEATHS

Figures reported from the Adjutant General's Office previous to the above revision, and accepted for many years, are as follows:

Union Army, according to records in the office of the Adjutant General of the War Department in Washington—killed or died of wounds, 110,070 (6,365 officers, 103,705 men); died of disease, 224,586 (2,795 officers, 221,791 men); other deaths, 24,872 (424 officers, 24,448 men). **Totals**, 359,528 (9,584 officers, 349,944 men).

Confederate Army, estimated, no official records in the office of the Adjutant General of the War Department in Washington—killed in battle, 52,954 (2,086 officers, 50,868 men); died of wounds, 21,570 (1,246 officers, 20,324 men); died of disease, 59,297 (1,294 officers, 58,003 men). **Total**, 113,821 (4,626 officers, 129,195 men).

WORLD WAR II MERCHANT MARINE CASUALTIES

Source: U. S. Coast Guard

Died from direct causes while serving on American flag ships, 345; died in prisoner-of-war camps, 37; listed as missing, 4,780.

There were 572 released prisoners of war, and one prisoner unaccounted for. Another 500 men died while serving on foreign flag ships under U. S. control.

The number of U. S. flag ships lost was 605 of 6,000,000 deadweight tons.

Death of Last U. S. Cavalry Horse Ends an Era

Chief, a bay gelding who was the last Cavalry horse on the rolls of the United States Army, died May 24, 1968, at Fort Riley, Kan. He was 36 years old and had lived for 18 years in semi-retirement. The Army held an elaborate military funeral to mark the end of an era.

Veterans' Benefits Further Improved by 1968 Legislation

Source: Veterans Administration, William J. Driver, Administrator, Washington, D. C. 20420

The chief laws in behalf of veterans and their dependents enacted by Congress in 1968 assured that veterans receiving pensions will not suffer pension cuts because of increases in their Social Security benefits, raised the home loan guarantee ceiling from \$7,500 to \$12,500; and increased compensation payments by up to \$100 monthly. The year also saw the veteran population of the nation climb by more than 1,000,000 to a total of 26,314,000.

Major veterans legislation was passed in 1966 when all veterans who served in the Armed Forces after Jan. 31, 1955 (official termination of the Korean Conflict) were provided a permanent program of educational assistance and other benefits by the Veterans Readjustment Benefits Act of 1966. In 1967, with the U. S. Armed Forces serving in Vietnam, Congress responded to the President's request to provide war-time benefits to Vietnam veterans as well as increased benefits for older veterans. Public Law 90-77, the Veterans Pension and Readjustment Assistance Act of 1967, became fully effective Oct. 1, 1967.

One of the most popular provisions with young veterans was the increase in educational assistance allowances. The law provides that veterans of active duty in the Armed Forces for more than 180 days, any part of which was after Jan. 1 1955, are entitled to receive monthly educational allowances according to the following table:

Kind of training	Dependents			
	None	One	Two	Above 2*
School:				
Full-time....	\$130	\$155	\$175	\$10
¾ Time.....	95	115	135	7
½ Time.....	60	75	85	5
Cooperative..	105	115	145	7

*The amount in column for 2 plus the amount shown for each dependent.

Entitlement is on a basis of one month of schooling for each month of service, up to 36 months, or the equivalent in part-time education. Eligibility ceases at the end of 8 years from the date of the veteran's last release from active duty after Jan. 31, 1955. Entitlement is also extended to any person on active duty in the Armed Forces who has served for at least two years and continues on active duty.

Full-time training consists of 14 semester hours or the equivalent, three-quarter time consists of 10 to 13 semester hours, and half-time is 7 to 9 semester hours or the equivalent. A cooperative program is a full-time program of education consisting of institutional courses and alternate phases of training in a business or industry.

Full education assistance allowances were made available to "educationally disadvantaged" veterans so they can complete high school without reducing their eligibility for advanced educational benefits.

Also, monthly allowances for apprenticeships and on-the-job training have been provided. Payments range from \$80 a month for a single veteran to \$100 a month when there are two or more dependents. The allowances are reduced for succeeding six-month periods.

Monthly allowances for farm cooperative training cover institutional agricultural courses with a minimum of 12 clock hours per week in addition to related work on the farm. Allowances range from \$105 a month for the single veteran

to \$145 a month when there are two dependents, plus an additional \$7 a month for each additional dependent.

Flight training leading to a commercial license was added to educational benefits by the 1967 legislation which authorizes such training at approved flying schools only for veterans who have a private flying license or who have satisfactorily completed the required flying and ground school instruction for a private license. Allowances range from \$130 per month for single veterans in full programs to \$175 for those with two dependents plus \$10 per month for each additional dependent. Unlike ordinary classroom study, flight training allowances are based on cost. VA pays 90% of the ordinary costs of the training up to the limit of a veteran's total eligibility for educational assistance. For each \$130 a veteran receives for flight training assistance, his eligibility is charged one month.

Under the current law, eligible veterans and servicemen may obtain GI loans made by private lenders and guaranteed by the VA, for the purchase of homes or farms. In certain rural areas where ordinary lending facilities are not available, direct loans may be made by the VA for the purchase of homes and farmhouses. The effect of the Government's guarantee is intended to be to eliminate or reduce the amount of the down payment the lender normally requires. The VA may guarantee a home loan made by a private lender up to \$12,500 or 60% of the loan, whichever is less. The guarantee on a farm real estate loan other than to acquire a home may not exceed \$4,000 or 50% of the loan. Not more than \$2,000 or 50% of the loan may be guaranteed for non-real estate farm loans. GI loans bear interest not to exceed 6.75%. There is no maximum on the amount of a guaranteed loan, the only limit is on the amount of the guarantee. Direct loans made by the VA may not exceed \$17,500.

The law now provides complete hospital service for veterans with service-connected disabilities and care (if beds are available) to veterans of the Spanish-American War, World War I, World War II, and the Korean Conflict and all veterans since that time. Veterans with non-service-connected disabilities are admitted if a bed is available and if they are unable to defray the cost.

The law also provides civil service preference in Federal employment and extends to these veterans job counseling and employment placement service under the supervision of the U. S. Department of Labor.

Unemployment compensation is also administered by the U. S. Department of Labor through State Employment Service offices. The amount of the unemployment pay for which most veterans may become eligible depends upon the laws of the state in which the veteran lives.

Prior laws granted compensation to veterans who are disabled by injury or disease incurred in or aggravated by active service in the line of duty. Payments are based on the degree of disability.

Certain pension payments were increased by the 1967 legislation and various other benefits were also increased.

For the very seriously disabled veterans the VA may provide specially equipped automobiles, as well as prosthetic devices, and grants for the purchase or construction of "wheelchair homes."

PAY SCALE of the ARMY,

COMMISSIONED OFFICERS

Pay grade	Army and Air Force rank	Navy rank	Cumulative years of service (Rate per month, dollars) Over 2 years round figures						
			Under 2	Over 2	Over 3	Over 4	Over 5	Over 6	Over 7
O-10 ¹	Chief of Staff.....	Admiral.....	\$2208.60	\$2209	\$2209	\$2209	\$2209	\$2209	\$2209
O-10 ¹	General*.....	Vice Admiral.....	1607.70	1664	1664	1664	1664	1664	1664
O-9	Lieutenant General.....	Rear Admiral (upper half).....	1425.00	1462	1493	1493	1493	1493	1493
O-8	Major General.....	Rear Admiral (lower half).....	1290.60	1329	1360	1360	1360	1360	1360
O-7	Brigadier General.....	Captain.....	1072.20	1145	1145	1145	1196	1196	1265
O-6	Colonel.....	Commander.....	794.40	873	930	930	930	930	930
O-5	Lieutenant Colonel.....	Lieutenant Commander.....	635.40	746	797	797	797	797	822
O-4	Major.....	Ensign.....	536.10	652	696	696	708	740	790
Commissioned officers with less than 4 years of active service as an enlisted member ²									
O-3	Captain.....	Lieutenant (junior grade).....	498.30	556	594	594	658	689	714
O-2	First Lieutenant.....	Ensign.....	399.20	474	569	588	600	600	600
O-1	Second Lieutenant.....	Ensign.....	343.20	379	474	474	474	474	474
Commissioned officers with over 4 years of active service as an enlisted member ²									
O-3	Captain.....	Lieutenant.....	583.20	611	633	658	689	714	753
O-2	First Lieutenant.....	Lieutenant (junior grade).....	521.40	533	549	588	600	620	652
O-1	Second Lieutenant.....	Ensign.....	420.30	448	465	474	506	525	544

WARRANT OFFICERS

W-4	Chief Warrant.....	Commissioned Warrant.....	507.30	544	544	556	582	607	632
W-3	Chief Warrant.....	Commissioned Warrant.....	461.10	500	500	506	512	550	582
W-2	Chief Warrant.....	Commissioned Warrant.....	403.80	436	436	449	474	500	519
W-1	Warrant Officer.....	Warrant Officer.....	336.60	386	386	417	436	455	474

ENLISTED PERSONNEL³

E-9 ⁴	Sergeant Major **.....	Master Chief Petty Officer.....							576
E-8 ⁴	Master Sergeant.....	Senior Chief Petty Officer.....							493
E-7	Sgt. 1st Class.....	Chief Petty Officer.....	303.90	364	377	391	404	417	430
E-6	Staff Sergeant.....	Petty Officer, 1st class.....	261.90	318	331	344	358	371	384
E-5	Sergeant.....	Petty Officer, 2nd class.....	226.20	278	291	304	324	338	351
E-4	Corporal.....	Petty Officer, 3rd class.....	190.20	238	251	271	285	285	285
E-3	Private 1st Class.....	Seaman.....	137.70	192	205	218	218	218	218
E-2	Private.....	Seaman Apprentice.....	113.40	159	159	159	159	159	159
E-1	Private.....	Seaman Recruit.....	109.60	145	145	145	145	145	145
E-1	(under 4 months).....	(under 4 months).....	102.30						

The pay scale also applies to: Coast Guard and Marine Corps, Coast and Geodetic Survey, Public Health Service, National Guard, and the Organized Reserves.

*Four star General or Admiral—personal money allowances of \$2,200 per annum, or \$4,000 if Chief of Staff or Chief of Naval Operations.

Three star General or Admiral—personal money allowance of \$500 per annum.

A senior member of the United Nations Staff (while so serving) receives pay and allowances of a three star General or Admiral plus \$2,200 personal money allowance.

**A new title of Chief Master Sergeant created in 1965 rates in E-9 classification.

¹While serving as Chairman of Joint Chiefs of Staff, Chief of Staff of the Army, Chief of Naval Operations, Chief of Staff of the Air Force, or Commandant of the Marine Corps, basic pay for this grade is \$2,493.00 regardless of cumulative years of service.

²First 3 steps not affected by increase of July 1, 1968.

³Air Force enlisted personnel pay grades, E-9, Chief Master Sergeant; E-8, Sr. Master Sergeant; E-7, Master Sergeant; E-6, Technical Sergeant; E-5, Staff Sergeant; E-4 Sergeant; E-3, Airman 1st Class; E-2, Airman; E-1, Basic Airman.

Marine Corps enlisted ranks are as follows: E-9, Sergeant Major and Master Gunnery Sergeant; E-8, First Sergeant and Master Sergeant; E-7, Gunnery Sergeant; E-6, Staff Sergeant; E-5, Sergeant; E-4, Corporal; E-3, Lance Corporal; E-2, Private First Class Marine; E-1, Private.

Marine Corps officer ranks are same as Army and AF.

⁴While serving as Sergeant Major of the Army, Master Chief Petty Officer of the Navy, Chief Master Sergeant of the Air Force, or Sergeant Major of the Marine Corps, basic pay for this grade is \$902.40 regardless of cumulative years of service.

⁵Authorized only when government quarters are not available.

HAZARDOUS DUTY

Flying Duty (crew member) and Submarine Duty

Additional Monthly Pay

	Under 3 yrs.	Over 3 yrs.	Maximum Over—Amt.
O-10	\$165	\$165	\$165
O-9	165	165	165
O-8	155	165	165
O-7	150	160	160
O-6	200	215	18 yrs.—\$245
O-5	190	205	18 " — 245
O-4	170	185	18 " — 240
O-3	145	155	14 " — 205
Under 2 yrs.			
O-2	115	125	14 " — 185
O-1	100	105	14 " — 170
W-4	115	125	18 " — 165
W-3	110	115	14 " — 140
W-2	105	110	14 " — 135
W-1	100	105	12 " — 130
E-9	105	105	105
E-8	105	105	105
E-7	80	85	12 yrs.—105
E-6	70	75	12 " — 100
E-5	60	70	12 " — 95
E-4	55	65	8 " — 80
E-3	55	60	8 " — 60
E-2	50	60	8 " — 60
E-1	50	55	8 " — 55

Aviation Cadet under 2 years \$50.

*W-4 Under 6 years receives \$115.

INCENTIVE PAY

Officers and Warrant Officers.....\$110.00

Enlisted men.....55.00

Types of duties for which these flat rates are payable are as follows—(1) Frequent and regular aerial flights not as a crew member. (2) Parachute jumping as an essential part of military duty. (3) Duty involving intimate contact with leprosy. (4) Duty involving demolition of explosives. (5) Submarine escape training tank duty. (6) Deep sea diving duty (including helium-oxygen diving). (7) Human acceleration or deceleration duty. (8) High-or-low-pressure chamber duty. (9) Thermal stress duty. (10) Training for assignment to submarines of advanced design or for positions of increased responsibility aboard a submarine.

SEA AND FOREIGN DUTY

Defense Secretary designates places where special duty pay may be awarded

(See Pay Grades listed above)

E-9.....	\$22.50	E-4.....	\$13.00
E-8.....	22.50	E-3.....	9.00
E-7.....	22.50	E-2.....	8.00
E-6.....	20.00	E-1.....	8.00
E-5.....	16.00		

NAVY and AIR FORCE (July 1, 1968 see asterisk below)**COMMISSIONED OFFICERS**

Cumulative years of service (Rate per month, dollars) Round Figures								Basic allowance for quarters (Subsistence allowances explained below)	
Over 12	Over 14	Over 16	Over 18	Over 20	Over 22	Over 26	Over 30	Without dependents	With dependents
\$2209	\$2209	\$2209	\$2209	\$2209	\$2209	\$2209	\$2209	\$180.20	\$201.00
1860	1860	1993	1993	2126	2126	2259	2259	160.20	201.00
1594	1594	1728	1728	1860	1860	1993	1993	160.20	201.00
1531	1531	1594	1664	1728	1797	1797	1797	160.20	201.00
1265	1329	1462	1563	1563	1563	1563	1563	160.20	201.00
930	962	1113	1170	1196	1265	1373	1373	140.10	170.10
866	924	993	1050	1082	1120	1120	1120	130.20	157.50
835	873	911	936	936	936	936	936	120.00	145.05
790	810	810	810	810	810	810	810	105.00	130.05
600	600	600	600	600	600	600	600	95.10	120.00
474	474	474	474	474	474	474	474	85.20	110.10
790	822	822	822	822	822	822	822	105.00	130.05
677	696	696	696	696	696	696	696	95.10	120.00
563	588	588	588	588	588	588	588	85.20	110.10

WARRANT OFFICERS

677	708	734	753	778	804	866	866	120.00	145.05
600	620	638	658	683	708	734	734	105.00	130.05
537	556	576	594	613	638	638	638	95.10	120.00
493	512	531	550	569	569	569	569	85.20	110.10

Dependents (a)

ENLISTED PERSONNEL ¹								Dependents (a)			
								None ²	One	Two	Over 2
589	603	616	630	642	676	742	742	85.20	120.00	120.00	120.00
510	523	537	549	563	596	663	663	85.20	120.00	120.00	120.00
444	464	477	490	497	530	596	596	75.00	114.90	114.90	114.90
404	417	430	437	437	437	437	437	70.20	110.10	110.10	110.10
364	371	371	371	371	371	371	371	70.20	105.00	105.00	105.00
285	285	285	285	285	285	285	285	70.20	105.00	105.00	105.00
218	218	218	218	218	218	218	218	55.20	55.20	83.10	105.00
159	159	159	159	159	159	159	159	55.20	55.20	83.10	105.00
145	145	145	145	145	145	145	145	55.20	55.20	83.10	105.00

(a) Payable only when serviceman authorizes deduction of a specified amount from his basic pay—\$40 to \$80 depending on grade.

BASIC ALLOWANCES FOR SUBSISTENCE

This allowance, the quarters allowance, and any other allowance are not subject to income tax. Officers—Subsistence (food) is paid to all officers regardless of rank.....\$47.88 per month

Enlisted members:

When rations in kind are not available \$2.57 per day
When permission is granted to mess off the base \$1.10 per day or \$33.00 per month
When assigned to duty under emergency conditions where no government messing facilities are available \$3.42 per day (maximum rate)

FAMILY SEPARATION ALLOWANCE

Under certain conditions of family separation of more than 30 days, members in Pay Grades E-4 (with over 4 years' service) and above will be allowed \$30 a month in addition to any other allowances to which he is entitled.

UNIFORM ALLOWANCE

Enlisted personnel receive an initial uniform allowance valued at \$164 to \$285, with variations between Services. After 6 months and up to the 36th month, a monthly maintenance allowance of \$4.20 is paid. After 36 months the monthly allowance varies between \$5.40 and \$6.00.

REENLISTMENT BONUS

Reenlistment bonuses are paid to enlisted personnel, ranging from \$400 for third reenlistment to \$820 for first reenlistment; maximum cumulative bonus \$2,000.

SPECIAL PAY

Members of the uniformed services entitled to receive basic pay shall, in addition thereto, be entitled to receive incentive pay for the performance of hazardous duty required by competent orders. The President may, in time of war, suspend the payment of incentive pay for the performance of any or all hazardous duty. Officers receive no additional pay for overseas or sea duty.

DUTY SUBJECT TO HOSTILE FIRE

Except in time of war declared by the Congress, a special pay of \$55 a month is allotted to any member of the Uniformed Services during any month in which he was subject to hostile fire.

MEDICAL AND DENTAL CORPS

Commissioned officers in the Medical, Dental and Veterinary Corps of the Regular Army, Navy and Air Force and commissioned medical, dental, and veterinary officers of the Regular Corps of the Public Health Service receive special pay based on cumulative years of service as follows: 0-2 years, \$100; 2 to 6 years, \$150; 6 to 10 years, \$250; over 10 years \$350. These rates are in addition to basic pay and allowance.

NEW DEFENSE DEPARTMENT PAY POLICY

The Defense Dept. announced June 21, 1965, a new policy under which military men in South Vietnam will be eligible for \$55 a month extra in combat pay. The new policy also made special combat pay available to men injured or wounded by hostile fire, explosion of enemy mines, or other hostile action in the Dominican Republic.

***Military Pay Scale**

A pay rise bill for the members of the armed forces was approved in 1967 by Congress and signed by the President. The bill provided for increases in 3 steps, first in Oct. 1, 1967, the second for July 1, 1968 (shown above) and the third April 1, 1969.

Selective Service System; Military Selective Service Act

Source: Selective Service System, Washington, D. C.

Legislation providing for Selective Service has been in effect continuously since 1948. The induction provisions of the Military Selective Service Act of 1967 were extended until July 1, 1971, by Act of Congress, June 30, 1967.

The Selective Service System registers, classifies, selects and delivers men for induction into the Armed Forces. Most of the needs of the services are met by enlistments. But it is generally recognized that most men who enlist do so in order to choose a time to serve and a service of their choice, as an alternative to later induction. The military services rely on the prospect of induction to prompt enlistments. The Selective Service System, by induction, supplies the balance required to meet service needs.

The System also aids in maintaining the strength and the stability of the Reserve and National Guard. Deferments are provided for continued satisfactory participation in these reserve programs. Sufficient satisfactory participation in the Ready Reserve qualifies a man for Class IV-A as having completed service under the Military Selective Service Act of 1967.

The draft of married men into the Armed Forces was delayed by Pres. Kennedy Sept. 10, 1963. The order changed the sequence of selection so that married non-fathers would be called only after all single men 19-26 had been called. Pres. Johnson on Aug. 26, 1965 changed the order of selection to place childless married men in the same draft classification as single men. This was necessary because the pool of single men was no longer ample to fill draft quotas to meet the increased needs of the Armed Forces.

STANDBY RESERVE

In addition to helping maintain the active and reserve forces, the Selective Service System has statutory responsibility for the selective recall of the nation's Standby Reserve when their recall to duty is authorized. The System must make and keep current a determination of which individual members of the Standby Reserve are available for recall and which should remain in the civilian economy because of occupations vital to the nation or because recall would result in extreme hardship to dependents. The System is thus responsible for the proper utilization of this segment of the manpower resource, numbering at this time 466,554 men and women as of June 30, 1968.

DEFERMENTS AND EXEMPTIONS

The law states that selection for service is to be accomplished in a manner "consistent with the maintenance of an effective national economy." The operation of the System has had the effect, through the prospect of deferment, of inducing men to prepare for, enter into, and remain in, civilian activities essential to national strength. The Act of 1967 provides for the deferment of persons satisfactorily pursuing a full-time course of instruction at a college, university, or similar institution of learning who request such deferment. Such deferment shall continue until the registrant completes the requirements of his baccalaureate degree, fails to pursue satisfactorily a full-time course of instruction, or attains the age of 24, whichever occurs first.

A registrant who has received a student deferment after July 1, 1967, and has been awarded a baccalaureate degree may not subsequently be classified in I-S (C) or III-A on the sole basis of fatherhood.

After Oct. 1, 1967, only graduate students pursuing medical studies or in other fields identified by the Director of Selective Service after receiving advice from the National Security Council may receive graduate student deferments. Students who entered their second or subsequent year of graduate school without interruption by Oct. 1, 1967 may be deferred for one additional year to earn a master's degree or not to exceed a total of five years to earn a doctorate or professional degree or one additional year whichever is greater.

Deferments also are provided for fathers, ex-

treme hardship to dependents, agricultural and industrial occupations, apprentices, some officials, sole surviving sons, some aliens, and for those physically, mentally, or morally not qualified for military service. Ministers and divinity students are exempted from service but not from registration.

INDUCTIONS

The number of men inducted since 1948 through June 1968 was 4,213,678 which included 108,632 for the Marine Corps and 30,092 for the Navy. Calls by month since January 1968 were: Jan. 34,000; Feb. 23,300; Mar. 41,000; Apr. 48,000; May 45,900; June 20,000; July 15,000; Aug. 18,300; Sept. 12,200; Oct. 13,300; Nov. 10,000.

Physicians, dentists and allied specialist categories are liable for service under the same conditions that apply to all registrants. The law gives the President authority to order these registrants to active duty involuntarily from the Reserve. It also provides that the Secretary of Defense may requisition registrants by specialty. The prospect of induction of these registrants on special calls influence them to apply for and accept reserve commissions. They are then ordered to two years of active duty as service needs dictate.

SEQUENCE OF SELECTION

Registrants are selected for induction in the following order: (1) Delinquents 19 and older with the oldest selected first; (2) Volunteers 17-25 in sequence in which they volunteer for induction; (3) Nonvolunteers 19-25 single or married after Aug. 26, 1965, with the oldest selected first; (4) Nonvolunteers 19-25 married on or before Aug. 26, 1965 with the oldest selected first; (5) Nonvolunteers 26 and older with the youngest selected first; (6) Nonvolunteers 18½ to 19 with the oldest selected first.

CLASSIFICATION

The registrant is placed by the local board in one of the following classes:

Class I-A: Available for military service.

Class I-A-O: Conscientious objector available for non-combatant military service only.

Class I-C: Member of the Armed Forces of the United States, Environmental Science Services Administration, or the Public Health Service.

Class I-D: Member of reserve component or student studying military training.

Class I-O: Conscientious objector available for civilian work contributing to the maintenance of the national health, safety, or interest.

Class I-S: Student deferred by law until graduation from high school or attainment of age of 20, or until end of his academic year at a college or university.

Class I-W: Conscientious objector performing civilian work contributing to the maintenance of the national health, safety, or interest, or who has completed such work.

Class I-Y: Registrant qualified for military service only in time of war or national emergency.

Class II-A: Registrant deferred because of civilian occupation (except agriculture and activity in study).

Class II-C: Registrant deferred because of agricultural occupation.

Class II-S: Registrant deferred because of activity in study.

Class III-A: Registrant with a child or children; and registrant deferred by reason of extreme hardship to dependents.

Class IV-A: Registrant who has completed service; sole surviving son.

Class IV-B: Officials deferred by law.

Class IV-C: Aliens not currently liable for military service.

Class IV-D: Ministers of religion or divinity students.

Class IV-F: Registrant not qualified for any military service.

Class V-A: Registrant over the age of liability for military service.

SELECTIVE SERVICE SYSTEM

The Selective Service System has a National Headquarters at 1724 F Street N. W., Washington, D. C. 20435; a state hq. in each state and similar hq. for New York City, the District of Columbia, the Virgin Islands, Puerto Rico, Guam, and the Panama Canal Zone—a total of 56. Approximately 4,000 local draft boards of 3 or more unpaid civilians, function one in each county except in sparsely populated areas, or in heavily populated urban areas. An appeal board is situated in each Federal judicial district.

VITAL STATISTICS

Source: Division of Vital Statistics, National Center for Health Statistics, Public Health Service
U. S. Dept. of Health, Education & Welfare

First Half-Year, January-June 1968

BIRTHS

The birth rate and the fertility rate continued to decline during the first half of 1968. Live births during the 6 months totaled 1,645,000, a decrease of 71,000 from the figure for the corresponding 6 months in 1967. The fertility rate for the first half of 1968 was 84.4 births per 1,000 women aged 15-44, or 4% below the rate of 88.4 for the first half of 1967.

MARRIAGES

An estimated 951,000 marriages were performed in the first half of 1968 or 78,000 more than during the corresponding period in 1967. During June 1968 the marriage rate was 15.7 per 1,000 population, compared with 14.7 for June 1967.

DIVORCES

The January-June 1968 divorce total for 40 reporting areas was about 208,000, nearly 8% more than were granted for the same period in 1967.

DEATHS

The death rate for the first half of 1968 was 3.2% higher than the corresponding rate for 1967, due to the relatively high death rates recorded in January and February of 1968.

For the first 6 months of 1968 the infant mortality rate for each month has been lower than the rate observed in the corresponding months of 1967. Cumulatively for this period the 1968 rate was 22.2 per 1,000 live births, a drop of 3.1% from the rate of 22.9 recorded in 1967.

PROVISIONAL STATISTICS

12 Months Ending with June 1968

	Number		Rate	
	1968	1967	1968	1967
Live births	3,465,000	3,582,000	17.4	18.2
Marriages	1,990,000	1,870,000	10.0	9.5
Deaths	1,891,000	1,844,000	9.5	9.4
Infant deaths	75,600	81,700	21.8	22.8
Population base (in millions)			199.0	196.9

Annual Report for the Year 1967

Provisional Statistics

With only minute changes the general trends observed for several years past continued in 1967. The birth rate decreased by less than 1% for the 10th consecutive year. The marriage rate showed its 5th annual increase. The death rate was .1% upward. The divorce rate was the highest since 1949.

BIRTHS

The birth and fertility rates continued to decline from their most recent peaks, which were reached in 1957. In 1967 the birth rate was 17.9 births per 1,000 population, and the fertility rate was 87.8 births per 1,000 women 15-44 years of age.

The current decline in fertility (which began in the late 1950's) has been brought about in part by changes in the age pattern of child-bearing. Women who are now 25 years of age are having relatively low birth rates because they had unusually high birth rates when they were younger. At the same time, women who are now under 25 years of age are having relatively low birth rates because they are apparently delaying some births until they are a little older. Also, these younger women may have fewer children altogether than did women who began their families in the late 1940's and the 1950's.

MARRIAGE AND DIVORCE

The number of men and women in the United States who marry each year has increased substantially and without interruption since 1962. Not since the close of World War II have marriages reached the current figure of 1,913,000, and not since the end of the Korean Conflict has the marriage rate reached its present level of 9.7 marriages per 1,000 population. The magnitude of the marriage boom is indicated by annual increases in marriages between 1962 and 1967 which have averaged 65,000, well above average annual increases in marriages for any other 5-year period since World War II.

Although marriages have increased both in absolute numbers and in proportion to the total population since 1962, only about 1 of every 14 women of eligible age married during 1967 as compared to 1 of every 8 in 1946. High postwar birth rates resulting in current large numbers of young people of marriageable age are the key factor affecting the upward swing in the number of marriages. Is it likely that there will be a continuing high level of marriages through 1970.

An estimated 534,000 decrees of divorce or annulment were granted in the United States in 1967. Compared with an estimated 494,000 for 1966, this is an increase of 40,000, or 8.0%; the increase in divorce between 1965 and 1966 was only 2.7%. The divorce rate per 1,000 population also increased from 2.5 in 1966 to 2.7 in 1967. The rate for 1967 is the highest national divorce rate since 1949.

DEATHS

An estimated 1,852,000 deaths occurred in the United States in 1967. This provisional rate is higher than the final rate of 951 deaths per 100,000 for 1966. In turn the final rate for 1966 was higher than that for 1965 (943 deaths per 100,000).

Rank	Causes of death	Death rate deaths	% of
1	All causes	936.0	100.0
1	Diseases of heart	366.2	39.1
2	Malignant neoplasms	159.0	17.0
3	Vascular lesions	102.6	11.0
4	Accidents	55.1	5.9
5	Influenza and pneumonia	28.5	3.0
6	Certain diseases of early infancy	24.1	2.6
7	General arteriosclerosis	19.0	2.0
8	Diabetes mellitus	17.4	1.9
9	Diseases of circulatory system	15.3	1.6
10	Other bronchopulmonary diseases	14.8	1.6
	All other causes	134.0	14.3

Diseases of Heart—The death rate for diseases of heart (the leading cause of death) decreased from 371.2 per 100,000 population in 1966 to an estimated 366.2 in 1967, a reduction of about 1½%.

Malignant Neoplasms—The death rate for Malignant neoplasms continued to increase, reaching a high of 159.0 per 100,000 population in 1967. This was mainly due to increases in the rates for Malignant neoplasms of respiratory system and Malignant neoplasms of other and unspecified sites.

Accidents—The death rate for Accidents was 5% lower in 1967 than in 1966. This reduction was almost entirely due to a decrease in the death rate for Accidents exclusive of motor vehicle accidents while the rate for Motor vehicle accidents remained approximately the same.

Influenza and Pneumonia—The death rate for Pneumonia, except pneumonia of newborn, reached its lowest point in more than a decade in 1967, falling to a rate of 27.8 per 100,000 population. The death rate for Influenza, 50% lower than in 1966, was also at its lowest point in several years.

Other Diseases of Circulatory System—While the death rate for Diseases of heart showed a slight decline in 1967, the rate for Other diseases of the circulatory system evidenced an increase of almost 5% over 1966. About 40% of the total number of deaths in this category were attributed to its largest component, Aortic aneurysm, non-syphilitic, and dissecting aneurysm.

Certain Diseases of Early Infancy—The death rate for Certain diseases of early infancy decreased from 26.4 per 100,000 population in 1966 to an estimate 24.1 in 1967, a reduction of about 8.7%. This decrease can be only partially explained by the fact that the birth rate is declining since the birth rate fell only 2.7% during the same period.

Other Bronchopulmonary Diseases—The death rate for Other bronchopulmonary diseases continued its slow but steady rise, reaching an all time high of 14.8 deaths per 100,000 population in 1967. This was an increase of 2.1% over the rate observed in 1966. Emphysema without mention of bronchitis, the major component, accounted for about 70% of the 1967 deaths in this category.

Births and Deaths by States

Source: U. S. Dept. of Health, Education, and Welfare, National Center for Health Statistics.
Registered by place of occurrence. Excludes fetal deaths.

Area	Births ¹		Deaths		Area	Births ¹		Deaths	
	1966	1967	1966	1967		1966	1967	1966	1967
Ala.	65,808	64,353	32,847	32,352	Nebr.	25,450	24,218	14,824	14,678
Alaska	6,615	6,241	1,314	1,201	Nev.	8,655	8,500	3,467	3,499
Ark.	32,176	32,089	13,351	13,103	N. H.	12,039	11,946	7,057	7,192
Calif.	34,461	33,450	19,279	19,239	N. J.	116,873	112,871	64,584	64,524
Conn.	350,091	340,661	159,892	159,610	N. M.	22,022	21,386	6,887	6,932
Del.	36,107	37,236	16,635	16,902	N. Y.	322,765	309,146	187,703	186,223
D. C.	51,289	49,016	25,847	25,823	N. C.	92,863	92,603	42,497	42,561
Fla.	10,203	9,936	4,914	4,824	N. D.	12,411	11,382	5,769	5,433
Idaho	29,103	28,589	10,863	10,430	Ohio	190,160	184,738	98,731	98,227
Ill.	101,443	100,197	63,889	65,386	Okl.	39,439	39,054	24,239	24,310
Ind.	90,504	86,302	38,239	38,085	Ore.	32,860	31,925	19,038	18,809
Iowa	14,977	14,802	3,850	3,995	Pa.	196,927	189,261	126,557	125,251
Kan.	12,600	12,517	5,740	5,712	R. I.	16,837	16,288	9,488	9,375
Kent.	290,290	193,715	110,086	108,243	S. C.	50,609	50,005	21,878	21,507
L. Ia.	94,595	92,784	47,478	46,755	S. D.	12,525	11,379	6,524	6,351
La.	49,598	48,223	29,627	29,162	Tenn.	71,011	71,559	38,004	37,605
Me.	31,925	33,115	21,714	21,369	Texas	212,271	206,104	87,343	86,436
Md.	59,222	58,281	31,739	31,740	Utah	23,067	23,541	6,994	6,819
Mass.	77,601	74,896	32,824	31,781	Va.	7,870	7,540	4,619	4,572
Mich.	18,105	17,396	10,066	10,939	Wash.	79,703	77,257	36,438	36,486
Minn.	62,756	61,483	31,378	30,696	W. Va.	50,116	54,912	29,004	29,677
Miss.	101,827	100,925	60,972	59,116	Wis.	30,797	29,895	19,499	19,328
Mo.	164,210	162,271	74,206	74,356	Wyo.	79,889	75,642	40,304	39,683
N. H.	65,960	64,534	33,766	33,247	U. S.	5,792	5,406	2,667	2,743
N. J.	48,276	46,691	22,792	21,892					
N. Y.	80,989	78,563	52,507	51,278					
N. C.	12,526	12,107	6,814	6,518					
						3,629,000	3,533,000	1,869,000	1,852,000

¹Based on a 50-percent sample.

BIRTHS AND DEATHS IN THE UNITED STATES

Data refer only to events occurring within the United States, including Alaska beginning in 1959 and Hawaii in 1960. Excludes fetal deaths. Rates per 1,000 population enumerated as of April 1 for 1940, 1950, and 1960; estimated as of July 1 for all other years. ¹Births based on a 50 percent sample.

Year	Births			Rate	Deaths			Rate
	Males	Females	Totals		Males	Females	Totals	
1940.....	1,211,684	1,148,715	2,360,399	17.9	791,003	626,266	1,417,269	10.8
1945.....	1,404,587	1,330,869	2,735,456	19.5	788,063	613,656	1,401,719	10.6
1950.....	1,823,555	1,730,594	3,554,149	23.6	827,749	622,705	1,450,454	9.4
1955.....	2,073,719	1,973,576	4,047,295	24.6	872,638	656,079	1,528,717	9.3
1960.....	2,179,708	2,078,142	4,257,850	23.7	975,648	736,334	1,711,982	9.5
1964 ¹	2,060,162	1,967,328	4,027,490	21.0	1,017,778	780,273	1,798,051	9.4
1965 ¹	1,927,054	1,833,304	3,760,358	19.4	1,035,200	792,936	1,828,136	9.4
1966.....	1,845,862	1,760,412	3,606,274	18.4	1,052,827	810,322	1,863,149	9.5
1967 (p).....			3,533,000	17.9			1,852,000	9.4

Marriages, Divorces and Rates in the United States

Source: U. S. Dept. of Health, Education and Welfare, National Center for Health Statistics.
Data refer only to events occurring within the United States, including Alaska beginning with 1959 and Hawaii with 1960. Rates per 1,000 population.

Year	Marriages ¹		Divorces ²		Year	Marriages ¹		Divorces ²	
	No.	Rate ³	No.	Rate ³		No.	Rate	No.	Rate ³
1890.....	570,000	9.0	33,461	0.5	1940.....	1,595,879	12.1	264,000	2.0
1895.....	620,000	9.9	40,387	0.6	1945.....	1,612,992	12.2	285,000	2.5
1900.....	709,000	8.3	55,751	0.7	1950.....	1,667,231	11.1	385,144	2.6
1905.....	842,000	10.0	67,976	0.8	1955.....	1,531,000	9.3	377,000	2.3
1910.....	948,166	10.3	83,045	0.9	1960.....	1,523,000	8.5	393,000	2.2
1915.....	1,007,595	10.0	104,298	1.0	1963.....	1,654,000	8.8	428,000	2.3
1920.....	1,274,476	12.0	170,505	1.6	1964.....	1,725,000	9.0	450,000	2.4
1925.....	1,188,334	10.3	175,449	1.5	1965.....	1,800,000	9.3	479,000	2.5
1930.....	1,126,866	9.2	195,961	1.6	1966 (p).....	1,844,000	9.4	494,000	2.5
1935.....	1,327,000	10.4	218,000	1.7	1967 (p).....	1,913,000	9.7	534,000	2.7

¹Includes estimates and marriage licenses for some states for all years. ²Includes reported annulments.
³Divorce rates for 1945, based on population including armed forces overseas. (p) Provisional.

MARRIAGES AND DIVORCES BY STATES

Data: Divorce 1964. Marriages 1966¹, by place of occurrence. Divorces include reported annulments.

State	Marriages ¹ 1966	Divorces 1965	State	Marriages ¹ 1966	Divorces 1965	State	Marriages ¹ 1966	Divorces 1965
Alabama.....	42,518	11,036	Louisiana.....	31,461	34,623	Oklahoma.....	35,031	11,864
Alaska.....	2,579	1,118	Montana.....	9,162	2,521	Oregon.....	14,355	6,219
Arizona.....	14,737	8,575	Maryland.....	50,431	6,978	Pennsylvania.....	85,898	18,578
Arkansas.....	21,923	6,622	Massachusetts.....	10,977	7,818	Rhode Island.....	6,515	1,193
California.....	147,378	69,926	Michigan.....	84,701	20,305	S. Carolina.....	51,553	3,018
Colorado.....	21,845	26,700	Minnesota.....	27,973	4,897	S. Dakota.....	9,040	1,015
Connecticut.....	22,490	3,733	Mississippi.....	23,280	5,730	Tennessee.....	10,586	11,143
Delaware.....	3,386	740	Missouri.....	43,765	13,185	Texas.....	124,191	41,323
Dist. of Col.....	7,593	1,328	Montana.....	5,563	2,002	Utah.....	10,230	2,872
Florida.....	55,835	25,334	Nebraska.....	13,000	2,520	Vermont.....	3,924	601
Georgia.....	54,690	12,043	Nevada.....	86,329	9,996	Virginia.....	48,701	8,889
Hawaii.....	7,339	1,111	N. Hampshire.....	9,313	1,573	Washington.....	38,497	11,518
Idaho.....	14,100	4,874	New Jersey.....	49,255	5,632	West Virginia.....	11,208	3,852
Illinois.....	105,535	24,654	New Mexico.....	8,443	3,662	Wisconsin.....	30,330	5,232
Indiana.....	62,269	18,520	New York.....	147,438	8,187	Wyoming.....	3,693	1,414
Iowa.....	22,342	5,258	N. Carolina.....	45,189	11,190			
Kansas.....	19,964	5,816	N. Dakota.....	4,942	720	U. S.	1,913,000	479,000
Kentucky.....	28,583	8,276	Ohio.....	80,650	25,780			

¹Provisional. Data represent marriages reported, marriage intentions filed, or marriage licenses issued. ²Data estimated. ³Data incomplete.

Deaths and Death Rates for Selected Causes

Source: National Center for Health Statistics, Public Health Service,
U. S. Dept. of Health, Education and Welfare

Rates per 100,000 population.

1967*	Cause of death	Number	Rate	1967*	Cause of death	Number	Rate
All Causes		1,852,000	936.0	Nonrheumatic chronic endocarditis and other myocardial degeneration			
Tuberculosis, all forms	6,560	3.3			52,500	26.5	
Tuberculosis of respiratory system	6,010	3.0		Other diseases of heart	32,550	16.5	
Tuberculosis, other forms	550	0.3		Hypertensive heart disease	49,880	25.2	
Syphilis and its sequelae	110	1.1		Other hypertensive disease	12,070	6.1	
Dysentery, all forms	100	0.1		General arteriosclerosis	37,670	19.0	
Scarlet fever and streptococcal sore throat	70	0.0		Other diseases of circulatory system	30,190	15.3	
Diphtheria	20	0.0		Chronic and unspecified nephritis and other renal sclerosis	9,490	4.8	
Whooping cough	40	0.0		Influenza and pneumonia, except pneumonia of newborn	56,460	28.5	
Meningococcal infections	660	0.3		Influenza	1,450	0.7	
Acute poliomyelitis	60	0.0		Pneumonia, except pneumonia of newborn	55,010	27.8	
Measles	710	0.4		Bronchitis	5,830	2.9	
Other infective and parasitic diseases	5,190	2.6		Other bronchopulmonary diseases	29,320	14.8	
Malignant neoplasms, incl. neoplasms of lymphatic and hematopoietic tissues	314,630	159.0		Ulcer of stomach and duodenum	10,180	5.1	
Malignant neoplasm of buccal cavity and pharynx	6,770	3.4		Appendicitis	1,760	0.9	
Malignant neoplasm of digestive organs and peritoneum, not specified as secondary	95,170	48.1		Hernia and intestinal obstruction	10,090	5.1	
Malignant neoplasm of respiratory system, not specified as secondary	59,160	29.9		Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	7,800	3.9	
Malignant neoplasm of breast	28,960	14.6		Cirrhosis of liver	27,410	13.9	
Malignant neoplasm of genital organs	40,130	20.3		Cholelithiasis, cholecystitis, and cholangitis	3,960	2.0	
Malignant neoplasm of urinary organs	14,760	7.5		Acute nephritis and nephritis with edema including nephrosis	910	0.5	
Malignant neoplasm of other and unspecified sites	38,430	19.4		Infections of kidney	8,590	4.3	
Leukemia and leukemia	14,510	7.3		Hyperplasia of prostate	2,920	1.5	
Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues	16,740	8.5		Deliveries and complications of pregnancy, childbirth, and the puerperium	1,020	0.5	
Benign neoplasms and neoplasms of unspecified nature	5,090	2.6		Abortion	170	0.1	
Asthma	3,960	2.0		Other complications	850	0.4	
Diabetes Mellitus	34,430	17.4		Congenital malformations	17,070	8.6	
Anemias	3,270	1.7		Certain diseases of early infancy	47,760	24.1	
Meningitis, except meningococcal and tuberculous	1,940	1.0		Birth injuries, postnatal asphyxia, and atelectasis	19,880	10.0	
Major cardiovascular-renal diseases	1,016,950	514.0		Infections of newborn	3,380	1.7	
Diseases of cardiovascular system	1,007,460	509.2		Other diseases peculiar to early infancy and immaturity unqualified	24,500	12.4	
Vascular lesions affecting central nervous system	202,940	102.6		Symptoms, senility, and ill-defined conditions	24,470	12.4	
Diseases of heart	724,590	366.2		All other diseases	57,690	29.2	
Rheumatic fever and chronic rheumatic heart disease	14,120	7.1		Accidents	108,960	55.1	
Arteriosclerotic heart disease including coronary disease	575,540	290.9		Motor vehicle accidents	53,140	26.9	
				Nonmotor vehicle accidents	55,820	28.2	
				Accidents in the home	21,550	10.9	
				Other nonmotor vehicle accidents	34,270	17.3	
				Suicide	20,700	10.5	
				Homicide	13,100	6.6	

Due to rounding estimates of deaths, figures may not add to totals. *Provisional.

Principal Types of Accidental Deaths

Source: National Center for Health Statistics, Data for 1967 are National Safety Council estimates

Year	All types	Motor vehicle	Falls	Burns	Drowning	Fire-arms	Machinery	Poison gases	Other persons
1960	93,806	38,137	19,023	7,645	6,529	2,334	1,951	1,253	1,679
1963	100,669	43,564	19,335	8,172	6,347	2,263	1,965	1,489	2,061
1964	105,000	47,700	18,941	7,379	6,709	2,275	1,945	1,360	2,100
1965	108,004	49,163	19,984	7,347	6,799	2,344	2,054	1,526	2,110
1966	113,563	53,041	20,066	8,084	7,084	2,558	2,070	1,648	2,283
1967 (est.)	112,000	53,100	19,800	7,700	6,800	2,500	2,100	1,600	2,400

DEATH RATES PER 100,000 POPULATION

Year	All types	Motor vehicle	Falls	Burns	Drowning	Fire-arms	Machinery	Poison gases	Other persons
1960	52.1	21.2	10.6	4.2	3.6	1.3	1.1	0.7	0.9
1963	53.4	23.1	10.2	4.3	3.4	1.2	1.0	0.8	1.1
1964	54.9	24.9	9.9	3.9	3.5	1.2	1.0	0.8	1.1
1965	55.7	25.4	10.3	3.8	3.5	1.2	1.1	0.8	1.1
1966	58.0	27.1	10.2	4.1	3.6	1.3	1.1	0.8	1.2
1967 (est.)	56.6	26.8	10.0	3.9	3.4	1.4	1.1	0.8	1.2

ACCIDENTAL INJURIES BY SEVERITY OF INJURY

1967 Severity of injury	Total*	Motor vehicle	Work	Home	Public Non-motor vehicle
All injuries	10,900,000	1,950,000	2,200,000	4,350,000	2,500,000
Deaths	112,000	53,100	14,200	28,500	20,000
Nonfatal injuries	10,800,000	1,900,000	2,200,000	4,300,000	2,500,000
Permanent impairments	400,000	160,000	90,000	110,000	60,000
Temporary total disabilities	10,400,000	1,750,000	2,100,000	4,200,000	2,450,000

CERTAIN COSTS OF ACCIDENTAL INJURIES, 1967

	Total	Motor vehicle	Work	Home	Public Non-motor vehicle
Wages lost	\$13,000,000,000	\$7,300,000,000	\$3,200,000,000	\$1,500,000,000	\$1,200,000,000
Medical expense	6,000,000,000	2,700,000,000	1,500,000,000	1,000,000,000	950,000,000
Overhead cost of insurance	2,200,000,000	700,000,000	800,000,000	500,000,000	250,000,000
	4,800,000,000	3,900,000,000	900,000,000	10,000,000	10,000,000

*Duplications between motor-vehicle, work and home are eliminated in total.

Marriage Information

Source: Compiled by William E. Mariano: Council on Marriage Relations, Inc.,
110 East 42 St., New York, N. Y. 10017 (as of Oct. 15, 1968)

Marriageable age, by states, for both males and females with and without consent of parents or guardians. But in most states, the court has authority in an emergency, to marry young couples below the ordinary age of consent, where due regard for their morals and welfare so requires.

State	With consent		Without consent		Blood test		Wait for license	Wait after license
	Men	Women	Men	Women	Required	Other state accepted		
Alabama (b).....	17	14	21	18	Yes	Yes	None	None
Alaska.....	18	16	21	18	Yes	.....	3 days	None
Arizona.....	18	16	21	18	Yes	Yes (g)	None	None
Arkansas.....	18	16	21	18	Yes	No	3 days	None
California.....	18	16	21	18	Yes	Yes	None	None
Colorado.....	16	16	21	18	Yes	.....	None	None
Connecticut.....	16	16	21	21	Yes	Yes	4 days	None
Delaware.....	18	16	21	18	Yes	No	None	(c)
District of Columbia.....	18	16	21	18	Yes	Yes	4 days	None
Florida.....	18	16	21	21	Yes	Yes	3 days	None
Georgia.....	18	16	19	18	Yes	Yes	None(b)	None
Hawaii.....	18	16	20	20	Yes	No	3 days	None
Idaho.....	18	16	21	18	Yes	Yes	None(f)	None
Illinois (a).....	18	16	21	18	Yes	Yes	None	None
Indiana.....	18	16	21	18	Yes	No	3 days	None
Iowa.....	18	16	21	18	Yes	No	3 days	None
Kansas.....	18	16	21	18	Yes	Yes	3 days	None
Kentucky.....	18	16	18	16	Yes	No	3 days	None
Louisiana (a).....	18	16	21	21	Yes	Yes	None	72 hours
Maine.....	16	16	21	18	Yes	Yes	5 days	None
Maryland.....	18	16	21	18	None	None	48 hours	None
Massachusetts.....	18	16	21	18	Yes	Yes	3 days	None
Michigan.....	18	16	18	18	Yes	No	3 days	None
Minnesota.....	18	16	21	18	None	.....	5 days	None
Mississippi (b).....	17	15	21	18	Yes	.....	3 days	None
Missouri.....	15	15	21	18	Yes	.....	3 days	None
Montana.....	18	16	21	18	Yes	Yes	5 days	None
Nebraska.....	18	16	21	21	Yes	Yes	None	None
Nevada.....	18	16	21	18	None	None	None	None
New Hampshire (a).....	14(e)	13(c)	20	18	Yes	.....	5 days	None
New Jersey (a).....	18	16	21	18	Yes	Yes	72 hours	None
New Mexico.....	18	16	21	18	Yes	No	3 days	None
New York.....	16	14	21	18	Yes	No	None	24 hrs. (h)
North Carolina.....	16	16	18	18	Yes	Yes	None	None
North Dakota (a).....	18	15	21	18	Yes	No	None	None
Ohio (a).....	18	16	21	21	Yes	Yes	5 days	None
Oklahoma.....	18	15	21	18	Yes	No	None(f)	**
Oregon.....	18(e)	15(e)	21	18	Yes	No	7 days	None
Pennsylvania.....	16	16	21	21	Yes	No	3 days	None
Rhode Island (a) (b).....	18	16	21	21	Yes	No	24 hrs.	None
South Carolina.....	16	14	18	18	None	None	None	None
South Dakota.....	18	16	21	18	Yes	No	None	None
Tennessee(b).....	16	16	21	21	Yes	Yes	3 days	None
Texas.....	16	14	21	18	Yes	Yes	(b)	None
Utah.....	16	14	21	18	Yes	Yes	None	None
Vermont (a).....	18	14(e)	21	18	Yes	.....	None	5 days
Virginia.....	18	16	21	21	Yes	Yes	None	None
Washington.....	17	17	21	18	(d)	.....	3 days	None
West Virginia.....	18	16	21	18	Yes	No	3 days	None
Wisconsin.....	18	16	21	21	Yes	Yes	5 days	None
Wyoming.....	18	16	21	21	Yes	Yes	None	None
Puerto Rico.....	18	16	21	21	(f)	None	None	None
Virgin Islands.....	16	14	21	18	None	None	8 days	None

(a) Special laws applicable to non-residents. (b) Special laws applicable to those under 21 years; Alabama—bond required if male is under 21, female under 18. (c) 24 hours if one or both parties resident of state; 96 hours if both parties are non-residents. (d) None, but male must file affidavit. (e) Parental consent plus Court's consent required. (f) None, but a medical certificate is required. (g) Wait for license from time blood test is taken; Arizona, 48 hours. (h) Marriage may not be solemnized within 3 days from date of blood test. (i) If either under 21: Idaho, 3 days; Oklahoma, 72 hrs.

Wedding Anniversaries

The traditional names for wedding anniversaries go back many years in social usage. As such names as wooden, crystal, silver and golden were applied it was considered proper to present the married pair with gifts made of these products or of something related. While the list of permissible gifts is extensive, gifts are most appropriate when retaining a suggestion of the originals. Thus the wooden anniversary may call for anything of wood, including furniture, but as the years mount the gifts become more valuable until the 60th or diamond anniversary, calls for diamonds. The traditional list follows, with a few allowable revisions in parentheses.

1st—Paper	6th—Iron	11th—Steel	20th—China	45th—Sapphire
2nd—Cotton	7th—Wool, copper	12th—Silk	25th—Silver	50th—Gold
3rd—Leather	8th—Bronze	13th—Lace	30th—Pearl	55th—Emerald
4th—Linen, (silk)	9th—Pottery, (china)	14th—Ivory	35th—Coral	60th—Diamond
5th—Wood	10th—Tin, (aluminum)	15th—Crystal	40th—Ruby	

Birth Stones

Source: Retail Jewelers of America, Inc.

Month	Ancient	Modern	Month	Ancient	Modern	Month	Ancient	Modern
January	Garnet.....	Garnet	May.....	Agate.....	Emerald	September	Chrysolite	Sapphire
February	Amethyst.....	Amethyst	June.....	Emerald	Pearl, Moonstone or Alexandrite	October..	Aquamarine	Opal or Tourmaline
March.....	Jasper.....	Bloodstone or Aquamarine	July.....	Onyx.....	Ruby	November	Topaz.....	Opal
April.....	Sapphire.....	Diamond	August..	Carnelian	Sardonyx or Peridot	December	Ruby.....	Turquoise or Zircon

The term precious stones actually applies only to diamonds, rubies, sapphires and emeralds. All others are semiprecious. Precious gems are minerals brought to perfection by the lapidary's art. The pearl, often a gem of great value, is not a precious stone.

Grounds for Divorce

Source: Compiled by William E. Mariano: Council on Marriage Relations, Inc., 110 East 42nd Street, New York 17, N. Y. Persons contemplating divorce should study latest decisions or secure legal advice before initiating proceedings since different interpretations or exceptions in each case can change the conclusion reached. Some states apply statutes strictly, others are more lenient.

State	Adultery	Cruelty	Desertion	Non-support	Alcoholism	Felony	Impotency	Pregnancy at marriage	Drug addiction	Fraudulent contract	Other causes	Residence time	Time between interlocutory and final decrees
Alabama.....	x	x	x	x	x	x	x	x	x	....	A-Q-K-W	1 year*	None-R
Alaska.....	x	x	x	x	x	x	x	x	x	....	F-K-B	1 year	None
Arizona.....	x	x	x	x	x	x	x	x	x	....	X	1 year	None
Arkansas.....	x	x	x	x	x	x	x	x	x	....	B-Y-K-DD	3 months*	None
California.....	x	x	x	x	x	x	x	x	x	....	K	1 year	1 year
Colorado.....	x	x	x	x	x	x	x	x	x	....	K-W	1 year*	None
Connecticut.....	x	x	x	x	x	x	x	x	x	....	K-F	3 years*	None
Delaware.....	x	x	x	x	x	x	x	x	x	....	K-Y-DD-FF	2 years	3 months
Dist. of Columbia.....	x	x	x	x	x	x	x	x	x	....	Y-Z	1 year	None
Florida.....	x	x	x	x	x	x	x	x	x	....	A-M-BB-DD	6 months	None
Georgia.....	x	x	x	x	x	x	x	x	x	....	K-M-AA	6 months	None-U
Hawaii.....	x	x	x	x	x	x	x	x	x	....	K-Z-B	1	1
Idaho.....	x	x	x	x	x	x	x	x	x	....	X-K	6 weeks	None
Illinois.....	x	x	x	x	x	x	x	x	x	....	A-C-DD-EE	1 year*	None
Indiana.....	x	x	x	x	x	x	x	x	x	....	K	1 year*	None
Iowa.....	x	x	x	x	x	x	x	x	x	....	.....	1 year	None-S
Kansas.....	x	x	x	x	x	x	x	x	x	....	K	1 year*	None-T
Kentucky.....	x	x	x	x	x	x	x	x	x	....	C-D-E-X-K	1 year	None
Louisiana.....	x	x	x	x	x	x	x	x	x	....	X-Z	1 year*	None
Maine.....	x	x	x	x	x	x	x	x	x	....	.....	6 months	None
Maryland.....	x	x	x	x	x	x	x	x	x	....	Y-K	1 year	None
Massachusetts.....	x	x	x	x	x	x	x	x	x	....	.....	5 years*	6 mos.
Michigan.....	x	x	x	x	x	x	x	x	x	....	.....	1 year*	None
Minnesota.....	x	x	x	x	x	x	x	x	x	....	K-W	1 year	None-T
Mississippi.....	x	x	x	x	x	x	x	x	x	....	K-M-DD	1 year*	None-U
Missouri.....	x	x	x	x	x	x	x	x	x	....	B-J	1 year	None
Montana.....	x	x	x	x	x	x	x	x	x	....	K	1 year	None*
Nebraska.....	x	x	x	x	x	x	x	x	x	....	K	2 years*	6 months
Nevada.....	x	x	x	x	x	x	x	x	x	....	F-K-Y	6 weeks	None
New Hampshire.....	x	x	x	x	x	x	x	x	x	....	D	1 year*	None
New Jersey.....	x	x	x	x	x	x	x	x	x	....	.....	2 years*	3 months
New Mexico.....	x	x	x	x	x	x	x	x	x	....	K-F	1 year*	None
New York.....	x	x	x	x	x	x	x	x	x	....	X-Z	1 year*	3 mos.*
North Carolina.....	x	x	x	x	x	x	x	x	x	....	Q-K-X	6 months	None
North Dakota.....	x	x	x	x	x	x	x	x	x	....	K	1 year	None-U
Ohio.....	x	x	x	x	x	x	x	x	x	....	BB-CC-DD	1 year	None
Oklahoma.....	x	x	x	x	x	x	x	x	x	....	F-K-BB-CC	6 months	6 months
Oregon.....	x	x	x	x	x	x	x	x	x	....	K	1 year	60 days
Pennsylvania.....	x	x	x	x	x	x	x	x	x	....	B-M-DD	1 year*	None
Rhode Island.....	x	x	x	x	x	x	x	x	x	....	H-X	2 years*	6 months
South Carolina.....	x	x	x	x	x	x	x	x	x	....	.....	1 year	None
South Dakota.....	x	x	x	x	x	x	x	x	x	....	K	1 year*	None
Tennessee.....	x	x	x	x	x	x	x	x	x	....	A-B-DD-EE	2 years	None
Texas.....	x	x	x	x	x	x	x	x	x	....	K-X	1 year	None-N
Utah.....	x	x	x	x	x	x	x	x	x	....	W-K	3 months	3 months
Vermont.....	x	x	x	x	x	x	x	x	x	....	Y-K	6 months	6 mos.-O*
Virginia.....	x	x	x	x	x	x	x	x	x	....	T-B	1 year	None-U*
Washington.....	x	x	x	x	x	x	x	x	x	....	B-K-Y	1 year	None
West Virginia.....	x	x	x	x	x	x	x	x	x	....	.....	2 years*2	None-R-U
Wisconsin.....	x	x	x	x	x	x	x	x	x	....	X-W	2 years	1 year
Wyoming.....	x	x	x	x	x	x	x	x	x	....	B-J-K	60 days	None

*Exceptions are to be noted. †Determined by court order. *No minimum residence required in adultery cases.

A—Violence. B—Indignities. C—Loathsome disease. D—Joining religious order disbelieving in marriage. E—Unchaste behavior. F—Criminal character. G—Incompatibility. H—Any gross misbehavior or wickedness. I—Wife being a prostitute. J—Husband being a vagrant. K—5 years insanity; exceptions: 18 months Alaska; 2 years Georgia, Nevada, Oregon, Washington and Wyoming; 3 years Arkansas, California, Colorado, Kansas, Hawaii, Maryland, Mississippi; 6 years Idaho. M—Consanguinity. N—In cruelty cases, one year to remarry. O—Plaintiff, six months; defendant, two years to remarry. P—If guilty spouse is sentenced to infamous punishment. Q—Crime against nature. R—Sixty days to remarry. S—One year to remarry; Hawaii; one year with minor child. T—Six months to remarry; in Kansas 30 days. U—Adultery cases, remarriage in discretion of Court. W—Separation for three years after decree for same. In Alabama four years. In Minnesota two years and Wisconsin five years. X—Separation no cohabitation—five years. Exceptions: Louisiana, Virginia, Wyoming and New York (under agreement) two years; Texas 3 years and Rhode Island 10 years. Y—Separation no cohabitation—three years. Exception: North Carolina, one year if caused by criminal act of defendant. Dist. of Columbia and Nevada, one year; Maryland, 18 mos. Washington, two years. Z—Separation for two years after decree for same. District of Columbia and Louisiana one year. AA—Mental incapacity at time of marriage. BB—Procurement of out-of-state divorce. CC—Gross neglect of duty. DD—Bigamy. EE—Attempted homicide. FF—Plaintiff under age at time of marriage.

The plaintiff can invariably remarry in the same State where he or she procured a decree of divorce for annulment. Not so the defendant, who is barred, in certain States for some offenses. After a period of time has elapsed even the offender can apply for special permission.

The U. S. Supreme Court in a 5 to 4 opinion, ruled April 18, 1949, that one-sided quick divorces could be challenged as illegal if notice of the action was not served on the divorced partner within the divorcing States, excepting where the partner was represented at the proceedings.

Enoch Arden Laws. Disappearance and unknown to be alive—Connecticut 7 years absence; New Hampshire, 2 years; New York, 5 years (called dissolution); Vermont, 7 years.

Blue Cross Hospitalization Plans in U. S. and Canada

Source: Blue Cross Association, Enrollment as of Jan. 1, 1968

State	Plans	Number	State	Plans	Number	State	Plans	Number
Alabama.....	1	841,683	Missouri.....	2	1,575,171	Health Service Inc.....	1	129,518
Arizona.....	1	241,134	Montana.....	1	42,091	Jamaica.....	1	12,692
Arkansas.....	1	325,328	Nebraska.....	1	272,378	Puerto Rico.....	1	N/A
California.....	2	2,839,022	N. H. & Vt.....	1	400,431	Canadian Provinces		
Colorado.....	1	756,824	New Jersey.....	1	3,045,695	Alberta.....	1	302,445
Connecticut.....	1	1,490,783	New Mexico.....	1	112,896	New Brunswick.....		
Delaware.....	1	239,456	New York.....	8	10,443,198	Nova Scotia.....		
Dist. of Col.....	1	1,204,040	North Carolina.....	2	1,303,548	Newfoundland.....		
Florida.....	1	1,066,650	North Dakota.....	1	229,095	Prince Edward Island.....	1	431,076
Georgia.....	2	872,181	Ohio.....	7	5,057,705	Quebec.....	1	2,702,464
Idaho.....	1	105,831	Oklahoma.....	1	550,089			925,320
Illinois.....	2	2,782,653	Oregon.....	1	381,674	48 States, District of Columbia, 7 Canadian Provinces, Jamaica, Puerto Rico		
Indiana.....	1	1,822,214	Pennsylvania.....	5	6,044,466	Total.....	82	69,895,423
Iowa-S. Dak.....	2	925,367	Rhode Island.....	1	701,948			
Kansas.....	1	663,413	South Carolina.....	1	338,284			
Kentucky.....	1	1,021,046	Tennessee.....	2	1,138,880			
Louisiana.....	2	743,618	Texas.....	1	2,042,069			
Maine.....	1	384,585	Utah.....	1	290,944			
Maryland.....	1	1,188,009	Virginia.....	2	1,326,845			
Massachusetts.....	1	3,144,951	Wash. & Alaska.....	1	339,004			
Michigan.....	1	4,586,704	West Virginia.....	4	339,452			
Minnesota.....	1	810,133	Wisconsin.....	1	1,185,106			
Mississippi.....	1	459,956	Wyoming.....	1	85,272			

Blue Cross Plans are local non-profit organizations that provide hospital service to members. Enrollment as of Dec. 31, 1967 constituted 33.1% of the population of the United States served by Blue Cross and 26.7% of the seven provinces served by the four Canadian Plans. During 1967, Blue Cross paid \$3.5 billion to hospitals for 13-500,000 hospital admissions and outpatient visits and 58,100,000 days of care. This amount represents 90% of total earned income, the remainder being devoted to operating expenses (5.4% of total income); 4.6% was added to reserves.

Blue Cross Plans provide services for periods ranging from 21 to 730 days at full benefits, plus occasionally a period of partial benefits ranging from 30 to 245 days. All plans provide board and room, general nursing care, use of operating and delivery rooms, routine laboratory service, routine drugs and medications, routine dressings and

casts. Many of the plans cover the following services in varying degrees: special diets, emergency room care, anesthesia, X-Ray, electrocardiograms, basal metabolism tests, physical therapy, oxygen therapy, pathology, special drugs and medications, and other hospital services.

Members of one Plan moving into the area of another Plan usually must transfer their membership. A reciprocal program, the Inter-Plan Service Benefits Bank, supplemented by schedules of benefits in non-member hospitals, assures receipt of care in any recognized general hospital in the world. Health Service, Incorporated, a Blue Cross-owned stock company, provides a means for enrollment of employees of national firms. Medical and surgical care are available through non-profit prepayment Plans, most of which are known as Blue Shield Plans.

Blue Shield Medical-Surgical Plans

Source: John W. Castellucci, Executive Vice-President.

National Association of Blue Shield Plans as of March 31, 1968

State	Plans	Number	State	Plans	Number	State	Plans	Number
Alabama.....	1	24,3756	Mississippi.....	1	434,969	West Virginia.....	7	368,383
Arizona.....	1	324,141	Missouri.....	2	1,250,197	Wisconsin.....	2	1,503,266
Arkansas.....	1	326,331	Montana.....	1	97,266	Wyoming.....	1	84,247
California.....	1	1,341,026	Nebraska.....	1	268,029	Puerto Rico.....	1	120,049
Colorado.....	1	718,685	N. Hampshire.....	1	414,585	Medical Indemnity of America	1	176,602
Connecticut.....	1	1,245,395	New Jersey.....	1	2,947,437	Canada		
Delaware.....	1	333,544	New Mexico.....	1	111,728	Alberta.....	1	637,649
Dist. of Col.....	1	1,150,627	New York.....	7	8,035,429	British Columbia	1	736,367
Florida.....	1	1,055,139	North Carolina.....	1	1,274,146	Manitoba.....	1	622,170
Georgia.....	2	600,462	North Dakota.....	2	228,365	Maritime Prov.....	1	397,888
Hawaii.....	1	336,080	Ohio.....	1	4,104,347	Ontario.....	2	1,794,566
Idaho.....	2	43,542	Oklahoma.....	1	551,452	Quebec.....	2	899,828
Illinois.....	2	2,350,147	Oregon.....	1	178,082	47 States, Dist. of Columbia, Puerto Rico, and Canadian Provinces		
Indiana.....	1	1,788,750	Pennsylvania.....	1	5,311,571	Total 1968.....	82	62,951,957
Iowa.....	1	782,632	Rhode Island.....	1	684,642	Total 1967.....	84	60,479,873
Kansas.....	1	672,432	South Carolina.....	1	332,416			
Kentucky.....	1	960,387	South Dakota.....	1	72,852			
Maine.....	1	349,696	Tennessee.....	2	1,052,941			
Maryland.....	1	1,003,144	Texas.....	1	2,015,078			
Massachusetts.....	1	3,076,849	Utah.....	1	277,050			
Michigan.....	1	4,383,562	Virginia.....	2	1,028,888			
Minnesota.....	1	640,338	Washington.....	7	705,933			

Blue Shield Plans offer prepaid coverage for medical-surgical expenses. They are nonprofit in operation and are approved by local medical societies or physician communities. Total underwritten enrollment consisted of 29.3% of the population of the United States served by the 72 U. S. Blue Shield Plans on March 31, 1968.

Canadian enrollment consisted of 26.5% of the population served by the 9 Canadian Blue Shield Plans. The underwritten enrollment of the Blue Shield Plan in Puerto Rico amounted to 5.5% of the population. During the first quarter of 1968, Blue Shield paid \$411,758,702 for medical care of Blue Shield members. This amount represented 87.7% of total income, 9.5% was devoted to operating expense and 2.8% was added to reserves.

Blue Shield Plans provide paid-in-full, service and indemnity benefits. Paid-in-full programs provide benefits without any income limitations. Service programs provide paid-in-full benefits, providing the subscriber is within certain income

limitations. On the average, income limits are \$6,000 for individuals and \$7,500 for families. When the member's annual income exceeds the income limits, payments are made as indemnities toward the cost of covered services. Indemnity benefits provide cash allowances toward the cost of services.

Basic Blue Shield benefits include medical service, surgical and obstetrical care, laboratory examinations, radiology and anesthesia. In addition, many Plans provide coverage for medical examinations, assistant surgeons' fees, and consultants' services. New benefit areas such as prescription drugs, home and office care, dental care and others have been implemented by some Plans and are being widely studied by others.

Members of one Plan moving into the area of another must usually transfer their membership. The majority of Blue Shield Plans are coordinated with Blue Cross Plans.

Health Insurance Coverage by Insurance Companies

Source: Health Insurance Institute, New York, N. Y.

At the beginning of 1968 insurance companies writing health insurance policies in the U. S. provided hospital expense protection to a net total of 100,298,000 persons. At the beginning of 1967, there were 1,045 companies writing these policies. Many of these companies were licensed to operate in all 50 states and the District of Columbia, some were licensed to operate in several states, and a few were licensed in only one state. In 1940, they covered some 3,700,000 persons with hospital insurance.

There have been significant increases in four other types of health insurance provided by insurance companies—surgical expense insurance, regular medical expense insurance, major medical expense insurance, and loss of income insurance. As of Dec. 31, 1967, insurance companies provided protection against the cost of surgery to 93,618,000 persons, compared with 2,280,000 in 1940. Coverage under regular medical insurance, which pays for doctor's calls and other non-surgical care by doctors, was held by 64,604,000 persons at the end of 1967 compared with 200,000 in 1944, the first

year insurance companies offered regular medical expense protection. Major medical expense insurance, which normally provides benefits of \$10,000 or more to pay for virtually all types of medical services, covered 62,226,000 persons at the end of 1967, compared with 108,000 in 1951, the first year major medical insurance was introduced nationally. Disability income insurance, which replaces income lost as a result of sickness or injury, protected through insurance company policies a total of 43,512,000 workers at the close of 1967 compared with 14,369,000 in 1946.

In 1967 insurance companies paid out \$6,629,000,000 in health insurance benefits. This total included \$1,211,000 in loss of income benefit payments.

The Health Insurance Council in its 22nd annual survey of the extent of voluntary health insurance coverage in the United States, reported that at the end of 1967 insurance companies, Blue Cross-Blue Shield and other health care plans, provided hospital insurance to 162,853,000 persons and paid out \$11,037,000 in benefits.

Average Future Lifetime in United States

Source: U. S. Dept. of Health, Education and Welfare, National Center for Health Statistics, 1966 Data

Age interval	Number living ¹	Average remaining lifetime ²				
		Total	White		Nonwhite	
			Male	Female	Male	Female
0-1.....	100,000	70.1	67.6	74.7	60.7	67.4
1-5.....	97,639	70.8	68.2	75.1	62.4	68.8
5-10.....	97,276	67.1	64.4	71.3	58.8	65.2
10-15.....	97,063	62.2	59.6	66.4	54.0	60.4
15-20.....	96,863	57.3	54.7	61.5	49.2	55.5
20-25.....	96,368	52.6	50.1	56.7	44.6	50.7
25-30.....	95,727	48.0	45.5	51.8	40.3	46.0
30-35.....	95,072	43.3	40.8	47.0	36.0	41.4
35-40.....	94,258	38.6	36.2	42.2	31.9	37.0
40-45.....	93,118	34.1	31.6	37.5	28.0	32.8
45-50.....	91,390	29.7	27.2	32.9	24.2	28.8
50-55.....	88,753	25.5	23.1	28.5	20.8	25.0
55-60.....	84,779	21.5	19.3	24.2	17.6	21.3
60-65.....	79,029	17.9	15.9	20.2	14.9	18.1
65-70.....	71,298	14.6	12.9	16.3	12.4	15.2
70-75.....	60,781	11.6	10.3	12.8	11.0	13.4
75-80.....	48,078	9.0	8.0	9.6	9.8	11.2
80-85.....	34,040	6.7	6.1	6.9	8.4	9.2
85 and over.....	19,855	4.7	4.4	4.7	6.7	7.0

¹Of 100,000 born alive, number living at beginning of age interval.

²Average number of years of life remaining at beginning of age interval.

YEARS OF LIFE EXPECTED AT BIRTH*

Year	Total	Male	Female	Year	Total	Male	Female
1967 ¹	70.5	67.0	74.2	1935.....	61.7	59.9	63.9
1966.....	70.1	66.7	73.8	1930.....	59.7	58.1	61.6
1965.....	70.2	66.8	73.7	1925.....	59.0	57.6	60.6
1960.....	69.7	66.6	73.1	1920.....	54.1	53.6	54.6
1955.....	69.5	66.6	72.7	1915.....	54.5	52.5	56.8
1950.....	68.2	65.6	71.1	1910.....	50.0	48.4	51.8
1945.....	65.9	63.6	67.9	1905.....	48.7	47.3	50.2
1940.....	62.9	60.8	65.2	1900.....	47.3	46.3	48.3

*Based on Death-Registration States 1900-1925, and United States 1930-1966. ¹Provisional.

Average Weight of Americans by Height and Age

Source: Society of Actuaries; from its 1959 report on a 4-year study of 5,000,000 persons. The figures represent weights in ordinary indoor clothing and shoes, and heights with shoes.

MEN						WOMEN					
Height	20-24	25-29	30-39	40-49	50-59	Height	20-24	25-29	30-39	40-49	50-59
5'0".....	122	128	131	134	136	4'10".....	102	107	115	122	125
5'1".....	125	131	134	137	139	4'11".....	105	110	117	124	127
5'2".....	128	134	137	140	142	5'0".....	108	113	120	127	130
5'3".....	132	138	141	144	145	5'1".....	112	116	123	130	133
5'4".....	136	141	145	148	149	5'2".....	115	119	126	133	136
5'5".....	139	144	149	152	153	5'3".....	118	122	129	136	140
5'6".....	142	148	153	156	157	5'4".....	121	125	132	140	141
5'7".....	145	151	157	161	162	5'5".....	125	129	135	143	148
5'8".....	149	155	161	165	166	5'6".....	129	133	139	147	152
5'9".....	153	159	165	169	170	5'7".....	132	136	142	151	156
5'10".....	157	163	170	174	175	5'8".....	136	140	146	155	160
5'11".....	161	167	174	178	180	5'9".....	140	144	150	159	164
6'0".....	166	172	179	183	185	5'10".....	144	148	154	164	169
6'1".....	170	177	183	187	189	5'11".....	149	153	159	169	174
6'2".....	174	182	188	192	194	6'0".....	154	158	164	174	180
6'3".....	178	186	193	197	199						
6'4".....	181	190	199	203	205						

Flower of the Month

January—Carnation or Snowdrop. February—Violet or Primrose. March—Jonquil or Daffodil. April—Sweet Pea or Daisy. May—Lily of the Valley or Hawthorn. June—Rose or Honeysuckle. July—Larkspur or Water Lily. August—Poppy or Gladiolus. September—Aster or Morning Glory. October—Calendula or Cosmos. November—Chrysanthemum. December—Narcissus or Holly.

Baby Colors—Blue for boys. Pink for girls.

Estimated Number of Illegitimate Births

Source: Division of Statistics, Natl. Center for Health Statistics, U. S. Dept. H.E.W.

Ratio Per 1,000 Unmarried Women

	1965 ¹	1964 ¹	1960 ¹	1950	1940
15-44 years ² (total)	23.5	23.0	21.6	14.1	7.1
15-44 " (white)	11.6	11.0	9.2	6.1	3.6
15-44 " (non-white)	97.6	97.2	98.3	71.2	35.6

¹Based on a 50% sample of births. ²Rates computed by relating total births, regardless of age of mother, to women, 15-44.

Only 34 states and the District of Columbia currently report illegitimacy. Among the nonreporting states are New York, California and Massachusetts, together account for 21% of all births in 1964. To obtain national estimates all states are grouped into geographic divisions. The ratio per 1,000 of illegitimate births reported for each division is then assumed to be the same for nonreporting states.

1964 State	Total	White	Negro	Other	1964 State	Total	White	Negro	Other
	Number of illegitimate births					Number of illegitimate births			
Total	195,068	73,692	118,512	2,864					
Ala.	9,162	950	8,210	2	Nev.	526	302	198	26
Alaska	420	116	12	292	N. J.	7,096	2,850	4,233	3
Del.	1,194	316	874	4	N. Car.	10,874	1,988	8,662	224
Dis. of Col.	4,648	412	4,232	4	N. Dak.	506	418	2	86
Florida	12,384	3,346	9,022	16	Ohio	12,780	6,790	5,962	28
Hawaii	1,138	314	22	802	Ore.	1,690	1,492	152	46
Ill.	17,096	5,666	11,368	44	Pa.	12,966	6,222	6,494	250
Ind.	5,772	3,554	2,214	4	R. I.	640	498	142	—
Iowa	1,862	1,636	224	2	S. Car.	7,266	808	6,456	2
Kansas	1,864	1,210	632	22	S. Dak.	736	444	6	346
Ky.	4,140	2,370	1,768	6	Tenn.	8,040	2,002	6,036	2
La.	9,524	1,094	8,424	6	Texas	14,906	6,578	8,320	8
Maine	876	856	6	14	Utah	460	436	16	8
Mich.	9,800	5,330	4,444	26	Va.	8,684	2,466	6,218	186
Minn.	3,570	3,100	218	252	Wash.	2,906	2,444	276	186
Miss.	8,690	494	8,176	20	W. Va.	2,486	1,980	506	—
Mo.	6,430	2,306	4,122	2	Wis.	3,606	2,688	826	94
					Wyo.	270	218	16	36

Patients in State and County Mental Hospitals

Source: National Institute of Mental Health. Average daily number of resident patients, 1967

State	No.	State	No.	State	No.	State	No.
Alabama.....	7,726	Indiana.....	10,753	Nevada.....	534	Tennessee.....	7,117
Alaska.....	179	Iowa.....	1,685	New Hampshire.....	2,174	Texas.....	15,193
Arizona.....	1,202	Kansas.....	2,411	New Jersey.....	18,446	Utah.....	533
Arkansas.....	2,088	Kentucky.....	4,563	New Mexico.....	644	Vermont.....	1,161
California.....	23,284	Louisiana.....	5,665	New York.....	82,876	Virginia.....	11,584
Colorado.....	2,528	Maine.....	2,785	North Carolina.....	8,803	Washington.....	3,308
Connecticut.....	7,117	Maryland.....	8,426	North Dakota.....	1,373	West Virginia.....	5,240
Delaware.....	1,456	Massachusetts.....	15,936	Ohio.....	21,281	Wisconsin.....	13,005
Dist. of Col.....	5,765	Michigan.....	16,789	Oregon.....	4,285	Wyoming.....	550
Florida.....	9,931	Minnesota.....	5,383	Oklahoma.....	4,285		
Georgia.....	10,996	Mississippi.....	5,138	Pennsylvania.....	34,370	Total.....	438,587
Hawaii.....	720	Missouri.....	9,538	Rhode Island.....	1,941		
Idaho.....	713	Montana.....	1,428	South Carolina.....	6,137		
Illinois.....	26,682	Nebraska.....	2,933	South Dakota.....	1,498		

*Provisional data. †Excludes data from one hospital.

The above data was based on reports from 304 of 306 State and County hospitals. The full-time personnel was estimated at 218,948 and the expenditures \$1,415,480,302. The average daily expenditures per patient based on the resident patient population of hospitals reporting expenditures was \$8.84.

Patients Under Care by Type of Facility in United States

Source: National Institute of Mental Health Data for 1967 (Provisional data)

Type of Facility	Facilities Reporting	Res-idents July 1, 1966	Total Admissions	Deaths in Hosps.	Net Live Releases ¹	Res-idents June 30, 1967
State and County Hosps.....	304 of 306	452,793	348,561	39,608	335,737	426,009
Private Mental Hosps ²	148 of 174	—	43,804	—	—	12,174
Public Inst. for Mentally Retarded.....	165 of 165	192,774	15,714	3,635	11,665	193,188
Outpatient Psychiatric Clinics ³	1867 of 2259	452,332 ⁴	593,324	—	515,804 ⁵	329,829

*Provisional data. †Net release alive from hospital is defined as the excess number of patients released alive from the hospital over those returning to the hospital from all leave statuses. National data on placements and returns from extramural care are not available but net releases may be computed from less detailed movement data as: Net Live Releases = Resident Patients beginning of year - Admissions, minus Deaths in Hospitals, minus Resident Patients end of year. †For 1966, only data on first admissions and resident patients collected. ‡This is the number of first admissions (admissions with no prior psychiatric experience) reported by 152 of 174 hospitals. §As of December 31, 1966. ¶Includes clinics of the Veterans Administration. ¶Patients on the books of the clinics. ¶Patients terminated from the clinic rolls.

Selected Statistics on State and County Mental Hospitals

Source: National Institute of Mental Health

Year	Total Admitted ¹	First ²	Read-missions ³	Net Releases ⁴	Deaths in Hospital	Resident end of year	Expense per Patient ⁵
1950.....	152,286	114,054	38,232	99,659	41,280	512,501	\$ 779.61
1955.....	178,003	122,284	55,719	126,498	44,384	558,922	1,116.59
1960.....	234,791	136,015	94,776	191,386	49,718	535,510	1,702.41
1965.....	314,027	141,090	169,937	28,579.0	43,964	475,292	2,563.99
1966.....	327,014	162,627	161,308	308,436	42,753	452,273	2,810.31
1967 ⁶	318,561	136,986 ⁸	178,587 ⁸	335,737	39,608	462,009	3,226.03

†Excludes transfers. ‡Beginning with 1962, this category was changed to Admissions with No Prior Psychiatric Inpatient Experience. §Prior admissions to hospitals in same state system and all other admissions. ¶Net Releases = resident patients beginning of year, plus all admissions (excluding transfers) minus deaths in hospital, minus resident patients end of year. ¶Per average daily resident patient population. ¶Provisional data including estimates for under-reporting wherever possible. ¶N. Y. changed its definition and reported first admissions to the N. Y. Hosp. system. ¶Excludes N. Y. and Michigan.

Purchases and Ownership of Life Insurance in U. S. and Assets of U. S. Life Insurance Companies

Legal Reserve Life Insurance Companies

Source: Division of Statistics & Research, Institute of Life Insurance
In millions of dollars.

Year	Purchases of Life Insurance ¹				Insurance in Force					
	Ordinary	Group	Industrial	Total	Ordinary	Group	Industrial	Credit	Total	Assets
1940.....	\$6,689	\$691	\$3,350	\$10,730	\$79,346	\$14,938	\$20,866	\$380	\$115,530	\$30,802
1945.....	9,859	1,265	3,430	14,554	101,550	22,172	27,675	365	151,762	44,797
1950.....	17,326	6,068	5,402	28,796	149,071	47,793	33,415	3,889	234,168	61,020
1955.....	30,827	11,258	6,342	48,427	216,600	101,300	39,682	14,750	372,332	90,432
1960.....	52,883	14,645	6,880	74,408	340,268	175,434	39,563	31,183	586,448	119,576
1962.....	56,998	15,533	7,046	79,577	389,150	209,178	39,638	38,011	675,977	133,291
1963.....	64,267	18,152	7,154	89,573	418,856	228,540	39,672	43,555	730,623	141,121
1964.....	74,012	23,681	7,312	15,008	455,860	252,182	39,833	49,933	797,808	149,470
1965.....	83,485	51,385	7,296	142,166	497,630	306,113	39,818	56,993	900,554	158,854
1966.....	88,963	26,219	7,078	121,990	538,992	343,362	39,663	62,672	984,689	167,022
1967.....	94,699	38,761	7,152	140,612	582,565	391,089	39,215	66,952	1,079,821	177,361
1968(6 mos.)	51,100	16,400	3,400	70,900	n. a.	n. a.	n. a.	n. a.	1,130,000*	182,000*

*Estimate. n. a. Not available. ¹Figures exclude credit life insurance.

Motor Vehicle Traffic Deaths by States

Source: State traffic authorities

Place of accidents	Number		Mil. death rate*		Place of accidents	Number		Mil. death rate*	
	1967	1966	1967	1966		1967	1966	1967	1966
Alabama.....	1,099	1,061	6.9	7.0	Nebraska.....	445	425	5.2	5.1
Alaska.....	53	74	6.0	8.9	Nevada.....	181	212	6.0	7.3
Arizona.....	572	643	6.2	7.4	New Hampshire.....	160	148	4.2	4.1
Arkansas.....	640	673	6.8	7.3	New Jersey.....	1,168	1,127	3.3	3.3
California.....	4,803	4,330	4.9	5.0	New Mexico.....	450	431	7.3	7.2
Colorado.....	587	601	5.4	5.8	New York.....	2,902	2,812	4.8	4.8
Connecticut.....	441	409	3.1	3.0	North Carolina.....	1,747	1,724	7.1	7.4
Delaware.....	136	131	5.0	5.0	North Dakota.....	200	209	5.6	6.0
Dist. of Col.....	131	97	5.1	3.8	Ohio.....	2,520	2,605	5.0	5.3
Florida.....	1,777	1,819	5.6	6.0	Oklahoma.....	879	799	5.9	5.5
Georgia.....	1,614	1,605	6.7	7.0	Oregon.....	658	678	5.8	6.2
Hawaii.....	138	116	5.2	4.6	Pennsylvania.....	2,331	2,180	4.4	4.3
Idaho.....	276	266	6.8	6.8	Rhode Island.....	104	109	2.5	2.7
Illinois.....	2,493	2,522	4.9	5.2	South Carolina.....	913	968	7.1	7.9
Indiana.....	1,570	1,574	5.6	5.9	South Dakota.....	224	265	5.5	6.5
Iowa.....	817	904	6.0	6.9	Tennessee.....	1,250	1,272	6.9	7.4
Kansas.....	664	733	5.0	5.7	Texas.....	3,367	3,406	5.8	6.2
Kentucky.....	1,028	1,086	6.2	7.0	Utah.....	275	330	5.2	6.4
Louisiana.....	1,217	1,238	8.4	8.9	Vermont.....	132	126	6.0	6.0
Maine.....	261	234	5.0	4.6	Virginia.....	1,223	1,106	5.4	5.1
Maryland.....	807	756	4.5	4.4	Washington.....	874	828	4.9	5.0
Massachusetts.....	867	900	3.8	4.1	West Virginia.....	584	517	7.5	6.9
Michigan.....	2,123	2,298	4.8	5.3	Wisconsin.....	1,149	1,126	5.5	5.6
Minnesota.....	962	983	5.2	5.5	Wyoming.....	143	153	5.3	5.8
Mississippi.....	908	847	9.1	9.0	Puerto Rico.....	488	407	11.3	10.1
Missouri.....	1,318	1,379	5.5	6.0	Virgin Islands.....	4	5	.....	.....
Montana.....	319	276	8.1	7.1	Guam.....	17	25	6.1	11.4

*The mileage death rate is the number of deaths per 100,000,000 vehicle-miles.

Transportation Accident Death Rates

Source: Interstate Commerce Commission; Civil Aeronautics Board and National Safety Council

Kind of Transportation	Passenger Miles	Passenger Deaths	Rate Per 100,000,000 Passenger Miles	1965-67 Average Death Rate
Automobiles and taxis ¹	1,480,000,000,000	35,300	2.40	2.40
Automobiles on turnpikes.....	39,000,000,000	440	1.10	1.20
Buses.....	66,000,000,000	130	0.20	0.19
Railroad passenger trains.....	15,200,000,000	13	0.09	0.10
Scheduled air transport planes (domestic).....	78,910,000,000	226	0.29	0.25

¹Drivers of passenger automobiles are considered passengers.

Deaths in Civil Aviation Accidents

Source: National Safety Council (NTSB & FAA)

Year	Total deaths*	Scheduled flights (passengers)				General aviation	
		Domestic		International		No.	Rate**
		No.	Rate**	No.	Rate**		
1960.....	1,286	297	0.93	10	0.12	787	24
1963.....	1,157	48	0.12	73	0.59	893	23
1964.....	1,250	65	0.14	94	0.63	1,086	24
1965.....	1,279	205	0.38	21	0.12	1,029	21
1966.....	1,423	59	0.09	0	0.00	1,151	17
1967 (prel.).....	1,472	226	0.29	0	0.00	1,186	16

*Includes some deaths not shown separately—crew members in scheduled operations and persons not in planes killed in airplane accidents. Excludes deaths in military plane accidents.

**Rates are the number of deaths per 100,000,000 passenger miles. ¹(NSC estimate) Pilots and other crew members are considered passengers for general aviation only.

Federal Bureau of Investigation

The Federal Bureau of Investigation (FBI) is an activity of the Department of Justice, and is located at 9th St. and Pennsylvania Ave., Washington, D. C. It investigates all violations of Federal laws except those specifically assigned to some other agency by legislative action, such violations including counterfeiting, and internal revenue, postal and customs violations. It also investigates espionage, sabotage, treason and other matters affecting internal security, as well as kidnapping, transportation of stolen goods across state lines, interstate traffic in prostitution and violations of the Federal bank and atomic energy laws.

The FBI collects and classifies police and crime reports for the nation. The Identification Division had 129,154,682 fingerprint cards on file Sept. 1, 1967. While this division is of great usefulness in detecting criminals, it serves a wider purpose in recording the fingerprints of many other citizens who voluntarily make this record.

The FBI has 58 field divisions in the principal cities of the country. Consult telephone directories for location and phone numbers.

An applicant for the position of Special Agent of the FBI must be at least 23 and under 41 years old

and graduate of a state-accredited resident law school or from a resident four-year college with a major in accounting with at least three years of practical accounting and/or auditing experience. An agent gets 14 weeks of training, during which he learns techniques of investigation and arrest and recognition of evidence.

J. Edgar Hoover has been director since 1924. He was born in Washington, D. C. in 1895, and was graduated from George Washington U. in 1916.

U. S. Govt. Crime Reports

Source: Federal Bureau of Investigation

Offense	1967	Percent over 1966
Murder.....	12,090	+10.8
Forcible rape.....	27,100	+7.0
Robbery.....	202,050	+28.4
Aggravated assault.....	253,300	+9.3
Burglary.....	1,605,700	+15.7
Larceny \$50 and over.....	1,047,100	+17.0
Auto theft.....	654,900	+17.6
Total.....	3,802,300	+16.5

21% Increase in Crime in U. S. Reported in 1968

The Federal Bureau of Investigation's Uniform Crime Reports have disclosed that crime in United States cities, suburbs and rural areas increased an average of 21% during the first 6 months of 1968 when compared to the corresponding period of 1967.

Crimes of violence increased 21% as a group, with individual increases of 29% in robbery, 17% in murder, 14% in aggravated assault and 15% in forcible rape, according to the crime reports voluntarily submitted to the FBI by law enforcement agencies throughout the country.

In crimes against property, which as a group increased 20%, auto theft was up 24%, burglary 17% and larceny \$50 and over 23% in the 6 months, the FBI said.

All cities when grouped by population size reported increases ranging from 17% in cities under 10,000 population to 24% in cities 250,000 to 500,000 inhabitants. The increase was 21% in suburban areas and rural areas reported a jump of 14%. The upward trend was consistent for all geographic areas of the country, according to the reports.

Crime Index Trends by Geographic Region

(January-June, 1968 over 1967 in Percentage)

Region	Total	Murder	Forcible rape	Robbery	Aggravated assault	Burglary	Larceny \$50 and over	Auto theft
Northeastern States.....	+27	+18	+5	+49	+7	+22	+26	+34
North Central States.....	+17	+12	+13	+10	+10	+13	+24	+20
Southern States.....	+18	+16	+19	+30	+15	+16	+20	+18
Western States.....	+20	+26	+22	+29	+24	+18	+22	+22

Locations of Federal Detention Areas

Source: U. S. Bureau of Prisons

Penitentiaries: Atlanta, Ga.; Leavenworth, Kans.; Lewisburg, Pa.; McNeil Island, Wash.; Marion, Ill.; Terre Haute, Ind. Reformatories: El Reno, Okla.; Petersburg, Va.; Women, Alderson, W. Va. Medical center: Springfield, Mo.; Hospital: Maintenance unit, Prison camps: Eglin Air Force Base, Florida; Montgomery, Ala.; Safford, Ariz. Correctional Institutions: Danbury, Conn.; La Tuna, Tex.; Lompoc, Calif.; Texarkana, Tex.; Milan, Mich.; Tallahassee, Fla.; Seagrave, Tex.; Terminal Island, Calif.; Sandstone, Minn. Detention headquarters center: New York City; Florence, Arizona. Institutions for juvenile and youth offenders: Ashland, Ky.; Englewood, Colo.; Morgantown, W. Va. Community Treatment Centers: Detroit, Mich.; Chicago, Ill.; Los Angeles, Calif.; Kansas City, Mo.; Atlanta, Ga.; Houston, Texas; Oakland, Calif.; New York City.

Prisoners in State and Federal Prisons and Reformatories

1940.....	173,706	1955.....	185,780	1961.....	220,149	1964.....	214,336
1945.....	133,649	1959.....	207,446	1962.....	218,830	1965.....	210,895
1950.....	166,123	1960.....	212,953	1963.....	217,283	1966.....	199,654

Arrests in 1967 by Sex

Source: Federal Bureau of Investigation, Dept. of Justice
Compiled from reports of 4,566 police agencies. Estimated 1967 population in area 145,927,000

Offense charged	Male	Female	Offense charged	Male	Female
Criminal homicide:			Sex offenses (except forcible rape and prostitution).....	46,569	6,972
(a) Murder and nonnegligent man-slaughter.....	7,650	1,495	Narcotic drug laws.....	87,097	13,982
(b) Manslaughter by negligence.....	2,720	302	Gambling.....	77,388	7,384
Forcible rape.....	12,659	...	Offenses against family and children.....	51,140	4,997
Robbery.....	56,689	3,100	Driving under the influence.....	262,925	18,227
Aggravated assault.....	93,343	13,849	Liquor laws.....	185,149	21,592
Burglary—breaking or entering.....	229,752	9,709	Drunkenness.....	1,408,594	109,215
Larceny—thief.....	340,355	106,944	Disorderly conduct.....	476,022	74,447
Auto theft.....	113,227	5,006	Vagrancy.....	96,354	10,393
Other assaults.....	205,342	24,586	All other offenses (except traffic).....	564,604	90,311
Arson.....	7,499	559	Suspicion.....	79,357	16,437
Forgery and counterfeiting.....	26,515	6,947	Curfew and loitering law violations.....	77,457	17,415
Fraud.....	44,676	13,514	Runaways.....	67,043	62,489
Embezzlement.....	4,904	1,169			
Stolen property: buying, receiving, possessing.....	26,489	2,131	Total.....	4,829,918	688,502
Vandalism.....	102,540	6,759			
Weapons: carrying, possessing, etc.....	66,979	4,705	Total (all).....	5,518,420	
Prostitution and commercialized vice.....	8,878	30,866			

Secret Service Protects Major National Candidates

United States Secret Service protection was extended to all major Presidential and Vice Presidential candidates by legislation passed by Congress and signed by President Johnson June 6, 1968. The Secret Service, an agency of the Treasury Dept., protects the President and members of his immediate family, the President-elect, the Vice President and the Vice President-elect. The Service is also authorized to protect a former President and his wife during his lifetime and the person of a widow and minor children of a former President.

The Secret Service detects and arrests persons committing any offense against U. S. laws relating to coins, obligations and securities of the U. S. and foreign governments.

During fiscal 1968 the Service arrested

1,370 persons for violating the counterfeiting laws and recovered more than \$13,000,000 in counterfeit currency, an all-time high in both categories. The loss to the public amounted to over \$2,860,000. Coin counterfeiting in the U. S. increased from \$15,000 in fiscal 1967 to about \$26,000 in fiscal 1968.

Forged Government-check cases investigated by the Service during fiscal 1968 numbered 52,667 and involved an amount of more than \$5,500,000. A total of 2,422 persons were arrested for Government-check violations.

The Service also investigated 11,505 cases involving the forgery and fraudulent negotiation of U. S. Savings Bonds having a value at maturity of \$1,242,000. The Service made 146 arrests in connection with these crimes.

INTERPOL (International Criminal Police Organization)

The United States is one of 101 countries that are members of INTERPOL, the International Criminal Police Organization. United States participation in INTERPOL was authorized by Congress in 1958. Because of the Treasury Dept.'s activities in the suppression of counterfeiting, smuggling and the narcotics traffic, all of which have international ramifications, that department was designated as U. S. representative to INTERPOL.

Each member nation has one vote at a general assembly of INTERPOL held annually at a site chosen by the delegates at the previous year's assembly. The chairman of the U. S. delegation attending such meetings is the Special Assistant to the Secretary of the Treasury (for Enforcement).

INTERPOL dates from 1914, but World War I brought suspension of all its activities until 1923. The organization's first constitution was drawn up in that year. Files on international criminals were built up gradually to a point where their value to the police of member nations became apparent. During World War II the files disappeared from Vienna, where the General Secretariat of INTERPOL was located.

The organization was reconstituted at the end of World War II. The General

Secretariat was moved to Paris and is now located in the Parisian suburb of Saint-Cloud. Information concerning thousands of international criminals is received there, sorted and disseminated to INTERPOL National Central Bureaus in the member countries. Besides handling voluminous mail, the General Secretariat receives and transmits over 118,000 messages a year over its radio network.

INTERPOL does not employ any investigators as such. The General Secretariat refers inquiries to the appropriate National Central Bureau. Also, the National Central Bureaus correspond between themselves and send copies of their correspondence to the Secretary General in Paris.

In the United States all inquiries, both incoming and outgoing, are channeled through the National Central Bureau in Washington. Investigations required in this country are conducted by the U. S. Secret Service, Customs Agency Service, and Internal Revenue Service, all agencies of the Treasury Dept. Frequently, also, inquiries are referred by the National Central Bureau at Washington to police and other enforcement agencies on the municipal, county, state and Federal levels for investigation.

Police Roster

Police officers and civilian employees in large cities as of Jan. 1, 1968

City	Officers	Civilian	City	Officers	Civilian	City	Officers	Civilian
New York	27,462	2,643	Cleveland	2,199	270	Houston	1,436	294
Chicago	11,428	1,487	St. Louis	2,058	612	New Orleans	1,299	219
Philadelphia	7,393	697	Milwaukee	1,893	128	Seattle	984	160
Los Angeles	5,383	1,663	San Francisco	1,763	298	Kansas City	938	297
Detroit	4,356	472	Pittsburgh	1,548	21	Indianapolis	918	118
Baltimore	3,039	332	Dallas	1,436	230	Cincinnati	923	129
Washington	2,726	347	Newark	1,388	275	Jersey City	860	216
Boston	2,495	193	Buffalo	1,310	217	Denver	844	162

Maximum Penalties for First Degree Murder

INCLUDING CAPITAL PUNISHMENT

Imprisonment for life may be imposed instead of death in all states.

Alabama	Electrocution	Maine	Life Imprisonment	Pennsylvania	Electrocution
Alaska	Life Imprisonment	Maryland	Lethal Gas	Rhode Island	Life Imprisonment
Arizona	Lethal Gas	Mass	Electrocution	So. Carolina	Electrocution
Arkansas	Electrocution	Michigan	Life Imprisonment	So. Dakota	Electrocution
California	Lethal Gas	Minnesota	Life Imprisonment	Tennessee	Electrocution
Colorado	Lethal Gas	Mississippi	Lethal Gas	Texas	Electrocution
Connecticut	Electrocution	Missouri	Lethal Gas	Utah	Hanging or Shooting
Delaware	Hanging	Montana	Hanging	Vermont (b)	Life Imprisonment
Dist. of Col.	Electrocution	Nebraska	Electrocution	Virginia	Electrocution
Florida	Electrocution	Nevada	Lethal Gas	Washington	Hanging
Georgia	Electrocution	New Hamp.	Hanging	W. Virginia	Life Imprisonment
Hawaii	Life Imprisonment	New Jersey	Electrocution	Wisconsin	Life Imprisonment
Idaho	Hanging	New Mexico	Lethal Gas	Wyoming	Lethal Gas
Illinois	Electrocution	New York (a)	Life Imprisonment	U. S. Govt.	Death or Life
Indiana	Electrocution	No. Carolina	Lethal Gas	Am. Samoa	Hanging
Iowa	Life Imprisonment	No. Dakota	Life Imprisonment	Canal Zone	Hanging
Kansas	Hanging	Ohio	Electrocution	Guam	Life Imprisonment
Kentucky	Electrocution	Oklahoma	Electrocution	Puerto Rico	Life Imprisonment
Louisiana	Electrocution	Oregon	Life Imprisonment	Virgin Islands	Life Imprisonment

(a) the death penalty applicable to persons for killing a peace officer acting in the line of duty and to convicts under life sentence for killing a guard or inmate. (b) Electrocution for killing of prison personnel or unrelated second offense.

Murders, Robberies, Burglaries and Auto Thefts

Source: Uniform Crime Reports (FBI)

Index of Crime in 1967 as reported or estimated in the Standard Metropolitan Statistical Areas of over 500,000 population. *Includes manslaughter.

	Mur- der*	Rob- bery	Bur- glary	Auto theft		Mur- der*	Rob- bery	Bur- glary	Auto theft
Akron, Ohio	24	709	4,939	3,703	Milwaukee, Wis.	50	765	6,766	5,789
Albany-Schenectady- Troy	17	245	4,228	1,926	Minneapolis-St. Paul, Minn.	34	2,280	18,353	8,602
Allentown-Bethlehem- Easton	7	110	2,182	643	Nashville, Tenn.	65	648	6,194	2,920
Anaheim-Santa Ana-Garden Gr.	21	699	15,162	3,353	Newark, N.J.	114	2,852	22,977	10,096
Atlanta, Georgia	171	1,187	10,870	4,059	New Haven-Waterbury, Conn.	16	150	6,405	3,127
Baltimore, Md.	225	7,008	25,199	12,280	New Orleans, La.	144	2,234	12,232	7,075
Birmingham, Ala.	96	468	6,791	1,984	New York, N.Y.	821	37,282	171,589	68,299
Bost.-Lowell-Lawrence	105	2,165	20,595	25,798	Norfolk-Port., Va.	57	827	7,498	2,723
Bridgeport-Stamford-Norwalk	17	336	6,331	3,148	Oklahoma City, Okla.	41	377	5,540	1,724
Buffalo, N.Y.	37	1,120	9,791	6,723	Omaha, Nebr.-Iowa	34	501	4,789	2,196
Chicago, Ill.	647	20,080	46,436	39,635	Paterson-Clifton-Passaic, N.J.	30	638	7,877	4,208
Cinc.-Ohio-Ky.-Ind.	93	861	8,399	2,994	Philadelphia, Pa.	300	696	27,679	13,757
Cleveland, Ohio	173	3,892	11,900	13,737	Phoenix, Ariz.	50	800	12,796	4,866
Columbus, Ohio	45	921	8,712	3,364	Pittsburgh, Pa.	72	2,325	13,011	10,677
Dallas, Tex.	155	1,108	12,688	5,087	Portland, Ore.-Wash.	28	1,130	11,049	3,996
Dayton, Ohio	74	993	6,117	2,520	Providence-Pawtucket-Warwick	16	250	6,789	5,198
Denver, Colo.	44	1,164	10,494	4,809	Richmond, Va.	50	487	6,036	2,332
Detroit, Mich.	366	14,032	59,700	24,351	Rochester, N.Y.	40	503	4,649	1,299
Ft. Lauderdale-Hollywood, Fla.	65	613	6,796	1,683	Sacramento, Calif.	44	666	8,516	3,616
Ft. Worth, Texas	102	606	6,855	2,774	St. Louis, Mo.-Ill.	249	4,000	24,169	11,590
Gary-Ham'd-E. Chi.	48	1,427	4,862	4,221	Salt Lake City, Utah	20	324	5,070	1,589
Grand Rapids, Mich.	20	453	4,923	1,374	San Antonio, Texas	85	489	9,827	2,935
Greensboro-High Point, N.C.	48	257	3,617	1,100	San Bernardino-Riverside, Ont.	55	652	14,993	3,226
Hartford-New Britain-Bristol	29	381	5,481	2,306	San Diego, Calif.	40	634	8,114	4,480
Honolulu, Hawaii	17	144	7,857	2,888	San Francisco-Oakland	181	6,834	51,409	21,229
Houston, Texas	299	3,438	20,829	8,794	San Jose, Calif.	23	398	9,597	3,036
Indianapolis, Ind.	69	1,376	10,827	6,173	Seattle-Ever't, Wash.	60	1,228	13,421	5,236
Jacksonville, Fla.	50	1,188	9,013	1,725	Springfield-Chicopee-Holyoke	13	116	2,553	2,417
Jersey City, N.J.	33	423	3,310	4,855	Syracuse, N.Y.	22	407	4,812	1,090
Kan. City, Mo.-Kan. Los Angeles	103	2,764	15,067	6,760	Tampa-St. Petersburg-Toledo, Ohio-Mich.	73	1,218	14,105	2,625
Long Beach, Calif.	496	16,538	125,220	48,493	Washington, D.C.-Md.-Va.	40	1,121	5,388	2,107
Louisville, Ky.-Ind.	77	1,030	7,634	5,862	Worcester, Mass.	230	7,061	30,745	15,791
Memphis, Tenn.-Ark.	83	879	9,376	2,374	Youngstown-Warren, Ohio	16	211	4,786	3,360
Miami, Fla.	133	3,266	16,876	5,427		27	458	3,103	1,795

Building Fire Losses By Causes

Source: National Fire Protection Assn. Copyright 1968

These are estimated figures intended to show the relative order of magnitude of fire losses by cause. These figures by themselves do not show the relative safety in utilization of various types of materials, devices, fuels or services. They are approximations based on experience in typical states.

1967	Number of fires	Losses
Heating and cooking	128,600	\$127,000,000
Equipment, defective or overheated	69,200	\$73,300,000
Chimneys, flues defective or overheated	23,300	17,200,000
Hot ashes and coals	7,700	8,500,000
Combustibles near heaters	28,400	28,000,000
Smoking and matches	160,100	75,300,000
Electrical	144,600	193,600,000
Fixed services, fires due to wiring, equipment, etc.	87,400	135,300,000
Power-consuming appliances	57,200	58,300,000
Rubbish, source of ignition unknown	23,800	16,300,000
Flammable liquid fires and explosions not reported in heating and cooking	51,300	59,400,000
Open flames and sparks	65,500	95,700,000
Sparks on roof	2,900	1,600,000
Welding and cutting	5,800	16,500,000
Sparks from machinery, friction	11,100	12,200,000
Thawing pipes	3,200	5,100,000
Miscellaneous open flames and sparks	42,500	60,300,000
Lighting	21,100	30,600,000
Children and matches	84,000	59,700,000
Exposure	22,200	33,800,000
Incendiar, suspicious	44,100	141,700,000
Spontaneous ignition	18,100	27,200,000
Gas fires and explosions not reported in heating and cooking	7,500	17,000,000
Explosions, miscellaneous and unclassified	6,000	24,500,000
Fireworks, firecrackers and rockets	3,000	1,400,000
Miscellaneous known causes	56,900	88,900,000
Unknown or undetermined	124,100	630,900,000
Totals	960,900	\$1,623,000,000

Annual Fire Losses in the United States

Source: National Insurance Actuarial and Statistical Assn.

Year	Loss	Year	Loss	Year	Loss	Year	Loss
1920.....	\$447,886,677	1950.....	\$648,909,000	1958.....	\$ 989,290,000	1982.....	\$1,265,002,000
1925.....	559,418,184	1951.....	730,084,000	1957.....	1,023,190,000	1983.....	1,405,558,000
1930.....	501,980,624	1952.....	815,134,000	1958.....	1,036,266,000	1964.....	1,367,128,000
1935.....	235,263,401	1953.....	903,400,000	1959.....	1,047,073,000	1965.....	1,455,831,000
1940.....	285,878,697	1954.....	870,984,000	1960.....	1,107,824,000	1966.....	1,496,755,000
1945.....	484,274,000	1955.....	885,218,000	1961.....	1,209,042,000	1967.....	1,706,717,000

AGRICULTURE

Farms in United States by State—Number, Acreage, Value

Source: Bureau of the Census (Census of 1964)

State	Farms	Land in Farms		Value of land and Buildings		State	Farms	Land in Farms		Value of land and Buildings	
		No.	Acres	Per Farm	Per Acre			No.	Acres	Per Farm	Per Acre
U.S.	3,157,857		1,110,187,000	50,646	143.81	E. S.					
New England...	41,957		7,744,494			Central...	468,155		64,508,797		
Maine...	12,875		2,590,922	19,979	100.06	Kentucky...	133,038		16,265,180	22,235	181.07
N. Hamp.	4,648		903,197	25,402	132.12	Tennessee...	133,446		15,266,213	20,509	178.94
Vermont...	9,247		2,521,371	29,733	109.22	Alabama...	92,630		15,235,797	20,552	124.57
Mass.	8,019		901,789	43,492	386.06	Mississippi...	109,141		17,751,607	24,322	150.34
R. Island...	1,100		103,801	46,030	484.94	W. S.					
Conn.	6,068		721,314	67,429	560.67	Central...	436,200		204,760,125		
Middle Atlantic...	160,237		24,234,888			Arkansas...	79,898		16,565,299	36,734	177.51
New York...	66,510		12,275,308	32,797	176.96	Louisiana...	62,466		10,411,045	38,636	232.86
New Jersey...	10,641		1,155,597	73,487	662.42	Oklahoma...	88,726		36,077,472	49,212	120.72
Pa.	83,086		10,803,983	29,836	228.35	Texas...	205,110		111,706,309	77,756	111.53
E. N.						Mountain...	134,115		268,002,843		
Central...	573,605		99,486,458			Montana...	27,020		65,833,760	103,271	42.30
Ohio...	120,381		17,619,167	43,733	295.42	Idaho...	29,661		15,301,513	68,178	131.71
Indiana...	108,082		17,933,226	51,645	309.84	Wyoming...	9,038		37,052,632	115,355	28.13
Illinois...	132,822		29,957,601	80,894	356.94	Colorado...	29,798		38,258,626	90,183	70.23
Michigan...	93,504		13,598,992	34,027	232.82	N. Mexico...	14,206		47,646,966	117,042	34.93
Wisconsin...	118,816		20,377,572	26,765	154.71	Arizona...	6,477		40,559,493	330,549	52.78
W. N.						Utah...	15,759		12,867,081	57,747	70.66
Central...	703,782		283,603,322			Nevada...	2,156		10,482,772	182,436	37.65
Minnesota...	131,163		30,804,980	39,075	166.14	Pacific...	166,183		76,572,765		
Iowa...	154,162		33,758,321	59,553	271.77	Washington...	45,574		19,262,538	64,304	154.22
Missouri...	147,315		32,691,618	33,451	150.38	Oregon...	39,757		20,509,302	99,079	114.71
No. Dakota...	45,836		42,717,360	58,450	66.78	California...	80,852		37,010,925	214,650	468.40
So. Dakota...	49,703		45,567,263	56,615	61.60	Alaska...	382		1,959,440	47,150	9.17
Nebraska...	80,163		47,792,663	65,268	109.39	Hawaii...	4,864		2,354,454	98,936	204.82
Kansas...	92,440		50,271,117	66,397	121.55						
S. Atlantic...	468,377		76,959,414								
Delaware...	4,401		717,013	53,443	321.74						
Maryland...	20,760		3,180,696	64,999	42.18						
Virginia...	80,354		12,001,860	27,572	182.64						
W. Virginia...	34,504		5,275,592	13,852	90.32						
N. Carolina...	148,202		14,381,724	24,442	252.37						
S. Carolina...	56,248		8,101,417	24,948	171.08						
Georgia...	83,366		17,886,931	29,155	135.39						
Florida...	40,542		15,411,181	109,053	285.71						

N.A.—not available. ¹Except Hawaii and Alaska. ²Not enumerated in 1964.

Puerto Rico and Possessions

Puerto Rico	44,829	N.A.	N.A.	N.A.
Guam...	2,529	30,099	N.A.	N.A.
Am. Samoa ²	2,135	11,521	N.A.	N.A.
Virgin Is. ²	466	39,539	166,441	1961.65

Index Numbers of Prices Received by Farmers

Source: Economic Research Service; Department of Agriculture Index (1910-14 = 100 per cent)

Year	All Farm Products	All Crops	Livestock ¹	Food Grains	Feed Grains and Hay	Feed Grains	Cotton	Tobacco	Oil-bearing Crops	Fruit	Commercial Vegetables ²	Potatoes, Sweet pot. ³	Meat Animals	Dairy Products	Poultry and Eggs	Wool
1910.	104	105	102	109	96	97	118	84	120	100	83	101	100	104	117	
1915.	99	96	102	127	105	110	76	82	106	82	86	102	101	101	126	
1920.	211	235	190	249	202	209	262	233	208	188	294	171	202	222	214	
1925.	156	164	149	171	132	139	186	168	147	165	153	170	139	156	162	
1930.	125	115	134	93	106	109	104	140	111	149	128	162	133	142	128	
1935.	109	103	114	97	107	112	98	171	127	89	116	72	115	114	116	
1940.	100	90	109	84	85	86	83	134	103	81	122	89	108	120	98	
1945.	207	202	211	172	167	168	179	360	228	228	240	207	207	229	198	
1950.	258	233	280	224	193	198	282	402	276	194	211	166	340	249	186	
1955.	232	231	234	228	183	187	272	437	249	202	223	178	246	247	161	
1960.	239	222	253	203	152	151	254	500	214	244	230	203	296	259	160	
1964.	237	239	236	190	167	166	262	490	256	306	248	230	270	256	142	
1965.	248	233	261	164	174	173	245	513	265	246	261	295	319	261	145	
1966(r)	267	237	292	185	180	180	215	552	293	258	285	198	356	294	161	
1967.	253	224	277	177	174	174	191	555	276	225	284	193	336	305	132	

¹Livestock and livestock products. ²For fresh market and processing beef. 1952. ³Including dry edible beans.

Average Farm Wages

Cal. yr.	Per month		Per day		Cal. yr.	Per month		Per day		Cal. yr.	Per month		Per day	
	Incl.	Excl.	Incl.	Excl.		Incl.	Excl.	Incl.	Excl.		Incl.	Excl.	Incl.	Excl.
1910	\$21.00	\$28.00	\$1.05	\$1.35	1930	\$37.50	\$48.00	\$1.80	62.15	1940	\$79.50	\$101.00	\$3.85	\$4.35
1920	\$51.00	\$65.00	2.80	3.30	1935	\$22.00	\$30.50	1.10	1.35	1945	\$27.00	\$37.00	3.85	4.35

NEW SERIES

Calendar year	Per month With house	Per month With board & room	Per week With board & room	Per week Without board or room	Per day With house	Per day With board & room	Per day Without board or room	Per hour With house	Per hour Without board or room
1950.	\$121.00	\$99.00	\$23.50	\$31.00	\$3.50	\$4.45	\$4.50	\$6.2	\$6.9
1955.	154.00	123.00	29.75	35.00	4.20	6.40	6.30	.74	.82
1959.	186.00	144.00	34.75	44.50	5.10	6.30	6.40	.85	.95
1960.	192.00	149.00	35.50	45.75	5.30	6.50	6.60	.88	.97
1962.	200.00	155.00	37.00	47.75	5.60	6.70	6.90	.92	1.01
1963.	206.00	159.00	37.50	48.50	5.70	6.90	7.10	.94	1.05
1964.	212.00	162.00	38.50	49.50	5.90	7.10	7.30	.97	1.08
1965.	223.00	171.00	40.25	51.50	6.20	7.40	7.60	1.03	1.14
1966.	243.00	185.00	43.50	55.75	6.70	8.00	8.20	1.10	1.23
1967.	262.00	199.00	47.50	60.50	7.50	8.60	9.00	1.18	1.33

Average Prices Received by U. S. Farmers

Source: Economic Research Service; Department of Agriculture

The figures represent dollars per 100 lbs. for hogs, beef cattle, veal calves, sheep, lamb and milk (wholesale); dollars per head for milk cows; cents per lb. for milk fat (in cream), chickens, broilers, turkeys and wool; cents for eggs per dozen. *Revised

Year	Hogs	Cattle (beef)	Calves (veal)	Sheep	Lambs	Cows (milk)	Milk (wholesale)	Milk fat (in cream)	Chickens	Broilers	Turkeys	Eggs	Wool
1930	8.84	7.71	9.68	4.74	7.76	74.20	1.21	34.5	18.4		20.2	23.7	19.5
1935	8.65	6.04	7.16	3.75	7.28	46.90	1.22	28.1	15.3	20.0	20.1	23.4	19.3
1940	5.39	7.56	8.83	3.95	8.10	61.00	1.82	28.0	13.9	17.3	15.2	18.0	28.4
1945	14.00	12.10	13.00	6.38	13.10	111.00	3.19	50.3	27.0	29.5	33.7	37.7	41.9
1950	15.00	13.60	16.80	11.60	25.10	198.00	3.89	62.0	24.9	27.4	32.9	36.3	62.1
1955	15.00	15.60	16.80	5.73	18.40	146.00	4.01	57.8	23.4	25.2	30.2	39.5	42.8
1958	19.60	21.90	25.30	7.20	21.00	210.00	4.16	59.3	17.7	18.5	23.9	38.5	36.4
1959	14.10	22.60	26.70	6.00	18.70	233.00	4.10	60.1	15.3	16.1	23.9	31.4	43.3
1960	15.30	20.40	22.90	5.61	17.90	223.00	4.21	60.5	14.6	15.2	21.6	33.8	47.7
1962	16.30	21.30	25.10	5.87	17.80	221.00	4.10	59.4	14.6	15.2	21.6	33.8	47.7
1963	14.90	19.90	24.00	5.80	18.10	215.00	4.10	59.5	14.1	14.6	22.3	34.5	48.5
1964	14.80	18.00	20.40	5.96	19.90	209.00	4.15	60.2	13.7	14.2	21.0	33.8	53.2
1965	20.60	19.90	22.10	6.34	22.80	212.00	4.23	61.1	14.4	15.0	22.2	33.7	47.1
1966	22.80	22.20	26.00	6.84	23.40	246.00	4.81	67.2	14.7	15.3	23.1	39.1	51.2
1967	18.30	22.30	26.30	6.35	22.10	260.00	5.02	66.2	12.7	13.3	19.5	31.2	39.8

The figures represent cents per bushel for oats; cents per lb. for cotton and peanuts; dollars per bushel for wheat, corn, barley, soybeans and apples; dollars per 100 lbs. for rice, sorghum and potatoes; dollars per ton for cottonseed and baled hay.

Crop year	Wheat	Corn	Cotton	Oats	Barley	Rice	Soybeans	Sorghum	Peanuts	Cottonseed	Hay	Potatoes	Apples
1930	.663	.550	9.46	31.1	.420	1.84	1.02	3.46	22.00	7.60	1.47	.880	.63
1935	.827	.632	11.08	25.7	.376	1.60	.714	3.12	30.50	9.78	.350	.980	.63
1940	.674	.601	9.83	29.8	.393	1.80	.892	3.33	21.70	9.78	2.30	.850	.72
1945	1.49	1.23	22.51	65.0	1.01	3.98	2.08	8.27	51.10	20.30	2.30	2.80	2.80
1950	2.00	1.52	39.90	78.8	1.19	5.09	2.47	10.9	86.60	21.10	1.50	1.60	1.60
1955	1.99	1.35	32.27	60.0	.920	4.81	2.22	11.7	44.60	22.50	1.77	2.03	2.03
1958	1.75	1.12	33.09	57.8	.900	4.68	2.00	10.6	43.80	18.80	1.31	1.87	1.87
1959	1.76	1.04	31.56	64.6	.860	4.59	1.96	9.56	38.80	22.30	2.27	1.95	1.95
1960	1.74	.997	30.08	59.5	.838	4.55	2.13	14.9	10.0	42.50	2.10	6.09	6.09
1962	2.04	1.10	31.74	62.4	.915	5.04	2.34	18.2	11.0	47.90	21.80	1.66	5.68
1963	1.85	1.09	32.02	62.2	.897	5.01	2.61	17.4	11.2	50.70	24.60	1.78	5.16
1964	1.37	1.15	29.62	63.1	.915	4.90	2.62	18.8	11.2	47.10	23.90	3.50	5.35
1965	1.35	1.16	28.03	62.2	1.02	4.93	2.64	17.6	11.4	46.70	23.20	4.54	5.87
1966	1.63	1.29	20.64	66.5	1.05	4.95	2.75	18.2	11.3	65.90	25.00	2.25	6.04
1967	1.39	1.05	25.10	66.1	1.00	4.92	2.19	17.9	11.1	55.20	21.50	1.90	6.80

Weighted calendar year prices for livestock and livestock products other than wool, 1943 through 1963, wool prices are weighted on marketing year basis. *Weighted crop year prices. Crop years are as follows: Apples, June-May; wheat, oats, barley, hay and potatoes, July-June; cotton, rice, peanuts and cottonseed, August-July; soybeans, September-August; and corn and sorghum grain, October-September. Prices for apples are quoted in cents per pound beginning in 1959. Quoted prior as dollars per bushel (48 lbs.).

Farm Income—Cash Receipts from Marketings (in \$1,000)

1967 State	Crops	Live-Stock	Govt. Pay.	Total	1967 State	Crops	Live-Stock	Govt. Pay.	Total
Ala.	\$169,078	\$424,776	\$89,180	\$683,034	Neb.	\$572,990	\$1,162,431	\$134,514	\$1,869,935
Alask.	1,101	3,159	70	4,330	Nev.	11,613	45,770	1,687	59,070
Ariz.	288,116	239,403	46,785	\$74,304	N.H.	11,905	44,185	675	\$6,765
Ark.	426,683	424,577	103,289	954,549	N.J.	150,169	101,807	4,201	256,177
Calif.	2,331,754	1,547,457	110,289	3,989,500	N.Mex.	96,378	221,041	33,315	350,734
Colo.	200,299	684,984	37,666	942,889	N.Y.	295,586	698,517	20,215	1,014,318
Conn.	66,400	93,444	887	167,731	N.C.	816,593	463,141	61,696	1,341,430
Del.	44,574	87,379	1,567	133,520	N.Dak.	435,615	281,773	130,850	848,238
Fla.	732,780	329,432	17,643	1,079,855	Ohio	528,021	696,266	70,385	1,304,652
Ga.	456,904	576,209	77,825	1,110,948	Okla.	263,031	543,691	112,097	918,819
Ha.	161,611	37,349	8,554	207,514	Ore.	294,566	229,077	22,627	546,270
Ida.	292,817	227,081	37,070	556,968	Pa.	230,844	657,141	21,191	909,476
Ill.	1,308,084	1,224,145	97,674	2,629,903	R.I.	9,176	10,361	76	19,614
Ind.	399,499	752,091	77,317	1,468,907	S.C.	281,037	143,799	57,387	482,273
Ia.	890,541	2,546,951	142,839	3,580,331	S.D.	128,265	705,795	65,944	970,004
Kan.	528,338	911,919	11,527	1,692,636	Tenn.	212,612	358,696	73,783	695,091
Kent.	410,049	380,812	55,463	862,388	Tex.	1,153,007	1,308,976	462,163	2,984,146
La.	378,080	216,044	16,731	610,855	Utah.	45,220	115,371	8,954	199,545
Me.	79,356	133,041	2,145	214,542	Vt.	11,022	122,908	1,715	138,646
Mid.	108,564	219,523	5,217	333,404	Va.	329,562	272,924	17,582	530,068
Mass.	68,595	87,453	656	156,704	Wash.	528,248	233,131	52,321	813,700
Mich.	399,689	455,642	56,039	911,370	W.Va.	20,701	72,978	3,884	97,563
Minn.	594,016	1,236,728	95,251	1,925,995	Wis.	207,931	1,212,178	41,227	1,461,336
Miss.	396,630	834,246	146,914	1,377,790	Wyo.	34,550	166,267	11,098	211,915
Mo.	447,082	895,350	115,838	1,458,270	Total				
Mont.	220,813	267,156	69,098	557,067	U.S.	\$18,383,056	\$24,405,175	\$3,078,829	\$45,867,060

Cooperative Farm Credit System

Loans outstanding to farmers and farmer's cooperatives from banks and associations supervised by the Farm Credit Administration

Year ended Dec. 31	Farm mortgage loans Federal land banks	Farm production loans Production Credit ass'ns	Loans to co-operatives by banks for cooperatives	FICB loans and discounts other than interagency	Total
1945	\$1,027,587,000	\$198,887,000	\$157,545,000	\$29,912,000	\$1,413,931,000
1950	946,469,000	455,472,000	344,979,000	70,020,000	1,816,940,000
1955	1,497,165,000	653,478,000	370,683,000	70,785,000	2,592,111,000
1960	2,563,772,000	1,490,138,000	648,859,000	91,951,000	4,794,720,000
1964	3,718,169,000	2,296,248,000	957,826,000	131,751,000	7,103,994,000
1965	4,280,675,000	2,598,460,000	1,055,163,000	146,091,000	8,080,389,000
1966	4,957,836,000	3,042,333,000	1,289,819,000	162,473,000	9,452,461,000
1967	5,609,265,000	3,550,971,000	1,506,383,000	181,781,000	10,848,400,000

Production of Chief United States Crops

Source: Economic Research Service; Department of Agriculture

Year	Corn, grain	Oats	Barley	Sor- ghums for grain	All Wheat	Rye	Buck- wheat	Flax- seed	Cotton	
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Lint 1,000 bales	Seed 1,000 tons
1960...	8,906,949	1,153,332	429,005	619,954	1,354,709	33,108	847	30,402	14,272	5,886
1961.....	3,597,303	1,010,314	392,441	480,208	1,232,359	27,336	864	22,178	14,318	5,978
1962.....	3,606,311	1,012,197	427,726	510,284	1,091,958	40,698	828	32,230	14,867	6,139
1963.....	4,019,238	965,510	392,833	585,394	1,146,821	29,178	952	31,041	15,334	6,197
1964.....	3,484,253	852,257	386,059	489,796	1,283,371	32,476	1,020	24,401	15,182	6,237
1965.....	4,084,342	926,851	392,279	672,698	1,315,613	33,223	2	35,402	14,956	6,116
1966 ¹ ...	4,117,355	801,327	393,186	714,992	1,311,702	27,725	2	23,390	9,575	3,960
1967.....	4,722,164	781,867	370,246	765,617	1,524,349	24,075	2	19,931	7,618	3,133

Year	Tobacco	All Hay	Sor- ghums for forage	Beans dry edible	Peas dry field	Peanuts	Soy- beans	Pota- toes	Sweet pota- toes	Five seed crops
	1,000 lbs.	1,000 tons	1,000 tons	1,000 cwt.	1,000 cwt.	1,000 lbs.	1,000 bushels	1,000 cwt.	1,000 cwt.	1,000 crops
1960...	1,944,175	118,158	3,861	17,411	3,274	1,718,011	555,085	257,435	15,445	372,376
1961.....	2,061,392	116,957	3,384	19,672	3,559	1,657,099	678,554	293,594	15,213	315,257
1962.....	2,314,782	121,759	3,991	17,942	5,075	1,719,320	669,186	286,703	19,362	306,605
1963.....	2,343,799	117,537	4,285	19,982	4,889	1,942,088	699,165	271,730	15,831	340,688
1964.....	2,227,347	118,778	4,147	17,375	4,880	2,099,144	700,921	239,403	15,284	330,385
1965.....	1,854,568	125,536	4,451	16,457	4,076	2,383,971	845,608	289,783	18,748	303,144
1966 ¹ ...	1,888,497	121,027	4,273	19,962	3,721	2,410,391	928,481	306,902	13,697	284,611
1967.....	2,007,314	126,361	4,317	15,472	3,751	2,508,865	972,701	305,906	14,032	239,371

Year	Sugar cane and seed	Sirup	Sorgo sirup	Sugar beets	Pecans	Al- monds	Wal- nuts	Fil- berts	Oranges and Tan- gerines	Grape- fruit
	1,000 tons	1,000 gallons	1,000 gallons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 boxes	1,000 boxes
1960.....	7,720	3,519	1,943	16,421	93.8	53.0	72.8	9.0	121,535	43,380
1961.....	9,811	3,303	2,000	17,704	126.8	66.4	67.5	11.9	141,995	42,910
1962.....	10,074	2,702	2	18,250	37.6	48.0	79.9	7.8	106,715	34,740
1963.....	13,885	2,814	2	23,328	188.2	59.7	83.1	7.0	96,055	34,210
1964.....	14,360	2,989	2	23,389	89.3	75.4	90.2	8.1	124,610	41,030
1965.....	12,945	2,923	2	20,918	125.6	72.9	80.3	7.7	144,750	40,700
1966 ¹ ...	13,365	2,121	2	20,342	80.0	85.1	96.0	12.2	195,010	55,580
1967.....	14,982	2,201	2	19,366	103.7	79.0	76.8	7.5	132,900	41,700

¹Revised. ²Discontinued.

Harvested Acreage of Principal Crops

Source: Economic Research Service; Department of Agriculture. In thousands of acres.

State	Harvested acreage of 59 crops (exc. duplications) ¹			State	Harvested acreage of 59 crops (exc. duplications) ¹		
	Average 1961-65	1966	1967		Average 1961-65	1966	1967
Alabama.....	3,161	2,653	2,674	Nebraska.....	16,271	15,730	16,851
Alaska.....				Nevada.....	466	399	457
Arizona.....	1,080	961	1,067	New Hampshire.....	189	169	161
Arkansas.....	6,167	6,465	6,843	New Jersey.....	580	553	544
California.....	6,527	6,428	6,720	New Mexico.....	1,033	981	1,059
Colorado.....	5,327	5,753	5,334	New York.....	4,695	4,643	4,555
Connecticut.....	218	200	187	North Carolina.....	4,431	4,198	4,449
Delaware.....	473	502	527	North Dakota.....	17,639	17,856	18,802
Florida.....	1,197	1,298	1,403	Ohio.....	9,131	9,239	9,591
Georgia.....	3,946	3,547	3,909	Oklahoma.....	8,532	8,506	8,965
Hawaii.....				Oregon.....	2,651	2,668	2,826
Idaho.....	3,666	3,677	3,977	Pennsylvania.....	4,645	4,506	4,548
Illinois.....	20,065	20,770	21,533	Rhode Island.....	31	27	27
Indiana.....	10,397	10,654	11,065	South Carolina.....	2,495	2,225	2,348
Iowa.....	20,497	20,752	21,591	South Dakota.....	14,398	14,353	15,034
Kansas.....	19,211	19,291	20,230	Tennessee.....	3,758	3,763	3,929
Kentucky.....	3,636	3,669	3,786	Texas.....	20,378	18,291	19,196
Louisiana.....	2,534	2,856	3,268	Utah.....	1,041	1,067	1,105
Maine.....	630	585	554	Vermont.....	729	686	652
Maryland.....	1,503	1,497	1,520	Virginia.....	2,757	2,607	2,727
Massachusetts.....	241	218	207	Washington.....	4,099	4,189	3,548
Michigan.....	6,577	6,248	6,327	West Virginia.....	782	728	743
Minnesota.....	17,757	17,504	18,818	Wisconsin.....	9,221	9,254	9,300
Mississippi.....	4,427	4,391	4,795	Wyoming.....	1,773	1,690	1,378
Missouri.....	11,308	11,421	11,849				
Montana.....	8,059	8,061	8,654				
				United States...	290,329	287,728	300,933

¹Includes artichokes, asparagus, barley, beans (dry edible), beans (lima), beans (snap), beets, broccoli, brussels sprouts, cabbage, cabbage (sauerkraut), carrots, cauliflower, celery, fennel (all), corn (broom), corn (sweet), cotton, cowpeas (for peas), cucumbers, eggplant, escarole, flaxseed, garlic, hay (all), kale, lettuce, melons (all, incl. cantaloupes, honeydews, muskmelons, and watermelons), oats, onions, peas (dry field), peas (green), peanuts (harvested for nuts), peppers (green), potatoes (sweet), potatoes (white), rice, rye, shallots, sorghums (for grain), sorghums (for forage and silage), soybeans (for beans), spinach, sugar beets, sugarcane (all), sweetclover seed, timothy seed, tobacco, tomatoes, and wheat (spring and winter).

Alfalfa seed, red clover seed and Lespedeza seed are included in the count of crops; partially duplicated in acreage.

Better Wheat Seed Available to Midwest Farmers

Purdue University has announced that seed of a new soft red winter wheat, yielding 6 bushels an acre more than the next best variety of this pastry flour grain, will be available to Midwest farmers in the Fall of 1969. Development of the new wheat, named Arthur after the first head of Purdue's botany and plant pathology department, took over 35 years of research and breeding.

Visible Supply of Wheat, Corn and Oats in United States

Source: Chicago Board of Trade

Year	Wheat (1,000 bushels)				Corn (1,000 bushels)				Oats (1,000 bushels)			
	Date	Larg-est	Date	Small-est	Date	Larg-est	Date	Small-est	Date	Larg-est	Date	Small-est
1940....	Sept. 28	173,573	June 22	85,095	Dec. 28	63,064	June 8	23,010	Jan. 6	10,425	July 20	2,022
1945....	Sept. 22	143,062	May 26	52,817	Mar. 3	20,675	Sept. 28	3,391	Oct. 20	45,741	Apr. 7	6,512
1950....	Oct. 21	228,758	May 27	117,197	Dec. 30	54,432	Oct. 28	35,386	Sept. 23	19,052	Apr. 29	1,007
1955....	Oct. 1	423,351	May 7	335,564	Feb. 12	51,310	Aug. 13	17,507	Sept. 10	37,505	June 11	12,521
1960....	Sept. 12	544,934	June 13	363,634	Dec. 19	138,220	Aug. 15	81,302	Oct. 24	30,512	July 1	5,211
1963....	Sept. 3	430,852	June 3	302,382	Dec. 16	130,791	Oct. 14	59,352	Sept. 23	28,168	July 5	6,820
1964....	Aug. 17	374,907	June 1	126,688	Dec. 7	117,623	Sept. 8	44,659	Sept. 28	24,140	July 20	9,743
1965....	Aug. 6	334,477	May 7	222,208	Dec. 12	119,679	Sept. 24	56,299	Oct. 8	29,684	July 2	6,611
1966....	Jan. 7	255,261	Dec. 30	139,563	Dec. 30	136,499	Jun. 17	64,914	Sept. 23	39,527	June 17	11,781
1967....	Sept. 15	210,167	June 9	94,813	April 7	156,467	Oct. 13	44,787	Oct. 13	30,624	July 21	14,656

CONTACT (SPOT) PRICES OF WHEAT, CORN AND OATS AT CHICAGO

Year	Wheat				Corn				Oats			
	Month	Low	Month	High	Month	Low	Month	High	Month	Low	Month	High
1940....	Aug.	0.69 3/4	April	1.16	July	0.55 1/2	May	0.78 3/4	Aug.	0.28	April	0.46
1945....	Aug.	1.60 1/2	Nov.	1.80 1/2	July	1.10 1/4	July 1	1.34	Aug.	0.58 1/4	Dec.	0.87
1950....	Aug.	2.06	Dec.	2.44	Jan. & Feb.	1.30	Sept.	2.42	Jan.	0.72 1/4	Dec.	1.05 1/4
1955....	Aug.	1.83 3/4	Jan.	2.39 1/2	Oct.	1.05 3/4	Jan.	1.59 3/4	Sept.	0.57	Jan.	0.88 3/4
1960....	July	1.83 3/4	March	2.26	Nov.	0.88	May	1.25	Nov.	0.60 3/4	Jan.	0.82
1962....	Feb.	2.02 3/4	July	2.25 1/4	Jan.	1.03	May 2	1.19 1/4	Oct.	0.64 1/2	Dec.	0.79
1963....	July	1.79	Nov.	2.33 1/4	Nov.	1.11	Sept.	1.38 1/2	Aug.	0.62	Jan.	0.79 1/4
1964....	July	1.43	Jan.	2.25 1/2	Oct.	1.11 1/2	Sept.	1.32 3/4	July 3	0.62	Dec.	0.78 1/4
1965....	July	1.45	Nov.	1.69	Oct.	1.09 1/4	May	1.39	July	0.68	Apr.	0.80 1/4
1966....	April	1.61 1/4	July	2.03	Mar.	1.22	Aug.	1.54 1/4	Aug.	0.72 1/4	June	0.80 1/4
1967....	Nov.	1.45 3/4	March	1.83 3/4	Nov.	0.99	Feb. 4	1.45 1/4	Aug.	0.66 3/4	Jan.	0.81 1/2

July and September. *May and December. †June and July. ‡Feb. and April.

LOW AND HIGH PRICES OF RYE AT CHICAGO (CENTS)

Yr.	Month	Cts.	Month	Cts.	Yr.	Month	Cts.	Month	Cts.	Yr.	Month	Cts.	Month	Cts.
1940	June	38 1/4	April	75 3/4	1959	July	132	Mar.	149 3/4	1963	July	129 1/4	Nov.	162
1945	April	133	Nov.	185	1960	Oct.	118 1/4	Feb.	132 1/2	1964	Nov.	123 3/4	Aug.	132 1/4
1950	Aug.	142 1/4	Dec.	178 3/4	1961	Aug.	132 1/4	Nov.	164 1/2	1965	Sept.	122	Sept.	122
1955	Aug.	100 1/4	Feb.	135	1962	Sept.	121 3/4	Dec.	133 3/4	1966	Oct.	124 1/4	Jan.	132

Farmers' Marketing, Farm Supply, Related Service Cooperatives

Source: Farmer Cooperative Service, U. S. Dept. of Agriculture (Marketing Season 1965-66)

A marketing season includes the period during which the farm products of a specified year are moved into the channels of trade. Marketing seasons overlap.

State	Cooper-atives	Member-ships	Net busi-ness ²	State	Cooper-atives	Member-ships	Net busi-ness ²
Alabama.....	No. 62	No. 82,275	\$1,000 91,192	Nebraska.....	No. 366	No. 268,455	\$1,000 460,909
Alaska.....	13	405	2,655	Nevada.....	3	230	5,083
Arizona.....	106	76,959	108,871	New Hamp....	8	2,960	29,315
Arkansas.....	106	86,060	256,772	New Jersey... 58	25,215	116,807	
California.....	356	89,720	217,988,974	New Mexico... 29	8,555	43,750	
Colorado.....	99	51,155	155,658	New York..... 322	128,500	771,023	
Connecticut... 20	5,520	68,453		North Carolina 39	295,420	257,588	
Delaware.....	9	11,120	16,562	North Dakota. 503	231,680	420,590	
Florida.....	108	48,375	388,515	Ohio.....	237	280,895	620,729
Georgia.....	76	179,235	241,767	Oklahoma..... 165	137,730	280,036	
Hawaii.....	26	2,215	25,063	Oregon.....	103	63,665	260,993
Idaho.....	79	54,705	151,493	Pennsylvania.. 160	126,995	443,087	
Illinois.....	391	430,275	858,868	Rhode Island.. 1	730	13,083	
Indiana.....	128	427,155	502,752	South Carolina 23	72,615	67,370	
Iowa.....	532	431,395	989,495	South Dakota. 293	189,250	248,200	
Kansas.....	315	219,890	522,304	Tennessee..... 131	150,790	127,814	
Kentucky.....	84	191,830	157,836	Texas.....	511	184,255	803,645
Louisiana.....	95	15,405	98,948	Utah.....	84	32,880	101,919
Maine.....	16	9,755	46,644	Vermont.....	21	8,470	98,579
Maryland.....	46	47,520	128,378	Virginia.....	143	198,440	219,991
Massachusetts 28	9,325	78,611		Washington... 170	115,360	387,076	
Michigan.....	174	145,420	422,383	West Virginia. 69	42,620	39,304	
Minnesota.....	1,015	616,705	1,022,442	Wisconsin..... 611	389,170	808,135	
Mississippi... 130	121,115	331,409		Wyoming.....	32	12,720	24,496
Missouri.....	190	395,820	387,192				
Montana.....	177	79,355	138,212				

U. S. 8,329 6,826,275 \$15,636,507
¹Preliminary. ²Volume of a sugar cooperative with headquarters in California whose business originated in Hawaii was included in California.

Production and Consumption of Meat and Lard

Source: Economic Research Service; Department of Agriculture (in million lbs.)

Year	Beef		Veal		Lamb and Mutton		Pork (exclud. Lard)		All Meats		Lard	
	Pro-duction	Con-sump-tion	Pro-duction	Con-sump-tion	Pro-duction	Con-sump-tion	Pro-duction	Con-sump-tion	Pro-duction	Con-sump-tion	Pro-duction	Con-sump-tion
1935....	6,608	6,770	1,023	1,087	877	923	5,919	6,155	14,427	14,935	1,276	1,221
1940....	7,175	7,257	981	981	876	873	10,044	9,701	19,076	18,812	2,288	1,991
1945....	10,276	7,665	1,664	1,534	1,054	943	10,697	8,598	23,691	18,740	2,066	1,509
1950....	9,534	9,529	1,230	1,206	597	596	10,714	10,390	22,075	21,721	2,631	1,891
1955....	13,669	13,313	1,578	1,531	758	753	10,990	10,833	26,895	26,430	2,680	1,839
1960....	14,573	15,147	1,109	1,093	768	852	11,606	11,565	28,236	28,657	2,562	1,358
1965....	18,724	19,057	1,020	992	651	716	11,140	11,234	31,533	31,999	2,045	1,225
1966....	19,725	20,139	910	881	650	771	11,337	11,241	32,622	33,032	1,929	1,076
1967....	20,212	20,716	792	749	646	759	12,581	12,506	34,231	34,730	2,077	1,056

Grain, Hay, Potato, Cotton, Tobacco Production

Source: Economic Research Service; Department of Agriculture (Preliminary)

1967 State	Barley 1,000 bushels	Corn; 1,000 bushels	Cotton lint; 1,000 bales	All Hay 1,000 tons	Oats 1,000 bushels	Pota- toes; 1,000 cwt.	Rye 1,000 bushels	Tobacco 1,000 pounds	All Wheat 1,000 bushels
Alabama.....		37,840	197	780	1,050	2,630		1,008	2,688
Alaska.....									
Arizona.....	12,000	777	454	1,122		2,725			2,450
Arkansas.....	128	2,688	497	1,357	4,307	184			18,838
California.....	75,400	18,480	1,040	7,579	3,995	33,488			11,718
Colorado.....	10,992	20,736		2,888	2,988	11,790	224		38,310
Connecticut.....				239		1,312		8,970	
Delaware.....	1,078	15,403		75	132	1,700	234		1,064
Florida.....		22,450	7	274	407	4,778		31,590	980
Georgia.....	279	88,856	228	845	3,500		1,240	150,294	3,380
Hawaii.....									
Idaho.....	25,921	1,782		3,714	2,976	63,900	192		56,905
Illinois.....	782	1,091,500		3,567	44,718	2,412	588		76,596
Indiana.....	462	447,804		1,894	14,352	2,340	437	13,833	48,396
Iowa.....	184	930,155		7,132	92,326	493	100		1,690
Kansas.....	2,160	72,080		5,282	5,796	128	405		221,620
Kentucky.....	1,512	93,440	1	2,947	760	266	192	400,060	7,854
Louisiana.....		6,280	428	644	1,558	179		115	2,600
Maine.....				461	1,395	38,160			
Maryland.....	4,600	43,132		710	1,200		416	36,300	5,967
Massachusetts.....				282		1,216		3,200	
Michigan.....	840	91,455		3,300	24,486	8,948	874		40,320
Minnesota.....	34,638	355,896		7,583	157,232	13,488	1,904		33,795
Mississippi.....		17,640	1,054	1,096	3,300	270			13,860
Missouri.....	888	198,168	59	5,642	8,580	286	340	4,652	53,824
Montana.....	37,022	476		3,864	5,180	1,476	95		119,136
Nebraska.....	700	329,230		6,604	19,618	2,223	1,320		88,112
Nevada.....	986		4	809	50	192			1,240
New Hampshire.....				234		252			
New Jersey.....	1,008	6,336		383	473	4,560	243		1,950
New Mexico.....	816	720	157	963		520			3,948
New York.....	588	21,252		5,845	22,308	17,773	406		10,000
North Carolina.....	3,324	107,160	44	554	6,712	2,116	360	834,675	8,432
North Dakota.....	85,824	4,914		4,145	61,712	13,452	4,028		176,828
Ohio.....	552	255,960		2,936	24,400	3,134	288	20,992	51,478
Oklahoma.....	3,841	1,080	194	3,065	3,360	39	559		88,689
Oregon.....	8,645	740		2,325	3,760	13,252	288		31,988
Pennsylvania.....	9,900	81,048		4,035	20,250	9,120	558	38,850	17,280
Rhode Island.....				27		1,140			
South Carolina.....	644	22,287	179	390	3,420	175	399	165,722	3,024
South Dakota.....	13,079	93,024		4,913	109,600	590	6,450		73,061
Tennessee.....	465	44,631	145	1,951	1,845	368	95	110,258	8,526
Texas.....	1,350	18,658	2,767	3,774	6,615	4,329	350		53,216
Utah.....	7,500			1,665	1,281	1,463			8,649
Vermont.....				1,063	296	288			
Virginia.....	5,967	35,332		1,532	2,860	4,046	490	131,986	6,790
Washington.....	9,492	1,530		2,345	1,665	22,090	330		118,464
West Virginia.....	517	3,584		912	615	355		3,515	660
Wisconsin.....	1,950	136,240		10,268	107,177	13,266	460	16,127	2,358
Wyoming.....	4,512	1,400		1,946	4,048	578	210		7,687
Total U.S.....	370,246	4,722,164	7,455	126,361	781,867	305,906	24,075	1,972,147	1,524,349

Grain Receipts at Western Grain Centers

Source: Chicago Board of Trade, (In bushels)

1966	Wheat	Corn	Oats	Rye	Barley	Soy Beans	Total
Chicago.....	35,156,000	99,659,000	4,427,000	457,000	9,171,000	37,846,000	186,716,000
Duluth.....	87,712,000	27,693,000	24,227,000	1,832,000	23,193,000	5,151,000	169,808,000
Enid.....	35,670,000		22,000		4,000		35,696,000
Hutchinson.....	59,359,000	541,000					59,900,000
Indianapolis.....	781,000	11,946,000	5,000			1,193,000	13,925,000
Kansas City.....	110,557,000	37,116,000	1,482,000	75,000	202,000	13,165,000	162,597,000
Milwaukee.....	1,035,000	16,919,000	784,000	38,000	22,421,000	792,000	41,989,000
Minneapolis.....	122,366,000	43,138,000	33,866,000	6,348,000	77,320,000	10,173,000	293,211,000
Omaha.....	29,462,000	32,823,000	2,750,000	258,000	52,000	5,716,000	71,061,000
Peoria.....	48,000	32,000,000	64,000	760,000	4,000	172,000	33,048,000
Salina.....	22,804,000	171,000				2,000	22,977,000
Sioux City.....	3,864,000	8,420,000	11,198,000	93,000	46,000	12,566,000	36,187,000
St. Joseph.....	4,033,000	16,389,000	4,954,000			6,854,000	32,230,000
St. Louis.....	40,458,000	57,555,000	997,000	50,000	676,000	5,886,000	105,486,000
Toledo.....	35,358,000	37,116,000	3,978,000	32,000		9,000	99,604,000
Wichita.....	18,255,000	297,000	9,000		84,000	9,392,000	28,037,000

Totals..... 606,945,000 421,883,000 88,763,000 9,943,000 133,182,000 131,919,000 1,392,635,000
NOTE: Sioux City, Peoria and Enid are rail receipts only.

GRAIN ELEVATOR CAPACITIES IN VARIOUS CITIES

In bushels over 10,000,000. As of Jan. 1, 1968

Cities	Capacity Bushels	Cities	Capacity Bushels	Cities	Capacity Bushels	Cities	Capacity Bushels
Albany.....	13,500,000	Fort Worth.....	89,184,000	Oklahoma City.....	3,716,000	Seattle & Tacoma.....	13,250,000
Amarillo.....	32,930,000	Galveston.....	9,300,000	Omaha and Council Bluffs.....	33,597,000	St. Louis.....	13,406,000
Baltimore.....	12,800,000	Houston.....	27,986,000	Peoria.....	8,570,000	Toledo.....	39,000,000
Buffalo.....	51,090,000	Hutchinson.....	50,963,000	Philadelphia.....	4,825,000	Wichita.....	92,665,000
*Chicago.....	79,597,000	Indianapolis.....	19,385,000	Portland, Ore.....	1,500,000		
*Cincinnati.....	5,458,000	Kansas City.....	113,753,000				
Dallas.....	5,000,000	Lincoln.....	43,342,000				
Decatur.....	24,400,000	Lubbock.....	62,504,000				
Des Moines.....	14,525,000	Memphis.....	12,586,000	& Col. River.....	39,135,000	Bale Comeau.....	12,898,000
Duluth and Superior.....	77,439,000	Milwaukee.....	28,850,000	Salina.....	58,000,000	Ft. William & Port Arthur.....	106,601,000
Enid.....	66,637,000	Minneapolis.....	152,954,000	San Fran. & Bay Region.....	12,608,000	Midland.....	12,666,000
Evansville.....	7,742,000	New Orleans.....	12,000,000	St. Joseph.....	23,707,000	Montreal.....	22,262,000
Fort Dodge.....	2,389,000	Norfolk.....	10,560,000	St. Louis.....	30,564,000	Vancouver.....	21,806,500

*Chicago has 29 elevators. Public storage capacity 59,190,000 bu.; Private storage 20,407,000 bu. Total 79,597,000 bu.

Nutritive Value of Foods (Calories, Proteins, Etc.)

Source: Home and Garden Bulletin No. 72. U. S. Department of Agriculture.

Available for 25¢ from Supt. of Documents, U. S. Government Printing Office, Washington, D. C. 20402

Food	Measure	Water (percent)	Food energy (calories)	Protein (grams)	Fat (grams) Total lipid	Carbohydrates (grams)	Calcium (milligram)	Iron (milligram)	Vitamin A value (int'l units)	Ascorbic Acid
MILK, CREAM, CHEESE										
Cow's milk, fluid, whole.....	1 cup	87	160	9	9	12	288	0.1	350	2
Cow's milk, fluid, nonfat (skin).....	1 cup	90	90	9	T	13	298	.1	10	0
Cream, half-and-half.....	1 cup	80	325	8	28	11	261	.1	1,160	2
Cream, light, table or coffee.....	1 cup	72	505	7	49	10	245	.1	2,030	2
Cheese, blue mold (Roquefort-type).....	1 oz.	40	105	6	9	1	89	.1	350	0
Cheese, cheddar or American.....	1 1/2 cubes	37	70	4	5	T	128	.2	220	0
Cheese, cottage, creamed.....	1 oz.	78	30	4	1	T	27	.1	50	0
EGGS (LARGE)										
Eggs, raw, whole.....	1 egg	74	80	6	6	T	27	1.1	590	0
Eggs, boiled.....	2 eggs	74	160	13	12	1	54	2.3	1,180	0
Eggs, scrambled with milk and fat.....	1 egg	72	110	7	5	1	51	1.1	690	0
MEAT, POULTRY										
Bacon, broiled or fried, crisp.....	2 pcs.	8	100	5	8	1	2	.5	0	.....
Beef, braised or pot-roasted.....	3 oz.	53	245	23	16	0	10	2.9	30	.....
Beef, hamburger, broiled.....	3 oz.	54	245	21	17	0	9	2.7	30	.....
Beef roast, such as rib.....	3 oz.	40	375	17	34	0	8	2.2	70	.....
Beef roast, such as round.....	3 oz.	62	165	25	7	0	11	3.2	10	.....
Beef steak, broiled, as sirloin.....	3 oz.	44	330	20	27	0	9	2.5	50	.....
Beef steak, broiled, as round.....	3 oz.	55	220	24	13	0	10	3.0	20	.....
Chicken, broiled without bone.....	3 oz.	71	15	20	3	0	8	1.4	70	.....
Chicken, 1/2 breast, fried with bone.....	3 1/2 oz.	58	155	25	6	T	9	1.3	70	.....
Chicken leg, fried, with bone.....	2 1/2 oz.	55	90	12	4	T	6	.9	50	.....
Lamb chop, thick, broiled.....	4 1/2 oz.	47	400	25	33	0	10	1.5	.....	.....
Lamb, leg, roasted.....	3 oz.	54	235	22	16	0	9	1.4	.....	.....
Lamb, shoulder, roasted.....	3 oz.	50	285	18	23	0	9	1.0	.....	.....
Liver, beef, fried.....	2 oz.	57	130	15	6	3	6	5.0	30,280	15
Pork ham, smoked, cooked.....	3 oz.	54	245	18	19	0	8	2.2	0	.....
Pork chop, thick.....	3 1/2 oz.	42	260	16	21	0	8	2.2	0	.....
Pork roast, oven-cooked.....	3 oz.	46	310	21	24	0	9	2.7	0	.....
Sausage, frankfurter, cooked.....	One	58	6	14	1	3	8	.....	.....	.....
Veal cutlet, broiled.....	3 oz.	60	185	23	9	0	9	2	.....	.....
Veal roast, medium done.....	3 oz.	55	230	23	14	0	10	2.9	.....	.....
FISH										
Bluefish, baked or broiled.....	3 oz.	68	135	22	4	0	25	.6	40	.....
Clams, raw, meat only.....	3 oz.	82	65	11	1	2	59	5.2	90	8
Crabmeat, canned or cooked.....	3 oz.	77	85	15	2	1	38	.7	.....	.....
Oysters, meat only, raw.....	1 cup	85	160	20	4	8	226	13.2	740	.....
Oyster stew, 3-4 oysters.....	1 cup	84	200	11	12	11	289	3.3	640	.....
Salmon, pink, canned.....	3 oz.	71	120	17	5	0	167	.7	60	.....
Sardines, canned in oil.....	3 oz.	62	75	9	0	372	2.5	190	.....	.....
Shrimp, canned, meat only.....	3 oz.	70	100	21	1	1	98	2.6	50	.....
Swordfish, broiled.....	3 oz.	65	150	24	5	0	23	1	1,750	.....
Tuna, canned in oil.....	3 oz.	61	170	24	7	0	7	1.6	70	.....
VEGETABLES & PRODUCTS										
Asparagus, cooked, cut spears.....	1 cup	94	35	4	T	6	37	1.0	1,580	40
Asparagus, canned, green spears.....	Six	92	20	2	T	3	18	1.8	776	14
Asparagus, bleached spears.....	Six	92	20	2	T	4	15	1.0	80	14
Beans, lima, immature, cooked.....	1 cup	71	180	12	1	32	75	4.0	450	28
Beans, snap, green, cooked.....	1 cup	92	30	2	T	7	62	.8	680	16
Beans, snap, green, canned.....	1 cup	94	35	2	T	10	81	2.9	690	9
Beets, cooked, sliced.....	1 cup	91	50	2	T	12	23	.4	40	11
Broccoli spears, cooked.....	1 cup	91	40	5	T	7	132	1.2	3,750	135
Brussels sprouts, cooked.....	1 cup	88	45	5	1	8	42	1.4	680	113
Cabbage, raw, shredded.....	1 cup	92	25	1	T	5	49	.4	130	47
Cabbage, raw, coleslaw.....	1 cup	83	120	1	9	9	52	.5	180	35
Cabbage, cooked.....	1 cup	94	35	2	T	7	75	.5	220	56
Carrots, raw, 5 1/2 by 1 in.....	One	88	20	1	T	5	18	.4	5,500	4
Cauliflower, cooked, flower-buds.....	1 cup	93	25	3	T	5	25	.8	70	66
Corn, cooked, ear 5 by 1 1/2 in.....	1 ear	74	70	3	1	16	2	.5	310	7
Corn, canned.....	1 cup	81	170	5	2	40	10	1.0	690	13
Lettuce, looseleaf head 4 in. diameter.....	1 head	95	30	3	T	8	77	.4	2,130	18
Lettuce, compact 4 1/2 in. diameter.....	1 head	96	60	4	T	13	19	2.3	1,500	29
Peas, green, cooked.....	1 cup	82	115	9	1	19	37	2.9	860	33
Peas, green, canned.....	1 cup	83	165	9	1	31	50	4.2	1,120	22
Potatoes, medium, baked.....	One	75	90	3	T	21	9	.7	T	20
Potatoes, medium, boiled in skin.....	One	80	105	3	T	23	10	.8	T	22
Potatoes, French-fried, cooked.....	10 pcs.	45	155	2	7	20	9	.7	T	12
Potatoes, French-fried, frozen.....	10 pcs.	53	125	2	5	19	5	1.0	T	12
Potatoes, mashed, milk and butter.....	1 cup	50	185	4	8	24	47	.8	330	18
Potato chips, medium.....	Ten	2	115	1	8	10	8	.4	T	3
Spinach, cooked.....	1 cup	92	40	5	1	6	167	4.0	14,580	50
Spinach, canned, drained.....	1 cup	91	65	5	1	6	212	4.7	14,400	24
Squash, summer, sliced, cooked.....	1 cup	96	30	2	T	7	52	.8	820	21
Squash, winter, baked, mashed.....	1 cup	81	130	4	1	32	57	1.6	8,610	27
Tomatoes, raw, medium.....	One	94	35	2	T	7	20	.8	1,350	34
Tomatoes, canned.....	1 cup	94	50	2	T	10	15	1.2	2,180	40
Tomato juice, canned.....	1 cup	94	45	2	T	10	17	2.2	1,940	39
FRUITS & PRODUCTS										
Apples, medium, raw.....	One	85	70	T	T	18	8	.4	50	3
Apple juice, bottled or canned.....	1 cup	88	120	T	T	30	15	1.5	.....	2
Applesauce, canned, sweetened.....	1 cup	76	230	1	T	60	4	1.3	100	3
Bananas, raw, 6 by 1 1/2 in.....	One	85	70	1	T	23	8	.7	190	18
Cantaloupe, raw, medium.....	Half	91	60	1	T	14	27	.6	6,540	63
Grapefruit, raw, medium, white.....	Half	89	55	1	T	14	22	.6	10	52
Grapefruit, raw, medium, pink.....	Half	89	60	1	T	15	23	.6	640	52
Grapefruit juice, fresh.....	1 cup	90	95	1	T	23	22	.5	.....	92
Grapefruit juice, canned, unsweetened.....	1 cup	89	100	1	T	24	20	1.0	20	84
Grape juice, bottled.....	1 cup	83	165	1	T	42	28	.8	.....	1
Lemons, raw, medium.....	One	90	20	1	T	6	18	.4	10	38
Lemon juice, fresh.....	1 cup	91	60	1	T	20	17	.5	40	113
Lemon juice, canned, unsweetened.....	1 cup	92	65	1	T	19	17	.5	40	102

Food	Measure	Water (percent)	Food energy (calories)	Protein (grams)	Fat (grams) Total lipid	Carbohy- drates(grams)	Calcium (milligrams)	Iron (milligrams)	Vitamin A value (int'l units)	Ascorbic Acid
Oranges, raw, Calif. navel.....	One	85	60	2	T.	16	49	0.5	240	75
Oranges, Florida, all varieties.....	One	86	75	2	T.	19	67	.3	310	70
Orange juice, fresh, Calif.....	1 cup	88	115	2	1	26	27	.7	500	122
Orange juice, fresh, Fla., early.....	1 cup	90	100	1	T.	23	25	.5	490	127
Orange juice, frozen, water added.....	1 cup	88	110	2	T.	27	22	.5	500	112
GRAIN PRODUCTS										
Biscuits, baking powder.....	One	27	140	3	6	17	46	.6	T.	T.
Bread, cracked wheat.....	1 loaf	35	1,190	39	10	236	399	5.0	T.	T.
Bread, enriched French or Vienna.....	1 loaf	31	1,315	41	14	251	195	10.0	T.	T.
Bread, American rye.....	1 loaf	36	1,100	41	5	236	340	7.3	0	0
Bread, white, enriched, 2% non-fat dry milk solids.....	1 loaf	36	1,225	39	15	229	318	10.9	T.	T.
Bread, whole wheat.....	1 loaf	36	1,105	48	14	216	449	10.4	T.	T.
Crackers, saltines.....	Two	4	35	1	1	6	2	.1	0	0
Crackers, plain soda.....	Two	4	50	1	1	8	2	.2	0	0
Doughnuts, cake type.....	One	24	125	1	6	10	13	.4	39	T.
Macaroni, enriched cooked tender.....	1 cup	72	155	1	32	11	1.2	.1	0	0
Pancakes, wheat, 4 in. diameter.....	1 cake	50	60	2	2	27	4	.3	30	T.
Pancakes, buckwheat, 4 in. diameter.....	1 cake	58	55	2	6	59	4	.6	60	T.
Pie, apple, 1/7 of 9 in. diameter.....	1 cut	48	345	3	15	51	11	.4	40	1
Pie, cherry, 1/7 of 9 in. diameter.....	1 cut	47	355	4	15	52	19	.4	590	1
Pie, custard, 1/7 of 9 in. diameter.....	1 cut	58	280	8	14	30	125	8	300	0
Pie, lemon meringue, 1/7 of 9 in. diameter.....	1 cut	47	305	4	12	45	17	.6	200	4
Pie, mince, 1/7 of 9 in. diameter.....	1 cut	43	365	3	16	56	38	1.4	T.	1
Pie, pumpkin, 1/7 of 9 in. diameter.....	1 cut	59	275	5	15	32	66	.6	3,210	T.
Pizza (cheese), 1/8 of 14 in. diameter.....	1 cut	46	185	7	6	27	107	.7	290	4
Popcorn, popped.....	1 cup	72	155	1	3	33	11	.1	0	0
Spaghetti, enriched, cooked until tender.....	1 cup	72	155	1	3	33	11	.1	0	0
Spaghetti with meatballs and sauce.....	1 cup	70	335	19	12	39	125	3.8	1,600	22
Waffles, enriched flour.....	One	41	210	7	7	28	85	1.3	250	T.
FATS, OILS										
Butter.....	1 cup	16	1,625	1	184	1	45	.0	7,500	0
Lard.....	1 cup	0	1,985	0	220	0	0	.0	0	0
Vegetable fats.....	1 cup	0	1,770	0	200	0	0	.0	0	0
Margarine.....	1 cup	16	1,635	1	184	1	45	.0	7,500	0
Salad dressing, French.....	1 tbs.	39	60	T.	6	3	2	.1	.....	.....
Salad dressing, Mayonnaise.....	1 tbs.	15	110	T.	12	2	3	.1	40	.....
Salad dressing, 1,000 island.....	1 tbs.	32	75	T.	8	2	3	.1	50	T.
SUGARS, SWEETS										
Candy, milk chocolate, sweetened.....	1 oz.	1	150	2	9	16	65	.3	80	T.
Candy, plain fudge.....	1 oz.	8	115	1	3	21	22	.3	T.	T.
Chocolate syrup.....	1 tbs.	32	50	T.	0	13	3	.3	.....	0
Honey, strained or extracted.....	1 tbs.	17	65	T.	0	17	1	.1	0	T.
Jams, marmalades, preserves.....	1 tbs.	29	55	T.	0	14	4	.2	T.	T.
Jellies.....	1 tbs.	29	55	T.	0	14	4	.2	T.	1
Sugar, granulated cane or beet.....	1 cup	T.	770	0	0	199	0	.2	0	0
Sugar, brown, firm-packed.....	1 cup	T.	820	0	0	212	187	7.5	0	0
MISCELLANEOUS										
Ginger ale.....	1 cup	92	70	0	0	18	.....	.....	0	0
Cola type beverage.....	1 cup	90	95	0	0	24	.....	.....	0	0
Chili sauce.....	1 tbs.	68	20	T.	0	3	.....	.....	240	3
Soup, bean with pork, canned.....	1 cup	84	170	8	6	22	62	2.2	650	2
Soup, beef noodle, canned.....	1 cup	93	70	4	3	7	8	1.0	50	T.
Soup, beef bouillon, broth, cons., canned.....	1 cup	96	30	5	0	3	T.	.5	T.	.....
Soup, chicken noodle, canned.....	1 cup	93	65	4	2	8	10	.5	50	T.
Soup, clam chowder, canned.....	1 cup	92	85	2	3	13	36	1.0	920	.....
Soup, vegetable with beef broth, canned.....	1 cup	92	80	3	2	14	20	.8	3,250	.....

T. indicates a trace.

Recommended Daily Dietary Allowances

Source: Home and Garden Bulletin No. 72, U. S. Department of Agriculture

The Recommended Daily Dietary Allowances are amounts of nutrients recommended by the Food and Nutrition Board of the National Research Council as adequate for maintenance of good nutrition in healthy persons in the U. S. Calorie allowances apply to persons engaged in moderate physical activity; they are excessive for persons in sedentary occupation.

Person	Age in years	Weight in pounds	Height in inches	Food energy (calories)	Protein (grams)	Calcium (grams)	Iron (milligrams)	Vitamin A (int'l units)	Thiamin (milligrams)	Riboflavin (milligrams)	Niacin (milligrams)	Ascorbic acid (milligrams)	Vitamin D (int'l units)
Men.....	18-35	154	69	2,900	70	.8	10	5,000	1.2	1.7	19	70	.....
	35-55	154	69	2,600	70	.8	10	5,000	1.0	1.6	17	70	.....
	55-75	154	69	2,200	70	.8	10	5,000	.9	1.3	15	70	.....
Women.....	18-35	128	64	2,100	58	.8	15	5,000	.8	1.3	14	70	.....
	35-55	128	64	1,900	58	.8	15	5,000	.8	1.2	13	70	.....
	55-75	128	64	1,600	58	.8	10	5,000	.8	1.2	13	70	.....
Pregnant (last 4½ mos.)				+200	+20	+5	+5	+1,000	+2	+3	+3	+30	400
Lactating				+1,000	+40	+5	+5	+3,000	+4	+6	+7	+30	400
Boys.....	9-12	72	55	2,400	60	1.1	15	4,500	1.0	1.4	16	70	400
	12-15	98	61	3,000	75	1.4	15	5,000	1.2	1.8	20	80	400
	15-18	134	68	3,400	85	1.4	15	5,000	1.4	2.0	22	80	400
Girls.....	9-12	72	55	2,200	55	1.1	15	4,500	.9	1.3	15	80	400
	12-15	103	62	2,500	62	1.3	15	5,000	1.0	1.5	17	80	400
	15-18	117	64	2,300	58	1.3	15	5,000	.9	1.3	15	70	400
Children.....	1-3	29	34	1,300	32	.8	8	2,500	.5	.8	9	40	400
	3-6	40	42	1,600	40	.8	10	2,500	.6	1.0	11	50	400
	6-9	53	49	2,100	52	.8	12	2,500	.8	1.3	14	90	400
Infants.....	0-1	18	...	lb. x 62	lb. x 1.1	.7	lb. x 0.45	1,500	.4	.6	6	30	400
				+7	+0.2								

Civilian Consumption of Major Food Commodities per Person

Source: Economic Research Service; Department of Agriculture

Commodity ¹	Avg. 1957-59	1966	1967 prel.	Commodity	Avg. 1957-59	1966	1967 Prel.
	lbs.	lbs.	lbs.				
Meats (carcass wt.)...	156.6	170.5	177.	Citrus.....	34.0	29.0	31.7
Beef.....	82.1	104.0	105.9	Apples (com.)...	21.0	15.9	16.2
Veal.....	7.1	4.5	3.8	Other (exc. melons)...	40.5	36.3	32.8
Lamb and mutton...	4.4	4.0	3.9	Processed:			
Pork (exc. lard)...	63.0	58.0	63.9	Canned fruit.....	22.4	23.0	22.5
Fish (edible wt.)...	10.5	10.6	10.6	Canned juice.....	13.5	11.6	11.7
Poultry products				Frozen (inc. juices)	8.6	8.1	10.1
Eggs (farm basis)—				Dried.....	3.3	3.0	2.9
number.....	356	313	324	Vegetables			
Chicken (ready to				Fresh ²	104.1	95.6	96.4
cook).....	27.5	36.0	37.1	Canned, excl. pota-			
Turkey (ready to				toes & sweetpot....	43.3	47.3	48.9
cook).....	6.0	7.8	8.6	Frozen, excl. pot....	6.6	9.3	9.9
Dairy products				Potatoes, fresh equiv.	106.9	113.3	115.0
Cheese.....	7.9	9.8	9.9	Sweetpotatoes, fresh			
Condensed and				equivalent.....	8.3	5.9	5.6
evap. milk.....	14.8	9.7	9.1	Grains			
Fluid milk and cream				Cornmeal and flour..	7.4	5.6	5.5
(milk equiv.)...	337	296	286	Corn syrup.....	9.4	14.0	14.0
Ice cream (prod. wt.)	18.4	18.1	18.1	Corn sugar.....	3.6	4.5	4.6
Fats and Oils—Total,				Wheat flour ³	120	111	112
fat content.....	45.3	49.3	49.3	Wheat cereals.....	2.8	2.9	2.9
Butter (actual wt.)...	8.2	5.7	5.5	Rice, milled.....	5.4	7.3	7.3
Margarine (act. wt.)...	8.9	10.5	10.5	Other			
Lard.....	9.3	5.5	5.4	Coffee (green beans).	15.7	14.5	14.7
Shortening.....	11.4	15.9	15.9	Tea.....	.58	.69	.67
Other edible fats				Cocoa beans.....	3.5	4.2	4.2
and oils.....	10.8	14.8	15.2	Peanuts (shelled)...	4.6	5.4	5.9
Fruits				Dry edible beans....	7.7	6.3	7.0
Fresh.....	95.5	81.2	80.7	Melons.....	25.1	21.9	21.5
				Sugar (refined).....	96.1	97.4	97.1

¹Quantity in pounds except for eggs. Data on calendar year basis except for dried fruits, which are on pack-year basis, fresh citrus fruits and peanuts on a crop-year basis, and rice on August 1 year. Fresh citrus year begins in previous October and rice year begins in previous August. ²Commercial production for sale as fresh produce. ³Includes white, whole wheat, and semolina flour.

Agricultural Products, Production and Exports

Source: Foreign Agricultural Service, Dept. of Agriculture

Commodity ¹	Unit	Production			Exports		
		United States	World	% U.S.	United States	World	% U.S.
Wheat, grain only.....	Mil. Bu.	1,312	10,490	12.5	684	1,853	36.9
Oats.....	Mil. Bu.	801	3,142	25.4	17	85	20.0
Corn for grain.....	Mil. Bu.	4,117	8,948	46.0	524	989	53.0
Barley.....	Mil. Bu.	393	4,636	8.5	45	327	13.8
Soybeans.....	Mil. Bu.	928	1,279	72.6	2263	2296	88.9
Rice, milled ⁴	1,000 M. T.	3,858	163,000	2.4	1,779	7,090	25.1
Lard.....	Mil. lbs.	1,929	7,470	25.8	189	683	27.7
Tallow and grease.....	Mil. lbs.	5,037	8,660	58.2	2,238	3,460	64.7
Tobacco, unmfed.....	Mil. lbs.	1,972	10,140	19.4	572	1,501	31.8
Edible veg. oils.....	1,000 S.T.	5,587	18,500	30.2	2,135	74,790	45.6
Cotton.....	1,000 Bls.	9,575	48,287	19.8	4,832	17,847	27.1

¹Crop year 1966-67 as follows: Wheat, oats and barley year beginning July 1; corn, Oct. 1; soybeans, Sept. 1; rice and cotton, Aug. 1; other commodities on calendar year 1967 and partially estimated. Excludes Alaska, Hawaii, and Puerto Rico except for exports. ²Calendar year. ³Includes estimates for China Mainland. ⁴Excludes Communist Asia and USSR. ⁵United States oil production figures include oil equivalent of exported oilseeds. ⁶Excludes re-exports and exports of oil produced from imported oilseeds. ⁷Exports from producing countries. ⁸Bales of 500 pounds gross weight.

Egg Production in the U. S.

Source: Economic Research Service; Department of Agriculture (in millions of eggs)

State	1966	1967	State	1966	1967	State	1966	1967	State	1966	1967	State	1966	1967
Ala....	2,387	2,645	Idaho..	222	224	Minn....	2,379	2,463	N. D....	307	306	Vt....	133	129
Alas....	10	9	Ill....	1,800	1,921	Miss....	2,338	2,508	Ohio....	2,283	2,365	Va....	1,084	1,121
Ariz....	223	243	Ind....	2,443	2,545	Mo....	1,340	1,419	Okla....	506	541	Wash..	1,007	1,094
Ark....	2,737	3,134	Ia....	3,589	3,507	Mont..	188	201	Ore....	509	511	W. Va..	329	345
Calif..	7,664	8,078	Kan....	958	962	Nevr....	1,224	1,282	Pa....	3,205	3,165	Wis....	1,392	1,385
Colo....	246	309	Ky....	673	720	Nev....	8	7	R. I....	80	79	Wyo....	45	44
Conn..	839	844	La....	755	804	N. H....	389	379	S. C....	1,114	1,234			
Del....	131	131	Me....	1,095	1,175	N. J....	1,191	1,189	S. D....	1,361	1,384	U. S....	66,484	70,161
Fla....	1,999	2,199	Md....	311	324	N. M....	153	145	Tenn....	1,011	1,172			
Ga....	4,501	4,981	Mass..	531	531	N. Y....	2,302	2,374	Texas..	2,737	2,943			
Ha'l....	188	196	Mich..	1,567	1,665	N. C....	2,717	2,949	Utah....	283	280			

Gross income from farm eggs (1966) \$2,165,083,000; (1967) \$1,822,726,000. Prices received by farmers per dozen (1966) 39.1¢, (1967) 31.0¢. Gross income from farm chickens (1966) \$111,543,000; (1967) \$101,767,000. Commercial broilers produced (1966) 2,571,576,000, gross income \$1,371,648,000; (1967) 2,592,586,000, gross income \$1,223,062,000. Gross income from eggs and chickens (includes commercial broilers) (1966) \$3,648,274,000; (1967) \$3,147,555,000. Chickens on farms on Jan. 1, (1967) 428,746,000, value \$513,082,000.

Farm Employment—Annual Averages

Source: Economic Research Service; Department of Agriculture
Index (1910-14 = 100 per cent)

Yr.	Total			Family			Hired			Total			Family			Hired		
	Aver.	No.	Index	Aver.	No.	Index	Aver.	No.	Index	Aver.	No.	Index	Aver.	No.	Index	Aver.	No.	Index
	(1,000)			(1,000)			(1,000)			(1,000)			(1,000)			(1,000)		
1915..	13,592	100	100	10,140	100	100	3,452	102	102	1945..	10,000	74	7,881	78	78	2,119	62	62
1920..	13,432	99	99	10,041	99	99	3,391	100	100	1950..	9,926	73	7,597	75	75	2,329	69	69
1925..	13,036	96	96	9,715	96	96	3,321	98	98	1955..	8,364	62	6,347	62	62	2,017	59	59
1930..	12,497	92	92	9,307	92	92	3,190	94	94	1960..	7,057	52	5,172	52	52	1,885	55	55
1935..	12,733	94	94	9,855	97	97	2,878	85	85	1966..	5,214	38	3,854	38	38	1,360	40	40
1940..	10,979	81	81	8,300	82	82	2,679	79	79	1967..	4,903	36	3,650	36	36	1,253	37	37

U. S. Imports of Coffee

Source: Bureau of the Census, Dept. of Commerce

Origin	1967	Pounds	Value	Origin	1967	Pounds	Value
Coffee Crude				Coffee, Roasted or Ground (Continued)			
Brazil.....		802,832,080	\$278,285,945	Indonesia.....		22,046	4,983
Colombia.....		405,128,779	163,205,087	Italy.....		4,950	4,620
Angola.....		195,972,165	59,387,054	Jamaica.....		4,440	4,397
Ethiopia.....		140,040,629	47,520,419	Zustralia.....		4,170	4,133
Uganda.....		139,514,330	42,307,753	Canada.....		5,400	3,000
Salvador.....		112,896,246	40,468,530	Switzerland.....		3,960	1,677
Guatemala.....		93,403,630	34,467,573	United Kingdom.....		1,440	1,569
Indonesia.....		149,930,847	33,821,229	Sweden.....		882	614
Ivory Coast.....		91,269,896	27,465,843	Costa Rica.....		1,521	562
Ecuador.....		81,524,498	20,431,166				
Burundi Rwanda.....		57,295,020	20,290,119	Total.....		4,355,208	\$1,580,310
Peru.....		59,193,801	20,212,739				
Costa Rica.....		42,869,196	16,107,890	Coffee Substitutes (A Mixture of Coffee with Substitutes)			
Cameroon.....		50,429,091	15,884,871	Switzerland.....		26,542	\$50,619
Venezuela.....		37,499,712	13,662,741	West Germany.....		32,489	27,877
Malagasy.....		45,757,786	13,306,457	Netherlands.....		33,000	5,948
Dominion Republic.....		33,535,093	11,692,484	France.....		2,520	5,044
Nicaragua.....		23,016,263	8,368,069	United Kingdom.....		5,435	4,927
Honduras.....		18,335,226	6,529,045	Italy.....		1,309	967
Tanzania.....		16,920,333	5,796,373	Bulgaria.....		2,017	273
India.....		18,227,172	6,625,252				
Kenya.....		15,037,736	5,204,468	Total.....		106,295	\$96,046
Haiti.....		11,820,510	3,793,711				
Guinea.....		11,661,152	3,550,231	Chicory Roots, Crude			
New Guinea.....		9,110,901	3,284,844	Poland.....		4,354,460	\$114,181
Liberia.....		7,600,583	2,156,016	Costa Rica.....		15,212	5,903
Congo.....		5,506,620	1,851,526	Belgium.....		43,210	3,690
Bolivia.....		4,329,272	1,417,894				
Malaysia.....		4,617,115	1,379,974	Total.....		4,412,882	\$123,684
Paraguay.....		4,252,410	1,187,016				
Ghana.....		4,163,437	1,118,255	Chicory, Ground or Otherwise			
Trinidad.....		2,666,604	718,707	France.....		3,994,700	\$323,818
Surinam.....		2,220,589	716,990	Belgium.....		1,188,750	75,428
Nigeria.....		2,362,761	681,713	Canada.....		50,000	3,600
French Somaliland.....		1,423,385	479,029				
Panama.....		1,055,239	378,178	Total.....		5,233,450	\$402,846
Switzerland.....		764,940	370,881				
Sierra Leone.....		953,700	285,925	Coffee Extracts, Essences & Concentrates			
Arabia.....		485,158	193,464	United Kingdom.....		1,440	\$1,573
Rep. of South Africa.....		582,276	174,450	Switzerland.....		687	614
Singapore.....		332,345	95,619	Israel.....		282	600
Other West Africa.....		297,997	92,748	Australia.....		105	289
British Honduras.....		223,633	75,128				
Argentina.....		198,414	61,875	Total.....		2,514	\$3,076
Guyana.....		201,073	59,057				
Togo.....		187,298	47,305	Coffee, Instant or Soluble			
South Asia.....		77,205	22,083	Brazil.....		22,453,221	\$23,502,184
Aden.....		44,312	17,430	France.....		1,723,223	3,395,674
Jamaica.....		3,187	2,709	Salvador.....		1,028,834	1,014,269
Total.....		2,819,044,381	\$962,679,289	Guatemala.....		860,887	783,974

Coffee, Roasted or Ground

Mexico.....	2,444,482	\$1,029,819
Arabia.....	455,896	151,151
Paraguay.....	463,638	100,038
Ethiopia.....	220,504	75,085
Brazil.....	235,486	67,641
Burundi Rwanda.....	216,161	38,883
Colombia.....	77,161	30,625
Peru.....	74,690	27,435
Uganda.....	112,055	26,692
West Germany.....	6,326	7,386

Farm-Mortgage Debt Outstanding by Lender Groups

Source: Farm Production Economics Division, U. S. Department of Agriculture

Year (Jan. 1)	Total farm- mortgage debt ¹	Federal land banks ²	Farmers Home Adminis- tration ³	Life in- surance com- panies ⁴	Commer- cial and savings banks ⁵	Indi- viduals and others ⁶
	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
1960.....	12,073,580	2,334,795	437,016	2,819,542	1,625,024	4,857,203
1961.....	12,812,210	2,538,426	481,610	2,974,609	1,686,139	5,131,427
1962.....	13,890,875	2,802,275	566,175	3,161,757	1,784,619	5,576,049
1963.....	15,159,843	3,023,149	585,263	3,391,193	2,053,369	6,106,879
1964.....	17,922,450	3,280,842	601,307	3,778,537	2,356,180	6,775,844
1965.....	18,850,151	3,685,501	615,463	4,284,921	2,662,479	7,631,787
1966.....	21,168,703	4,234,021	627,109	4,798,970	2,933,814	8,574,789
1967.....	23,283,052	4,908,094	581,589	5,210,915	3,164,223	9,418,231
1968 (prelim.).....	25,472,074	5,552,844	532,702	5,540,876	3,537,172	10,308,480

¹Excludes Alaska, Hawaii, Territories and possessions.²Includes regular mortgages, purchase-money mortgages, and sales contracts.³Direct farm loans only. Includes farm-purchase, farm-enlargement, farm-development and loans primarily for refinancing purposes, project-liquidation, rural-housing (excludes nonfarm), and soil and water loans to individuals, and loans for these purposes from State Corporation trust funds.⁴Estimates based on direct reports from life insurance companies and official reports submitted to State insurance commissioners. Includes legal reserve companies only and regular mortgages, purchase-money mortgages, and unpaid principal sales contracts. Beginning 1965, excludes sales contracts.⁵All operating banks. Includes bank holdings of soil and water loans and farm-ownership loans insured by the Farmers Home Administration.⁶The amounts shown are residuals or differences between the amounts reported by institutional lenders and the estimates of total farm-mortgage debt. They may be taken as a rough measure of the farm-mortgage debt held by individuals and other nonreporting lenders.

Fire Season on Forest Lands

Source: Forest Service, U. S. Dept. of Agriculture (As of Sept. 30, 1968)

Periods of above normal fire danger in some far western areas during 1968 increased the total National Forest protection area burned to above that of the previous year.

Arizona and New Mexico National Forests experienced a very severe fire season for the 2nd year in a row, with losses in excess of 40,000 acres—more than twice the five-year average. In the Northwest, warm, dry weather produced high fire dangers during July and early Aug., then eased abruptly in mid-August with the advent of unseasonably wet weather, but not before nearly 50,000 acres had burned in the National Forests across Washington, Oregon, Idaho, and Montana. Serious problems developed early in California, with a fire in June which blackened more than 50,000 acres on the Angeles National Forest and adjacent areas, and continued into the Fall. Fire losses generally were near or below normal in the rest of the country.

The National Forest protected area burned in 1968 through September 30, totaled approximately 205,000 acres. In 1967, losses for the same period amounted to 182,000 acres, and for the full year, 204,000 acres.

Forest Fires in 1967

On all Federal, State and private forest lands during 1967 a total of 125,025 fires were reported, an increase of 2,525 over the 122,500 fires reported during 1966. Acreage burned on all lands totalled 4,658,586 acres, an increase of 84,197 acres above the 4,574,389 acres burned over in 1966.

Through carelessness or incendiaryism, man continues to cause the largest portion of all forest fires. During 1967, 103,427 fires or 91% of the 113,762 fires reported as having burned on protected lands, were man-caused. Lightning caused 10,335 fires or 9% of the total protected area fires. Causes of the 11,263 fires which occurred on unprotected land are unknown.

More than 479,000,000 acres of State and private forest land are protected under the Federal-State Cooperative Fire Control Program. The area qualifying for protec-

tion under this program is now in excess of 517,000,000 acres. The goal of the cooperative program is to bring protection to the nearly 38,000,000 acres not now receiving protection. All States participate in the Cooperative Forest Fire Protection effort.

National Forest System

Administered by the Forest Service, U.S. Dept. of Agriculture, the National Forest System is made up of 154 National Forests, 19 National Grasslands, and other minor acreages which total 186,799,021 acres in 45 States, Puerto Rico, and the Virgin Islands. All lands within the National Forest System are managed under two guiding principles: multiple use—the management of lands to make each area yield the combination of uses best suited to public needs; and sustained yield—maintenance of a continuous supply of all forest resources through wise use, management, and protection.

National Forest lands which supply water for agriculture, industry, recreation, and domestic use, for example, also are managed to prevent erosion and help control floods, yet there also may be camping, skiing, and timber harvesting on the same land.

The scenic beauty and recreation opportunities available on National Forests yearly draw millions of Americans to these lands to hunt, fish, camp, picnic, boat, swim, hike, ski, and to make pack trips into the wilderness. Use reached 150 million visitor days during calendar year 1967.

Record State & Private Protected Lands:

Group 1967	Number of fires	Acres burned
Rocky Mountain.....	4,681	387,192
Pacific.....	5,553	93,652
North Central.....	9,843	163,273
Southern.....	70,774	1,215,012
Eastern.....	11,416	66,977
Total.....	102,267	1,926,106

Record on State & Private Unprotected Lands:

Rocky Mountain.....	1,493	232,750
North Central.....	3,642	350,840
Southern.....	6,128	1,806,794
Total.....	11,263	2,390,384

National Forest Areas

Source: Forest Service, Department of Agriculture. (In Acres) Data as of June 30, 1966

States	Area ¹	States	Area ¹	States	Area ¹	States	Area ¹
Alabama.....	631,623	Kansas.....	107,255	New Mexico.....	9,154,803	Utah.....	7,994,405
Alaska.....	20,735,040	Kentucky.....	524,554	New York.....	13,779	Vermont.....	233,463
Arizona.....	11,436,320	Louisiana.....	593,291	N. Carolina.....	1,125,278	Virgin Isl.....	147
Arkansas.....	2,434,629	Maine.....	50,016	N. Dakota.....	1,104,958	Virginia.....	1,486,830
California.....	19,988,665	Mass.....	1,651	Ohio.....	119,082	Washington.....	9,700,193
Colorado.....	14,347,827	Michigan.....	2,615,748	Oklahoma.....	286,854	W. Virginia.....	910,238
Connecticut.....	10	Minnesota.....	2,782,763	Oregon.....	15,468,906	Wisconsin.....	1,475,671
Florida.....	1,075,702	Mississippi.....	1,334,266	Pa.....	475,961	Wyoming.....	9,167,571
Georgia.....	794,405	Missouri.....	1,389,911	Puerto Rico.....	27,916		
Idaho.....	20,341,503	Montana.....	16,670,543	S. Carolina.....	587,753	Total.....	186,799,021
Illinois.....	220,183	Nebraska.....	349,399	S. Dakota.....	1,982,188		
Indiana.....	138,603	Nevada.....	5,062,932	Tennessee.....	602,057		
Iowa.....	360	N. Hamp.....	678,477	Texas.....	775,292		

¹Includes National Grasslands, land utilization projects and other special areas administered by the Forest Service.

Conservation Concept Needs Broader Definition in Modern Day

In the light of the growing threat of air and water pollution, officials of the U. S. Department of Agriculture believe that most current dictionaries carry wholly inadequate definitions of the word "conservation." The conservation movement sprang directly from the forest movement in the United States, in large measure under the leadership of Gifford Pinchot (1865-1964), American forestry expert and pioneering chief of the Division of Forestry (now the Forest Service of the Dept. of Agriculture). Pinchot is credited with being

among the first to realize that the use and misuse of all natural resources are interdependent, that conservation of these natural resources is essential to the national and individual welfare. He was the originator of the present-day concept of conservation—"the use of the earth for the good of man"—which he and President Theodore Roosevelt planted on the American scene. The original concept was broadened by Secy. of Agriculture Orville L. Freeman, who stressed in 1966 the need for "the conservation of man's total environment."

Animals in Natural Settings in U. S. Zoos

Source: Edward R. Ricciuti, Curator Publications & Public Relations, N. Y. Zoological Society

Not far from the Bronx Zoo's famed "African Plains," a roughly circular building, massive but gracefully simple and clean in architecture, unfailingly provokes comment and expectant glances from zoo visitors. This is the "World of Darkness," scheduled for opening in spring 1969. In recent years probably no other zoo exhibits complex has created such widespread public interest before opening.

The World of Darkness is an exhibits building centered on a key zoological fact: that many—if not the majority—of the Earth's higher animals are most active after dark.

In this and in other respects the World of Darkness represents a challenging concept of zoo exhibition that has taken hold in the nation's leading zoos. These zoos are no longer places where the citizen goes merely to stare at wild animals enclosed in barren cages. True, the animals are still there. So are many cages, which present views obstructed by steel bars and wire. But the bars and wire are going the way of the cigar-store Indian. They are as foreign to modern zoo planning as the birch switch is to contemporary education.

The best zoos are no longer content to present animals in a vacuum. Instead, the new type of zoo exhibit is aimed at teaching man about the relationship between animals and the rest of nature. This means presenting animals in their natural environment and building exhibits around important scientific principles.

Instead of the "Big Cat Building," today's zoo planners are more likely to conceive an "African Forest," or a "Life in the Marsh" exhibit. Zoos around the United States are striving to present animals in natural settings so like the wild that visitors will be able to appreciate the animal in the context of its environment.

During the year, for example, the Bronx Zoo (October) opened a large North American outdoor exhibit where polar bears and Kodiak bears—world's largest living land carnivores—roam a landscaped panorama and live in dens hewn out of natural rock. There are no bars—only moats separate visitor and bear.

A series of exhibits at the Milwaukee Zoo illustrates the relationship of predator and prey. Lions range what appear to be the same African savannahs as zebras. Jaguars, great spotted cats of the New World, seem to share the same landscape with inoffensive tapirs. Tigers prowl with deer browsing not far away. Actually prey and predator are separated by moats, but these are hidden from public view.

At the San Diego zoo, visitors readily can appreciate how various wild sheep have adapted to a mountainous environment. These agile creatures live in an exhibit on a rocky hillside, that for its appearance could be in a wilderness half a world away from crowded southern California. Also in San Diego, aardvarks are to be seen in a natural-appearing tunnel exhibit, and visitors may walk through vast cages where brilliant tropical birds fly about.

The reptile house at Brookfield Zoo has several exhibits that illustrate the various ecological niches occupied by different animals. Brookfield's reptile house has several "mixed exhibits"—each containing a group of animals interested in different kinds of living quarters.

Several species of tropical birds live in a swamp exhibit with different reptiles, including green iguanas and a pair of boa constrictors. Cotton-top marmosets—small monkeys—scamper about the treetops in this exhibit.

Ultimately, this type of zoo exhibit is aimed at interpreting the living world of nature for zoo visitors, especially urban dwellers who seldom if ever chance to see vast stretches of forest, unmarred seashore, or silent deserts. Zoos have a new sense of mission in this regard for, zoo professionals believe, when man begins to understand the place of living creatures in nature, humanity will better understand man's own position in the natural scheme of things.

At the same time, particularly since the nation's major zoos are in or near large cities, zoo planners design their exhibit areas so that these will improve the quality of urban living.

The need for more sophisticated exhibits has brought a new kind of specialist into the zoological park field. This is the professional trained in graphic arts. A forerunner in promoting this field was the Arizona-Sonora Desert Museum, really more like a zoo than a museum. The Bronx Zoo in 1964 established a Department of Exhibition and Graphic Arts. Since then Chicago's Brookfield Zoo and the Philadelphia Zoo have created similar departments. Other zoos are using consultants or are planning similar departments.

To educate and entertain, modern zoo exhibits depend on a variety of media: graphics, electronics, and the printed word. Inside the Bronx Zoo's Aquatic Birds Building visitors look out over a wild beach, listen to the sound of surf upon shore, and watch shore birds skitter along the water's edge picking up morsels of food. A "wave machine" sends ripples through the water. Better yet, the only thing between visitors and birds is air. There are no bars, not even glass, in this exhibit.

A graphic display on the wall opposite the seashore exhibits tells visitors where they can see shore birds within a 2-hour drive of Manhattan—while around the corner other graphics detail the biology of flight.

By combining the talents of the exhibits specialists with those of zoologists (many of whom have had to become part-time exhibit designers) modern zoos are helping man to understand his world.

Outside of the exhibits field, of course, there were many important developments in United States zoos during the year. Here are some of these, taken from the pages of *ANIMAL KINGDOM*, national magazine of zoos and aquariums published by the New York Zoological Society:

—Twin orangutans were born in February at Seattle's Woodland Park Zoo.

—The Woodland Park Zoo also obtained five sea otters from an expedition sent to Amchitka Island in the Aleutians.

—The Bronx Zoo added a third takin to its collection, the only group of these rare animals in the western world. These shaggy, horned "goat-antelopes" are native to southern Asia.

—Snow leopard cubs—two of them—were born at the Oklahoma City Zoo, offspring of that zoo's female, "Tanya," and the Bronx Zoo's "Bowser II."

—The Philadelphia Zoo put the first zoo monorail into operation (scheduled for fall). The monorail, traveling some 15 feet above ground, takes visitors on a 15-minute tour of the zoo.

—A black rhinoceros was born at Oklahoma City Zoo in May.

—Twenty-two reticulated pythons, first of their kind from zoo-bred animals in the United States, were hatched at the Bronx Zoo from eggs produced in February.

Aquariums

Killer whales, so-called "wolves of the sea," were to be attractions at several of the nation's aquariums during the year. These huge sea mammals were scheduled for appearance at the New York Aquarium, the Seattle Marine Aquarium, ABC Marine World, Marineland of the Pacific, Sea World, and the Miami Seaquarium.

The Seattle aquarium supplied a 5,800-pound female killer whale, "Lupa," to the New York Aquarium. Lupa was airlifted cross country by jet freighter. During the trip she was cradled in a sling-like stretcher suspended within the aircraft. A battery-operated pump sprayed cold water over the whale during the flight.

The whale was hauled from the John F. Kennedy International Airport to the New York Aquarium, Coney Island, on a flatbed truck. A huge crane lifted the 18-foot-long sea mammal into her exhibit pool.

An aquarium—the New England Aquarium—was opened at Boston's Central Wharf, overlooking Boston Harbor.

This large new institution is operated by the New England Aquarium Corporation. Construction began in 1965. The aquarium has a large variety of marine animals on display in well-designed settings.

A Collection of Animal Collectives

The English language boasts an abundance of nouns used to describe groups of things, particularly pairs or aggregations of animals. Some of these words have fallen into comparative disuse, but many of them are still in service, helping to enrich the vocabularies of those who like their language to be precise, who tire of hearing a group referred to as "a bunch of," or who enjoy the sound of words that aren't overworked.

Here is a lexicon of some of these "collectives":

band of gorillas	exaltation of larks	pair of horses
bed of clams, oysters	flight of birds	pod of whales, seals
bey of quail, swans	flock of sheep, geese	pride of lions
brace of ducks	gaggle of geese	school of fish
brood of chicks	gam of whales	sedge or siege of cranes, bitterns
cast of hawks	gang of elk	shoal of fish, pilchards
cete of badgers	grist of bees	skain of geese
charm of goldfinches	herd of curlews, elephants, etc.	skulk of foxes
chattering of choughs	hive of bees	slueth of bears
cloud of gnats	horde of gnats	sunder of boars, swine
clowder of cats	husk of hares	span of mules
clutch of chicks	kindle or kindle of kittens	spring of teal
clutter of cats	leap of leopards	swarm of bees
colony of ants	leash of greyhounds, foxes	team of ducks, horses
congregation of plovers	bitter of pigs	tribe of goats
covert of coots	murder of crows	troop of kangaroos, monkeys
covey of quail, partridge	muster of peacocks	volery of birds
down of hares	mute of hounds	watch of nightingales
draught of fish	nest of vipers	wing of plovers
drift of swine	nest, nide or nye of pheasants	yoke of oxen
drove of cattle, sheep	pack of hounds, wolves	

Gestation, Longevity and Incubation

Note: The figures on gestation, incubation and longevity given below are averages based on estimates by leading authorities. The potential life span of mammals is rarely attained in nature. The longevity figures for wild animals listed below were based on experience with such animals in zoos.

Animal	Gestation (days)	Longevity (years)	Animal	Gestation (days)	Longevity (years)	Animal	Gestation (days)	Longevity (years)
Ass	365	24	Elephant	645	47	Pig	112	14
Baboon	187	27	Elk	250	22	Puma	90	11
Badger	60	15	Fox	52	8	Rabbit	37	5
Bat		6	Giraffe	425	10	Rhinoceros	450	27
Bear			Goat (dom.)	151		Sea Lion	350	19
Black	219	19	Goat (mntn.)	184	9	Sheep	154	13
Grizzly	225	31	Gorilla	257	25	Squirrel	44	8
Polar	240	31	Guinea Pig	68	4	Tiger	105	19
Beaver	122	13	Horse	330	27	Whale	365	37
Buffalo	278	20	Kangaroo	42	19	Wolf	63	12
Camel	406	20	Leopard	98	17	Zebra	365	20
Cat (domestic)	63	15	Lion	100	15-29	Incubation Time		
Chimpanzee	231	30	Monkey	164	7	Chicken	21	
Chipmunk	31	7	Moose	240	8	Duck	30	
Cow	284	18	Meadow	21	4	Goose	30	
Deer	201	17	Opossum	14-17	4	Pigeon	18	
Dog	61	16				Turkey	26	

Things Looking Up for the Whooping Crane

The successful hatching at the Patuxent Wildlife Research Center, Laurel, Md., in 1968 of all the whooping crane eggs taken from the Canadian wilds late in May was hailed by Secy. of the Interior Stewart L. Udall as a "major success in man's battle to preserve this rare bird."

The only known flock of wild whooping cranes has its winter home at the Aransas National Wildlife Refuge in Texas. In 1938, when the official count began, only 18 were known to exist. By 1941, the number returning to Aransas for the winter had dropped to 15. Then conservation efforts turned the tide, and a new record number of 48 left Aransas in 1968 for summer nesting grounds near the Arctic

Circle. In addition, there are at least 22 cranes in captivity, bringing the total to around 70.

The 1968 egg-hunting expedition to the nesting grounds near the Arctic Circle was staged by the Canadian Wildlife Service and the Interior Dept.'s Bureau of Sport Fisheries and Wildlife. Nine whooper eggs and one newly hatched whooper were removed from nests. Four young whoopers had been raised successfully at Patuxent from the first egg-hunting expedition, a year earlier.

A baby whooper being raised at Patuxent was hatched successfully in 1967 by a mating pair at the San Antonio Zoo, the only breeding adult whoopers in captivity.

Livestock on Farms in the United States

Source: Economic Research Service; Department of Agriculture

Year	All Cattle	Milk Cows	All* Sheep	Hogs	Horses and Mules	Year	All Cattle	Milk Cows	Stock Sheep	Hogs	Horses and Mules
On Jan. 1						On Jan. 1					
1890.....	60,014	16,544	48,105	51,055	20,995	1957.....	92,860	15,000	41,518	48,130	18,054
1900.....	59,739	19,450	50,239	48,072	24,211	1958.....	91,176	21,265	27,167	51,517	3,354
1910.....	58,993	21,455	40,743	60,139	25,742	1959.....	93,322	20,132	28,108	58,045	3,142
1920.....	70,400	22,575	38,543	55,770	22,569	1960.....	96,236	19,527	28,849	59,026	**
1925.....	63,373	23,032	41,565	55,705	19,124	1961.....	97,700	19,271	28,320	55,560	**
1930.....	61,003	26,082	46,139	39,086	16,683	1962.....	100,369	18,963	26,719	55,619	**
1935.....	68,846	24,940	40,268	61,165	14,478	1963.....	104,488	18,379	25,122	57,993	**
1940.....	68,309	27,770	39,609	59,373	11,950	1964.....	107,903	17,847	23,455	56,757	**
1945.....	85,573	23,853	26,182	58,937	7,781	1965.....	109,000	16,981	21,843	50,792	**
1950.....	77,963	23,462	27,137	50,474	4,309	1966.....	108,862	15,987	21,456	47,414	**
1955.....	96,592	22,912	26,890	55,354	3,928	1967.....	108,645	15,198	20,661	53,249	**
1956.....	95,900	22,325	26,348	51,897	3,574	1968.....	108,813	14,662	19,184	54,263	**

*Stock sheep reported beginning with the year 1935. **Discontinued. †Revised.

†Estimates for Alaska & Hawaii included in the United States totals beginning with 1961.

‡The total estimated value on farms as of Jan. 1, 1967 was as follows (average value per head in parentheses): All cattle \$16,183,380,000 (\$149); milk cows \$3,679,000,000 (\$251); stock sheep \$367,407,000 (\$19.20); hogs \$1,610,510,000 (\$29.70); chickens \$466,598,000 (\$1.10); turkeys \$34,121,000 (\$4.68).

Fish and Game Regulations

All 50 States, D.C., and 10 Canadian Provinces

Compiled by the World Almanac from official state and province sources

These regulations are the latest available for this edition of the World Almanac and indicate what the sportsman may expect to find. Because of possible changes, local exceptions and additional details, copies of current regulations should be obtained from the agencies listed below with each state. Some states have fish or game possession limits which further restrict daily limits. Some have special licenses for juveniles and others. Some require training in safe handling of firearms.

Seasons and bag limits on migratory game birds (ducks, geese, woodcock, etc.) are set by the U. S. Secretary of the Interior; some states have additional restrictions. Persons 16 and over must have a \$3 Federal Duck Stamp (obtainable at post offices) to hunt migratory waterfowl, in addition to a state license. Details are obtainable from state offices (shown below) and the U. S. Fish & Wildlife Service, Washington, D.C. 20240. In Canada, migratory bird regulations are set by the Canadian Wildlife Service, Dept. of Northern Affairs and Natural Resources, Ottawa.

ALABAMA

FISH: Res. lic. \$2.15; non-res. \$5, 7-days \$2. No closed season, no size lim. Daily lim. varies 3-50.

GAME: Res. \$3 (state) or \$1 (county); non-res. \$25.15, 7-days \$10.15, small game \$7.15. Deer: opens early Nov. for 1 mo. in some areas, 2 in others; antlered bucks only 1 day. Turkey: early Nov.-early Jan., Mar. 20-Apr. 25, some counties; Mar. 20-Apr. 25 only, in others; 1 gobbler a day, 5 per season. Raccoon, opossum, Oct. 15-Feb. 28, no limit. Fox, beaver, bobcat, no lim., no closed seas. Details: Dept. of Conservation, Game & Fish Div., Montgomery, 36104.

ALASKA

FISH: Res. lic. \$5; non-res. \$10. Open season year 'round, with local exceptions. Freshwater daily lim. 10 in some areas, 15 in others, exceptions. Saltwater, no bag limits, some exceptions.

GAME: Res. \$7; non-res. \$10; plus non-res. big game tags \$10 to \$150 each. Big game seasons open Aug. or Sept., run for several months, some exceptions. Bag limits: moose 1; deer 4 most areas; caribou no closed season, no lim. most areas; elk 1; mt. goat 2; mt. sheep 1; brown or grizzly bear 1; black bear 3; polar bear 1; wolf, wolverine, no lim. most areas; fur animals, no lim. most areas; small game, 5-20 daily; walrus, no closed seas, no lim., some areas (1 adult bull for non-res.); seals, sea lion, porpoise, beluga, no closed seas, no lim. Details: Dept. of Fish and Game, Subport Bldg., Juneau 99801.

ARIZONA

FISH: Res. lic. \$3 plus \$2 for trout; non-res. \$9 plus \$6 for trout, 5-days \$3 plus \$2; other, special licenses. No closed season. No daily lims. except black bass 10; striped bass 3; trout, salmon, grayling, total 10; catfish 25, some exceptions.

GAME: Res. \$5, fish-game \$9; non-res. \$20, fish-game \$25, arch. \$15. Plus big game tags. Deer: 1 per yr.; guns, 2 wks. in Nov.; arch., 2 wks. in Sept. Elk, antelope: 1 each in 3 yrs. Buffalo (res. only), bighorn: 1 each in lifetime. Turkey: 9 days in Oct., 1 only. Quail: Oct. and Dec.-Jan., 15 daily. Details: Game & Fish Dept., Ariz. State Bldg., Phoenix 85007.

ARKANSAS

FISH: Res. lic. \$3.50; non-res. \$6, 14-days \$3.50. No closed seas. Daily lim.: trout, walleye, sauger, 6; black bass 10; crappie 20; catfish 10; white bass 25; bream, sunfish, perch 50; pickerel 6; total 75 game fish daily.

GAME: Res. \$3.50; non-res. \$20, including deer and turkey \$30. Turkey: gun and arch., part of Oct.; 2 gobblers per year. Deer: gun, 6 days in Nov., 6 in Dec., arch., Oct. 1-Jan. 31, 1 per period, 2 yr. yr. Squirrel, rabbit, Oct. 1-Oct. 31, 8 each daily. Quail: Dec. 1-mid Feb., 8 daily. Details: Game & Fish Commission, Little Rock 72201.

CALIFORNIA

FISH: Res. lic. \$3; non-res. \$10, 10-days \$3. 3-days ocean, \$1. Plus stamp inland, \$1. Most freshwater, no closed seas, with exceptions; daily lims. on most fish. Trout: south, all year; rest, May-Nov.; daily lims. 10 summer, 5 winter. Saltwater: some lims., seasons.

GAME: Res. \$4, deer tag \$2; non-res. \$25, deer tag \$10. Plus bear tag \$1; pheasant tags, \$2. Deer: early seas. some areas, part Aug.-part Sept.; late, other areas, part Sept.-Oct., some areas 1, some 2 bucks per yr. Bear, late Sept.-early Jan., 2 per seas. Pheasant: mostly late Nov.-early Dec., 2 male daily, 10 per seas. Quail: most areas Nov.-Jan., 10 daily. Details: Dept. of Fish & Game, 1416 9th St., Sacramento 95814.

COLORADO

FISH: Res. lic. \$6; non-res. \$10, 10-days \$5. No closed seas, no min. length, except some areas. Trout: min. lengths some waters; 6 daily, some areas 10. Pike: 6 daily. Bass: 10 daily. Crappie, white bass, etc. 30 daily.

GAME: Res. (deer, elk, small game, bear, mtn. lion, fish) \$30; non-res. (same group) \$135, small game \$15 (some single lic. for single game). Big game seas, opens 3rd Sat. in Oct. Details: Game, Fish & Parks Dept., 6060 Broadway, Denver 80216.

CONNECTICUT

FISH: Res. lic. \$4.35; non-res. \$6.35, 3-days \$1.85. Most streams, mid Apr.-Oct. 31: trout, kokanee, char, 8 daily, no more than 5 trout or char; black bass, pickerel, no lim.; northern pike, min. 20", 6 daily. Lakes and ponds mostly mid Apr.-late Feb. Trout, northern pike, same as streams; pickerel, min. 15", 6 daily; black bass, min. 12", 6 daily.

GAME: Res. \$4.35, non-res. \$11.35; fish-game res. \$6.35, non-res. \$15.35; arch.-deer \$5.35. Deer: Nov.-Dec.; arch., 1 per seas.; farmland, shotgun or arch., 1 per permit, 2 per seas., Dec. Pheasant, ruffed grouse: late Oct.-early Dec., 2 daily, 10 seas. Gray squirrel: late Oct.-early Jan., 8 daily, 40 seas.; cottontail, same seas.; 3 daily, 25 seas. Quail: late Oct.-early Nov., 2 daily, 10 seas. Details: Board of Fisheries & Game, State Office Bldg., Hartford 06115.

DELAWARE

FISH: Res. lic. \$2.20, trout stamp \$2.10; non-res., \$7.50, trout stamp \$2.10. No closed seas, min. lengths or daily lims., some exceptions. Trout: mid Apr.-mid Nov., 4 daily. Bass: min. 10", 6 daily, no closed season.

GAME: Res. \$3.20; non-res. \$20. Deer: shotgun; New Castle Co., 2 days Nov., Kent and Sussex Cos., 5 days Nov., 3 days Jan., lim. 1 per season; longbow, Sept. 15-early Nov. Pheasant: usually late Nov.-early Jan., 2 males daily. Generally, daily lims. are 4 animals and 8 local game birds. Board of Game & Fish Commissioners, Dover 19901.

DISTRICT OF COLUMBIA

FISH: No restrictions, except prohibited in some waters. Details: Chief, Metropolitan Police, Washington, D. C. 20001.

GAME: Hunting forbidden.

FLORIDA

FISH: Res. lic. \$3; non-res. \$8, 5-days \$2.25, 14-days \$3.25. Freshwater: no closed seas, no min. lengths. Daily lims.: bl. bass 10, white 30, pickerel 15; bream, perch, red-fin pike, 50 total. Saltwater: some closed seas, some min. lengths.

GAME: Res. \$2 (co.) \$7.50 (state); non-res. \$26.50, 10-days \$11.50. Deer: part Nov.-part Jan., 2 bucks per day, 3 per seas.; Turkey: part Nov.-part Jan., 2 per day, 3 per seas.; part Mar.-part Apr., 1 gobbler per day, 2 per seas. Quail: part Nov.-part Feb., 12 daily. Details: Game & Fresh Water Fish Commission, Tallahassee 32304.

GEORGIA

FISH: Res. lic. \$2.25; non-res. \$7.25, 5-days \$2.25. Plus \$1 daily for trout in management areas. No closed seas, except trout, open Apr. 1-Oct. 15 in northern Ga. Daily lims.: bass 15; bream 50; muskie 2; perch, crappie, 40 each; trout, walleye, shad, 8 each. Total 50 daily. Channel cat, no lim. A few local length lims. on trout, bass.

GAME: Res. \$3.25, arch., \$3.25; non-res. \$25.25 (arch., same), 10-days \$12.50. Deer: seas. by areas,

mostly 2 bucks only; arch. seas. starts earlier, 2 of either sex. Ruffed grouse: mid Oct.-late Feb., 3 daily. Rabbit: late Nov.-late Feb., 5 daily in no., 10 in so. Turkey: seas. by areas, mostly 1 per seas. Bear: some cos., Nov.-Dec., 1 per seas. Details: Game & Fish Commission, 401 State Capitol, Atlanta 30334.

HAWAII

FISH: Res. lic. \$3.75; non-res. \$7.50, 30-days \$3.75. No closed seas. for bass, min. 9", 10 daily; tucunare, min. 12", 3 daily; oscar, min. 10", 3 daily; channel cat, no min., 3 daily. Trout: min. 6", 10 daily, only in seas. on Kauai. Saltwater: some restrictions on octopus, lobster, crabs, mullet, etc.

GAME: Lic. \$7.50; non-res. \$15. No open seas. for migratory birds and some others. General game bird seas., Nov.-part Jan. For axis deer, wild goat, pig, sheep, regulations differ in management areas. Details: Div. of Fish & Game, 530 S. Hotel St., Honolulu 96813.

IDAHO

FISH: Res. lic. \$4; fish-game \$6; non-res. \$15. 7-days \$5. General seas. June-Oct., some exceptions, some areas open all year, spec. permit for salmon, steelhead, sturgeon. Bass, sunfish, perch, no lims. Salmon, 2 daily, 10 per yr.; sturgeon, 1, 2; steelhead, 2, 20. Trout 15 or 7 lbs. daily. Exceptions in some areas.

GAME: Res. \$3 plus deer tag \$2, elk \$3, mt. goat \$10, mt. sheep \$10; non-res. fish-game \$100, one deer or bear, \$25, birds \$25. Bear, no closed seas. but exceptions, 1 per yr. Elk mostly part Oct.-part Nov., 1 per yr. Deer mostly part Oct.-part Nov., 1 per yr. Pheasant part Oct.-part Nov., lims. vary. Rabbits, Sept.-Feb., 5 daily. Details: Fish & Game Dept., P. O. Box 25, Boise 83707.

ILLINOIS

FISH: Res., non-res. lic. \$2.25. Pickerel, northern pike, 5 daily, min. 20"; walleye pike, saugers, bass, 10 daily; trout, 8 daily. No lims., no closed seas.: lake trout, perch, sunfish, etc.

GAME: Res. \$3.25; non-res. reciprocal with state of res. Deer (shotgun, rifled slug): 6 days in fall, 1 per seas.; arch., Oct.-part Nov., part Dec., 1 per seas. Squirrel: mostly Aug.-mid Nov., 5 daily. Rabbit, late Nov.-Jan., 5 daily. Mid-Nov.-Dec. 31: cock pheasant, 2 daily; quail, 8; Hung. partridge, 2. Details: Dept. of Conservation, State Office Bldg., Springfield 62706.

INDIANA

FISH: Res. lic. fish-game \$4; non-res. fish \$4.50, 14-days \$3, fish-game \$16. Plus trout stamp \$2. Trout (in lakes) no closed seas., min. 7", 5 daily; (streams) open May-Oct., min. 7", 10 daily. No closed seas., no min., length: bass, 6 of all kinds total (except rock) daily; bluegill, sunfish, crappies, rock bass, 25 total daily; walleye, northern pike, 6 of each daily.

GAME: Lic. see above. Plus res. deer \$5.50; non-res. \$25.50. Deer: gun, late Nov.-early Dec., 1 buck; arch., late Oct.-early Nov., 1 either sex. Rabbit, part Nov.-part Jan., 5 daily. Part Nov.-part Dec.; quail 10 daily, Hung. partridge 5; pheasant 2. Part Nov.-Jan.: opossum, mink, raccoon, muskrat, no lim. Details: Div. of Fish & Game, Room 605, State Office Bldg., Indianapolis 46209.

IOWA

FISH: Res. lic. \$3, fish-game \$5; non-res., \$5, 6 days \$3. One day, \$1. Plus trout stamp \$3. No closed seas., no lim.: gar, shad, sunfish, bluegill, rock and yellow bass. No closed seas.: perch 25 daily, catfish 8, trout 6, largemouth, smallmouth bass, 5 each, walleye, sauger, 5 daily; northern pike 3.

GAME: Res. \$3; non-res., same as charged non-res. by own state (min. \$5). Plus deer (res. only) \$10. Deer: shotgun, 2-4 days in Nov., 1 per yr.; bow-arrow, part Oct.-part Nov., 1 per yr. Pheasant: usually part Nov.-Dec., 3 cocks daily. Quail: part Oct.-Jan., 8 daily. Rabbit: part Sept.-part Feb., 10 daily. Raccoon: part Oct.-Feb., no lim. Details: Conservation Commission, E. 7th and Court Sts., Des Moines 50308.

KANSAS

FISH: Res. lic. \$3, fish-game \$6; non-res. \$5, 10-days \$3. No closed seas., no min. length. Black bass, catfish, total 10 daily; walleye, sauger, 5; northern pike, 3.

GAME: Res. \$3; non-res. \$15. Plus game birds \$1; spec. perm. for deer. Deer: gun, 5 days Dec., 1 only; arch., Oct.-Nov. Part Nov.-part Dec.: quail 8 daily; pheasant, some areas, 2 male daily. Prairie chicken: some areas, 5 days in Nov., 2

daily. Rabbit: varied seas., 10 daily. Details: Forestry, Fish & Game Commission, Box 1028, Pratt 67124.

KENTUCKY

FISH: Res. lic. \$4.25; non-res. \$7.50, 10-days \$3.25; Ohio Riv. for res. of Ohio, Ind., Ill., \$4.25. No closed seas. Daily lim.: black bass, sauger, walleye, 10; rainbow trout, muskie, northern pike, 5; crappie, striped bass, 60; rock bass 15. Length lims. on black bass, walleye, muskie.

GAME: Res. \$4.25; non-res. \$25.50. Plus big game \$10.50 (non-res. from states barring non-res. from deer-hunting may not hunt deer). Deer: arch., designated cos., Oct. and Dec.; firearms, designated cos., 5 days Nov. (buck only); 1 per yr. Grouse: Dec.-Feb., 4 daily. Squirrel: late Aug. Nov., some areas also Dec.; 6 daily. Seas. opens in Nov.: quail 10 daily, rabbit 8. Details: Fish and Wildlife Resources Dept., State Office Bldg., Annex, Frankfort 40601.

LOUISIANA

FISH: Res. lic. \$1; non-res. \$5, 7-day \$2. No closed seas. Daily lim.: black bass 15; yellow, white bass, 25; crappie 50; sunfish 100.

GAME: Res. \$2; non-res. \$25 min., 5-days \$5 min. Deer: by areas, parts of Nov., Dec., Jan., 1 daily, 5 per year, mostly bucks only; arch., part Oct., part Jan. Turkey: Mar. 29-Apr. 20, few areas, 2 per yr. Quail: Nov. 28-Feb. 28, 10 daily. Rabbit: Oct. 5-Feb. 16, 8 daily. Squirrel: Oct. 5-Jan. 10, 8 daily. Details: Wild Life and Fisheries Commission, 400 Royal St., New Orleans 70130.

MAINE

FISH: Res. lic. \$4, fish-game \$7.25; non-res. \$11, 15-days \$7.75, 3-days \$5. General open seas.: lakes-ponds, Apr.-Sept.; streams, Apr.-mid Aug.; rivers, Apr.-mid Sept.; except black bass starts late June. Local exceptions. Daily lim.: salmon (14" min.), trout (6"), togue (14"), black bass (10"), white of 8 with total wgt. 7.5 lbs.; pickerel 10; total perch mostly no lim.; some exceptions. Ice fishing in some areas.

GAME: Res. \$4, arch. \$5.25; non-res. small game \$17.25, big game \$33.25, arch.-deer \$15.25. Deer: by zones, mostly late Oct.-Nov., 1 per yr. Bear, June-Dec. Rabbit, mostly Oct.-Feb., 4 daily. Gray squirrel, Oct.-part Nov., 4 daily. Partridge, pheasant, usually Oct.-part Nov., 4 part., 2 pheas. daily. No closed seas.: fox, bobcat. Details: Dept. of Inland Fisheries & Game, State Office Bldg., Augusta 04330.

MARYLAND

FISH: Res. lic. \$3; non-res. \$10, 3 days \$3. Plus trout stamp \$1. Trout: mid-Apr. to mid Mar., min. 7", 7 daily. Walleye: Apr.-mid Nov., 14", 5. No closed seas.: large, small mouth bass, 9", total 10 (5 in state impoundments); pickerel 14", 5; northern pike 20", 2; muskie 30", 2; rock bass 14", no lim.; all others, no restrictions.

GAME: Res. \$6.50 (statewide), \$3 (co.); non-res. \$25. Plus deer and turkey stamp \$5.50. Deer: firearms, late Nov.-early Dec.; arch. mid Sept.-early Jan.; 1 per yr. Turkey, some cos. only, last 2 wks. Oct., 1 per yr. Nov. 1-Jan. 15, 14 daily: pheasant 2 (male), grouse 2, rabbit 4. Nov. 15-Feb. 1; quail, 6 daily. Sept. 11-Apr. 1: raccoon, opossum, no lim. Details: Game & Inland Fish Dept., State Office Bldg., Annapolis 21404.

MASSACHUSETTS

FISH: Res. lic. \$5.25, women \$4.25; non-res. \$9.75, 7-days \$5.25. Brook, brown or rainbow trout: ponds, lakes (6 daily), most rivers, streams, (12 daily), 3rd Sat. in Apr.-3rd Sat. in Oct.; also most ponds, lakes, 3rd Sun. in Oct.-Feb. 28, 2 daily. From 3rd Sat. in Apr. to Feb. 28: lake trout (18"), 2 daily; black bass 10", northern pike 20", perch, pickerel 14", 5 each daily.

GAME: Res. \$5.25, sporting \$8.25; non-res. \$16.25. Plus arch. stamp for deer \$1.10. Late Oct.-late Nov.: pheasant, 2 cocks daily, 6 per yr.; quail, 5 daily, 25 per yr. Deer: shotgun, 6 days in Dec., arch. part Nov., total 1 per yr. Opossum: late Sept.-late Dec., no lim. Grouse: part Oct.-Jan., 3 daily, 15 per yr. Black bear: late Oct.-late Dec., 1 per yr. Details: Div. of Fisheries & Game, 100 Cambridge St., Boston 02202.

MICHIGAN

FISH: Res. lic. \$3; non-res. \$6, 7-days \$5. Plus trout stamps. Brook, brown rainbow trout: Apr.-Nov., min. 7", 5 daily in lakes, 10 in streams, and total not over 10 lbs. Open most of yr.: lake trout, muskie (30" min.), 2 each inland waters; northern

pike (20" min.), walleye (13"), 5 daily inland waters, total 10 Great Lakes. Large, small mouth bass, mostly June-Dec., 10", 5 daily. Sturgeon: some areas, 42", Jan.-Feb., 2 per yr.

GAME: Res. small game \$3.10, deer \$5.10, arch-deer \$5.10, bear \$5.10; non-res. small game \$20.10, deer \$35.10, arch-deer \$15.10, bear \$25.10. Bear: Upper Peninsula only, part Sept.-part Nov., 1 per yr. Deer: firearms, last half Nov., 1 male, 3" antlers; arch., Oct., part Nov., Dec., 1 either sex. Season differs in Upper and Lower Penin.: rabbits, ruffed grouse, 5 daily, pheasants 2 daily. Details: Dept. of Conservation, Lansing 48926.

MINNESOTA

FISH: Res. lic. \$2.25, hus.-wife \$2.75; non-res. \$5.25, hus.-wife \$9, 3-days \$3. Mid May-mid Feb.: northern pike, 3 daily; walleye, sauger, total 6 daily; muskie, 1 daily, min. 30". June 1-mid Feb.: large, small mouth bass, 6 daily. May-mid Sept.: lake trout, 3 daily. Season by areas: trout. No closed seas: catfish, 5 daily.

GAME: Res. small game \$3, arch.-deer \$5, gun-deer \$5; non-res. small game \$26, arch.-deer \$10.25, gun-deer \$50.25. Deer: gun, 9 days in Nov., some areas; arch., Oct. and part-Dec., some areas; total 1 per yr. Part Oct., part Nov.: partridge, ruffed grouse, sharp-tail grouse, male pheasant, 3 each daily. Details: Dept. of Conservation, Centennial Office Bldg., St. Paul 55101.

MISSISSIPPI

FISH: Res. lic. \$3, 3-days \$1, fish-game \$5; non-res. fish \$6, 3-days \$1.50. No closed seas, no length lim. Daily lim.: black bass 15; sauger 15; striped bass, crappie 30 each; sunfish 50; total 75.

GAME: Res. \$3.50, plus deer and turkey \$2, arch.-deer \$3; non-res. (all game) \$25 plus \$2 deer and turkey, 3-days (no deer, turkey) \$6. Bobwhite: Dec.-mid Feb., 10 daily. Rabbit: part Oct.-part Feb., 8. Squirrel: part Oct.-part Jan., 8. Turkey: part Mar., part Apr., mostly 1 gobbler daily, 3 per lic. yr. Deer (area restrictions): gun-arch., parts of Nov., Dec., Jan., 1 buck with 4" antlers per seas; arch., part Oct.-part Nov., 1 either sex per seas. Details: Game & Fish Commission, Box 451, Jackson 39205.

MISSOURI

FISH: Res. lic. \$4.30, fish-game \$7.80; non-res. \$6.30, 14-days \$4.30. Plus trout permit \$2.30. No closed seas. except black bass, some areas (closed Mar. 1-May 29) and walleye, sauger, some areas (closed Mar. 15-Apr. 15). Daily lim.: black bass, in streams 6, in impoundments 10; white, rock, yellow, striped bass, 15; channel, blue cat, 10; flat-head cat 5; walleye 4; crappie 30; trout, kokanee, 5; muskie 1; pike 2.

GAME: Res. \$4.30, arch.-deer \$5.30, firearms-deer \$5.30, turkey \$5.30; non-res. small game \$20.30, turkey \$25.30, firearms-deer \$25.30, arch. \$10.30. Deer: firearms, 5 days Nov., 7 days Dec., 1 per yr.; arch., opens Oct. 1, 1 per yr. Rabbit: May 30-Mar. 1, 10 daily. Squirrel: May 30-Dec. 31, 6 daily. Pheasant: some areas only, Nov. 10-Dec. 10, 1 male daily. Turkey: 1 male per yr. Details: Missouri Conservation Commission, Jefferson City 65101.

MONTANA

FISH: Res. lic. \$4; non-res. \$15, 6-days \$5. General seas. mid May-late Nov.; some areas open all yr., some closed all yr. General daily lim.: trout, char, grayling, total of 10, total 10 lbs.; whitefish, 20; walleye, sauger, northern pike, bass, total of 15, total 15 lbs.; kokanee salmon, 10. No lim. on other fish.

GAME: Res. (fish, birds, 1 deer, elk, black bear) \$20, spec. licenses \$3-\$25; non-res. (fish, birds, 2 deer, 1 elk, 1 black bear) \$150, spec. licenses \$10-\$50. Deer, elk, grizzly: late Oct.-late Nov., 1 each per yr. (some areas 2 deer). Black bear: mid Mar.-late Nov., 1 per yr. Special seas., drawings for antelope, mt. goat, bighorn, moose. Details: Fish & Game Dept., Helena 59601.

NEBRASKA

FISH: Res. lic. \$3.50, fish-game \$7; non-res., \$6, 5-days \$2.50. No closed seas. except spec. areas. Daily lim.: trout 7; large, small mouth bass, total 10; walleye and sauger, total 8; channel catfish 10, fathead 4, northern pike (24" min.) 6, paddle-fish 2, bait minnows 100; others, no lim.

GAME: Res., small game \$4, deer \$10, antelope \$10, turkey \$5; non-res., small game \$25, deer \$25, antelope \$25, turkey \$15. Plus game bird stamp \$1. Pheasant: early Nov.-mid Jan., 3 cocks daily.

Quail: early Nov.-mid Jan., 6 or 8 daily, by region. Grouse: part Sept., Oct., Nov., 3 daily. Deer: firearm, 9 days in Nov.; arch., parts of Oct., Nov., Dec., 1 daily, 1 total in possession (including storage). Turkey: 9 days in Nov., 1 daily, 1 in poss. Details: Game Commission, Lincoln 68509.

NEVADA

FISH: Res. lic. \$5; non-res. \$10, 5-days \$3.50. No closed seas. (local exceptions). Trout, char, salmon, whitefish, 10 daily; other game fish, total 15 daily, except no lim. on yellow perch, crappie, sunfish, bluegill, Sacramento perch.

GAME: Res. \$5; non-res. \$35. Plus spec. fees for various big game. Most big game hunting restricted by areas, quotas, drawings. Antelope, elk, for res. only. Details: Fish & Game Commission, Box 10678, Reno 89510.

NEW HAMPSHIRE

FISH: Res. lic. \$4.50, fish-game \$7; non-res. \$8.75, 15-days \$5.75. Early May-Oct. 15: Brown, rainbow trout, 10 fish or 5 lbs. daily; golden trout, 5 fish or 5 lbs. daily. No closed seas: bass, 5 daily; pickerel, 10 or 10 lbs. daily; bullhead, 40 daily; walleye, min. 12", 10 lbs. daily; white and yellow perch, no lim.

GAME: Res. \$4, arch., \$3; non-res. \$25.25, arch., \$10. Deer: part Nov.-Dec. 1; arch., Oct.-part Dec.; 1 per yr. Ruffed grouse: Oct. 1-Dec. 1, 4 daily, 25 per yr. Pheasant: Oct., 2 daily, 10 per yr. Gray squirrel: Oct.-part Nov., 5 daily. Hare (3 daily), rabbit (5 daily), Oct. 1-Mar. 15, total 5 daily. Bear: Sept. 1-Dec. 3, no lim. Details: Fish & Game Dept., Concord 03301.

NEW JERSEY

FISH: Res. lic. \$4.15, trout stamp \$2; non-res. \$7.15, 3-days \$3.65, trout stamp \$5. Trout: closed seas. usually Mar.-part Apr., 6 daily, some areas fly only. No closed seas. in unfrozen waters: small, large mouth bass, min. 9", total 5 daily; pike-perch (min. 12"), pickerel, 10 each daily. No restrictions: rock, white, calico bass; white, yellow perch; crappie, sunfish, catfish, carp, eels.

GAME: Res. \$5.15, arch. \$5.15; non-res. \$15.15, arch. \$15.15. Usual seas: Deer: arch., Oct.-part Nov., 1 per seas. either sex; firearms or arch., 1 wk. in Dec., 1 per seas. antler min. 3". Bear: arch., Oct.-part Nov., firearm or arch., 1 wk. in Dec., 1 per seas. Pheasant: part Nov., part Dec., 2 male daily. Parts of Nov., Dec., Jan., Feb.; 7 quail, 3 grouse, 5 squirrel, 4 cottontail rabbits, 1 hare daily. Details: Div. of Fish & Game, Box 1809, Trenton 08625.

NEW MEXICO

FISH: Res. lic. \$5.50, 1-day \$2, hunt-fish \$12; non-res. \$10, 5 days \$5.25, 1-day \$2. General rules: Trout: early May-Nov. 30, north of Highway 66; all yr. so. of 66; 12 daily. No closed seas: black bass 12 daily, walleye 12, northern pike (min. 18") 6, catfish 15, crappie 40, white bass 40. No lim.: perch, bullheads, bluegills, sunfish.

GAME: Res. deer-bear-turkey-squirrel \$7.50, big game-birds \$9, birds \$5, antelope \$10, elk \$15, sheep \$20; non-res. deer-bear-turkey-squirrel \$50.25, sheep \$100, arch., deer \$15, birds \$17, antelope \$40, elk \$50. Fall seasons by areas: deer, bear, turkey, several weeks; antelope 2 days; elk 9 days; bag lim., 1 each per yr. Prairie chicken: 2 days, 4 per yr. Coyotes, mt. lion, fox: no closed seas. Details: Game & Fish Dept., State Capitol, Santa Fe 87501.

NEW YORK

FISH: Res. lic. \$3.25, fish-game \$5.75; non-res. \$5.50, 6-day \$4.25. Apr. 1-Sept. 30: trout, any size, 10 daily; lake trout, landlocked salmon, min 15", 3 trout, 2 salmon daily. Black bass: June 21-Nov. 30, 10", 6 daily. May 1-Mar. 1: walleye any size, pickerel 12", northern pike 18", 10 each daily. Rock and white bass, sunfish, yellow and white perch, no closed seas, no lim. Local exceptions to most rules.

GAME: Res. \$3.25, deer-bear \$3.25; non-res. \$10.75, plus deer-bear \$10. Arch. stamp (deer-bear) \$3.25. Small game upstate usually opens early Oct.; squirrel 5 daily, ruffed grouse 4, pheasant 2, rabbit 6, raccoon (no lim.), quail 4, L. I. usually month later, dif. lims. Deer: Oct. 25-1st Tues. Dec., north zone; 3rd Mon. Nov.-1st Tues. Dec., south zone. Bear: same as deer, north zone, part Nov.-part Dec. in some other counties; 1 deer, 1 bear per yr., no seas. L. I. Details: Conservation Dept., Albany, N. Y. 12226.

NORTH CAROLINA

FISH: Res. lic. \$4.25 (statewide), \$1.65 (co.), fish-game \$6.25, plus mt. trout waters \$1.25; non-res. \$8.25, 5-days \$3.75, 1-day \$1.65, plus mt. trout \$3.25. Trout: part Apr.-part Sept., 7 daily. No closed seas.: muskie, 2 daily, min. 26"; small, large mouth, spotted bass, 8 total daily, min. 10"; walleye, sauger, 10", 8 daily. Kokanee salmon, part Nov.-part Sept., 7 daily. Others, no closed seas.

GAME: Res. \$4.25 (statewide), \$1.65 (co.); non-res. \$22, 6-days \$17.75. Bear: mostly Oct. 18-Jan. 1, 1 daily, 2 per seas. Deer: seas. varies by areas, mostly parts of Oct., Nov., Dec.; 1 male with antlers daily, 2 per seas. Late Nov.-mid Feb.: quail, 8 daily, 100 per seas.; turkey, 1 daily, 2 per seas.; pheasant, no. lim. some areas, no open seas others. Mid Nov.-mid Feb.: raccoon, 1 daily, 20 per seas.; rabbit, 5 daily, 75 per seas.; opossum, no lim. Details: Wildlife Resources Commission, Box 2919, Raleigh 27602.

NORTH DAKOTA

FISH: Res. lic. \$3; non-res. \$5, 7-days \$2. Early May to late Mar. Daily lim.: large or small mouth bass, trout (except some areas), walleye, sauger, 5 each daily; pike 3, muskie 1. No seas. or lim.: catfish, sunfish, etc. Some ice fishing.

GAME: Res. small game \$2, deer-gun \$6, deer-arch. \$6; non-res. small game \$25, deer-gun \$50, deer-arch. \$25; other spec. permits. Deer: gun, 10 days in Nov., 1 per yr.; arch., part Aug.-part Nov., part Dec., 1 only. Partridge: part Sept.-part Dec., 4 daily, 12 seas. Game & Fish Dept., Bismarck 58501.

OHIO

FISH: Res. lic. \$4.35; non-res. \$6.35, 15-days \$4.35. No closed seas., no min. length or bag limits; some exceptions. Ice fishing permitted.

GAME: Res. \$4.35; non-res. \$20.35. Plus deer permit \$5.35. Deer (1 per seas.): gun, by zones, 2-6 days Dec.; arch., part Oct.-part Dec. Quail (6 daily), pheasant (2 daily), partridge (2 daily): part Nov., part Dec., part Jan. Rabbit (4 daily), mid Nov.-late Jan. Ruffed grouse (3 daily), mid Oct.-late Feb. Details: Natural Resources Dept., Wildlife Div., Columbus 43212.

OKLAHOMA

FISH: Res. lic. \$3.25, fish-game \$6; non-res. \$3.25. No closed seas. except some areas. No min. length except walleye, sauger 15". Daily lim.: black bass, 10; trout 6, catfish 15, walleye 8, crappie 37; rock bass, no lim.

GAME: Res. \$3.25; non-res. small game \$15, big \$25. Deer: gun, 9 days in Nov., 1 buck; arch., 30 days Oct. 19-Nov. 17, 1. Quail: mid Nov.-mid Jan., 3 days each wk., 10 daily. Turkey: 9 days in Apr., 1 tom; 5 days in Nov., 1 tom. Pheasant: some counties only. Details: Wildlife Conservation Dept., 1801 No. Lincoln Blvd., Oklahoma City 73105.

OREGON

FISH: Res. lic. \$6, fish-game \$10, non-res. \$15, 10-days \$7, 1-day \$1.50. Plus salmon-steelhead card, \$1. No closed seas., sunfish, perch, crappies, catfish (100 daily, total 50 lbs.), black bass (12 daily, only over 17"), shad (10 daily), sturgeon (3 daily, 36"-72"). Late Apr.-Oct. 31 most areas: steelhead and salmon under 20", trout, 10 daily, only 5 over 12"; steelhead and salmon over 20", 2 daily; also, winter seas. by areas.

GAME: Res. \$5; non-res. \$35. Plus antelope (res. only), deer, elk tags and fees. Deer: part of Oct. 1. Elk: part of Nov., 1. Bear: most areas no lim. Blue, ruffed grouse: part Oct., 3 daily. Pheasant: part Oct.-part Nov., 2 cocks daily. Details: State Game Commission, 1634 S.W. Alder St., Portland 97208.

PENNSYLVANIA

FISH: Res. lic. \$5.20; non-res. \$9.70, 5-days \$5.20. Trout: mostly part Apr. to part Sept., min. 6", 6-8 daily. Small, large mouth bass: mid June to mid Mar., min. 9", total 6 daily. Pickerel, walleye: early May-mid Mar., min. 15", 6 each daily. Northern pike: early May to mid Mar., min. 24", 2 daily. Spec. rules for winter fishing.

GAME: Res. \$5.20; non-res. \$25.35, 3-days (regulated shooting grnds.) \$3.15. Bear: 6 days late Nov., 1 per seas. Deer: antlered, 2 wks. early Dec.; no antlers, 3 days in Dec.; arch., either sex, Oct., late Dec.-early Jan.; total 1 deer. Small game seas. opens late Oct.: turkey, 1 per seas.; ruffed grouse, 2 daily, 10 per yr.; squirrels, 6, 30; rabbits, 4, 20; male pheasant, 2, 8; quail, 4, 20. Details: Penn. Game Commission, P. O. Box 1567, Harrisburg 17120.

RHODE ISLAND

FISH: Res. lic. \$3.25; non-res. \$7.25, 3-days \$3.25. Large, small mouth bass: Apr. 20-Feb. 28, 6 daily. Pickerel, same, min. 12", 10 daily. Trout: Apr. 20-Nov. 30, 6 daily; Dec. 1-Feb. 28, 2 daily. No closed seas., no lim.: yellow, white perch; sunfish, bullhead, carp, striped bass (min. 16").

GAME: Res. \$3.25, deer \$5; non-res. \$10.25, deer \$20. Deer: arch., part Oct. and part Dec.-Jan., 1 per seas.; shotgun 6 days Dec., 1 per seas. Partridge (2 daily), pheasant (2): parts Oct., Nov., Dec., Jan. Fox, woodchuck: no lim. Raccoon: Oct. 10-Jan. 31, 2 per night. Details: Dept. of Natural Resources, Veterans Memorial Bldg., Providence 02903.

SOUTH CAROLINA

FISH: Res. lic. \$1.10; non-res. \$10.25, 10-days \$3.10. Extra fees, some lakes. No closed seas. Daily lim.: bass, rockfish, trout, total 10 plus 25 other game fish; exceptions in some areas.

GAME: Res. \$4.25 (state), \$1.35 (co.); non-res. \$22.25, 3-days, \$11.25. Most areas, late in yr.: turkey, 2 gobblers daily, 5 per seas.; deer 1 to 5, by areas, per seas. Quail: most areas Thanksgiving to Mar. 1, mostly 10 daily. Squirrels: mostly Sept. 15-Feb. 15, mostly 10 daily. Fox: no closed seas. Details: Div. of Game, Box 167, Columbia 29202.

SOUTH DAKOTA

FISH: Res. lic. \$3; non-res. \$6, 5-days \$2. No closed seas. most of state. Daily lim., most of state: largemouth bass, catfish, sturgeon, 10 each; walleye, sauger, total 8; northern pike, 6; rock bass, crappie, perch, bluegill, sunfish, 50 each; trout, 5 in E, 12 in W.

GAME: Res. 50 cents, turkey \$2, big game \$7.50, small game \$2; non-res. 50 cents, big game \$35, small game \$25, turkey \$5. Turkey: mid Oct.-mid Nov., 1 per seas. Deer: gun, part of Nov., 1 buck only; arch., Oct. or Nov., part Dec., by areas, 1 per seas. Pheasant: late Oct. by areas, 2 male daily some areas, 3 others. Grouse, partridge, early fall, some cos., 3 daily. Details: Dept. of Game, Fish & Parks, Pierre 57501.

TENNESSEE

FISH: Res. lic. fish-game \$5; non-res. fish \$5, 10-days \$2. Plus trout \$2. No closed seas. Daily lim.: black bass 10, walleye 5, sauger 15, trout (min. 6" for brook trout) 7, muskie (min. 25") 3; crappie, pickerel, bluegill, white-yellow bass, no lim.

GAME: Res. fish-game \$5; non-res. game \$15, 3-days \$6. Plus big game \$5. Bear: some cos., part Oct., 1 per yr. Turkey: part Apr., part May, 1 gobbler per yr. Deer: arch., part Oct., 1 either sex; gun-arch., part Nov., part Dec., 1 buck with antlers per yr. Rabbit: late Nov.-Feb. 15, 5 daily. Quail: late Nov.-Feb. 15, 8 daily. Ruffed grouse: Nov.-Feb., 3 daily. Bear, boar, Oct., 1 each. Details: Game & Fish Commission, 706 Church St., Nashville 37203.

TEXAS

FISH: Res. or non-res. lic. \$2.15. No closed seas. General daily lim.: black bass, 15, min. 7", not more than 10 over 11"; white bass 25, white perch 25, catfish 25. Some exceptions.

GAME: Res. \$3.15; non-res. \$25. Seas. by counties. Quail, 12 daily; squirrel, 10; javelina (pecary), 2 per seas. Deer: mostly part Nov.-Dec., lim. per yr. varies by areas, 1 to 4. Turkey: mostly late Nov.-Dec., 2 per yr. Bear: some areas, late Nov.-Dec., 1 per yr. Details: Parks & Wildlife Dept., Austin 78701.

UTAH

FISH: Res. lic. \$5; non-res. \$15, 2-days \$2.50. General seas., June-Nov. 30. Daily lim.: trout 8, black bass 10, white bass 15, grayling 15, crappie 10, walleye 5, catfish 25. No lim. on length.

GAME: Res. fish-game \$10, deer \$5, birds \$4.60; non-res. deer \$50, birds \$20. Deer: late Oct., 1 only; arch., earlier seas., 1. Seas. opens: pheasant, quail, early Nov.; grouse, partridge, late Sept. Elk, moose, antelope, buffalo, big horn: res. only, drawings for permits. Details: Fish & Game Div., 1596 West North Temple, Salt Lake City 84116.

VERMONT

FISH: Res. lic. \$1.75, fish-game \$3.50; non-res. \$6.25, 3-days \$2.25, 14-days \$4.25, fish-game \$26. Last Sat. in Apr.-Sept. 30: trout, min. 6", 5 lbs. 12 fish daily; lake trout, salmon, min. 15", total 2 daily. Mid June-Nov. 30, black bass, min. 10", 10 daily. Last Sat. in Apr.-Mar. 15: walleye, pike-

perch, min. 12", total 10 daily; muskie, northern pike, pickerel, min. 12", total 10 daily.

GAME: Res. \$2.25, arch. \$1; non-res. \$22, small game \$10.50, arch. \$3.50. Deer: gun-arch., 16 days starting 2nd Sat. in Nov., min. antler 3"; arch., 16 days starting 2nd Sat. in Oct.; 1 per seas. Part Sept.-part Nov.: rabbit, 3 daily, gray squirrel 4, partridge 4, chukar 4, pheasant 2, quail 4. Turkey, Oct., 1. Details: Fish & Game Dept., Montpelier 05602.

VIRGINIA

FISH: Res. lic. \$3.50 (state), \$2 (co.); non-res. \$10, 3-days \$1.50; plus trout, stocked waters, res. \$1, non-res. \$5. Seas. all year except trout (mostly early Apr.-Dec. 31, 8 daily). Large, small mouth, spotted bass; total 8 daily. Pickerel, walleye, 8 daily. Northern pike, muskie; min. 26", 2 daily. Crappie, rock bass, sunfish, total 25 daily.

GAME: Res. \$3.50 (state), \$2 (co.); non-res. \$15.75. Plus deer-bear-turkey: res. \$2; non-res. \$10. Deer: seas. by areas, 1 (some areas 2) per yr. Bear: mostly mid Nov.-late Dec., 1 per seas. Quail (8 daily, 125 per yr.), grouse (3 daily, 15 per yr.), rabbit (6 daily, 75 per yr.): mostly mid Nov.-Jan. 30. Turkey: mostly mid Nov.-mid Dec., 2 per yr. Details: Commission of Game & Inland Fisheries, Box 1642, Richmond 23213.

WASHINGTON

FISH: Res. lic. \$5.50 (state), \$4 (co.), fish-game \$9; non-res. \$15, 7-days \$4. General summer seas.: mid. Apr.-Oct. 31; winter, Dec.-Mar. Catfish, perch, crappie, sunfish: no catch lim., no min. size. All other game fish, 6". Daily lim.: bass, 20 lb.; trout, 6", 12; steelhead 2, whitefish 15.

GAME: Res. \$5.50; non-res. \$35. Plus deer, res. \$2, non-res. no extra; res. elk \$7.50, non-res. elk \$25; res. goat \$7.50, non-res. \$25. Pheasant: part Oct.-part Nov., 3 cocks daily. Quail: part Oct.-late Jan. in east, part Oct.-early Nov. in west, 10 daily. Deer: mostly part Oct., 1 buck with antlers. Elk: part Nov., 1 bull with antlers; some areas, 1 either sex. Bear: mostly Sept.-Nov., no lim. in west; 1 in east. Mt. goat, sheep: controlled hunts by drawing, 1 per yr. Cougar, 1 per yr. Details: Dept. of Game, 600 N. Capitol Way, Olympia 98502.

ALBERTA

FISH: Res. (Canada) lic. \$3; non-res. \$10. No closed seas. Daily lim.: trout, grayling, total 10; pike, walleye, sauger, goldeye, total 15; kokanee 10, lake trout 5, perch no lim. No min. lengths.

GAME: Res. \$2; non-res. Canadian big game \$75; alien big game \$150. Plus special fees for most game. Spring and fall seas.: grizzly, 1 only; black or brown bear 2. Fall seas. by area units: 1 only per yr. of deer, elk, moose, caribou; bighorn, 1 male per yr.; mt. goat, 1 per yr.; partridge, 7 daily; ptarmigan, blue grouse, 5 each daily; sharp-tail, spruce, ruffed grouse, varied lims. by zones. Details: Fish & Wildlife Div., Dept. of Lands & Forests, Edmonton.

BRITISH COLUMBIA

FISH: Res. (Canada) lic. \$3; alien \$10, 3-days \$3.50. Most areas no closed season. Daily lim.: northern pike, walleye, bass, 10 each; salmon 2 over 20", total 8; kokanee 25. Only 40 steelhead per yr. (alien \$5).

GAME: Res. \$4; non-res. Canadian \$15; alien \$25. Plus big game tag fees. Plus non-res. big game trophy fees for all big game killed. Seasons set by areas. Seas. lim.: grizzly, elk, caribou, moose, sheep (ram only), 1 each; mt. goat mostly 2; deer 2 some areas, 3 others; black bear 2. Daily lim.: grouse, mostly 15; sharp-tail grouse mostly 6; partridge 10; quail mostly 15; pheasant mostly 3 male. Details: Fish & Wildlife Branch, Dept. of Recreation & Conservation, Victoria.

MANITOBA

FISH: Res. (Canada) lic. \$2.25; others \$6.50. No min. lengths. Mostly mid May-Mar. 31: small, large mouth bass, 8 daily; muskie 1; walleye, northern pike, sauger, 8 each; brown, lake trout, 5 each; rainbow, 10. Split seas.: brook trout, 2 or 10.

GAME: Res. (Can.) game birds \$2.25; others \$25. Deer: res. \$5, res. (Can.) \$25, others \$40. Moose: res. \$15, res. (Can. reciprocal) \$25, others \$100. Deer: mostly Nov., 1 only. Moose: late Sept.-Nov. 30, 1 per seas. Ptarmigan: Sept.-mid Feb., 10 daily. Sharp-tail grouse (3-6 daily), partridge (2 daily); both mostly part of Oct. Ruffed, spruce grouse; fall, by areas, 6 or 8 daily. Details: Dept. of Mines & Natural Resources, Norquay Bldg., Winnipeg 1.

WEST VIRGINIA

FISH: Res. lic. \$3.25, fish-game \$5.25; non-res. \$10.25, 6 days \$3.25. Open seas. all yr. Daily lim.: trout, black bass, channel catfish, 8 each. Muskie, no lim., min. 26". Others, no lim.

GAME: Res. \$3.25; non-res. \$20.25, arch. only and fish \$5.25. Turkey: 1 in fall seas, 1 in spring. Bear (gun): part Nov., part Dec. Deer and bear (bow): Oct. 12-Dec. 31. Deer (gun): Nov. 25-Dec. 7. Lim.: deer 1 per seas.; bear, 1 per yr. Grouse: Oct. 12-Feb. 23, 4 daily. Raccoon: Oct. 12-Jan. 26, 2 nightly. Details: Dept. of Natural Resources, Charleston 25305.

WISCONSIN

FISH: Res. lic. \$3; non-res. \$6, 15-days (hus.-wife) \$7. Seasons mostly start late spring, end late winter. Daily lim.: bass, walleye, sauger, northern pike, mostly 5; muskie 1, min. 30"; trout (mid May-mid Sept.) mostly 10, min. 6". No closed seas., no min. length: white, yellow, rock bass, no lim. most areas; crappie, perch, sunfish, total 50 daily.

GAME: Res. small game \$4, deer \$5; non-res. \$25, including deer \$50, arch.-deer \$15. Deer: fire-arms, seas by zones, mostly 1 wk. in Nov.; 1 antlered buck per seas. most areas. Bear: fire-arms, same seas., 1 per yr. Arch.: parts of Sept., Oct., Nov., Dec.; 1 deer either sex, 1 bear. Ruffed grouse: Oct. in no., Oct.-part Dec. in so., 3 daily. Pheasant: part Oct.-part Nov., 2 males daily (1 daily 1st 2 days). Details: Conservation Dept., Box 450, Madison 53701.

WYOMING

FISH: Res. lic. \$3; non-res. \$12, 5-days \$4. Some areas all year. Daily lim. mostly 10 fish or 8 lbs.

GAME: Res. spec. fees \$2-\$15 for various game; non-res. small game \$5, general lic. \$125, spec. fees \$15-\$75. No closed seas.: bobcat, coyote, mt. lion, lynx. Other seas. mostly in fall by areas. Lic. quotas on antelope, elk; moose, mt. sheep, 1 every 3 yrs. Birds: fall seas. bag lim. by areas. Details: Game & Fish Commission, Box 1589, Cheyenne 82001.

CANADA

NEW BRUNSWICK

FISH: Res. lic. (hus.-wife) \$2.50, including salmon \$5; non-res. \$7.50, including salmon \$25.50. Also, spec. licenses. Salmon: mostly mid May to early fall, 4 daily. Trout (20 daily), landlocked salmon (10 daily, min. 14"), mid Apr.-mid Sept. Black bass: June 16-Sept. 30 (15 daily, min. 10"). Pickerel, perch, no lim.

GAME: Res. \$4.50, birds-rabbit \$2.50; non-res. \$35.50, birds-only \$25.50. Deer: Oct.-Nov., 2 per yr. either sex. Bear: Apr. 1-Aug. 30, Oct. 1-Nov. 30, 2 per seas. Grouse: Oct.-part Nov., 6 daily. Moose (res. only, \$15 lic.), 1 per yr. Details: Fish & Wildlife Branch, Natural Resources Dept., Fredericton.

NEWFOUNDLAND

FISH: Res. salmon lic. \$5; non-res. \$30, 14-days \$20, 1-day \$5. Non-res. trout \$5. Salmon: May 24-Sept. 15, 4 daily, 21 per wk., art. fly only. Rainbow trout, June 1-Sept. 15; other "trout" (including char, northern pike) in certain rivers, May 24-Sept. 15, elsewhere Jan. 15-Sept. 30; 24 daily or 10 lbs. (only 4 lake trout daily).

GAME: Res., moose \$15, caribou \$15, bear \$10, ptarmigan \$2, hare \$1; non-res., moose \$75, caribou \$100, bear \$10, ptarmigan \$5, hare \$5. Bear, moose: seas. by areas, 1 each. Caribou: restricted no. of lic., 1 stag. Hare: Oct. 1-Dec., no lim. Ptarmigan: late Sept.-Nov., 50 per seas. Details: Fish-Federal Dept. of Fisheries, Box 5667, St. John's; Game-Dir. of Wildlife, Dept. of Mines, Agriculture & Resources, St. John's.

NOVA SCOTIA

FISH: Res. lic. \$1; non-res. \$5. Atlantic salmon: mostly late spring to fall, 3 daily, 15 per wk. Trout: mid Apr.-mid Sept., 15 daily (speckled, brown, 6" min.; gray 15"; rainbow, May 15-Oct. 31, 8"). Smallmouth bass: July 1-Oct. 31, 10 daily, min 9".

GAME: Res. big game \$4, small game \$2, moose \$15; non-res. small game \$15, big game \$40. Pheasant: mostly Oct.-Nov., 2 male daily. Partridge: same seas., 5 daily. Deer: mid Oct.-late Nov., 1 per seas. some areas, 2 in others. Bear: same seas., no lim. Moose: res. only, by lottery, late Sept., 1 only. Details: Conservation Div., Dept. of Lands & Forests, Box 516, Kentville.

ONTARIO

FISH: Res. (of Ont., Man., Sask.) lic. \$3.25 (needed in parks and Lake Superior only); non-res. \$6.50, 3-days \$3.25. Black bass: mostly late June to late Fall, 6 daily. Pike: all yr., 6 daily. Maskinonge: all yr., 2 daily, min. 28". Trout, mostly all yr.: rainbow, brown, 5 each daily; brook, 15 or 10 lbs. daily. Sturgeon: mostly June 15-May 14, 1 daily.

Game: Res. (of Ont., Man., Sask.) general \$3, bear-deer \$10, bear-moose \$15, spring bear (Jan.-June) \$5.25; non-res. bear-birds-small game \$21, including deer \$36, including moose \$101, spring bear (Apr.-June) \$10.50. Black bear: Sept. 1-June 30, no lim. Fox, raccoon; no closed seas., no lim. Fall seas. by areas: deer, moose, total 1 each; ruffed, spruce grouse, total 5 daily; sharptail grouse, ptarmigan, total 5 daily; partridge 8; squirrel 10. Details: Dept. of Lands & Forests, Parliament Bldgs., Toronto.

PRINCE EDWARD ISLAND

FISH: Res. lic. \$2; non-res. \$3. Speckled trout: Apr. 15-Sept. 30, 20 daily. Rainbow trout: some lakes June 1-Oct. 31, 20 daily; elsewhere included in speckled trout seas. and lim. Salmon: May 15-Oct. 31, 6 daily, 21 per wk., art. fly only.

GAME: Res. \$2; non-res. \$10. Ruffed grouse: Oct.-Nov., 3 daily. Hare: mid Nov.-mid Jan., 5 daily. Fox: June-Feb., no lim. Details: Fish & Wildlife Div., Dept. of Fisheries, Charlottetown.

QUEBEC

FISH: Res. lic. \$1.10 (lakes, salmon rivers); non-res. \$15.50 (all fish), \$5.25 (3-days), \$5.25 (no salmon). Large, small mouth bass: late June to freeze-up, mostly 10 each daily; Atlantic salmon: summer, 2-6 daily, min. 12". Rainbow, brown, lake trout: late Apr.-mid Sept., 6 each. Other trout: late Apr.-mid Sept., total 25 daily.

GAME: Res. small game \$3.25, spec. big game fees \$2.10 to \$12.50; non-res. small game \$15.50, deer-bear \$25.50, all game \$101. Deer, moose: by areas, part Sept., part Oct., 1 each per yr. Grouse, partridge: late Sept.-late Nov., 5 daily total. Bear: no lim. Details: Dept. of Tourism, Fish & Game, Parliament Bldgs., Quebec City.

SASKATCHEWAN

FISH: Res. (Canada) lic. \$2; others \$10, no-trout-or-graying waters \$5. Mostly May 4-Apr. 15: northern pike, pickerel, goldeye, whitefish, sauger, grayling, 8 each daily; brook, rainbow, brown trout, total 5 daily; lake trout 5, sturgeon 1. July 20-Apr. 15: large mouth bass 5.

GAME: Res. (Canada) game bird \$3; non-res. \$26. Deer: res. \$6, res. (Can.) \$21, others \$36. Moose: res. \$10, res. (Can.) \$25, others \$100. Deer: mostly Nov., 1 per yr. (2 some areas). Moose: some areas 2 per seas., some areas 1. Bear: spring and fall seasons, 2 per yr., special fees. Partridge: part Sept.-part Nov., 6 daily. Same seas: ruffed, spruce grouse, 6 each daily; sharptail grouse 4-6 daily. Details: Dept. of Natural Resources, Regina.

Time of Tides at Points on Atlantic Coast

Source: Coast and Geodetic Survey, ESSA

See also Tides and Their Causes Page 294

To be added or subtracted from Time of Tides tables at New York City, as shown below.

H. M.			H. M.			H. M.			H. M.		
Annapolis, Md.,.....add	9	10	Marblehead, Mass.,.....add	2	40	Point Lookout, Md.,.....add	5	15			
Atlantic City, N. J.,.....sub	1	10	Miami Beach, Fla.,.....sub	0	20	Portland, Me.,.....add	2	30			
Baltimore, Md.,.....add	10	55	Nahant, Mass.,.....add	2	40	Portsmouth, N. H.,.....add	2	50			
Bar Harbor, Me.,.....add	2	10	New Bedford, Mass.,.....sub	0	55	Providence, R. I.,.....sub	0	55			
Beaufort, S. C.,.....add	0	30	Newburyport, Mass.,.....add	3	20	Richmond, Va.,.....add	8	45			
Block Is Hbr., R. L.,.....sub	1	05	New Haven, Conn.,.....add	2	45	Rockport, Mass.,.....add	2	35			
Boston, Mass.,.....add	2	40	New London, Conn.,.....sub	2	50	Salem, Mass.,.....add	2	45			
Bridgeport, Conn.,.....add	0	45	Newport, R. I.,.....sub	1	05	Sandy Hook, N. J.,.....sub	0	40			
Cape May, N. J.,.....sub	0	45	Norfolk, Va.,.....add	0	55	Savannah, Ga.,.....add	0	20			
Charleston, S. C.,.....sub	0	35	Old Pt. Comfort, Va.,.....add	0	20	Southport, N. C.,.....sub	0	30			
Gloucester, Mass.,.....add	2	35	Philadelphia, Pa.,.....add	6	00	Washington, D. C.,.....add	12	25			
Jacksonville, Fla.,.....add	1	25	Plymouth, Mass.,.....add	2	55	Wilmington, N. C.,.....add	2	05			

Tide Tables for 1969 (at New York City)

Time meridian 75° W. 0000 is midnight, 1200 is noon. All hours greater than 1200 are p.m. Heights are reckoned from the datum of soundings on charts of the locality which is mean low water.

Time and Height of High and Low Waters at the Battery—Eastern STANDARD Time

JANUARY			January (cont.)			January (cont.)			January (cont.)			February (cont.)			
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	
1 W	00 24 06 42 13 06 19 06	0.0 4.5 -0.2 3.4	9 Th	05 18 11 42 17 48	0.2 4.0 -0.1	17 F	01 00 07 24 13 54 19 54	-0.7 5.3 -1.0 4.2	25 Sa	01 18 08 12 14 06 20 24	4.1 0.4 3.4 0.2	2 Su	02 12 08 18 14 48 20 42	-0.1 4.6 -0.5 3.8	
2 Th	01 06 07 24 13 54 19 48	0.0 4.6 -0.3 3.5	10 F	00 24 06 06 12 24 18 30	3.8 0.3 3.8 0.0	18 Sa	02 00 08 12 14 42 20 42	-0.9 5.4 -1.2 4.4	26 Su	02 36 09 18 15 00 21 24	3.9 0.5 3.1 0.3	3 M	02 48 08 54 15 18 21 18	-0.2 4.6 -0.6 3.9	
3 F	01 48 08 00 14 30 20 30	0.0 4.6 -0.4 3.5	11 Sa	01 06 07 24 13 18 19 30	4.0 0.4 3.7 0.1	19 Su	02 48 09 06 15 30 21 36	-1.0 5.3 -1.3 4.4	27 M	03 36 10 12 16 00 22 18	3.9 0.5 3.0 0.4	4 Tu	03 24 09 24 15 54 21 54	-0.3 4.5 -0.5 4.0	
4 Sa	02 30 08 36 15 12 21 06	0.0 4.6 -0.4 3.5	12 Su	02 06 08 54 14 18 20 54	4.1 0.4 -3.5 0.0	20 M	03 42 10 00 16 12 22 30	-0.9 5.2 -1.2 4.5	28 Tu	04 30 11 06 17 06 23 06	3.9 0.3 3.0 0.3	5 W	03 54 10 00 16 18 22 24	-0.3 4.4 -0.5 4.1	
5 Su	03 06 09 12 15 48 21 48	0.0 4.5 -0.4 3.5	13 M	03 06 10 00 15 30 22 00	4.3 0.1 3.4 -0.1	21 Tu	04 30 10 48 17 00 23 24	-0.8 4.9 -1.0 4.4	29 W	05 30 11 54 18 00 23 54	4.0 0.1 3.1 0.3	6 Th	04 30 10 36 16 48 23 06	-0.2 4.2 -0.4 4.2	
6 M	03 42 09 18 16 18 22 30	0.1 4.4 -0.4 3.5	14 Tu	04 18 11 06 16 48 23 06	4.5 -0.1 3.5 -0.3	22 W	05 18 11 42 17 42	-0.5 4.5 -0.7	30 Th	06 18 12 42 18 48	4.2 -0.1 3.3	7 F	05 06 11 18 17 18 23 54	-0.1 4.0 -0.3 4.2	
7 Tu	04 06 10 24 16 48 23 06	0.1 4.2 -0.3 3.6	15 W	05 24 12 00 18 00	4.8 -0.5 3.7	23 Th	06 12 00 06 12 30 18 30	4.3 -0.1 4.1 -0.3	31 F	06 42 07 00 13 24 19 30	0.1 4.1 -0.3 3.5	8 Sa	05 48 12 06 17 54	0.1 3.8 -0.1	
8 W	04 42 11 00 17 18 23 42	0.2 4.1 -0.2 3.7	16 Th	06 00 06 24 13 00 19 00	-0.5 5.1 -0.8 3.9	24 F	01 00 07 06 13 12 19 24	4.2 0.2 3.8 0.0	FEBRUARY				9 Su	00 42 06 54 12 54 18 54	4.3 0.3 3.6 0.1

February (cont.)			March (cont.)			March (cont.)			April (cont.)			May (cont.)		
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.
10	01 36	4.3	3	01 48	-0.2	24	00 18	4.1	14	00 24	-0.4	5	04 42	-0.5
M	06 30	0.3	M	07 48	4.6	M	06 36	0.6	M	06 36	4.7	M	10 54	4.1
	14 00	3.4		14 12	-0.5		12 48	3.3		12 42	-0.5		16 36	0.0
	20 24	0.2		20 12	4.3		18 12	0.9		19 00	5.1		23 12	5.2
11	02 42	4.3	4	02 24	-0.4	25	01 06	3.9	15	01 12	-0.5	6	05 36	-0.3
Tu	09 48	0.2	Tu	08 24	4.7	Tu	07 48	0.8	Tu	07 18	4.7	Tu	11 54	4.1
	15 18	3.3		14 48	-0.6		13 42	3.1		13 24	-0.5		17 36	0.3
	21 48	0.1		20 42	4.5		19 42	1.2		19 42	5.3			
12	04 00	4.4	5	03 00	-0.5	26	02 00	3.8	16	02 00	-0.6	7	00 12	5.0
W	10 48	0.0	W	09 00	4.6	W	09 00	0.8	W	08 00	4.6	W	06 36	-0.1
	16 42	3.4		15 18	-0.6		14 42	3.0		14 06	-0.5		13 00	4.1
	22 54	-0.1		21 18	4.6		21 06	1.2		20 18	5.3		18 48	0.6
13	05 18	4.7	6	03 36	-0.6	27	03 00	3.7	17	02 42	-0.6	8	01 12	4.8
Th	11 48	-0.4	Th	09 36	4.5	Th	10 00	0.7	Th	08 42	4.4	Th	07 48	0.1
	17 48	3.7		15 48	-0.5		15 54	3.1		14 48	-0.4		14 00	4.1
	23 54	-0.4		21 54	4.7		22 06	1.0		21 00	5.2		20 12	0.6
14	06 18	4.9	7	04 12	-0.5	28	04 06	3.8	18	03 18	-0.4	9	02 18	4.6
F	12 42	-0.7	F	10 18	4.3	F	10 48	0.5	F	09 24	4.2	F	08 54	0.0
	18 48	4.1		16 18	-0.4		16 54	3.4		15 24	-0.1		15 00	4.3
				22 36	4.7		23 00	0.8		21 36	5.0		21 18	0.5
15	00 54	-0.7	8	04 54	-0.3	29	05 06	4.0	19	04 00	-0.2	10	03 18	4.5
Sa	07 12	5.2	Sa	11 00	4.0	Sa	11 36	0.2	Sa	10 06	3.9	Sa	09 48	-0.1
	13 36	-0.9		16 54	-0.2		17 42	3.7		15 54	0.1		16 00	4.5
	19 36	4.4		23 30	4.7		23 48	0.4		22 18	4.7		22 18	0.2
16	01 48	-0.9	9	05 42	-0.1	30	05 54	4.2	20	04 36	0.0	11	04 18	4.4
Su	08 00	5.3	Su	11 54	3.8	Su	12 18	0.0	Su	10 48	3.7	Su	10 42	-0.2
	14 24	-1.1		17 36	0.0		18 24	4.1		16 24	0.5		17 00	4.8
	20 30	4.7								22 54	4.5		23 12	0.0
17	02 36	-1.0	10	00 24	4.6	31	00 36	0.1	21	05 18	0.3	12	05 18	4.4
M	08 48	5.2	M	06 48	0.2	M	06 36	4.4	M	11 36	3.5	M	11 30	-0.2
	15 06	-1.2		12 54	3.6		12 54	-0.2		16 54	0.8		17 48	5.0
	21 12	4.8		18 36	0.3		19 00	4.5		23 36	4.2			
18	03 24	-1.0	11	01 24	4.4	APRIL			22	06 00	0.6	13	00 06	-0.1
Tu	09 36	5.0	Tu	08 18	0.4	1	01 18	-0.2	Tu	12 24	3.3	Tu	06 06	4.4
	15 48	-1.1		14 00	3.4	Tu	07 18	4.6		17 24	1.1		12 12	-0.2
	22 00	4.8		20 18	0.5		13 36	-0.4					18 30	5.2
19	04 06	-0.8	12	02 36	4.4	2	02 00	-0.5	23	00 24	4.1	14	00 48	-0.2
W	10 18	4.7	W	09 30	0.2	W	07 54	4.6	W	07 00	0.8	W	06 54	4.3
	16 24	-0.8		15 18	3.4		14 12	-0.5		13 18	3.2		12 54	-0.2
	22 48	4.7		21 42	0.4		20 12	5.1		18 18	1.3		19 12	5.3
20	04 48	-0.5	13	03 54	4.4	3	02 42	-0.6	24	01 12	3.9	15	01 36	-0.3
Th	11 06	4.3	Th	10 36	0.0	Th	08 30	4.6	Th	08 12	0.8	Th	07 36	4.2
	17 06	-0.5		16 36	3.7		14 48	-0.5		14 12	3.3		13 36	-0.1
	23 36	4.5		22 48	0.1		20 48	5.2		20 24	1.4		19 54	5.3
21	05 36	-0.1	14	05 06	4.6	4	03 18	-0.7	25	02 06	3.8	16	02 18	-0.3
F	11 54	4.0	F	11 30	-0.3	F	09 12	4.5	F	09 12	0.8	F	08 18	4.1
	17 48	-0.1		23 48	-0.3		15 24	-0.4		15 06	3.4		14 18	0.0
22	00 18	4.3	15	06 06	4.8		21 30	5.2		21 30	1.2		20 30	5.2
Sa	06 24	0.3	Sa	12 24	-0.6	5	04 00	-0.6	26	03 06	3.8	17	03 00	-0.2
	12 36	3.6		18 36	4.5	Sa	10 00	4.3	Sa	10 06	0.6	Sa	09 00	3.9
	18 30	0.3					16 00	-0.3		16 00	3.7		14 54	0.2
23	01 06	4.1	16	00 42	-0.5		22 18	5.1		22 24	0.9		21 06	5.0
Su	07 24	0.6	Su	06 54	5.0	6	04 48	-0.4	27	04 12	3.9	18	03 42	-0.1
	13 24	3.3		13 12	-0.8	Su	10 54	4.1	Su	10 48	0.4	Su	09 42	3.8
	19 30	0.6		19 24	4.8		16 42	-0.1		16 54	4.0		15 30	0.4
24	01 54	3.9	17	01 30	-0.8		23 12	5.0		23 12	0.5		21 42	4.8
M	08 36	0.7	M	07 42	5.1	7	05 36	-0.1	28	05 06	4.1	19	04 18	0.1
	14 18	3.0		13 54	-0.9	M	11 54	3.9	M	11 30	0.2	M	10 30	3.6
	20 36	0.8		20 06	5.0		17 30	0.2		17 42	4.5		16 06	0.7
25	02 48	3.7	18	02 18	-0.9	8	00 18	4.8	29	00 00	0.2	22	24	4.6
Tu	09 36	0.7	Tu	08 24	5.0	Tu	06 48	0.1	Tu	05 54	4.3	20	04 54	0.3
	15 18	2.9		14 36	-0.9		13 00	3.7		12 12	0.0	Tu	11 18	3.5
	21 42	0.8		20 48	5.1		18 48	0.5		18 24	4.9		16 30	0.9
26	03 48	3.7	19	03 00	-0.8	9	01 24	4.6	30	00 48	-0.2	21	23 06	4.4
W	10 36	0.5	W	09 06	4.8	W	08 06	0.3	W	06 42	4.4	W	05 36	0.5
	16 30	2.9		15 18	-0.8		14 06	3.7		12 54	-0.2		12 06	3.5
	22 36	0.7		21 30	5.0		20 18	0.6		19 00	5.2		17 06	1.1
27	04 54	3.8	20	03 42	-0.7	10	02 30	4.5	MAY				23 48	4.2
Th	11 24	0.3	Th	09 48	4.5	Th	09 18	0.2	1	01 30	-0.4	22	06 18	0.6
	17 30	3.2		15 54	-0.5		15 18	3.8	Th	07 24	4.5	Th	12 48	3.5
	23 30	0.5		22 12	4.9		21 36	0.4		13 36	-0.3		17 48	1.3
28	05 48	4.1	21	04 24	-0.4	11	03 42	4.4	2	02 18	-0.6	23	00 30	4.1
F	12 12	0.1	F	10 36	4.1	F	10 18	0.0	F	08 06	4.5	F	07 12	0.7
	18 18	3.5		16 30	-0.2		16 24	4.1		14 18	-0.4		13 36	3.6
MARCH				22 54	4.6		22 36	0.2		20 24	5.6		19 12	1.4
1	00 18	0.3	22	05 00	-0.1	12	04 48	4.5	3	03 06	-0.7	24	01 18	4.0
Sa	06 30	4.3	Sa	11 18	3.8	Sa	11 06	-0.2	Sa	08 54	4.4	Sa	08 18	0.7
	12 54	-0.2		17 00	0.2		17 24	4.5		15 00	-0.3		14 18	3.8
	19 00	3.8		23 36	4.4		23 30	-0.1		21 12	5.6		20 42	1.3
2	01 06	0.0	23	05 48	0.3	13	05 42	4.6	4	03 48	-0.7	25	02 12	3.9
Su	07 12	4.5	Su	12 06	3.5	Su	11 54	-0.4	Su	09 48	4.3	Su	09 06	0.6
	13 36	-0.4		17 30	0.5		18 12	4.8		15 48	-0.2		15 06	4.0
	19 36	4.1								22 06	5.4		21 42	1.0

May (cont.)			June (cont.)			July (cont.)			July (cont.)			August (cont.)		
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.
26 M	03 06 09 54 16 00 22 36	3.9 0.5 4.4 0.6	16 M	03 18 09 24 15 12 21 24	0.0 3.8 0.6 4.9	7 M	02 18 08 42 15 00 21 30	4.2 0.3 4.8 0.7	28 M	01 24 07 24 13 30 19 42	-0.4 4.6 -0.2 5.9	17 Su	04 30 10 48 16 48 22 48	0.2 4.7 0.5 4.5
27 Tu	04 12 10 42 16 54 23 24	4.0 0.3 4.7 0.3	17 Tu	04 00 10 06 16 48 22 00	0.0 3.7 0.7 4.7	8 Tu	03 12 09 36 15 54 22 24	3.9 0.4 0.8 0.6	29 Tu	02 18 08 18 14 24 20 36	-0.6 -4.9 -0.4 5.9	18 M	04 54 11 24 17 24 23 30	0.3 4.8 0.7 4.2
28 W	05 12 11 24 17 42	4.1 0.1 5.1	18 W	04 36 10 54 16 18 22 36	0.1 3.7 0.9 4.5	9 W	04 12 10 24 16 48 23 12	3.7 0.5 4.8 0.5	30 W	03 06 09 12 15 18 21 30	-0.8 5.0 -0.4 5.8	19 Tu	05 24 12 12 18 18	0.4 4.8 0.9
29 Th	00 18 06 06 12 12 18 30	0.0 4.2 -0.1 5.5	19 Th	05 06 11 36 16 54 23 12	0.3 3.7 1.0 4.4	10 Th	05 12 11 12 17 42	3.7 0.5 4.9	31 Th	03 48 09 06 15 06 21 24	-0.8 5.1 -0.3 5.5	20 W	00 24 06 06 12 06 18 48	4.0 0.6 4.9 1.0
30 F	01 06 06 54 13 06 19 18	-0.3 4.3 -0.2 5.7	20 F	05 42 12 12 17 30 23 54	0.4 3.8 1.1 4.3	11 F	00 06 06 06 12 00 18 24	0.4 3.7 0.5 5.0	AUGUST			21 Th	01 18 07 12 13 06 19 48	3.8 0.8 4.9 1.0
31 Sa	02 00 07 48 13 54 20 06	-0.6 4.4 -0.3 5.8	21 Sa	06 12 12 54 18 18	0.5 4.0 1.2	12 Sa	00 48 06 54 12 48 19 06	0.3 3.8 0.6 5.1	1 F	04 36 11 00 16 54 23 12	-0.6 5.2 -0.1 5.2	22 F	02 30 09 00 15 18 22 18	3.7 0.8 4.9 0.6
JUNE			22 Su	00 36 07 00 13 30 19 42	4.2 0.6 4.1 1.2	13 Su	01 36 07 36 13 30 19 48	0.2 3.9 0.6 5.1	2 Sa	05 18 11 48 17 48	-0.4 5.1 0.2	23 Sa	04 00 10 18 16 36 23 18	3.8 0.6 5.1 0.3
1 Su	02 48 08 42 14 48 21 00	-0.7 4.4 -0.3 5.8	23 M	01 24 07 54 14 12 21 00	4.0 0.6 4.4 1.0	14 M	02 18 08 18 14 18 20 24	0.1 3.9 0.6 5.1	3 Su	00 06 06 06 12 42 18 48	4.8 0.0 5.0 0.6	24 Su	05 18 11 24 17 42	4.1 0.3 5.4
2 M	03 36 09 42 15 36 22 00	-0.7 4.4 -0.2 5.6	24 Tu	02 12 08 54 15 06 22 00	3.9 0.5 4.6 0.7	15 Tu	03 00 09 00 14 54 21 00	0.0 4.0 0.6 5.0	4 M	00 54 07 00 13 30 19 54	4.4 0.3 4.9 0.8	25 M	00 12 06 18 12 24 18 42	-0.1 4.5 0.0 5.7
3 Tu	04 30 10 48 16 30 23 00	-0.6 4.4 0.0 5.4	25 W	03 18 09 54 16 06 23 00	3.9 0.4 4.9 0.4	16 W	03 36 09 42 15 30 21 36	0.0 4.0 0.6 4.9	5 Tu	01 48 08 00 14 18 20 54	4.0 0.6 4.7 0.9	26 Tu	01 06 07 12 13 18 19 30	-0.4 -0.9 4.3 5.8
4 W	05 24 11 48 17 30	-0.5 4.4 0.2	26 Th	04 30 10 48 17 12 23 54	3.9 0.2 5.2 0.1	17 Th	04 06 10 18 16 06 22 12	0.0 4.1 4.7 4.7	6 W	02 36 09 00 15 12 21 54	3.7 0.8 4.6 0.9	27 W	01 54 08 00 14 12 20 18	-0.6 5.2 -0.5 5.8
5 Th	00 00 06 18 12 42 18 36	5.2 -0.3 4.5 0.4	27 F	05 36 11 42 18 06	4.0 0.1 5.6	18 F	04 36 10 54 16 36 22 48	0.1 4.1 0.8 4.6	7 Th	03 42 09 54 16 12 22 48	3.5 0.9 4.6 0.8	28 Th	02 42 08 48 15 00 21 06	-0.7 5.4 -0.5 5.6
6 F	01 00 07 24 13 42 19 48	4.9 -0.1 4.6 0.5	28 Sa	00 48 06 36 12 42 19 00	-0.2 4.2 -0.1 5.8	19 Sa	05 00 11 36 17 06 23 18	0.3 4.2 0.8 4.4	8 F	04 42 10 48 17 12 23 36	3.5 0.9 4.7 0.7	29 F	03 24 09 36 15 42 21 54	-0.7 5.5 -0.4 5.3
7 Sa	01 54 08 24 14 36 21 00	4.6 0.0 4.7 0.5	29 Su	01 42 07 36 13 42 19 54	-0.5 4.4 -0.2 5.9	20 Su	05 30 12 06 17 48	0.4 0.4 0.9	9 Sa	05 42 11 36 18 00	3.6 0.8 4.8	30 Sa	04 06 10 24 16 30 22 42	-0.5 5.4 -0.1 5.0
8 Su	02 48 09 18 15 30 21 54	4.4 0.0 4.7 0.4	30 M	02 36 08 30 14 36 20 48	-0.7 4.5 -0.3 5.9	21 M	00 00 06 00 12 48 18 42	4.3 0.5 4.5 1.0	10 Su	00 24 06 30 12 24 18 42	0.5 3.8 0.8 5.0	31 Su	04 48 11 12 17 18 23 30	-0.2 5.2 4.6 0.2
9 M	03 48 10 12 16 30 22 48	4.2 0.0 4.9 0.3	JULY			22 Tu	00 48 06 48 13 36 20 12	4.1 0.6 4.7 1.0	11 M	01 12 07 18 13 12 19 24	0.3 4.0 0.6 5.1	SEPTEMBER		
10 Tu	04 48 11 00 17 18 23 42	4.0 0.1 5.0 0.2	1 Tu	03 24 09 30 15 30 21 48	-0.8 4.6 -0.3 5.8	23 W	01 42 07 54 14 30 21 30	3.9 0.6 4.8 0.8	12 Tu	01 54 07 54 13 54 20 00	0.1 4.2 0.5 5.1	1 M	05 24 12 06 18 06	0.2 5.0 0.6
11 W	05 42 11 42 18 06	4.0 0.1 5.1	2 W	04 12 10 30 16 24 22 42	-0.8 4.7 -0.2 5.5	24 Th	02 42 09 18 15 36 22 36	3.8 0.6 5.0 0.6	13 W	02 30 08 30 14 36 20 36	0.0 4.4 0.4 5.1	2 Tu	00 24 06 12 12 48 19 12	4.2 4.6 4.8 1.0
12 Th	00 30 06 30 12 24 18 48	0.1 4.0 0.2 5.2	3 Th	05 00 11 24 17 18 23 42	-0.6 4.3 0.8 5.0	25 F	04 06 10 24 16 48 23 30	3.8 0.4 5.2 0.3	14 Th	03 06 09 06 15 12 21 06	-0.1 4.5 0.4 5.0	3 W	01 12 07 12 13 42 20 18	3.8 1.0 4.6 1.1
13 F	01 12 07 12 13 12 19 30	0.1 3.9 0.3 5.2	4 F	05 54 12 24 18 18	-0.4 4.9 0.3	26 Sa	05 24 11 30 17 54	4.0 0.2 5.5	15 F	03 36 09 42 15 42 21 42	0.0 4.5 0.4 4.8	4 Th	02 06 08 24 14 36 21 24	3.6 1.2 4.4 1.1
14 Sa	02 00 07 54 13 54 20 06	0.0 3.9 0.4 5.1	5 Sa	06 36 06 48 13 12 19 24	4.9 -0.1 4.9 0.5	27 Su	00 30 06 30 12 30 18 48	-0.1 4.3 0.0 5.8	16 Sa	04 06 10 12 16 12 22 12	0.1 4.6 0.5 4.6	5 F	03 06 09 30 15 36 22 18	3.4 1.3 4.3 1.0
15 Su	02 42 08 42 14 36 20 42	0.0 3.8 0.5 5.0	6 Su	01 24 07 48 14 06 20 30	4.6 0.1 4.9 0.6							6 Sa	04 12 10 24 16 36 23 12	3.5 1.2 4.4 0.7

September (cont.)			September (cont.)			October (cont.)			November (cont.)			November (cont.)		
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.
7 Su	05 18 11 12 17 30 23 54	3.7 1.0 4.6 0.5	28 Su	03 36 09 54 16 06 22 12	-0.4 5.4 -0.1 4.6	19 Su	02 42 09 00 15 06 21 48	3.9 0.7 4.7 0.2	9 Su	01 12 07 24 14 00 19 42	-0.3 5.3 -0.4 4.4	30 Su	00 36 05 42 12 24 19 00	3.3 1.0 3.9 0.5
8 M	06 06 12 00 18 18	4.0 0.8 4.8	29 M	04 12 10 36 16 48 23 00	0.0 5.2 0.2 4.2	20 M	03 48 10 06 16 12 22 42	4.2 0.4 4.7 0.0	10 M	01 54 08 00 14 42 20 24	-0.3 5.5 -0.5 4.3	DECEMBER		
9 Tu	00 36 06 48 12 48 18 54	0.3 4.3 0.6 5.0	30 Tu	04 48 11 24 17 36 23 48	0.3 4.9 0.6 3.9	21 Tu	04 48 11 06 17 12 23 30	4.5 0.1 4.8 -0.3	11 Tu	02 36 08 42 15 24 21 12	-0.3 5.5 -0.5 4.2	1 M	01 18 06 54 13 12 20 00	3.3 1.1 3.8 0.5
10 W	01 18 07 24 13 30 19 30	0.1 4.5 0.4 5.0	OCTOBER			22 W	05 48 11 54 18 06	-0.2 4.9 4.9	12 W	03 18 09 36 16 12 22 12	-0.3 5.4 -0.5 4.0	2 Tu	02 06 08 24 13 54 20 54	3.4 1.1 3.7 0.5
11 Th	01 54 08 00 14 06 20 06	0.0 4.7 0.2 5.0	1 W	05 24 12 12 18 30	0.8 4.6 0.9	23 Th	00 18 06 30 12 48 18 54	-0.5 5.3 -0.4 5.0	13 Th	04 06 10 36 17 06 23 18	-0.1 5.2 -0.3 3.9	3 W	02 48 09 24 14 48 21 42	3.0 0.9 3.6 0.3
12 F	02 30 08 30 14 48 20 36	-0.1 4.9 0.1 5.0	2 Th	00 42 06 12 13 00 19 36	3.6 1.1 4.4 1.1	24 F	01 00 07 18 13 36 19 36	-0.5 5.5 -0.5 4.9	14 F	04 54 11 36 18 00	0.1 5.0 -0.1	4 Th	03 42 10 18 15 48 22 24	3.9 0.6 3.6 0.2
13 Sa	03 00 09 00 15 24 21 12	-0.1 5.0 0.1 4.8	3 F	01 36 07 30 13 54 20 48	3.4 1.2 4.2 1.1	25 Sa	01 42 08 00 14 18 20 18	-0.5 5.5 -0.5 4.7	15 Sa	00 24 06 06 12 42 19 12	3.9 0.4 4.8 0.0	5 F	04 36 11 06 16 48 23 12	4.2 0.3 3.7 0.0
14 Su	03 30 09 36 15 54 21 42	0.0 5.1 0.1 4.6	4 Sa	02 36 08 54 14 54 21 42	3.4 1.5 4.1 0.9	26 Su	02 24 08 42 15 00 21 00	-0.4 5.4 -0.4 4.4	16 Su	01 24 07 30 13 42 20 18	4.0 0.5 4.6 0.0	6 Sa	05 24 11 54 17 48 23 54	4.6 -0.1 3.8 -0.2
15 M	04 00 10 12 16 30 22 24	0.0 5.1 0.3 4.4	5 Su	03 36 09 54 15 54 22 36	3.4 1.3 4.1 0.7	27 M	03 06 09 18 15 42 21 42	-0.2 5.2 -0.2 4.1	17 M	02 24 08 48 14 45 21 24	4.1 0.4 4.4 -0.1	7 Su	06 12 12 48 18 36	5.0 -0.4 3.9
16 Tu	04 24 10 54 17 12 23 12	0.2 5.0 0.5 4.1	6 M	04 36 10 48 16 48 23 18	3.7 1.1 4.3 0.5	28 Tu	03 42 10 00 16 24 22 30	0.1 5.0 3.8 0.1	18 Tu	03 40 09 48 15 48 22 18	4.3 0.2 4.4 -0.2	8 M	00 42 06 54 13 36 19 24	-0.4 5.2 -0.6 4.0
17 W	05 00 11 48 18 12	0.4 5.0 0.7	7 Tu	05 30 11 30 17 36	4.0 0.8 4.5	29 W	04 18 10 48 17 06 23 24	0.4 4.7 0.4 3.6	19 W	04 24 10 48 16 48 23 06	4.6 0.0 4.3 -0.4	9 Tu	01 30 07 42 14 24 20 12	-0.5 5.4 -0.8 4.1
18 Th	00 12 05 48 12 48 19 36	3.9 0.7 4.9 0.9	8 W	06 12 12 18 18 18	4.4 0.5 4.7	30 Th	04 48 11 36 17 54	0.7 4.6 4.4	20 Th	05 24 11 36 17 42 23 48	4.9 -0.2 4.3 -0.4	10 W	02 18 08 30 15 12 21 06	-0.6 5.4 -0.9 4.1
19 F	01 24 07 12 14 00 21 00	3.7 0.9 4.8 0.8	9 Th	00 42 06 48 13 00 19 00	0.1 4.7 0.2 4.8	31 F	00 12 05 30 12 24 18 54	3.4 1.1 4.2 0.8	21 F	06 12 12 30 18 30	5.1 -0.4 4.3	11 Th	03 12 09 30 16 00 22 06	-0.6 5.4 -0.9 4.1
20 Sa	02 42 09 06 15 12 22 06	3.7 0.9 4.8 0.5	10 F	01 18 07 18 13 42 19 30	-0.1 5.0 0.0 4.8	NOVEMBER			22 Sa	06 12 12 30 18 30	5.1 -0.4 4.3	12 F	04 00 10 30 16 54 23 12	-0.5 5.2 -0.8 4.1
21 Su	04 00 10 18 16 24 23 00	3.9 0.6 5.0 0.2	11 Sa	01 54 07 54 14 18 20 06	-0.2 5.2 -0.2 4.7	1 Sa	01 06 06 24 13 12 20 00	3.3 1.3 4.0 0.9	23 Su	00 36 06 54 13 12 19 18	-0.4 5.2 -0.4 4.2	13 Sa	04 54 11 30 17 48	-0.3 5.0 -0.6
22 M	05 06 11 18 17 30 23 54	4.3 0.3 5.2 -0.1	12 Su	02 24 08 24 15 00 20 42	-0.2 5.3 -0.2 4.6	2 Su	02 00 08 06 14 06 21 00	3.3 1.4 3.9 0.8	24 M	01 18 07 36 14 00 20 00	-0.4 5.2 -0.4 4.1	14 Su	00 12 06 00 12 24 18 48	4.1 -0.1 4.7 -0.4
23 Tu	06 06 12 12 18 24	4.8 -0.1 5.4	13 M	03 00 09 00 15 36 21 24	-0.1 5.4 -0.2 4.4	3 M	02 54 09 12 15 00 21 48	3.4 1.3 3.9 0.6	25 Tu	02 00 08 18 14 42 20 36	-0.3 5.1 -0.4 3.9	15 M	01 06 07 12 13 24 19 48	4.2 0.1 4.5 -0.3
24 W	00 42 06 54 13 00 19 12	-0.4 5.2 -0.3 5.5	14 Tu	03 30 09 48 16 18 22 12	-0.1 5.3 -0.1 4.2	4 Tu	03 48 10 12 16 00 22 36	3.7 1.0 3.9 0.4	26 W	02 42 08 54 15 24 21 24	-0.1 5.0 -0.3 3.7	16 Tu	02 00 08 24 14 18 20 48	4.3 0.1 4.2 -0.3
25 Th	01 30 07 36 13 54 20 00	-0.6 5.5 -0.5 5.4	15 W	04 12 10 36 17 06 23 12	0.1 5.2 0.2 3.9	5 W	04 42 11 00 16 48 23 18	4.0 0.7 4.0 0.2	27 Th	03 54 10 18 16 42 23 00	0.3 4.5 0.0 3.4	17 W	03 00 09 24 15 18 21 48	4.3 0.1 3.9 -0.3
26 F	02 12 08 24 14 36 20 42	-0.6 5.6 -0.5 5.2	16 Th	04 54 11 24 18 06	0.4 5.0 0.4	6 Th	05 24 11 42 17 36 23 54	4.3 0.3 4.2 0.0	28 F	04 30 11 00 17 24 23 48	0.6 4.3 0.2 3.3	18 Th	04 00 10 24 16 18 22 36	4.4 0.0 3.8 -0.3
27 Sa	02 54 09 06 15 24 21 24	-0.6 5.6 -0.4 4.9	17 F	05 04 12 48 19 30	0.7 4.8 0.5	7 F	06 06 12 30 18 24	4.7 0.0 4.3	29 Sa	05 06 11 42 18 06	0.8 4.1 0.4	19 F	04 54 11 18 17 18 23 24	4.6 -0.1 3.7 -0.3
			18 Sa	01 30 07 30 13 54 20 42	3.8 0.9 4.7 0.5	8 Sa	00 36 06 42 13 12 19 00	-0.1 5.1 -0.2 4.4				20 Sa	05 48 12 06 18 12	4.7 -0.2 3.7
												21 Su	00 12 06 36 12 54 18 54	-0.3 4.8 -0.3 3.7

December (cont.)			December (cont.)			December (cont.)			December (cont.)			December (cont.)		
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.
22	00 54	-0.2	24	02 24	-0.1	26	03 36	0.1	28	04 42	0.4	30	00 30	3.5
M	07 18	4.8	W	08 36	4.7	F	09 54	4.4	Su	11 06	4.0	Tu	05 54	0.7
	13 42	-0.4		15 06	-0.4		16 18	-0.3		17 24	0.0		12 24	3.7
	19 42	3.6		21 06	3.5		22 30	3.4		23 54	3.4		18 30	0.2
23	01 42	-0.2	25	03 00	0.0	27	04 12	0.3	29	05 12	0.5	31	01 06	3.6
Tu	07 54	4.8	Th	09 12	4.6	Sa	10 30	4.2	M	11 42	3.9	W	06 54	0.8
	14 24	-0.4		15 42	-0.4		16 54	-0.2		18 00	0.1		13 00	3.6
	20 24	3.6		21 48	3.5		23 12	3.4					19 24	0.3

Time of Tides at Points on Pacific Coast

Source: Coast and Geodetic Survey, Environmental Science Services Administration

See also Tides and Their Causes on Page 294

The chart below can be used to approximate the time of high or low tide at stations listed by adding or subtracting the mean time difference shown on the chart from the times shown in the tide tables for San Francisco. San Francisco is a semi-diurnal station (two highs and two low tides per day), as are most of the other stations shown. However, at a few of these stations the tide becomes diurnal on occasion (one high and one low tide per day); on such occasions it is not possible to make a correct prediction by referring times to San Francisco.

	H. M.		H. M.		H. M.
Aberdeen, Wash.	add 1 45	Juneau, Alaska	add 2 25	Sacramento, Cal.	add 8 35
Anchorage, Alaska	add 6 55	Ketchikan, Alaska	add 2 00	Salina Cruz, Mexico	add 3 00
Astoria, Ore.	add 1 55	Kodiak, Alaska	add 1 10	San Diego, Cal.	sub 2 20
Balboa, Canal Zone	sub 8 15	Long Beach, Cal.	sub 2 15	Santa Barbara, Cal.	sub 1 55
Cordova, Alaska	add 0 35	Los Angeles	sub 2 20	Seattle, Wash.	add 5 30
Crescent City, Cal.	add 0 00	Massacre Bay, Alaska	add 4 20	Sitka, Alaska	add 2 05
Dutch Harbor, Alaska	add 4 50	Midway Islands	add 5 20	Stockton, Cal.	add 7 15
Honolulu	add 5 15	Portland, Ore.	add 8 10	Vancouver, B.C.	add 6 30
Humboldt Bay, Cal.	add 0 30	Port Townsend, Wash.	add 4 40	Victoria, B.C.	add 3 35

Tide Tables for 1969 (at San Francisco)

Time meridian 120°W. 0000 is midnight. 1200 is noon. All hours greater 1200 are p.m. Heights are reckoned from the datum of soundings on charts of the locality which is mean low water.

Time and Height of High and Low Waters at Golden Gate—Pacific STANDARD Time

JANUARY			January (cont.)			January (cont.)			February (cont.)			February (cont.)		
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.
1	03 00	3.3	14	00 36	2.9	27	06 36	5.5	9	03 54	5.7	22	03 18	5.4
W	09 24	5.9	Tu	07 12	6.4	M	14 12	0.2	Su	11 12	0.6	Sa	10 12	0.8
	16 42	-0.6		14 48	-0.9		21 18	3.9		18 00	3.5		16 48	3.7
	23 54	4.4		22 06	4.1					22 00	2.6		21 18	2.5
2	03 42	3.4	15	01 48	3.1	28	00 54	3.2	10	04 42	5.8	23	04 00	5.3
Th	09 54	5.9	W	08 06	6.6	Tu	07 30	5.6	M	12 24	0.0	Su	11 24	0.7
	17 12	-0.8		15 36	-1.4		14 54	-0.1		19 42	3.6		18 24	3.6
				22 54	4.5		22 06	4.1		23 12	3.1		22 06	3.0
3	00 30	4.5	16	02 48	3.2	29	01 54	3.3	11	05 42	6.0	24	04 48	5.1
F	04 18	3.4	Th	09 06	6.8	W	08 18	5.6	Tu	13 30	-0.5	M	12 30	0.6
	10 30	5.9		16 30	-1.7		15 42	-0.3		21 00	4.0		19 54	3.7
	17 48	-0.8		23 42	4.7		22 48	4.3					23 24	3.2
4	01 12	4.5	17	03 48	3.1	30	02 42	3.3	12	00 24	3.3	25	05 54	5.1
Sa	05 00	3.4	F	10 00	6.9	Th	09 00	5.7	W	06 54	6.1	Tu	13 30	0.3
	11 06	5.9		17 18	-1.8		16 18	-0.5		14 30	-0.9		20 48	3.9
	18 24	-0.8					23 24	4.4		21 54	4.3			
5	01 48	4.5	18	00 24	5.0	31	03 30	3.2	13	01 42	3.2	26	00 36	3.3
Su	05 42	3.4	Sa	04 42	2.9	F	09 42	5.8	Th	08 00	6.3	W	06 54	5.1
	11 36	5.8		10 54	6.8		16 48	-0.7		15 24	-1.3		14 18	0.1
	18 54	-0.7		18 00	-1.7					22 36	4.6		21 42	4.2
6	02 18	4.6	19	01 06	5.1	FEBRUARY			14	02 48	3.0	27	01 42	3.2
M	06 24	3.3	Su	05 42	2.7	1	00 00	4.5	F	09 06	6.5	Th	07 54	5.3
	12 12	5.6		11 48	6.5	Sa	04 06	3.1		16 12	-1.4		15 06	-0.1
	19 24	-0.5		18 42	-1.4		10 18	5.9		23 12	4.9		22 12	4.4
							17 24	-0.7						
7	02 54	4.6	20	01 48	5.3	2	00 36	4.6	15	03 48	2.6	28	02 36	3.0
Tu	07 12	3.1	M	06 36	2.5	Su	04 48	3.0	Sa	10 00	6.5	F	08 42	5.4
	13 00	5.3		12 12	6.1		10 54	5.9		16 54	-1.3		15 42	-0.3
	20 00	-0.2		19 24	-0.9		17 54	-0.7		23 54	5.1		22 48	4.5
8	03 18	4.8	21	02 24	5.4	3	01 00	4.7	16	04 42	2.2	MARCH		
W	08 12	2.9	Tu	07 42	2.3	M	05 24	2.8	Su	10 54	6.4	1	03 12	2.8
	13 48	4.8		13 36	5.5		11 30	5.7		17 36	-1.1	Sa	09 24	5.6
	20 36	0.2		20 06	-0.2		18 18	-0.5					16 12	-0.4
9	03 48	5.0	22	03 00	5.5	4	01 24	4.8	17	00 24	5.3		23 12	4.7
Th	09 18	2.5	W	08 42	2.0	Tu	06 12	2.5	M	05 36	1.9	2	03 54	2.5
	14 48	4.3		14 36	4.8		12 12	5.5		11 48	6.1	Su	10 06	5.6
	21 12	0.8		20 42	0.5		18 54	-0.2		18 12	-0.6		16 42	-0.4
10	04 18	5.2	23	03 42	5.6	5	01 48	4.9	18	01 00	5.5		23 36	4.8
F	10 30	1.9	Th	09 54	1.7	W	07 00	2.2	Tu	06 24	1.5	3	04 36	2.1
	16 06	3.8		15 42	4.2		12 54	5.1		12 36	5.6	M	10 48	5.6
	21 54	1.4		21 24	1.2		19 24	0.3		18 48	0.0		17 12	-0.2
11	04 54	5.5	24	04 24	5.6	6	02 12	5.1	19	01 30	5.6	4	00 00	4.9
Sa	11 42	1.3	F	11 06	1.3	Th	07 48	1.8	W	07 18	1.3	Tu	05 12	1.7
	17 48	3.5		17 00	2.7		13 48	4.6		13 30	5.0		11 30	5.4
	22 42	2.0		22 06	1.9		19 54	0.8		19 24	0.7		17 42	0.1
12	05 30	5.8	25	05 06	5.6	7	02 42	5.3	20	02 06	5.6	5	00 24	5.1
Su	12 48	0.5	Sa	12 12	1.0	F	08 48	1.4	Th	08 12	1.1	W	05 54	1.3
	19 30	3.5		18 36	3.5		14 54	4.1		14 30	4.5		12 12	5.2
	23 42	2.5		22 54	2.5		20 30	1.5		20 00	1.4		18 12	0.5
13	06 18	6.1	26	05 54	5.6	8	03 12	5.5	21	02 42	5.5			
M	13 18	-0.2	Su	13 18	0.6	Sa	09 54	1.0	F	09 12	0.9			
	21 00	3.8		20 06	3.6		16 18	3.7		15 36	4.0			
				23 54	2.9		21 12	2.1		20 36	2.0			

March (cont.)			March (cont.)			April (cont.)			May (cont.)			May (cont.)		
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.
6 Th	00 48 06 42 13 00 18 42	5.2 0.9 4.8 1.1	27 Th	00 30 06 12 13 30 20 48	3.2 4.7 0.2 4.3	17 Th	05 54 12 42 17 24 23 48	-0.4 4.5 2.1 5.7	8 Th	03 42 11 06 18 36 23 42	5.0 -0.7 4.8 2.9	29 Th	03 42 10 36 15 00 21 18	-0.7 4.2 2.3 6.3
7 F	01 12 07 36 14 06 19 18	5.4 0.5 4.4 1.6	28 F	01 30 07 18 14 12 21 24	3.0 4.8 0.0 4.5	18 F	06 30 13 30 18 00	-0.5 4.3 2.5	9 F	05 12 12 06 19 18	4.7 -0.3 5.1	30 F	04 30 11 36 15 48 22 00	-1.4 4.4 2.6 6.5
8 Sa	01 42 08 24 15 06 19 54	5.6 0.3 0.0 2.2	29 Sa	02 12 08 12 14 54 21 54	2.6 4.9 0.0 4.7	19 Sa	00 18 07 12 14 24 18 36	5.5 -0.5 4.1 2.8	10 Sa	01 00 06 36 13 00 20 00	2.2 4.5 0.1 5.4	31 Sa	05 12 12 30 16 36 22 42	-1.8 4.5 2.9 6.6
9 Su	02 18 09 30 16 36 20 36	5.6 0.1 3.7 2.7	30 Su	03 00 09 06 15 30 22 18	2.2 5.0 0.0 4.9	20 Su	00 48 07 54 15 24 19 12	5.3 -0.3 4.0 3.1	11 Su	02 06 07 54 13 48 20 36	1.4 4.4 0.6 5.6	JUNE		
10 M	03 06 10 48 18 12 21 42	5.7 -0.1 3.7 3.2	31 M	03 36 09 54 16 00 22 42	1.6 5.1 0.2 5.1	21 M	01 18 08 48 16 24 20 00	5.1 -0.1 3.9 3.3	12 M	02 54 09 06 14 30 21 06	0.7 4.4 1.1 5.8			
11 Tu	04 06 12 00 19 42 23 12	5.6 -0.4 3.9 3.6	APRIL			22 Tu	02 00 09 42 17 30 21 12	4.8 0.1 3.9 3.4	13 Tu	03 42 10 06 15 12 21 36	0.0 4.0 1.7 5.9	1 Su	06 06 13 24 17 24 23 30	-2.0 4.6 3.1 6.6
12 W	05 24 13 12 20 42	5.4 -0.6 4.3	1 Tu	04 18 10 36 16 30 23 00	1.1 5.1 0.5 5.3	23 W	02 54 10 42 18 30 22 42	4.6 0.2 4.1 3.4	14 W	04 18 11 06 15 48 22 06	-0.5 4.4 2.2 5.9	2 M	06 54 14 18 18 18	-2.0 4.7 3.2
13 Th	06 42 06 48 14 12 21 24	3.2 5.7 -0.8 4.6	2 W	05 00 11 24 17 00 23 24	0.5 5.0 0.9 5.5	24 Th	04 06 11 42 19 18	4.4 0.2 4.3	15 Th	05 00 11 54 16 18 22 36	-0.8 4.4 2.5 5.8	3 Tu	00 18 07 48 15 12 19 24	6.3 -1.8 4.8 3.3
14 F	02 00 08 00 15 00 22 00	2.9 5.8 -0.9 4.9	3 Th	05 42 12 18 17 30 23 54	0.0 4.8 1.4 5.7	25 F	00 00 05 18 12 30 19 54	3.2 4.3 0.2 4.5	16 F	05 36 12 42 16 54 23 06	-0.9 4.4 2.9 5.7	4 W	01 18 08 42 16 06 20 42	5.9 -1.4 4.9 3.2
15 Sa	02 54 09 06 15 48 22 36	2.3 5.9 -0.8 5.2	4 F	06 24 13 12 18 06	-0.4 4.5 1.9	26 Sa	01 06 06 36 13 12 20 24	2.7 4.3 0.3 4.8	17 Sa	06 12 13 36 17 30 23 36	-0.9 4.3 3.1 5.6	5 Th	02 24 09 36 16 54 22 12	5.4 -0.9 5.1 2.9
16 Su	03 48 10 00 16 24 23 06	1.8 5.8 -0.5 5.4	5 Sa	00 24 07 12 14 12 18 48	5.8 -0.7 4.3 2.4	27 Su	01 54 07 42 13 54 20 54	2.1 4.3 0.4 5.0	18 Su	06 54 14 18 18 06	-0.8 4.2 3.2	6 F	03 36 10 30 17 48 23 36	4.8 -0.3 5.3 2.3
17 M	04 36 10 54 17 06 23 42	1.3 5.7 -0.1 5.5	6 Su	00 54 08 12 15 24 19 30	5.8 -0.8 4.1 2.9	28 M	02 36 08 42 14 30 21 18	1.5 4.4 0.7 5.3	19 M	00 06 07 30 15 06 18 48	5.4 -0.6 4.2 3.4	7 Sa	05 00 11 18 18 30	4.3 0.3 5.5
18 Tu	05 24 11 48 17 36	0.8 5.4 0.5	7 M	01 42 09 12 16 48 20 30	5.7 -0.7 4.0 3.2	29 Tu	03 18 09 42 15 06 21 42	0.7 4.5 1.0 5.6	20 Tu	00 42 08 18 16 00 19 36	5.2 -0.4 4.2 3.5	8 Su	00 48 06 30 12 12 19 12	1.6 4.0 1.0 5.7
19 W	06 12 12 36 18 06	5.6 0.5 1.1	8 Tu	02 36 10 24 18 06 21 48	5.5 -0.7 4.1 3.4	30 W	04 00 10 36 15 42 22 06	0.0 4.5 1.4 5.8	21 W	01 18 09 00 16 48 20 42	4.9 -0.2 4.2 3.5	9 M	01 48 07 54 13 00 19 48	0.9 3.9 1.6 5.9
20 Th	00 36 06 54 13 30 18 42	5.6 0.2 4.6 1.7	9 W	03 54 11 36 19 18 23 36	5.3 -0.6 4.4 3.3	MAY			22 Th	02 12 09 48 17 36 22 06	4.6 -0.1 4.4 3.4	10 Th	04 06 11 06 15 12 21 30	-0.7 4.3 2.9 6.0
21 F	01 06 07 42 14 24 19 12	5.5 0.2 4.2 2.2	10 Th	05 18 12 42 20 06	5.1 -0.6 4.7	1 Th	04 42 11 30 16 18 22 36	-0.6 4.6 1.8 6.0	23 F	03 12 10 36 18 12 23 24	4.3 0.2 4.6 3.0	11 W	03 24 10 12 14 30 21 00	-0.3 4.1 2.6 6.0
22 Sa	01 36 08 30 15 24 19 42	5.4 0.2 3.9 2.6	11 F	01 00 06 42 13 42 20 42	2.8 5.1 -0.5 5.0	2 F	05 24 12 24 17 00 23 06	-1.1 4.6 2.3 6.2	24 Sa	04 30 11 24 18 48	4.0 0.4 4.8	12 Th	04 06 11 06 15 12 21 30	-0.7 4.3 2.9 6.0
23 Su	02 18 09 24 16 36 20 36	5.2 0.3 3.7 3.0	12 Sa	02 06 08 00 14 30 21 18	2.2 5.1 -0.3 5.3	3 Sa	06 12 13 24 17 42 23 48	-1.4 4.5 2.7 6.2	25 Su	00 36 05 48 12 06 19 18	2.4 3.8 0.7 5.1	13 F	04 48 11 54 15 48 22 06	-0.9 4.3 3.2 5.9
24 M	02 54 10 30 18 00 21 36	4.9 0.4 3.7 3.2	13 Su	03 00 09 06 15 12 21 54	1.5 5.1 0.1 5.5	4 Su	07 06 14 24 18 24	-1.5 4.4 3.0	26 M	01 24 07 18 12 54 19 48	1.7 3.8 1.1 5.4	14 Sa	05 24 12 42 16 30 22 42	-0.9 4.4 3.3 5.8
25 Tu	03 48 11 36 19 18 23 00	4.7 0.4 3.9 3.4	14 M	03 48 10 00 15 48 22 24	0.8 5.0 0.6 5.7	5 M	00 30 08 00 15 30 19 24	6.1 -1.5 4.4 3.3	27 Tu	02 12 08 30 13 36 20 12	0.8 3.9 1.5 5.7	15 Su	06 36 14 06 17 42 23 12	-0.8 4.4 3.4 5.6
26 W	05 00 12 36 20 12	4.6 0.3 4.1	15 Tu	05 12 11 48 17 00 23 18	-0.2 4.7 1.6 5.7	6 Tu	01 24 09 00 16 36 20 36	5.8 -1.3 4.4 3.4	28 W	03 00 09 36 14 18 20 48	0.0 4.0 1.9 6.1	16 M	07 12 14 42 18 30	-0.7 4.4 3.4
			16 W	05 12 11 48 17 00 23 18	-0.2 4.7 1.6 5.7	7 W	02 30 10 06 17 42 22 12	5.5 -1.0 4.6 3.3				17 Tu	07 12 14 42 18 30	-0.7 4.4 3.4
												18 W	00 24 07 48 15 18 19 18	5.4 -0.6 4.4 3.4

June (cont.)			July (cont.)			July (cont.)			August (cont.)			September (cont.)		
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.
19	01 00	5.1	10	03 06	-0.3	31	00 18	6.3	21	07 06	3.6	11	05 00	0.2
Th	08 24	-0.3	Th	10 12	4.1	Th	07 00	-0.9	Th	10 24	3.2	Th	11 42	5.1
	16 00	4.5		14 00	3.2		13 54	5.6		17 00	5.9		17 06	1.7
	20 18	3.3		20 30	5.9		19 12	2.1					23 18	5.4
20	01 48	4.8	11	03 48	-0.5	AUGUST			22	01 00	-0.1	12	05 24	0.5
F	09 00	0.0	F	11 00	4.3	1	01 12	5.7	F	08 30	3.9	F	12 06	5.3
	16 30	4.7		14 48	3.3	F	07 42	-0.2		11 54	3.4		17 42	1.3
	21 24	3.1		21 12	5.9		14 30	5.7	23	02 00	-0.6	13	00 00	5.2
21	02 36	4.4	12	04 30	-0.7		20 12	1.8	Sa	09 30	4.3	Sa	05 54	0.9
Sa	09 36	0.4	Sa	11 42	4.4	2	02 12	5.1		13 12	3.3		12 24	5.4
	17 06	4.9		15 36	3.4	Sa	08 18	0.5		19 30	6.3		18 24	0.9
	22 42	2.6		21 48	5.9		15 12	5.8	24	02 54	-0.9	14	00 48	4.9
22	03 54	3.9	13	05 06	-0.8		21 24	1.6	Su	10 06	4.6	Su	06 24	1.4
Su	10 18	0.8	Su	12 18	4.5	3	03 24	4.4		14 18	3.1		12 48	5.5
	17 36	5.1		16 12	3.4	Su	09 00	1.3		20 36	6.5		19 12	0.6
	23 48	2.0		22 30	5.9		15 48	5.8	25	03 42	-1.1	15	01 42	4.5
23	05 24	3.6	14	05 42	-0.8		22 30	1.2	M	10 48	5.0	M	06 54	2.0
M	11 06	1.3	M	12 54	4.6	4	04 42	3.9		15 24	2.7		13 12	5.7
	18 06	5.4		16 54	3.3	M	09 42	2.0		21 36	6.6		20 00	0.3
				23 00	5.9		16 30	5.7	26	04 30	-1.1	16	02 42	4.2
24	00 48	1.2	15	06 12	-0.7		23 42	0.9	Tu	11 24	5.3	Tu	07 24	2.5
Tu	07 00	3.5	Tu	13 30	4.6	5	06 12	3.7		16 18	2.2		13 42	5.8
	11 54	1.8		17 30	3.3	Tu	10 30	2.7		22 30	6.5		21 00	0.2
	18 42	5.8		23 30	5.8		17 24	5.6	27	05 12	-0.9	17	04 00	3.9
25	01 48	0.4	16	06 42	-0.6	6	00 48	0.5	W	12 00	5.5	W	08 06	2.9
W	08 30	3.6	W	14 00	4.7		07 42	3.8		17 12	1.8		14 30	5.8
	12 42	2.3		18 12	3.1		11 30	3.1		23 24	6.3		22 06	0.1
	19 18	6.1					18 18	5.6	28	05 48	-0.4	18	05 36	3.8
26	02 36	-0.4	17	00 12	5.5	7	01 48	0.2	Th	12 30	5.7	Th	09 06	2.3
Th	09 42	3.9	Th	07 12	-0.4	Th	09 00	4.0		18 00	1.3		15 24	-0.1
	13 06	2.7		14 30	4.7		12 42	3.3	29	00 18	5.8		23 18	5.7
	20 00	6.4		19 00	3.0		19 12	5.6	F	06 24	0.2			
27	03 24	-1.1	18	00 48	5.0	8	02 42	0.0		13 06	5.8	19	07 06	4.0
F	10 42	4.2	F	07 42	-0.2		09 54	4.3		18 54	1.0	F	10 30	3.5
	14 30	2.9		14 54	4.8		13 42	3.4					16 42	5.6
	20 54	6.7		19 54	2.8		20 06	5.7	30	01 12	5.3			
28	04 18	-1.6	19	01 36	4.8	9	03 30	-0.2	Sa	07 00	0.8	20	00 36	-0.3
Sa	11 30	4.5	Sa	08 12	0.4	Sa	10 36	4.5		13 36	5.9	Sa	08 12	4.3
	15 30	3.1		15 24	5.0		14 42	3.3		19 48	0.8		12 06	3.5
	21 42	6.9		20 54	2.4		20 54	5.8					18 06	5.7
29	05 06	-1.9	20	02 30	4.3	10	04 06	-0.4	31	02 12	4.8	21	01 36	-0.5
Su	12 24	4.7	Su	08 48	0.9	Su	11 12	4.6	Su	07 36	1.5	Su	08 54	4.7
	16 24	3.1		15 48	5.2		15 24	3.2		14 12	5.8		13 24	3.1
	22 30	6.9		22 00	2.0		21 36	5.9		20 42	0.7		19 24	5.8
30	05 54	-2.0	21	03 42	3.9	11	04 42	-0.5	SEPTEMBER			22	02 30	-0.6
M	13 06	4.9	M	09 24	1.5	M	11 42	4.7	1	03 18	4.3	M	09 30	5.0
	17 18	3.1		16 18	5.4		16 00	3.1	M	08 12	2.2		14 30	2.5
	23 24	6.8		23 12	1.4		22 12	5.9		14 48	5.6		20 36	5.9
JULY						12	05 12	-0.5	2	04 36	4.0	23	03 18	-0.5
-1	06 42	-1.9	22	05 12	3.5	Tu	12 12	4.8	Tu	09 00	2.8	Tu	10 06	5.3
Tu	13 54	5.0	Tu	10 06	2.1		16 42	2.9		15 36	5.5		15 24	1.9
	18 18	3.0		17 00	5.7		22 48	5.8		22 54	0.6		21 36	5.9
2	00 18	6.4	23	00 18	0.8	13	05 36	-0.4	3	06 00	3.9	24	04 00	-0.2
W	07 30	-1.6	W	07 00	3.4	W	12 36	4.9	W	09 54	3.2	W	10 42	5.6
	14 36	5.2		11 00	2.6		17 18	2.7		16 30	5.3		16 18	1.2
	19 24	2.9		17 42	6.0		23 24	5.7					22 30	5.8
3	01 18	5.9	24	01 18	0.1	14	06 06	-0.2	4	00 06	0.6	25	04 36	0.2
Th	08 12	-1.1	Th	08 30	3.7	Th	13 06	4.9	Th	07 30	4.0	Th	11 12	5.8
	15 24	5.4		12 08	3.0		18 00	2.4		11 12	3.4		17 06	0.7
	20 36	2.6		18 42	6.2					17 30	5.2		23 30	5.6
4	02 18	5.3	25	02 18	-0.6	15	00 06	5.5	5	01 12	0.4	26	05 12	0.7
F	09 00	-0.4	F	09 36	4.0	F	06 30	0.1	F	08 30	4.2	F	11 42	6.0
	16 06	5.5		13 18	3.2		13 30	5.0		12 36	3.5		17 48	0.3
	21 48	2.3		19 36	6.5		18 42	2.1		18 42	5.2	27	00 24	5.3
5	03 24	4.6	26	03 12	-1.1	16	00 48	5.1	6	02 06	0.3	Sa	05 48	1.3
Sa	09 48	0.4	Sa	10 30	4.4	Sa	07 00	0.6		09 18	4.4		12 12	6.0
	16 48	5.7		14 18	3.2		13 48	5.2	Sa	13 36	3.3		18 36	0.0
	23 12	1.8		20 36	6.7		19 30	1.8		19 42	5.3	28	01 18	4.9
6	04 48	4.0	27	04 00	-1.5	17	01 36	4.7	7	02 18	0.1	Su	06 24	1.9
Su	10 30	1.2	Su	11 18	4.7	Su	07 30	1.1	Su	09 54	4.6		12 42	5.9
	17 30	5.8		15 18	3.1		14 12	5.3		14 30	3.1		19 24	-0.1
				21 36	6.9		20 24	1.4		20 30	5.4	29	02 12	4.6
7	00 24	1.2	28	04 48	-1.7	18	02 36	4.2	8	03 24	0.0	M	06 54	2.5
M	06 24	3.7	M	12 00	4.9	M	08 00	1.7	M	10 24	4.8		13 18	5.7
	11 24	1.9		16 18	2.9		15 12	2.8		15 12	2.8		20 12	0.0
	18 18	5.8		22 30	6.9		21 24	1.1		21 18	5.5	30	03 12	4.3
8	01 24	0.6	29	05 36	-1.7	19	03 48	3.8	9	04 00	-0.1	Tu	07 36	2.9
Tu	08 00	3.7	Tu	12 36	5.2	Tu	08 42	2.2	Tu	10 54	4.9		13 54	5.5
	12 12	2.5		17 18	2.6		15 18	5.7		15 48	2.5		21 06	0.2
	19 00	5.9		23 24	6.7		22 30	0.7		22 00	5.6	OCTOBER		
9	02 18	0.1	30	06 18	-1.4	20	05 24	3.6	10	04 30	0.0	1	04 30	4.1
W	09 12	3.9	W	13 18	5.4	W	09 24	2.8		11 18	5.0	W	08 24	3.3
	13 06	2.9		18 12	2.4		16 06	5.8		16 24	2.1		14 36	5.2
	19 48	5.9					23 48	0.3		22 36	5.5		22 12	0.4

October (cont.)			October (cont.)			November (cont.)			November (cont.)			December (cont.)		
Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.	Day	Time h. m.	Ht. ft.
2	05 42	4.1	21	01 54	0.0	8	03 24	1.8	26	02 06	4.5	14	04 24	5.2
Th	09 24	3.5	Tu	08 48	5.5	Sa	09 42	5.9	W	05 54	3.4	Su	09 24	3.0
	15 30	4.9		14 30	1.7		16 24	-0.4		12 00	5.7		15 00	5.1
	23 12	0.5		20 36	5.1		23 18	4.6		19 24	-0.7		21 54	-0.4
3	06 54	4.2	22	02 36	0.4	9	04 00	2.2	27	02 54	4.4	15	05 06	5.4
F	10 54	3.6	W	09 24	5.8	Su	10 12	6.2	Th	06 36	3.5	M	10 54	2.5
	16 42	4.8		15 24	0.9		17 06	-0.9		12 36	5.4		16 18	4.5
4	00 18	0.5		21 36	5.1	10	00 12	4.6		20 06	-0.4		22 48	0.3
Sa	07 48	4.4	23	03 18	0.9	M	04 36	2.6	28	03 42	4.4	16	05 54	5.7
	12 18	3.4	Th	09 54	6.0		10 42	6.3	F	07 30	3.6	Tu	12 12	1.8
	18 00	4.7		16 12	0.2		17 54	-1.2		13 18	5.1		17 48	4.1
5	01 12	0.4		22 36	5.0	11	01 06	4.6		20 48	-0.2		23 36	1.0
Su	08 30	4.6	24	04 00	1.4	Tu	05 18	2.9	29	04 30	4.5	17	06 36	5.9
	13 24	3.1	F	10 24	6.1		11 18	6.4	Sa	08 36	3.6	W	13 18	1.0
	19 06	4.8		16 54	-0.3		18 42	-1.4		14 06	4.8		19 24	3.9
6	01 54	0.3		23 36	4.9	12	02 06	4.5		21 30	0.0			
M	09 06	4.8	25	04 36	1.9	W	06 00	3.2	30	05 12	4.6	18	00 30	1.7
	14 12	2.7	Sa	10 54	6.1		12 00	6.3	Su	09 54	3.4	Th	07 18	6.0
	20 06	4.9		17 36	-0.6		19 30	-1.4		15 00	4.5		14 12	0.3
7	02 36	0.4	26	00 24	4.8	13	03 00	4.5		22 12	0.3		20 48	4.0
Tu	09 30	5.0	Su	05 12	2.4	Th	06 54	3.4	DECEMBER					
	14 54	2.2		11 24	6.1		12 54	6.1						
	20 54	4.9		18 18	-0.7		20 30	-1.2	1	05 48	4.8	19	01 18	2.3
8	03 06	0.4	27	01 24	4.6	14	04 06	4.6	M	11 06	3.1	F	07 54	6.1
W	10 00	5.2	M	05 42	2.8		07 54	3.6		16 12	4.1		15 12	-0.3
	15 30	1.7		11 54	5.9	F	13 48	5.8		22 54	0.6		21 54	4.2
	21 42	5.0		19 00	-0.6		21 30	-0.9	2	06 24	5.0	20	02 06	2.8
9	03 36	0.7	28	02 12	4.5	15	05 00	4.7	Tu	12 18	2.6	Sa	08 36	6.2
Th	10 18	5.3	Tu	06 24	3.1	Sa	09 24	3.5		17 30	3.8		15 54	-0.7
	16 06	1.2		12 30	5.7		15 00	5.3		23 42	1.0		22 54	4.4
	22 30	5.0		19 48	-0.4		22 30	-0.6	3	06 54	5.2	21	02 54	3.1
10	04 12	1.0	29	03 06	4.3	16	06 00	5.0	W	13 12	1.9	Su	09 12	6.2
F	10 42	5.5	W	07 00	3.4		11 06	3.2		18 54	3.7		16 36	-0.9
	16 42	0.6		13 06	5.4		16 24	4.9	4	00 30	1.4	22	03 36	3.3
	23 18	4.9		20 30	-0.2	Su	23 30	-0.2	Th	07 24	5.5	M	09 54	6.1
11	04 42	1.4	30	04 06	4.3	17	06 42	5.3		14 00	1.1		17 12	-1.0
Sa	11 06	5.7	Th	07 54	3.5		17 54	4.5	5	01 12	1.8	23	00 24	4.5
	17 24	0.1		13 48	5.1	M	12 24	2.5	F	07 54	5.8	Tu	04 18	3.4
12	00 06	4.8		21 24	0.0		17 54	4.5		14 42	0.3		10 30	6.0
Su	05 12	1.8	31	05 06	4.3	18	00 24	0.3		21 24	4.0		17 48	-1.0
	11 24	5.8	F	09 00	3.6	Tu	07 24	5.6	6	01 54	2.2	24	01 06	4.6
	18 06	-0.3		14 36	4.8		13 30	1.7	Sa	08 24	6.1	W	04 54	3.4
13	01 00	4.7		22 24	0.2		19 24	4.4		15 24	-0.4		11 06	5.9
M	05 42	2.3	NOVEMBER							22 24	-4.2		18 24	-0.9
	11 54	6.0	1	06 06	4.4	19	01 12	0.8	7	02 36	2.6	25	01 48	4.6
	18 54	-0.6	Sa	10 30	3.0	W	08 00	5.9	Su	09 00	6.3	Th	05 36	3.4
14	01 54	4.5		15 48	4.5		14 30	0.8		16 12	-1.0		11 42	5.7
Tu	06 24	2.7		23 18	0.4	20	02 00	1.4		23 18	4.4		19 00	-0.7
	12 24	6.0	2	06 54	4.6	Th	08 36	6.1	8	03 24	2.9	26	02 24	4.6
	19 42	-0.7	Su	11 54	3.3		15 18	0.1	M	09 36	6.6	F	06 18	3.4
15	03 00	4.3		17 06	4.3		21 48	4.5		16 54	-1.5		12 18	5.5
W	07 00	3.1	3	00 06	0.5	21	02 42	1.9	9	00 12	4.5	19	19 36	-0.5
	13 06	6.0	M	07 30	4.8	F	09 12	6.2	Tu	04 12	3.1	27	03 00	4.6
	20 42	-0.6		12 54	2.9		16 06	-0.5		10 18	6.7	Sa	07 06	3.4
16	04 18	4.2		18 18	4.2		22 48	4.5		17 42	-1.7		12 54	5.2
Th	07 48	3.4	4	00 54	0.6	22	03 24	2.4	10	01 00	4.7		20 06	-0.2
	14 00	5.8	Tu	08 06	5.0	Sa	09 42	6.2	W	05 00	3.2	28	03 36	4.7
	21 48	-0.6		13 42	2.3		16 42	-0.8		11 06	6.7	Su	08 06	3.3
17	05 30	4.3		19 30	4.2		23 42	4.6		18 30	-1.8		13 36	4.9
F	09 12	3.6	5	01 30	0.8	23	04 00	2.8	11	01 54	4.8		20 42	0.1
	15 06	5.5	W	08 30	5.3		10 18	6.2	Th	05 54	3.3	29	04 06	4.8
	23 00	-0.5		14 30	1.6	Su	17 24	-1.0		11 54	6.6	M	09 06	3.0
18	06 36	4.5		20 30	4.3	24	00 30	4.6		19 18	-1.7		14 24	4.4
Sa	10 48	3.5	6	02 12	1.1		04 36	3.1	12	02 42	4.9		21 18	0.5
	16 30	5.3	Th	08 54	5.5	M	10 48	6.1	F	06 54	3.3	30	04 36	5.0
19	00 06	-0.4		15 06	0.9		18 06	-1.0		12 48	6.2	Tu	10 18	2.7
Su	07 30	4.8		21 30	4.4	25	01 18	4.5		20 12	-1.4		15 30	4.0
	12 24	3.1	7	02 42	1.5	Tu	05 18	3.3	13	03 30	5.0		21 54	1.0
	18 00	5.1	F	09 18	5.7		11 24	5.9	Sa	08 00	3.2	31	05 12	5.2
20	01 06	-0.2		15 48	0.2		18 42	-0.9		13 54	5.7	W	11 24	2.1
M	08 12	5.1		22 24	4.5					21 00	-0.9		16 54	3.6
	13 36	2.4											22 36	1.5
	19 24	5.1												

Harvest Moon and Hunter's Moon

The Harvest Moon, the full moon nearest to the Autumnal equinox, ushers in a period of several successive days when the moon rises soon after sunset. This phenomenon gives farmers in north temperate latitudes extra hours of light in which

to harvest their crops before frost and winter come—hence the name. In 1969 it falls on Sept. 25.

The next full moon after Harvest Moon is called the Hunter's Moon, accompanied by a similar phenomenon but less marked.

SPORTS OF 1968

WORLD SERIES

Tigers Defeat Cardinals in Seven Games

Composite Box Score

DETROIT TIGERS

	G	AB	R	H	2B	3B	HR	RBI	BB	SO	Bat. Avg.	PO	A	E	Fldg. Avg.
Dick McAuliffe, 2b.....	7	27	5	6	0	0	1	3	4	6	.222	11	16	0	1.000
Mickey Stanley, ss.....	7	28	4	6	0	1	0	0	2	4	.214	15	16	2	.939
Al Kaline, rf.....	7	29	6	11	2	0	2	8	0	7	.379	18	0	0	1.000
Norm Cash, lb.....	7	26	5	10	0	0	1	5	3	5	.385	59	6	2	.970
Willie Horton, lf.....	7	23	6	7	1	1	1	3	5	6	.304	5	1	1	.857
Jim Northrup, cf.....	7	28	6	7	0	1	2	8	1	5	.250	22	0	2	.917
Bill Freehan, c.....	7	24	0	2	1	0	0	2	4	8	.083	45	6	2	.962
Don Wert, 3b.....	6	17	1	2	0	0	0	2	6	5	.118	5	14	0	1.000
Ed Mathews.....	2	3	0	1	0	0	0	0	0	1	.333	0	1	1	.500
Dick Tracewski, 3b.....	2	0	1	0	0	0	0	0	0	0	.000	0	0	0	.000
Dennis McLain, p.....	3	6	0	0	0	0	0	0	0	4	.000	0	3	1	.750
John Matchick.....	3	3	0	0	0	0	0	0	0	1	.000	0	0	0	.000
Pat Dobson, p.....	3	0	0	0	0	0	0	0	0	0	.000	1	0	0	1.000
Gates Brown.....	1	1	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Don McMahon, p.....	2	0	0	0	0	0	0	0	0	0	.000	1	0	0	1.000
Mickey Lolich, p.....	3	12	2	3	0	0	1	2	1	5	.250	1	4	0	1.000
Ray Oyler, ss.....	4	0	0	0	0	0	0	0	0	0	.000	2	0	0	1.000
Earl Wilson, p.....	1	1	0	0	0	0	0	0	0	1	.000	0	2	0	1.000
Daryl Patterson, p.....	2	0	0	0	0	0	0	0	0	0	.000	0	1	0	1.000
Wayne Comer.....	1	1	0	1	0	0	0	0	0	0	1.000	0	0	0	.000
John Hiller, p.....	2	0	0	0	0	0	0	0	0	0	.000	1	0	0	1.000
Jim Price.....	2	2	0	0	0	0	0	0	0	1	.000	0	0	0	.000
Joe Sparma, p.....	1	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Fred Lasher, p.....	1	0	0	0	0	0	0	0	0	0	.000	0	1	0	1.000
Totals.....	7	231	34	56	4	3	8	33	27	59	.242	186	71	11	.959

ST. LOUIS CARDINALS

	G	AB	R	H	2B	3B	HR	RBI	BB	SO	Bat. Avg.	PO	A	E	Fldg. Avg.
Lou Brock, lf.....	7	28	6	13	3	1	2	5	3	4	.464	13	0	1	.929
Curt Flood, cf.....	7	28	4	8	1	0	0	2	2	2	.286	13	0	0	1.000
Roger Maris, rf.....	6	19	5	3	1	0	0	1	2	3	.158	8	0	0	1.000
Orlando Cepeda, 1b.....	7	28	2	7	0	0	2	6	3	3	.250	48	4	0	1.000
Tim McCarver, c.....	7	27	3	9	0	2	1	4	3	2	.333	61	1	0	1.000
Mike Shannon, 3b.....	7	29	3	8	1	0	1	4	1	5	.276	5	10	1	.938
Julian Javier, 2b.....	7	27	1	9	1	0	0	3	3	4	.333	14	14	0	1.000
Dal Maxvill, ss.....	1	22	1	0	0	0	0	0	3	5	.000	15	14	0	1.000
Bob Gibson, p.....	3	8	2	1	0	0	1	2	1	2	.125	2	0	0	1.000
Ron Davis, rf.....	2	7	0	0	0	0	0	0	0	2	.000	5	0	0	1.000
Nelson Briles, p.....	2	4	0	0	0	0	0	0	0	4	.000	0	2	0	1.000
Steve Carlton, p.....	2	0	0	0	0	0	0	0	0	0	.000	1	1	0	1.000
Ron Willis, p.....	3	0	0	0	0	0	0	0	0	0	.000	1	0	0	1.000
Phil Gagliano.....	3	3	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Joe Hoerner, p.....	3	2	0	1	0	0	0	0	0	1	.500	0	0	0	.000
Ray Washburn, p.....	2	3	0	0	0	0	0	0	0	0	1.000	0	0	0	.000
Ed Spiezio.....	1	1	0	1	0	0	0	0	0	0	.000	0	0	0	.000
Dick Schofield.....	2	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Larry Jaster, p.....	1	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Dick Hughes, p.....	1	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Dave Ricketts.....	1	1	0	1	0	0	0	0	0	0	1.000	0	0	0	.000
Wayne Granger, p.....	1	0	0	0	0	0	0	0	0	0	.000	0	1	0	1.000
Bob Tolán.....	1	1	0	0	0	0	0	0	0	1	.000	0	0	0	.000
John Edwards.....	1	1	0	0	0	0	0	0	0	1	.000	0	0	0	.000
Mel Nelson, p.....	1	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Totals.....	7	239	27	61	7	3	7	27	21	49	.255	186	48	2	.991

Pitching Summary DETROIT TIGERS

	G	CG	IP	H	R	BB	SO	HB	WP	W	L	Pct.	ER	ERA
Dennis McLain.....	3	1	16 ² / ₃	18	8	4	13	0	0	1	2	.333	6	3.18
Pat Dobson.....	3	0	4 ² / ₃	5	2	1	0	0	0	0	0	.000	2	3.60
Don McMahon.....	2	0	2	4	3	0	1	0	0	0	0	.000	3	18.00
Mickey Lolich.....	3	3	27	20	5	6	21	1	0	3	0	1.000	5	1.87
Earl Wilson.....	1	0	4 ¹ / ₃	3	3	6	3	0	0	0	1	.000	3	6.75
Daryl Patterson.....	2	0	3	1	0	1	0	0	0	0	0	.000	0	0.00
John Hiller.....	2	0	2	6	4	3	1	0	0	0	0	.000	3	18.00
Fred Lasher.....	1	0	2	1	0	0	1	0	0	0	0	.000	0	0.00
Joe Sparma.....	1	0	¹ / ₃	2	2	0	0	0	0	0	0	.000	2	54.00
Totals.....	7	4	62	61	27	21	49	1	0	4	3	.571	24	3.48

ST. LOUIS CARDINALS

	G	CG	IP	H	R	BB	SO	HB	WP	W	L	Pct.	ER	ERA
Bob Gibson.....	3	3	27	18	5	4	35	0	0	2	1	.667	5	1.67
Nelson Briles.....	2	0	11 ¹ / ₃	13	7	4	7	0	0	0	1	.000	7	5.73
Steve Carlton.....	2	0	4	7	3	1	3	0	0	0	0	.000	3	6.75
Ron Willis.....	3	0	4 ¹ / ₃	2	4	4	3	1	0	0	0	.000	4	9.00
Joe Hoerner.....	3	0	4 ² / ₃	5	4	5	3	0	0	0	1	.000	2	3.85
Ray Washburn.....	2	0	7 ¹ / ₃	7	8	7	6	0	0	1	1	.500	8	9.82
Larry Jaster.....	1	0	0	2	3	1	0	0	0	0	0	.000	3	*
Dick Hughes.....	1	0	¹ / ₃	2	0	0	0	0	0	0	0	.000	0	0.00
Wayne Granger.....	1	0	2	0	0	1	1	2	0	0	0	.000	0	0.00
Mel Nelson.....	1	0	1	0	0	0	1	0	0	0	0	.000	0	0.00
Totals.....	7	3	62	56	34	27	59	3	0	3	4	.429	32	4.65

*Gave up three earned runs in no innings pitched.

Composite Score by Innings

Detroit.....	0	3	13	3	2	3	7	0	3-34
St. Louis.....	5	0	2	5	4	1	4	4	2-27

1968 World Series Box Scores

The Detroit Tigers became world baseball champions by defeating the St. Louis Cardinals in the 1968 World Series, 4 games to 3. Led by left-hander Mickey Lolich, who won 3 games in the series, the Tigers were forced to win the final three games after falling behind, 3 games to 1. Lolich, by starting, finishing and winning 3 games in one World Series duplicated the feat performed one year earlier by Bob Gibson of the Cardinals.

FIRST GAME

Busch Memorial Stadium, St. Louis, Oct. 2

DETROIT TIGERS

	AB	R	H	E	F	O	A
McAuliffe, 2b	4	0	1	0	3	0	0
Stanley, ss	4	0	2	0	3	2	0
Kallie, rf	4	0	1	0	2	0	0
Cash, 1b	4	0	0	0	7	1	0
Horton, lf	4	0	0	0	2	0	0
Northrup, cf	3	0	0	0	2	0	0
Freehan, c	2	0	0	0	4	1	0
Wert, 3b	2	0	1	0	0	0	0
bMathews, ph	1	0	0	0	0	0	0
Tracewski, 3b	0	0	0	0	0	0	0
McLain, p	1	0	0	0	0	2	0
aMatchlick, ph	1	0	0	0	0	0	0
Dobson, p	0	0	0	0	0	0	0
cBrown, ph	1	0	0	0	0	0	0
McMahon, p	0	0	0	0	1	0	0
Totals	31	0	5	0	29	4	0

ST. LOUIS CARDINALS

	AB	E	H	REI	FO	A
Brock, lf	4	1	1	2	0	0
Flood, cf	4	0	1	0	1	0
Maris, rf	3	1	0	0	1	0
Cepeda, lb	4	0	1	0	1	0
McCarver, c	3	1	0	1	0	1
Shannon, 3b	4	1	2	1	0	1
Javier, 2b	3	0	1	2	2	0
Maxvill, ss	2	0	0	0	2	0
Gibson, p	2	0	0	0	1	0
Totals	29	4	6	4	27	2

a-Grounded out for McLain in 6th.

b-Struck out for Wert in 8th.

c-Flied out for Dobson in 8th.

Detroit (A.)	0	0	0	0	0	0	0	0	0—0
St. Louis (N.)	0	0	0	3	0	0	1	0	x—4

	IP	H	R	ER	BB	SO
McLain (L.)	5	3	3	2	3	3
Dobson	2	2	1	1	1	0
McMahon	1	1	0	0	0	0
Gibson (W.)	9	5	0	0	1	17

Errors—Freehan, Horton, Cash. Left on bases—Detroit 5, St. Louis 6. Two-base hit—Kaline. Three-base hit—McCarver. Home run—Brock. Stolen bases—Brock, Javier, Flood. Sacrifice—Gibson.

How runs were scored—Three in Cardinals fourth; Maris and McCarver walked, Shannon singled to left, scoring Maris. When Horton bobbled the ball, McCarver went to third and Shannon to second. Javier singled to right, scoring both runners.

One in Cardinal seventh: Brock homered.

Umpires—Gorman (N.) plate; Honochick (A.) first base; Landes (N.) second base; Kinnamon (A.) third base; Harvey (N.) left field; Haller (A.) right field. Time of game—2:29. Attendance—54,682.

SECOND GAME

Busch Memorial Stadium, St. Louis, Oct. 3

DETROIT TIGERS

	AB	B	H	E	F	A
McAuliffe, 2b	5	0	2	1	5	
Stanley, ss-cf	5	0	1	0	0	3
Kaline, rf	5	2	2	0	2	0
Cash, lf	5	2	3	1	11	0
Horton, 1b	3	2	2	1	0	0
Oyler, ss	0	0	0	0	0	0
Northrup, cf-lf	5	1	1	0	4	0
Freeman, c	4	0	0	0	9	1
Went, 3b	2	0	0	0	0	0
Lolich, p	4	1	2	2	0	0
Totals	38	8	13	7	27	11

ST. LOUIS CARDINALS

	AB	R	H	RBI	FO	A
Brock, lf	3	1	0	0	0	0
Javier, 2b	4	0	2	0	2	2
Flood, cf	3	0	1	0	2	0
Cepeda, 1b	4	0	2	1	7	0
Shannon, 3b	4	0	0	0	1	3
McCarver, c	4	0	0	0	7	0
Davis, rf	4	0	0	0	4	0
Maxvill, ss	3	0	0	0	4	3
Bries, p	2	0	0	0	0	0
Carlton, p	0	0	0	0	0	0
Willis, p	0	0	0	0	0	0
aGagliano, ph	1	0	0	0	0	0
Hoerner, p	0	0	0	0	0	0
Totals	32	1	6	1	27	8

a-Grounded out for Willis in 8th.

Detroit (A.)	0	1	1	0	0	3	1	0	2-8
St. Louis (N.)	0	0	0	0	0	1	0	0	0-1

	IP	H	R	ER	BB	SO
Lolich (W.)	9	6	1	1	2	9
Briles (L.)	5	7	4	4	1	2
Carlton	1	4	2	2	1	1
Willis	2	1	0	0	2	2
Hoerner	1	1	2	0	3	1

Errors—Stanley, Shannon. Double plays—Stanley, McAuliffe and Cash; Maxvill and Cepeda; Javier, Maxvill and Cepeda. Left on bases—Detroit 11, St. Louis 6. Home runs—Horton, Lolich, Cash. Stolen bases—Brock 2. Sacrifice—Oyler.

How runs were scored—One in Tiger second: Horton hit a home run.

One in Tiger third: Lolic hit a home run.

Three in Tiger sixth: Cash hit a home run. Horton and Northrup singled. Wert walked. McAuliffe singled to center, scoring Horton and Northrup.

One in Cardinal sixth: Brock walked and stole second. Flood had an infield hit, Brock taking third. Cepeda singled, scoring Brock.

One in Tiger seventh: Kaline and Cash singled. Horton walked. Northrup hit into a double play, as Kaline scored.

Two in Tiger ninth: Kaline singled, Cash was safe on Shannon's error, Kaline taking second. Oyler sacrificed the runners to second and third. With two out, Freehan was intentionally passed loading the bases. Wert walked, forcing in a run. Lolich walked, forcing in a run.

Umpires—Honochick (A.) plate; Landes (N.) first base; Kinnamon (A.) second base; Harvey (N.) third base; Haller (A.) left field foul line; Gorman (N.) right field foul line. Time of game—2:41. Attendance—54,692.

THIRD GAME

Tiger Stadium, Detroit, Oct. 5

ST. LOUIS CARDINALS

	AB	R	H	BI	PO	A
Brock, lf	4	1	3	0	5	0
Flood, cf	4	2	2	1	1	0
Maris, rf	3	2	1	0	2	0
Cepeda, 1b	5	1	1	3	10	0
McCarver, c	5	1	2	3	5	0
Shannon, 3b	4	0	2	0	0	1
Javier, 2b	4	0	1	0	2	5
Maxvill, ss	4	0	0	0	2	2
Washburn, p	3	0	0	0	0	0
Hoerner, p	2	0	1	0	0	1
Totals	38	7	13	7	27	9

DETROIT TIGERS

	AB	R	H	REI	PO	A
McAuliffe, 2b	4	2	2	1	0	1
Stanley, ss	3	0	0	0	0	2
Kaline, rf	4	1	1	2	1	0
Cash, lb	3	0	0	0	8	1
Horton, lf	2	0	0	0	1	0

	AB	R	H	RBI	PO	A
Northrup, cf	4	0	0	0	7	0
Freehan, c	3	0	0	0	6	2
Wert, 3b	4	0	0	0	3	2
Wilson, p	1	0	0	0	0	2
Dobson, p	0	0	0	0	0	0
aMatchik, ph	1	0	0	0	0	0
McMahon, p	0	0	0	0	0	0
Patterson, p	0	0	0	0	0	0
bComer, ph	1	0	1	0	0	0
Hiller, p	0	0	0	0	1	0
cPrice, ph	1	0	0	0	0	0
Totals	30	3	4	3	27	10

a-Struck out for Dobson in 5th.

b-Singled for Patterson in 7th.

c-Filed out for Hiller in 9th.

St. Louis (N)	0	0	0	4	0	3	0	0	—7
Detroit (A)	0	0	2	9	1	0	0	0	—3

	IP	H	R	ER	BB	SO
Washburn (W.)	5 ² / ₃	3	3	3	4	3
Hoerner	3 ² / ₃	1	0	0	1	2
Wilson (L.)	4 ² / ₃	4	3	3	6	3
Dobson	3 ² / ₃	2	1	0	0	0
McMahon	1	3	3	3	0	1
Patterson	1	0	0	0	0	0
Hiller	2	4	0	0	1	1

Double play—Freehan, Wert. Left on bases—St. Louis 11, Detroit 6. Doubles—Flood, Maris. Home runs—Kalinne, McCarver, McAuliffe, Cepeda. Stolen bases—Brock 3.

How runs were scored—Two in Tiger third; Kalinne hit a home run with a man on.

Four in Cardinal fifth: Brock singled and stole second. Flood doubled, scoring Brock. Maris walked. McCarver hit a three-run homer.

One in Tiger fifth: McAuliffe hit a home run.

Three in Cardinal seventh: Flood singled. Maris doubled, sending Flood to third. Cepeda hit a three-run homer.

Umpires—Landes (N.) plate; Kinnamon (A.) first base; Harvey (N.) second base; Haller (A.) third base; Gorman (N.) left field; Honochick (A.) right field. Time—3:17. Attendance—53,634.

FOURTH GAME

Tiger Stadium, Detroit, Oct. 6

ST. LOUIS CARDINALS

	AB	R	H	RBI	PO	A
Brock, lf	5	2	3	4	2	0
Flood, cf	5	1	1	0	3	0
Maris, rf	5	1	0	1	0	0
Cepeda, 1b	4	0	1	0	9	1
McCarver, c	5	1	3	1	10	0
Shannon, 3b	5	1	2	2	1	0
Javier, 2b	4	1	2	0	0	2
Maxvill, ss	4	1	0	0	2	1
Gibson, p	3	2	1	2	0	0
Totals	40	10	13	10	27	4

DETROIT TIGERS

	AB	R	H	RBI	PO	A
McAuliffe, 2b	4	0	0	0	2	4
Stanley, ss	4	0	0	0	3	3
Kalinne, rf	4	0	2	0	1	0
Cash, 1b	4	1	1	0	10	1
Horton, lf	3	0	0	0	1	0
Northrup, cf	4	1	1	1	5	0
Mathews, 3b	2	0	1	0	0	1
Freehan, c	3	0	0	0	4	1
McLain, u	1	0	0	0	0	0
Sparma, p	0	0	0	0	0	0
Patterson, p	0	0	0	0	0	1
aPrice, ph	1	0	0	0	0	0
Lasher, p	0	0	0	0	0	1
Hiller, p	0	0	0	0	0	0
Dobson, p	0	0	0	0	1	0
Totals	31	1	5	1	27	12

a-Struck out for Patterson in 5th.

b-Filed out for Lasher in 7th.

St. Louis (N)	2	0	2	2	0	0	4	0	—10
Detroit (A)	0	0	0	1	0	0	0	0	—1

	IP	H	R	ER	BB	SO
Gibson (W.)	9	5	1	1	2	10
McLain (L.)	2 ² / ₃	6	4	3	1	3
Sparma	2	2	2	2	0	0
Patterson	2	1	0	0	1	0
Lasher	2	1	0	0	0	1
Hiller	0	2	4	3	2	0
Dobson	2	1	0	0	0	0

Errors—McLain, Freshan, Mathews, Northrup. Double play—Cepeda, Maxvill. Left on base—St. Louis 7, Detroit 5. Doubles—Kalinne, Shannon. Javier, Brock. Triples—McCarver, Brock. Home runs—Brock, Gibson, Northrup. Stolen base—Brock.

How runs were scored—Two in Cardinal first: Brock hit a home run. Maris was safe at first on an error. McCarver singled. Shannon singled, scoring Maris.

Two in Cardinal third: Flood singled. McCarver tripled, scoring Flood. Shannon doubled, scoring McCarver.

Two in Cardinal fourth: Gibson hit a home run. Brock tripled. Maris grounded out, scoring Brock.

One in Tiger fourth: Northrup hit a home run.

Four in Cardinal eighth: Shannon was safe at first on an error. Javier doubled, sending Shannon to third. Maxvill walked. Gibson walked, forcing in a run. Brock doubled, clearing the bases.

Umpires—Kinnamon (A.) plate; Harvey (N.) first base; Haller (A.) second base; Gorman (N.) third base; Honochick (A.) left field; Landes (N.) right field. Time—2:34. Attendance 53,634.

FIFTH GAME

Tiger Stadium, Detroit, Oct. 7

ST. LOUIS CARDINALS

	AB	R	H	RBI	PO	A
Brock, lf	5	1	3	0	2	0
Javier, 2b	4	0	2	0	2	1
Flood, cf	0	0	0	0	1	0
Cepeda, 1b	4	1	1	1	3	0
Shannon, 3b	4	1	1	2	7	0
McCarver, c	4	0	0	0	1	2
Davis, rf	3	0	1	0	6	0
aGagliano, ph	1	0	0	0	1	0
Maxvill, ss	3	0	0	0	0	0
bSpiezio, ph	1	0	0	0	1	2
cSchiefel, pr	0	0	0	0	0	0
Briles, p	1	0	1	0	0	0
Hoerner, p	2	0	0	0	0	2
Willis, p	0	0	0	0	0	0
dMarris, ph	1	0	0	0	0	0
Totals	35	3	9	3	24	7

DETROIT TIGERS

	AB	R	H	RBI	PO	A
McAuliffe, 2b	4	1	1	0	1	2
Stanley, ss, cf	3	2	1	0	2	3
Kalinne, rf	4	0	2	2	3	0
Cash, 1b	2	0	2	2	7	1
Horton, lf	4	1	1	0	1	1
Oyler, ss	0	0	0	0	1	0
Northrup, cf, lf	3	0	1	1	2	0
Freehan, c	4	0	0	0	9	1
Wert, 3b	3	0	0	0	0	1
Lolich, p	4	1	1	0	1	2
Totals	31	5	9	5	27	11

a-Filed out for Davis in 9th.

b-Singled for Maxvill in 9th.

c-Ran for Spiezio in 9th.

d-Struck out for Willis in 9th.

St. Louis (N.)	3	0	0	0	0	0	0	0	—3
Detroit (A.)	0	0	0	2	0	3	0	x	—5

	IP	H	R	ER	BB	SO
Briles	6 ¹ / ₃	6	3	3	3	5
Hoerner (L.)	9	3	2	2	1	0
Willis	1 ² / ₃	0	0	0	0	1
Lolich (W.)	9	9	3	3	1	7

Errors—Cash, Double play—Shannon, Javier, Cepeda. Left on base—St. Louis 7, Detroit 7. Doubles—Brock 2, Triples—Stanley, Horton. Home run—Cepeda. Stolen base—Flood. Sacrifice—Cash.

How runs were scored—Three in Cardinal first: Brock doubled. Flood singled, scoring Brock. Cepeda hit a home run.

Two in Tiger fourth: Stanley tripled and scored on Cash's sacrifice fly. Horton tripled. Northrup singled, scoring Horton.

Three in Tiger seventh: Lolich singled. McAuliffe singled. Stanley walked, filling the bases. Kalinne singled, scoring Lolich and McAuliffe. Cash singled, scoring Stanley.

Umpires—Harvey (N.) plate; Haller (A.) first base; Gorman (N.) second base; Honochick (A.) third base; Landes (N.) left field; Kinnamon (A.) right field.

Time of game—2:43. Attendance—53,634.

SIXTH GAME

Busch Memorial Stadium, St. Louis, Oct. 9

DETROIT TIGERS

	AB	R	H	RBI	PO	A
McAuliffe, 2b	2	2	0	0	3	1
Stanley, ss, cf	4	2	1	0	2	1
Kaline, rf	4	3	3	4	7	0
Cash, 1b	4	2	3	2	5	0
Horton, lf	3	2	2	2	0	0
Oyler, ss	0	0	0	0	0	0
Northrup, cf, lf	5	1	2	4	1	0
Freehan, c	4	0	1	1	7	0
Wert, 3b	3	1	0	0	2	2
McLain, p	4	0	0	0	0	1
Totals	34	13	12	13	27	5

ST. LOUIS CARDINALS

	AB	R	H	RBI	PO	A
Brock, lf	4	0	1	0	1	0
Flood, cf	4	0	0	0	0	0
Maris, rf	4	1	2	0	2	0
Cepeda, 1b	4	0	2	0	7	2
McCarver, c	4	0	1	0	8	0
Shannon, 3b	4	0	1	1	1	2
Javier, 2b	4	0	1	1	3	2
Maxvill, ss	4	0	0	0	4	5
Washburn, p	0	0	0	0	0	0
Jaster, p	0	0	0	0	0	0
Willis, p	0	0	0	0	0	0
Hughes, p	0	0	0	0	0	0
aRicketts	1	0	1	0	0	0
Carlton, p	0	0	0	0	1	1
bTolan	1	0	0	0	0	0
Granger, p	0	0	0	0	0	1
cEdwards	1	0	0	0	0	0
Nelson, p	0	0	0	0	0	0
Totals	35	1	9	1	27	13

a-Singled for Hughes in 3d.

b-Struck out for Carlton in 6th.

c-Struck out for Granger in 8th.

Detroit (A.)	0	2	10	0	1	0	0	0	0	—13
St. Louis (N.)	0	0	0	0	0	0	0	0	0	1—1

	IP	H	R	ER	BB	SO
McLain (W.)	9	9	1	1	0	7
Washburn (L.)	2	4	5	5	3	3
Jaster	0	2	3	3	1	0
Willis	$\frac{2}{3}$	1	4	4	2	0
Hughes	$\frac{1}{3}$	0	0	0	0	0
Carlton	3	3	1	0	0	2
Granger	3	3	1	1	0	1
Nelson	1	0	0	0	0	1

Errors—Brock, Stanley, Double plays—Maxvill, Javier, Cepeda; Stanley, McAuliffe, Cash; Maxvill, Javier, Cepeda; Granger, Maxvill, Cepeda. Left on bases—Detroit 5, St. Louis 7. Double—Horton. Home runs—Northrup, Kaline. Sacrifice—McLain.

How runs were scored—Two in Tiger second: Cash walked. Horton doubled, scoring Cash. Freehan singled, scoring Horton.

Ten in Tiger third: McAuliffe walked. Stanley singled. Kaline singled, scoring McAuliffe. Cash singled, scoring Stanley. Horton walked. Northrup hit a grand slam homer. Freehan walked. Wert was hit by a pitch. McAuliffe walked. Kaline singled, scoring two runs. Cash and Horton followed with run-scoring singles.

One in Tiger fifth: Kaline hit a home run.

One in Cardinal ninth: Maris and Cepeda singled. Javier singled, scoring Maris.

Umpires—Haller (A.), plate; Gorman (N.), first base; Honochick (A.), second base; Landes (N.), third base; Kinnamon (A.), left field; Harvey (N.), right field.

Time of game—2:26. Attendance—54,692.

SEVENTH GAME

Busch Memorial Stadium, St. Louis, Oct. 10

DETROIT TIGERS

	AB	R	H	RBI	PO	A
McAuliffe, 2b	4	0	0	0	1	3
Stanley, ss, cf	4	0	1	0	5	2
Kaline, rf	4	0	0	0	2	0
Cash, 1b	4	1	1	0	11	2
Horton, lf	4	1	2	0	0	0
Oyler, ss	0	0	0	0	1	0
bTracewski	0	1	0	0	0	0
Northrup, cf, lf	4	1	2	2	1	0
Freehan, c	4	0	1	1	6	0
Wert, 3b	3	0	1	1	0	6
Lolich, p	4	0	0	0	0	2
Totals	35	4	8	4	27	15

ST. LOUIS CARDINALS

	AB	R	H	RBI	PO	A
Brock, lf	3	0	1	0	1	0
Javier, 2b	4	0	0	0	3	2
Flood, cf	4	0	2	0	3	0
Cepeda, 1b	3	0	0	0	7	0
Shannon, 3b	4	1	1	1	1	2
McCarver, c	3	0	1	0	8	0
Maris, rf	3	0	0	0	3	0
Maxvill, ss	2	0	0	0	0	1
aGagliano	1	0	0	0	0	0
Schofield, ss	0	0	0	0	0	0
Gibson, p	3	0	0	0	1	0
Totals	30	1	5	1	27	5

a-Grounded out for Maxvill in 8th.

b-Ran for Horton in 9th.

Detroit (A.)	0	0	0	0	0	3	0	1—4
St. Louis (N.)	0	0	0	0	0	0	0	1—1

	IP	H	R	ER	BB	SO
Lolich (W.)	9	5	1	1	3	4
Gibson (L.)	9	8	4	4	1	8

Error—Northrup. Double play—Stanley, Cash. Left on bases—Detroit 5, St. Louis 5. Double—Freehan. Triple—Northrup. Home run—Shannon. Stolen base—Flood.

How runs were scored—Three in Tiger seventh: Cash and Horton singled. Northrup tripled, scoring Cash and Horton. Freehan doubled, scoring Northrup.

One in Tiger ninth: Horton singled. Northrup singled. Wert singled, scoring a run.

One in Cardinal ninth: Shannon hit a home run.

Umpires—Gorman (N.) plate; Honochick (A.) first base; Landes (N.) second base; Kinnamon (A.) third base; Harvey (N.) left field foul line; Haller (A.) right field foul line.

Time of game—2:07. Attendance—54,692.

World Series Attendance and Receipts Since 1947

Yr.	Clubs	G.	Atten.	Rcpts.	Yr.	Clubs	G.	Atten.	Rcpts.
1947	N. Y. (A)-Brooklyn (N.)	7	389,763	2,137,549	1958	N. Y. (A)-Milw. (N.)	7	393,909	2,397,223
1948	Cleveland (A)-Boston (N.)	6	358,362	1,633,685	1959	L. A. (N)-Chicago (A) (*)	6	420,784	2,626,973
1949	N. Y. (A)-Brooklyn (N.)	5	236,710	1,129,627	1960	Pitts (N)-N. Y. (A.)	7	349,813	2,230,627
1950	New York (A)-Phila. (N.)	4	196,009	953,669	1961	N. Y. (A)-Cincinnati (N.)	5	223,247	1,480,095
1951	New York (A)-N. Y. (N.)	6	341,977	1,633,457	1962	N. Y. (A)-San Fran. (N.)	7	376,864	2,878,891
1952	N. Y. (A)-Brooklyn (N.)	7	340,906	1,622,753	1963	L. A. (N)-N. Y. (A.)	4	247,279	1,995,190
1953	N. Y. (A)-Brooklyn (N.)	6	307,350	1,779,269	1964	St. Louis (N)-N. Y. (A.)	7	321,807	2,243,187
1954	New York (N)-Clev. (A.)	4	251,507	1,566,203	1965	L. A. (N)-Minn. (A.)	7	364,326	2,975,041
1955	Brooklyn (N)-N. Y. (A.)	7	362,310	2,327,515	1966	L. A. (N)-Balt. (A) (**)	4	220,791	2,047,142
1956	N. Y. (A)-Brooklyn (N.)	7	345,903	2,173,254	1967	St. Louis (N)-Bos. (A.)	7	304,085	2,350,607
1957	Milw. (N)-N. Y. (A.)	7	394,712	2,475,978	1968	St. Louis (N)-Det. (A.)	7	379,670	3,018,113

Receipts since 1948 do not include fees for radio and television rights. This revenue customarily goes to players' pension fund. *Attendance record. **Receipts record for 4-game Series.

How Players Shared 1968 World Series Money

From the player pool of the 1968 World Series (derived from receipts of the first 4 games only), members of the winning Detroit Tigers received \$10,936.66 each and the losing St. Louis Cardinals got \$7,078.71 each. Both winners' and losers' shares were far below the World Series records—\$12,794 each for the winning Los Angeles Dodgers in 1963 and \$8,189 each for the losing Dodgers in 1966.

17 Records Broken, 35 Tied in 1968 World Series

INDIVIDUAL RECORDS BROKEN

Most home runs, pitcher as batter, total Series—2, Bob Gibson, St. Louis.
 Fewest hits, Series, 0, Dal Maxvill, St. Louis, 22 at bats.
 Most games won, consecutive, total Series—7, Gibson.
 Most complete games won, consecutive, total Series—7, Gibson.
 Most complete games, consecutive, total Series—8, Gibson.
 Most strikeouts, game—17, Gibson, Oct. 2.
 Most strikeouts, Series—35, Gibson.
 Most putouts, catcher, Series—61, Tim McCarver, St. Louis.
 Fewest putouts, first baseman, game—1, Orlando Cepeda, St. Louis, Oct. 2.

INDIVIDUAL RECORDS TIED

Hitting home run, first Series at bat—Mickey Lolich, Detroit, Oct. 3.
 Most hits, Series—13, Lou Brock, St. Louis.
 Most total bases, Series—24, Brock.
 Most long hits, Series—6, Lou Brock.
 Hitting in each game—Brock.
 Fewest runs scored, Series—0, Bill Freehan, Detroit.
 Fewest bases on balls, Series—0, Al Kaline, Detroit.
 Most stolen bases, total Series—14, Brock.
 Most stolen bases, Series—7, Brock.
 Most stolen bases, game—3, Brock, Oct. 5.
 Home run, bases full, game—Jim Northrup, Detroit, Oct. 9.
 Most RBI, inning—4, Northrup, 3d inning, Oct. 9.
 Most hits, inning—2, Al Kaline and Norm Cash, Detroit, 3d inning, Oct. 9.
 Most runs scored, inning—2, Dick McAuliffe, Mickey Stanley and Kaline, Detroit, 3d inning, Oct. 9.
 Most at bats, inning—2, Stanley, Kaline, Cash and Northrup, 3d inning, Oct. 9.
 Most bases on balls, inning—2, McAuliffe, 3d inning, Oct. 9.
 Most games won, Series—3, Mickey Lolich, Detroit.

Most games won, no losses, Series—3, Lolich.
 Most games lost, Series—2, Dennis McLain, Detroit.
 Most complete games, Series—3, Gibson, Lolich.
 Most innings, one or more strikeouts, game, 9, Gibson, Oct. 2.
 Most chances, catcher, game, 18, McCarver, Oct. 2.
 Most chances, catcher, inning—3, McCarver, 2d inning and 8th inning, Oct. 2.
 Most putouts, shortstop, inning—3, Stanley, 6th inning, Oct. 10.

CLUB RECORDS BROKEN

Most strikeouts, club, game—17, Detroit, Oct. 2.
 Most strikeouts, club, Series—59, Detroit.
 Most strikeouts, both clubs, Series—99 (Detroit 59 vs. St. Louis 40).
 Most batsmen hit by pitch club, game—3, Detroit by St. Louis, Oct. 9.
 Fewest two-base hits, both clubs, Series—11 (Detroit 4 vs. St. Louis 7).
 Fewest sacrifice hits, both clubs, Series—3 (St. Louis 1 vs. Detroit 2).
 Fewest assists, club, Series—48, St. Louis.
 Fewest assists, club, game—2, St. Louis, Oct. 2.

CLUB RECORDS TIED

Most home runs, by pitchers as batters, Series—2 (St. Louis 1 vs. Detroit 1).
 Most strikeouts, both clubs, inning—5 (Detroit 3 vs. St. Louis 2, 2d inning, Oct. 2).
 Most pinch-hitters, club, inning—3, St. Louis, 8th inning, Oct. 7.
 Most three-base hits, both clubs, Series—6 (Detroit 3 vs. St. Louis 3).
 Fewest two-base hits, club, Series—4, Detroit.
 Fewest stolen bases, club, Series—0, Detroit.
 Fewest sacrifice hits, club, Series—1, St. Louis.
 Most runs scored, inning—10, Detroit, 3d inning, Oct. 9.
 Most batsmen facing pitcher, inning—15, Detroit, 3d inning, Oct. 9.
 Most RBI, inning—10, Detroit, 3d inning, Oct. 9.
 Most pitchers used, inning—4, St. Louis, 3d inning, Oct. 9.

Baseball World Championships, 1903-1968

Yr.	Winners	Won	Losers	Won	Yr.	Winners	Won	Losers	Won
1903	Boston, A. L.	5	Pittsb'gh, N. L.	4	1936	N. Y., A. L.	4	N. Y., N. L.	4
1904	N. Y., N. L.	4	refused play Boston, A. L.	0	1937	N. Y., A. L.	4	N. Y., N. L.	4
1905	N. Y., N. L.	4	Phila., A. L.	1	1938	N. Y., A. L.	4	Chicago, N. L.	0
1906	Chicago, A. L.	4	Chicago, N. L.	2	1939	N. Y., A. L.	4	Cincinnati, N. L.	0
1907*	Chicago, N. L.	4	Detroit, A. L.	0	1940	Cinc., N. L.	4	Detroit, A. L.	3
1908	Chicago, N. L.	4	Detroit, A. L.	1	1941	N. Y., A. L.	4	B'klyn, N. L.	1
1909	Pittsb'gh, N. L.	4	Detroit, A. L.	3	1942	St. Louis, N. L.	4	N. Y., A. L.	1
1910	Phila., A. L.	4	Chicago, N. L.	1	1943	N. Y., A. L.	4	St. Louis, N. L.	1
1911	Phila., A. L.	4	N. Y., N. L.	2	1944	St. Louis, N. L.	4	Chicago, N. L.	3
1912*	Boston, A. L.	4	N. Y., N. L.	3	1945	Detroit, A. L.	4	Boston, A. L.	3
1913	Phila., A. L.	4	N. Y., N. L.	3	1946	St. Louis, N. L.	4	Boston, A. L.	3
1914	Boston, N. L.	4	Phila., A. L.	0	1947	N. Y., A. L.	4	B'klyn, N. L.	2
1915	Boston, A. L.	4	Phila., N. L.	1	1948	Cleveland, A. L.	4	Boston, N. L.	2
1916	Boston, A. L.	4	B'klyn, N. L.	1	1949	N. Y., A. L.	4	B'klyn, N. L.	1
1917	Chicago, A. L.	4	N. Y., N. L.	2	1950	N. Y., A. L.	4	Phila., N. L.	0
1918	Boston, A. L.	4	Chicago, N. L.	2	1951	N. Y., A. L.	4	N. Y., N. L.	2
1919	Cincin., N. L.	5	Chicago, A. L.	3	1952	N. Y., A. L.	4	B'klyn, N. L.	2
1920	Cleveland, A. L.	5	B'klyn, N. L.	2	1953	N. Y., A. L.	4	B'klyn, N. L.	2
1921	N. Y., N. L.	5	N. Y., A. L.	0	1954	N. Y., N. L.	4	Cleve., A. L.	0
1922*	N. Y., N. L.	4	N. Y., A. L.	0	1955	B'klyn, N. L.	4	B'klyn, N. L.	3
1923	N. Y., A. L.	4	N. Y., N. L.	2	1956	N. Y., A. L.	4	N. Y., A. L.	3
1924	Wash., A. L.	4	N. Y., N. L.	3	1957	Milw., N. L.	4	Milw., N. L.	3
1925	Pittsb'gh, N. L.	4	Wash., A. L.	3	1958	N. Y., A. L.	4	Chicago, A. L.	2
1926	St. Louis, N. L.	4	N. Y., A. L.	3	1959	Los Angeles, N. L.	4	N. Y., A. L.	3
1927	N. Y., A. L.	4	Pitts., N. L.	0	1960	Pittsb'gh, N. L.	4	Cincinnati, N. L.	1
1928	N. Y., A. L.	4	St. Louis, N. L.	0	1961	N. Y., A. L.	4	San Fran., N. L.	0
1929	Phila., A. L.	4	Chicago, N. L.	1	1962	N. Y., A. L.	4	N. Y., A. L.	3
1930	Phila., A. L.	4	St. Louis, N. L.	2	1963	N. Y., N. L.	4	Minna., A. L.	3
1931	St. Louis, N. L.	4	Phila., A. L.	3	1964	St. Louis, N. L.	4	Los Angeles, N. L.	0
1932	N. Y., A. L.	4	Chicago, N. L.	0	1965	L. A., N. L.	4	Boston, A. L.	3
1933	N. Y., N. L.	4	Wash., A. L.	1	1966	Balt., A. L.	4	St. Louis, N. L.	3
1934	St. Louis, N. L.	4	Detroit, A. L.	3	1967	St. Louis, N. L.	4	St. Louis, N. L.	3
1935	Detroit, A. L.	4	Chicago, N. L.	2	1968	Detroit, A. L.	4	St. Louis, N. L.	3

* One tie game. † First major league club to win five world championships in succession.

ALL-TIME HOME RUN LEADERS

Player	H.R.	Player	H.R.	Player	H.R.
Babe Ruth	714	Ralph Kiner	369	Ken Boyer	282
Willie Mays	587	Joe DiMaggio	361	Ted Kluszewski	279
Mickey Mantle	536	John Mize	359	Rudy York	277
Jimmy Foxx	534	Yogi Berra	358	Roger Maris	275
Ted Williams	521	Joe Adcock	336	Willie McCovey	268
Ed Mathews	512	Hank Greenberg	331	Vic Wertz	266
Mel Ott	511	Roy Stivers	318	Norm Cash	260
Henry Aaron	510	Al Kaline	314	Bobby Thomson	264
Lou Gehrig	493	Al Simmons	307	Joe Gordon	253
Stan Musial	475	Rogers Hornsby	302	Larry Doby	253
Ernie Banks	474	Chuck Klein	300	Fred Williams	251
Frank Robinson	418	Robert Johnson	288	Leon Goslin	248
Duke Snider	407	Hank Sauer	288	Bob Allison	247
Harmon Killebrew	397	Del Ennis	286	Vernon Stephens	247
Rocco Caravito	374	Frank Thomas	286	Hack Wilson	244
Gil Hodges	370	Orlando Cepeda	284		

Major League Pennant Winners, 1901-1968

NATIONAL LEAGUE

AMERICAN LEAGUE

Year	Winner	Won	Lost	Per Cent	Manager	Year	Winner	Won	Lost	Per Cent	Manager
1901.	Pittsburgh.....	90	49	.647	Clarke	1901..	Chicago.....	83	53	.610	Griffith
1902..	Pittsburgh.....	103	38	.741	Clarke	1902..	Philadelphia.....	83	53	.610	Mack
1903..	Pittsburgh.....	91	49	.650	Clarke	1903..	Boston.....	91	47	.659	J. J. Collins
1904..	New York.....	106	47	.693	McGraw	1904..	Boston.....	95	59	.617	Collins
1905..	New York.....	105	48	.686	McGraw	1905..	Philadelphia.....	92	56	.622	Mack
1906..	Chicago.....	116	36	.763	Chance	1906..	Chicago.....	93	58	.616	Jones
1907..	Chicago.....	107	45	.704	Chance	1907..	Detroit.....	92	58	.613	Jennings
1908..	Chicago.....	99	55	.643	Chance	1908..	Detroit.....	90	63	.588	Jennings
1909..	Pittsburgh.....	110	42	.724	Clarke	1909..	Detroit.....	98	54	.645	Jennings
1910..	Chicago.....	104	50	.675	Chance	1910..	Philadelphia.....	102	48	.680	Mack
1911..	New York.....	99	54	.647	McGraw	1911..	Philadelphia.....	101	50	.669	Mack
1912..	New York.....	103	48	.682	McGraw	1912..	Boston.....	105	47	.691	Stahl
1913..	New York.....	101	51	.664	McGraw	1913..	Philadelphia.....	96	57	.627	Mack
1914..	Boston.....	94	59	.614	Stallings	1914..	Philadelphia.....	99	53	.651	Mack
1915..	Philadelphia.....	90	62	.592	Moran	1915..	Boston.....	101	50	.669	Carrigan
1916..	Brooklyn.....	94	60	.610	Robinson	1916..	Boston.....	91	63	.591	Carrigan
1917..	New York.....	98	56	.636	McGraw	1917..	Chicago.....	100	54	.649	Rowland
1918..	Chicago.....	84	45	.651	Mitchell	1918..	Boston.....	75	51	.595	Barrow
1919..	Cincinnati.....	96	44	.686	Moran	1919..	Chicago.....	88	52	.629	Gleason
1920..	Brooklyn.....	93	60	.604	Robinson	1920..	Cleveland.....	98	56	.636	Speaker
1921..	New York.....	94	56	.614	McGraw	1921..	New York.....	88	55	.641	Huggins
1922..	New York.....	93	61	.604	McGraw	1922..	New York.....	94	50	.610	Huggins
1923..	New York.....	95	58	.621	McGraw	1923..	New York.....	98	54	.645	Huggins
1924..	New York.....	93	60	.608	McGraw	1924..	Washington.....	92	62	.597	Harris
1925..	Pittsburgh.....	95	58	.621	McKechnie	1925..	Washington.....	96	55	.636	Harris
1926..	St. Louis.....	89	65	.578	Hornsby	1926..	New York.....	91	63	.591	Huggins
1927..	Pittsburgh.....	94	60	.610	Bush	1927..	New York.....	110	44	.714	Huggins
1928..	St. Louis.....	95	59	.617	McKechnie	1928..	New York.....	101	53	.656	Huggins
1929..	Chicago.....	98	54	.645	McCarthy	1929..	Philadelphia.....	104	46	.693	Mack
1930..	St. Louis.....	92	62	.597	Street	1930..	Philadelphia.....	102	52	.662	Mack
1931..	St. Louis.....	101	53	.656	Street	1931..	Philadelphia.....	107	45	.704	Mack
1932..	Chicago.....	90	64	.584	Grimm	1932..	Philadelphia.....	107	47	.695	McCarthy
1933..	New York.....	91	61	.599	Terry	1933..	Washington.....	99	53	.651	Cronin
1934..	St. Louis.....	95	58	.621	Frisch	1934..	Detroit.....	101	53	.656	Cochrane
1935..	Chicago.....	100	54	.649	Grimm	1935..	Detroit.....	93	58	.616	Cochrane
1936..	New York.....	91	62	.597	Terry	1936..	New York.....	102	51	.667	McCarthy
1937..	New York.....	95	57	.625	Terry	1937..	New York.....	102	52	.662	McCarthy
1938..	Chicago.....	89	63	.586	Hartnett	1938..	New York.....	99	53	.651	McCarthy
1939..	Cincinnati.....	97	57	.630	McKechnie	1939..	New York.....	106	45	.702	McCarthy
1940..	Cincinnati.....	100	53	.654	McKechnie	1940..	Detroit.....	90	64	.584	Baker
1941..	Brooklyn.....	100	54	.649	Durocher	1941..	New York.....	101	53	.656	McCarthy
1942..	St. Louis.....	90	64	.588	Southworth	1942..	New York.....	98	56	.636	McCarthy
1943..	St. Louis.....	105	49	.682	Southworth	1943..	New York.....	98	56	.636	McCarthy
1944..	St. Louis.....	105	49	.682	Southworth	1944..	St. Louis.....	89	65	.578	Sewell
1945..	Chicago.....	98	56	.636	Grimm	1945..	Detroit.....	88	65	.575	O'Neill
1946..	St. Louis.....	98	58	.628	Dyer	1946..	Boston.....	104	50	.675	Cronin
1947..	Brooklyn.....	94	60	.610	Shotton	1947..	New York.....	97	57	.630	Harris
1948..	Boston.....	91	62	.595	Southworth	1948..	Cleveland.....	97	58	.626	Boudreau
1949..	Brooklyn.....	97	57	.630	Shotton	1949..	New York.....	97	57	.630	Stengel
1950..	Philadelphia.....	91	63	.591	Sawyer	1950..	New York.....	98	56	.636	Stengel
1951..	New York.....	98	59	.624	Durocher	1951..	New York.....	98	56	.636	Stengel
1952..	Brooklyn.....	96	57	.627	Dressen	1952..	New York.....	95	59	.617	Stengel
1953..	Brooklyn.....	105	49	.682	Dressen	1953..	New York.....	99	52	.656	Stengel
1954..	New York.....	97	57	.630	Durocher	1954..	Cleveland.....	111	43	.721	Lopez
1955..	Brooklyn.....	98	55	.641	Alston	1955..	New York.....	96	58	.623	Stengel
1956..	Brooklyn.....	93	61	.604	Alston	1956..	New York.....	97	57	.630	Stengel
1957..	Milwaukee.....	95	59	.617	Haney	1957..	New York.....	98	56	.636	Stengel
1958..	Milwaukee.....	92	62	.597	Haney	1958..	New York.....	92	62	.597	Stengel
1959..	Los Angeles.....	88	68	.564	Alston	1959..	Chicago.....	94	60	.610	Lopez
1960..	Pittsburgh.....	95	59	.617	Murtaugh	1960..	New York.....	97	57	.630	Stengel
1961..	Cincinnati.....	93	61	.604	Hutchinson	1961..	New York.....	109	53	.673	Houk
1962..	San Francisco.....	103	62	.624	Dark	1962..	New York.....	96	66	.593	Houk
1963..	Los Angeles.....	99	63	.611	Alston	1963..	New York.....	104	57	.646	Houk
1964..	St. Louis.....	93	69	.574	Keane	1964..	New York.....	99	63	.611	Berra
1965..	Los Angeles.....	97	65	.599	Alston	1965..	Minnesota.....	102	60	.630	Mele
1966..	Los Angeles.....	95	67	.586	Alston	1966..	Baltimore.....	97	63	.606	Bauer
1967..	St. Louis.....	101	60	.627	Schoendienst	1967..	Boston.....	92	70	.568	Williams
1968..	St. Louis.....	97	65	.599	Schoendienst	1968..	Detroit.....	103	59	.636	Smith

*First major league team to win pennant five years in succession.

Professional Baseball Government

William D. Eckert, a retired lieutenant general of the United States Air Force, was elected commissioner of baseball Nov. 17, 1965, for a 7-year-term at an annual salary of \$65,000. He succeeded Commissioner Ford C. Frick, who retired after serving in the post since 1952.

Commissioner—William D. Eckert.

Secretary-Treasurer—Charles Segar.

Director of Public Relations and Promotions—

Joseph L. Reichler.

Executive Asst. Public Relations & Promotions—

Monte Irvin.

Office—680 Fifth Ave., New York, N. Y. 10019.

NATIONAL LEAGUE

President, secretary, treasurer—Warren C. Giles.

Director of Public Relations—David J. Grote.

Office—2601 Carew Tower, Cincinnati, Ohio.

AMERICAN LEAGUE

Pres., sec., treas.—Joseph Edward Cronin.

Executive Assistant—Bob Holbrook.

Office—520 Boylston Street, Boston 16, Mass.

NATIONAL ASSOCIATION

President—Philip Piton.

Director, Public Relations—Daniel F. O'Brien.

Office—720 East Broad Street, Columbus 15, Ohio.

1968 Amateur Softball Association

Division	Champion
Men's Fast Pitch	Bombers, Clearwater, Fla.
Woman's Fast Pitch	Brakettes, Stratford, Conn.
Men's Open Slow Pitch	County Sports, Levittown, N.Y.
Men's Industrial Slow	Lycorning, Stratford, Conn.
Woman's Slow Pitch	Escue Pontiac, Cinn., Ohio
16" Slow Pitch	Sobies, Chicago, Ill.

National League Records, 1968

FINAL STANDING OF CLUBS

	St. Louis	San Francisco	Chicago	Cincinnati	Atlanta	Pittsburgh	Los Angeles	Philadelphia	New York	Houston	Won	Lost	Percentage	Games Behind
St. Louis Cardinals.....	—	8	9	11	13	12	9	10	12	13	97	65	.599	—
San Francisco Giants.....	10	—	9	10	9	11	9	9	11	10	88	74	.543	9
Chicago Cubs.....	9	9	—	7	10	10	12	9	8	10	84	78	.519	13
Cincinnati Reds.....	7	7	11	—	8	10	9	11	10	9	83	79	.512	14
Atlanta Braves.....	5	5	8	10	12	6	9	11	12	11	81	81	.500	16
Pittsburgh Pirates.....	6	6	8	8	12	—	8	9	9	13	80	82	.494	17
Los Angeles Dodgers.....	9	9	9	9	9	10	—	10	7	7	76	86	.469	21
Philadelphia Phillies.....	8	7	10	7	7	9	8	—	10	9	76	86	.469	21
New York Mets.....	6	6	9	8	6	9	11	8	—	8	73	89	.451	24
Houston Astros.....	5	8	8	9	7	5	11	9	10	—	72	90	.444	25

CLUB BATTING

	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.
Cincinnati.....	163	5764	690	1573	106	59	.273	
Pittsburgh.....	163	5569	583	1404	80	130	.252	
Atlanta.....	163	5552	514	1399	80	82	.252	
St. Louis.....	162	5561	583	1383	73	110	.249	
Chicago.....	163	5459	612	1319	130	41	.242	
San Francisco.....	163	5442	599	1301	108	50	.239	
Philadelphia.....	162	5372	543	1253	100	58	.233	
Houston.....	162	5336	510	1233	66	44	.231	
Los Angeles.....	162	5354	470	1233	67	58	.230	
New York.....	163	5503	473	1252	81	73	.228	

CLUB PITCHING

	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
St. Louis.....	162	63	1479	1282	472	375	972	2.49	
Los Ang.	162	38	1449	1293	509	414	993	2.69	
San Fran.	163	77	1469	1302	529	343	943	2.71	
New York.....	163	45	1483	1250	499	425	1017	2.72	
Pittsburgh.....	163	42	1487	1322	532	484	896	2.75	
Atlanta.....	163	44	1474	1325	549	362	871	2.92	
Houston.....	162	50	1447	1362	588	478	1023	3.26	
Phila.	162	42	1448	1416	615	427	935	3.36	
Chicago.....	163	46	1453	1399	611	393	890	3.41	
Cin.	163	24	1490	1399	673	573	963	3.56	

INDIVIDUAL BATTING

Leaders—450 or More At Bats

Player—Club	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.
†Rose, Cin.	149	626	210	10	49	3	.335	
†Alou, Pitts.	146	558	185	0	52	18	.332	
Alou, Atlanta.....	160	662	210	11	57	12	.317	
Johnson, Cin.	149	603	188	2	58	16	.312	
Flood, St. Louis.....	150	618	186	5	60	11	.301	
Jones, New York.....	146	509	151	14	55	23	.297	
Beckert, Chicago.....	155	643	169	4	37	8	.294	
†McCovey, S. F.	148	523	153	36	105	4	.293	

INDIVIDUAL PITCHING

Leaders—162 or More Innings

Pitcher—Club	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Gibson, St. L.	34	305	198	62	268	22	9	1.12	
Bolin, S. Fran.	34	177	128	46	126	10	5	1.96	
†Veale, Pitts.	36	245	187	94	171	13	14	2.66	
†Kosman, N. Y.	35	264	221	69	178	19	12	2.08	
Blass, Pitts.	33	220	191	57	132	18	6	2.13	
Drysdale, L.A.	31	239	201	56	155	14	12	2.15	
Seaver, N. Y.	36	278	224	48	205	16	12	2.20	
Washburn, St. L.	31	215	191	47	124	14	8	2.26	

Individual Batting (over 100 at-bats)

Individual Pitching (over 50 innings)

ATLANTA BRAVES

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.
Alou.....	160	662	72	210	11	57	12	.317
Millan.....	149	570	49	165	1	33	6	.289
H. Aaron.....	160	606	84	174	29	86	28	.287
†Francona.....	122	346	32	99	2	47	3	.286
Torre.....	115	424	45	115	10	55	1	.271
R. Johnson.....	75	202	16	53	0	12	0	.262
T. Aaron.....	98	283	21	69	1	25	3	.244
†Martinez.....	113	356	34	82	0	12	6	.230
Boyer.....	71	273	19	62	4	17	2	.227
†Jackson.....	105	358	37	81	1	19	16	.226
*†Lum.....	122	232	22	52	3	21	3	.224
Tillman.....	86	236	16	52	5	20	0	.220
D. Johnson.....	127	342	29	71	8	33	0	.208

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Upshaw.....	52	0	117	98	24	74	8	7	2.46
Niekro.....	37	15	257	228	45	140	14	12	2.56
Jarvis.....	34	14	256	201	50	157	16	12	2.60
†Kelley.....	31	1	98	87	45	73	2	4	2.76
†Raymond.....	36	0	80	56	18	38	3	5	2.85
*†Stone.....	17	2	75	64	19	52	7	4	2.88
†Britton.....	34	0	90	80	34	51	4	6	3.10
*Reed.....	35	6	201	189	49	111	1	10	3.36
Pappas.....	37	3	184	181	32	118	12	13	3.47
K. Johns'n.....	31	1	135	145	25	56	5	8	3.47

CHICAGO CUBS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.
Beckert.....	155	643	98	189	4	37	8	.294
†Williams.....	163	642	91	185	30	98	4	.288
†Smith.....	55	142	13	39	5	25	0	.275
†Spangler.....	88	177	21	48	2	18	0	.271
Santo.....	162	577	86	142	26	98	3	.246
Banks.....	150	552	71	136	32	83	2	.246
Johnson.....	62	205	14	50	1	14	3	.244
Phillips.....	143	440	49	106	13	33	9	.241
†Kessinger.....	160	655	63	157	1	32	9	.240
Hundley.....	160	553	40	125	7	65	1	.226
Hickman.....	75	188	22	42	5	23	1	.223

*Rookie †Left handed ‡Switch hitter

(Chicago, cont.)

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Regan.....	73	0	135	119	26	67	12	5	2.27
Jenkins.....	40	20	308	255	65	280	20	15	2.63
Bonds.....	38	11	259	221	36	148	16	10	2.88
†Holzman.....	34	6	215	201	76	151	11	14	3.35
†Nye.....	27	6	133	145	34	74	7	12	3.79
Lamabe.....	42	0	61	68	26	29	3	2	4.28
Niekro.....	34	2	177	204	59	65	14	10	4.32

CINCINNATI REDS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.
†Rose.....	149	626	94	210	10	49	3	.335
Johnson.....	149	603	79	188	2	58	16	.312
May.....	146	559	78	162	22	80	4	.290
Helms.....	127	507	35	146	2	47	5	.288
Perez.....	160	625	93	176	18	82	3	.282
*Bench.....	154	564	67	155	15	82	1	.275
†Pinson.....	130	499	60	135	5	48	17	.271
†Ruiz.....	85	139	15	36	0	9	4	.259
†Whitfield.....	87	171	15	44	6	32	0	.252
†Jones.....	103	234	40	59	10	34	2	.252
Cardenas.....	137	452	45	106	7	41	2	.235
Woodward.....	68	143	15	33	0	11	2	.231

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Nolan.....	23	4	150	105	49	111	9	4	2.40
Abern'thy.....	78	0	136	111	55	63	10	7	2.45
Carroll.....	68	0	144	130	39	73	7	8	2.69
Culver.....	42	0	226	229	84	116	11	16	3.23
†Arrigo.....	36	5	205	181	77	140	12	10	2.34
Maloney.....	33	8	207	183	80	182	16	10	3.61
Kelos.....	35	0	54	56	15	38	4	1	4.00
Cloninger.....	25	0	110	96	59	73	5	6	4.69
Ritchie.....	28	0	57	68	13	32	2	3	4.58
†McCool.....	30	0	51	59	41	30	3	4	4.94
Lee.....	44	0	65	70	36	31	2	4	5.12

HOUSTON ASTROS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.	
Staub	161	591	54	172	6	72	2	.291	
Wynn	156	542	85	146	26	67	11	.269	
Rader	98	333	42	89	6	43	2	.267	
Menke	150	542	56	135	6	56	5	.249	
Bateman	111	350	28	87	4	33	1	.249	
Gotay	75	165	9	41	1	11	1	.248	
Herrera	27	100	9	24	0	7	0	.240	
Miller	79	257	35	61	6	28	6	.237	
Watson	45	140	13	32	2	8	1	.229	
Aspromonte	124	409	25	92	1	46	1	.225	
Torres	128	466	44	104	1	24	2	.223	
Simpson	85	233	36	46	6	19	4	.197	
Thomas	90	201	14	39	1	11	2	.194	
Adlesh	40	104	3	19	0	4	0	.183	
Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Ray	41	1	81	65	25	72	2	3	2.67
Cuellar	28	11	171	152	45	133	8	11	2.74
Lemaster	33	7	224	231	72	146	10	15	2.85
Buzhardt	39	0	84	72	35	37	4	4	3.11
Giusti	37	12	251	226	67	187	11	14	3.19
Wilson	33	9	209	187	69	176	13	16	3.23
Dierker	32	10	234	207	89	161	12	15	3.31
Dukes	43	0	53	62	28	37	2	2	4.25

LOS ANGELES DODGERS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.	
Haller	144	474	37	135	4	53	1	.285	
Boyer	83	221	20	60	6	41	2	.271	
Gabrielson	108	304	38	82	10	35	1	.270	
Crawford	61	175	25	44	4	14	1	.251	
Davis	160	463	86	167	7	31	36	.250	
Parker	135	458	42	115	3	27	4	.239	
Lefebvre	84	286	23	68	5	31	0	.238	
Fairly	141	441	32	103	4	44	0	.234	
Popovich	134	418	35	97	2	25	1	.232	
Bailey	105	322	24	73	8	39	2	.227	
Savage	64	134	7	28	2	7	1	.209	
Colavito	40	113	8	23	3	11	0	.204	
*Farrey	99	156	17	31	1	10	1	.199	
Versalles	122	403	29	79	2	24	6	.196	
*Alcaraz	41	106	4	16	2	5	1	.151	
Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
*Billham	50	0	71	54	30	46	3	0	2.03
Grant	37	1	95	77	19	35	6	4	2.08
Drysdale	31	12	239	201	56	155	14	12	2.15
*Brewer	54	0	76	59	33	75	8	3	2.49
Sutton	35	7	208	179	59	162	11	15	2.60
Singer	37	12	256	227	78	227	13	17	2.88
Purdin	35	0	56	42	21	38	2	3	3.05
*Osteen	39	5	254	267	54	119	12	18	3.08
*Kekich	25	1	115	116	46	84	2	10	3.99

NEW YORK METS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.	
Jones	146	509	63	151	14	55	23	.297	
Grote	124	404	29	114	3	31	2	.282	
Charles	117	369	41	102	15	53	5	.276	
*Boswell	75	284	37	74	4	11	7	.261	
Swoboda	132	450	46	109	11	59	7	.242	
*Shamsky	116	345	30	82	12	48	1	.238	
*Stahl	53	183	15	43	3	10	3	.235	
*Kranepool	126	373	29	86	3	20	0	.231	
*Martin	78	244	20	55	3	31	0	.225	
*Harrelson	111	402	38	88	0	14	4	.219	
Agee	132	368	30	80	5	17	13	.217	
Linz	78	258	19	54	6	17	1	.209	
Goossen	38	106	4	22	0	6	0	.208	
*Collins	58	154	12	31	1	13	0	.201	
Buchek	73	192	8	35	1	11	1	.182	
*Weis	90	274	15	47	1	14	3	.172	
*Bosch	50	111	14	19	3	7	1	.171	
Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
*Koozman	35	17	261	221	69	178	19	12	2.08
Seaver	36	14	278	224	48	205	16	12	2.20
*McAndrew	12	2	79	66	17	46	4	7	2.28
Koonce	55	0	97	80	32	50	6	4	2.41
Taylor	58	0	77	64	18	50	1	5	2.69
Selma	33	4	180	148	54	117	9	10	2.75
Caswell	29	8	160	156	50	83	7	13	2.95
*Ryd	21	3	134	93	75	133	6	9	3.09
*Jackson	25	0	93	88	17	60	3	7	3.68
Frisella	19	0	51	53	17	47	2	4	3.88

PHILADELPHIA PHILLIES

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pc.
Sutherland ..	67	138	16	38	0	15	0	.275
*Gonzalez	121	416	45	110	3	38	6	.264
Allen	152	521	88	137	33	90	7	.263
Pena	138	500	56	130	1	38	3	.254
*Briggs	110	338	36	86	7	31	8	.254
Taylor	145	547	59	137	3	38	22	.250

(Philadelphia, cont.)

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.	
†Callison	121	398	46	97	14	40	4	.244	
†White	127	385	34	92	9	40	0	.239	
Rojas	152	621	53	144	9	48	4	.232	
Joseph	66	155	20	34	3	12	0	.219	
Lock	99	248	26	52	8	34	3	.210	
†Dalrymple	85	241	19	50	3	26	1	.207	
Ryan	96	296	12	53	1	15	0	.179	
Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
L. Jackson	34	12	244	229	60	126	13	17	2.77
†Fryman	34	10	214	198	64	151	12	14	2.78
†Short	42	9	270	236	81	202	19	13	2.93
†G. Jackson	33	1	61	59	20	49	1	6	2.95
Wagner	44	0	78	69	31	44	4	4	3.00
*Johnson	16	2	81	82	29	40	4	4	3.22
Farrell	54	0	83	83	32	57	4	6	3.47
Boozar	38	0	69	76	15	49	2	2	3.65
*James	29	1	116	112	46	83	4	4	4.27
Wise	30	7	182	210	38	97	9	15	4.55

PITTSBURGH PIRATES

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pc.	
†Alou	146	558	59	185	0	52	18	.332	
Clemente	132	502	74	146	18	57	2	.291	
Mota	111	331	35	93	1	33	4	.281	
†Wills	153	627	76	174	0	31	52	.278	
Clendenon	158	584	63	150	17	87	10	.257	
*Patek	61	208	31	53	2	18	18	.255	
Mazeroski	143	506	36	127	3	42	3	.231	
Alley	133	474	48	116	4	39	13	.245	
†Stargell	128	435	57	103	24	67	5	.237	
Pagan	79	163	24	36	4	21	2	.221	
May	138	416	26	91	1	33	0	.219	
†Kolb	73	119	16	26	2	6	2	.218	
Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Kline	56	0	113	94	31	48	12	5	1.67
*Walker	39	0	63	42	38	86	0	3	2.00
†Veale	36	13	245	187	94	171	13	14	2.06
Blass	33	12	220	191	57	132	18	6	2.13
*Ellis	26	2	104	82	38	52	6	5	2.42
Face	43	0	52	46	34	2	4	2	2.60
*Moore	38	3	171	136	41	126	8	12	2.74
Sisk	33	0	96	101	35	40	5	5	3.38
McBean	36	9	198	204	63	100	9	12	3.59
Bunning	27	3	160	168	48	95	4	14	3.88

ST. LOUIS CARDINALS

Batting		g.	ab.	r.	h.	hr.	rbi.	sb.	pct.	
Flood		150	618	71	186	5	60	11	.301	
*Brock		159	660	92	184	6	51	62	.279	
Shannon		156	576	62	153	15	79	1	.266	
Javier		139	519	54	135	4	52	10	.260	
†Maris		100	310	25	79	5	45	0	.255	
Maxvill		151	459	51	116	1	24	0	.253	
†McCarver		128	434	35	110	5	48	4	.253	
Cepeda		157	600	71	149	16	73	8	.248	
†Edwards		85	230	14	55	3	29	1	.239	
*Tolan		92	278	28	64	5	17	9	.230	
Garlano		53	105	13	24	0	13	0	.229	
†Schofield		69	127	14	28	1	8	1	.220	
Davis		85	296	33	60	1	17	1	.203	
Pitching		g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Gibson	34	28	305	198	62	268	22	9	1.12	
Washburn	31	8	215	191	47	124	14	8	2.26	
Briles	33	13	244	251	55	141	19	11	2.80	
*Nelson	18	1	53	49	9	16	2	1	2.89	
†Carlton	34	10	232	214	61	162	13	11	2.99	
Willis	48	0	64	50	28	39	2	3	3.38	
†Jaster	31	3	154	153	38	70	9	13	3.51	
Hughes	25	0	64	45	21	50	2	2	3.52	

SAN FRANCISCO GIANTS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	per.
†McCovey	148	523	81	153	36	105	4	.293
Mays	148	498	84	144	23	79	12	.289
Dietz	98	301	21	82	6	38	1	.272
*Marshall	76	174	17	46	1	16	2	.264
Alou	119	420	26	110	0	39	1	.262
Hart	136	480	67	124	23	78	3	.258
*Bonds	81	307	55	78	9	35	16	.254
Hunt	148	529	79	132	2	28	6	.250
Hiatt	90	224	14	52	4	33	0	.232
Davenport	113	272	27	61	1	17	0	.224
†Lanier	116	341	37	81	1	28	2	.226
†Lanier	151	486	77	100	0	27	2	.226
*Johnson	67	174	11	33	1	7	1	.190
Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.
Bolin	34	6	177	123	46	126	10	5.196
Wynn	57	6	195	166	27	33	9	5.088
Marichal	38	30	326	295	46	218	26	9.248
Perry	39	19	291	240	58	174	16	15.244
†Sadleir	38	13	254	225	70	206	12	18.291
†McCorkick	38	9	198	196	49	120	12	14.359

American League Records, 1968

FINAL STANDING OF CLUBS

	Detroit	Baltimore	Cleveland	Boston	New York	Oakland	Minnesota	California	Chicago	Washington	Won	Lost	Percentage	Games Behind
Detroit Tigers.....	—	10	12	12	10	13	10	13	13	10	103	59	.636	—
Baltimore Orioles.....	8	—	7	9	13	9	10	10	11	14	91	71	.562	12
Cleveland Indians.....	6	11	—	8	10	6	14	11	13	7	86	75	.534	16½
Boston Red Sox.....	6	9	10	—	10	8	9	9	14	11	86	76	.531	17
New York Yankees.....	8	5	8	8	—	10	6	12	12	14	83	79	.512	20
Oakland Athletics.....	5	9	12	10	8	—	10	13	8	7	82	80	.506	21
Minnesota Twins.....	8	8	4	9	12	8	—	11	8	11	79	83	.488	24
California Angels.....	5	8	7	9	6	5	7	—	8	12	67	95	.414	36
Chicago White Sox.....	5	7	5	4	6	10	10	10	—	10	67	95	.414	36
Washington Senators.....	8	4	10	7	4	11	7	6	8	—	65	96	.404	37½

CLUB BATTING

	g.	ab.	r.	h.	hr.	sb.	_pct.
Oakland.....	163	5405	569	1300	94	148	.241
Minnesota.....	162	5374	562	1274	105	98	.237
Boston.....	162	5303	614	1253	125	76	.236
Detroit.....	164	5490	671	1292	185	27	.235
Cleveland.....	162	5414	516	1266	75	114	.234
Chicago.....	162	5405	463	1233	71	90	.228
California.....	162	5331	498	1209	83	62	.227
Baltimore.....	162	5275	579	1187	123	79	.225
Washington.....	161	5400	524	1207	124	30	.224
New York.....	164	5308	536	1137	109	90	.214

CLUB PITCHING

	g.	cg.	ip.	h.	r.	bb.	so.	era.
Balt.....	162	53	1451	111	497	501	1041	2.65
Clev.....	162	48	1464	1086	504	540	1158	2.66
Detroit.....	164	59	1490	1180	492	486	1112	2.71
Chicago.....	162	20	1468	1290	527	451	830	2.75
New York.....	164	45	1467	1308	531	424	830	2.79
Minn.....	162	46	1433	1224	546	413	996	2.89
Oakland.....	163	45	1456	1219	544	505	996	2.97
Boston.....	162	55	1447	1302	611	522	978	3.24
Calif.....	162	29	1437	1235	615	518	867	3.44
Wash.....	161	26	1440	1402	665	518	827	3.64

INDIVIDUAL BATTING

Player—Club	g.	ab.	r.	h.	hr.	rbi.	sb.	_pct.
†Yastrzemski, Bost.	157	539	162	23	74	13	301	
Cater, Oakland.....	147	504	146	6	62	8	290	
†Oliva, Minn.....	128	470	136	18	68	10	289	
Horton, Detroit.....	143	512	146	36	85	0	285	
†Uhlender, Minn.....	140	488	138	7	52	16	283	
†Davallillo, Calif.....	144	519	144	3	31	25	277	
Campaneris, Oak.....	159	462	177	4	38	62	276	
Harrelson, Boston.....	150	535	147	35	109	2	275	
F. Howard, Wash.....	158	598	164	44	106	0	274	

INDIVIDUAL PITCHING

Pitcher—Club	g.	ip.	h.	bb.	so.	w.	l.	era.
Tiant, Clev.....	34	258	152	73	264	21	9	1.60
†McDowell, Clev.....	38	269	180	110	283	15	14	1.61
†McNally, Balt.....	35	273	175	55	202	22	10	1.95
McLain, Det.....	41	336	241	63	280	31	6	1.96
†John, Chicago.....	25	177	135	49	117	10	5	1.98
*Bahnsen, N. Y.....	37	267	216	68	161	17	12	2.06
Nash, Oakland.....	34	229	185	55	170	13	13	2.28
Horlen, Chicago.....	35	224	197	70	102	12	14	2.37

Individual Batting (over 100 at-bats)

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	_pct.
†Buford.....	130	426	65	120	15	46	28	.282
F. Robinson.....	130	421	69	113	15	52	11	.268
E. Robinson.....	162	608	85	154	17	75	1	.253
†Powell.....	154	550	60	137	22	85	7	.249
Johnson.....	145	504	50	122	9	56	7	.242
Etchebarren.....	74	189	20	44	5	20	0	.233
†Valentine.....	84	192	20	41	5	12	1	.214
Blair.....	141	421	48	89	7	38	4	.211
Belanger.....	145	472	40	96	2	21	10	.208
*Hendricks.....	79	183	19	37	7	23	0	.202
†Bleary.....	137	451	50	90	15	39	6	.200
*Motton.....	83	217	27	43	8	25	1	.198
*May.....	83	152	15	29	0	7	3	.191

BALTIMORE ORIOLES

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	_pct.
†Buford.....	130	426	65	120	15	46	28	.282
F. Robinson.....	130	421	69	113	15	52	11	.268
E. Robinson.....	162	608	85	154	17	75	1	.253
†Powell.....	154	550	60	137	22	85	7	.249
Johnson.....	145	504	50	122	9	56	7	.242
Etchebarren.....	74	189	20	44	5	20	0	.233
†Valentine.....	84	192	20	41	5	12	1	.214
Blair.....	141	421	48	89	7	38	4	.211
Belanger.....	145	472	40	96	2	21	10	.208
*Hendricks.....	79	183	19	37	7	23	0	.202
†Bleary.....	137	451	50	90	15	39	6	.200
*Motton.....	83	217	27	43	8	25	1	.198
*May.....	83	152	15	29	0	7	3	.191

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Drabowsky.....	45	0	61	35	25	46	4	4	1.92
†McNally.....	35	18	273	175	55	202	22	10	1.95
Watt.....	59	0	84	63	35	70	5	5	2.25
*Nelson.....	19	0	71	49	26	70	4	3	2.41
Bunker.....	18	2	71	59	14	44	2	0	2.41
Hardin.....	35	16	244	188	70	159	18	13	2.51
Phoebeus.....	8	0	241	186	105	185	15	15	2.61
*Leonhard.....	28	3	126	95	37	60	7	7	3.14
Brabender.....	37	3	125	116	48	92	6	7	3.31
†Richert.....	36	0	62	51	11	46	6	3	3.48

BOSTON RED SOX

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	_pct.
†Yastrzemski.....	157	539	90	162	23	74	13	.361
†Tartabull.....	72	140	24	39	0	6	2	.279
Harrelson.....	150	535	79	147	35	109	2	.275
Andrews.....	147	536	77	145	7	45	3	.271
†Smith.....	155	558	78	148	15	70	22	.265
Howard.....	71	203	22	49	5	17	1	.241
†Jones.....	111	353	38	83	5	29	1	.235
Petrocelli.....	123	406	41	95	12	46	0	.234
Foy.....	150	515	65	116	10	60	26	.225
Gibson.....	76	231	15	52	3	20	1	.225
*Robinson.....	76	165	6	23	1	15	1	.219
Adair.....	74	208	18	45	2	12	0	.216
Scott.....	124	350	23	60	3	25	3	.171

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Santiago.....	18	7	124	96	42	87	9	4	2.25
Morehead.....	11	3	55	52	20	28	1	4	2.45
†Lyle.....	49	0	66	67	14	55	6	1	2.86
*Rookie.....									
†Left handed.....									
†Switch hitter.....									

Individual Pitching (over 50 innings)

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Culp.....	35	11	216	166	82	190	16	6	2.02
†Landis.....	38	0	60	47	30	58	3	3	3.00
†Ellsworth.....	31	10	196	196	37	106	16	7	3.03
Bell.....	35	9	189	177	67	105	11	11	3.17
†Pizarro.....	19	6	108	97	44	84	6	8	3.58
Waslewski.....	34	2	105	108	40	59	4	7	3.69
Stange.....	50	1	103	89	25	54	5	5	3.84
Lonborg.....	23	4	113	88	59	73	6	10	4.20
Stephenson.....	23	2	69	81	42	51	2	8	5.61

CALIFORNIA ANGELS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	_pct.
†Davallillo.....	144	519	49	144	3	31	25	.277
Morton.....	81	163	13	44	0	18	2	.270
†Johnstone.....	41	115	11	30	0	3	2	.261
Reichardt.....	151	534	62	136	21	73	8	.255
†Satriano.....	111	297	19	75	8	35	0	.253
Knoop.....	152	494	48	123	3	39	3	.249
Fregosi.....	159	615	77	150	9	49	9	.244
†Rodriguez.....	76	223	14	54	1	16	0	.242
†Repez.....	133	375	30	90	13	54	8	.240
†Mincher.....	120	399	35	94	13	48	0	.236
†Kirkpatrick.....	89	211	23	37	1	15	1	.230
Schaal.....	60	219	22	46	2	16	2	.210
Hinton.....	116	267	28	52	7	23	3	.195
†Rodgers.....	91	258	13	49	1	14	2	.190
†Cauley.....	63	111	8	18	0	7	0	.162

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
*Murphy.....	15	3	99	67	28	56	5	6	2.09
*Me'smith.....	28	2	81	44	35	74	4	2	2.22
*Pattin.....	52	0	84	67	37	66	4	4	2.79
†Brunet.....	39	8	245	191	68	131	13	17	2.87
McGlothlin.....	40	8	208	187	60	135	10	15	3.55
Clark.....	21	0	94	74	54	60	1	11	3.73
†Wright.....	42	2	127	133	43	73	10	6	3.90
Ellis.....	42	3	164	151	56	93	9	10	4.01
*B'meier.....	53	4	128	85	24	31	1	4	4.25
Rojas.....	38	0	55	55	15	33	4	3	4.25

CHICAGO WHITE SOX

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.
Davis	132	456	30	122	8	50	4	.268
*Melton	34	109	5	29	2	16	1	.266
Apacirio	157	622	56	164	4	36	18	.264
Wagner	107	211	19	55	1	24	2	.261

CHICAGO WHITE SOX (cont.)

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	ct.
Alomar	132	363	40	92	0	11	20	.253
Berry	153	504	49	127	7	32	6	.252
Josephson	128	434	35	107	6	45	2	.247
Williams	63	134	6	32	1	8	0	.239
McCraw	136	478	51	112	9	44	20	.234
McWorthy	58	127	2	27	0	2	0	.221
McNerney	74	169	18	37	3	18	0	.219
*Bradford	102	281	32	61	5	24	8	.217
Ward	125	399	43	86	15	50	4	.216
Hansen	126	362	35	71	9	32	0	.196
*Voss	61	167	14	26	2	15	5	.156

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Wilhelm	72	0	94	69	24	72	4	1	1.72
Wood	88	0	159	127	33	73	13	12	1.82
John	25	5	177	135	49	117	10	5	1.98
Locker	70	0	90	78	27	62	5	4	2.30
Horten	35	4	224	197	70	102	12	14	2.37
Fisher	35	2	181	176	48	80	8	13	2.98
Pridy	35	2	114	106	41	64	3	11	3.63
Peters	31	6	163	146	60	110	4	13	3.75
*Carlos	29	0	122	121	37	57	4	14	3.91
Rubant	31	0	56	62	27	27	2	4	4.34

CLEVELAND INDIANS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	ct.
*Maye	109	299	20	84	4	27	0	.281
Azcue	115	357	23	100	4	22	1	.280
Cardenal	157	582	78	150	7	44	40	.258
Johnson	65	202	25	52	5	23	6	.257
Horton	133	477	57	119	14	59	3	.249
*Sims	122	361	48	90	11	44	1	.249
*Snyder	106	298	32	72	3	28	1	.242
Fuller	97	244	14	59	0	18	2	.242
Brown	154	495	43	116	6	35	1	.234
*Nelson	87	189	26	44	0	19	22	.233
Alvis	131	452	38	101	8	37	5	.223
Harper	129	235	26	51	6	26	11	.217
Salmon	103	276	24	59	3	12	7	.214
Hall	98	236	19	49	2	16	2	.208

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Tiant	34	19	258	152	73	264	21	9	1.60
*Romo	40	0	63	43	32	44	5	3	1.63
*McDowell	38	1	269	180	110	283	15	14	1.81
Williams	44	6	194	163	51	147	13	11	2.55
Fisher	54	0	95	87	17	44	4	2	2.84
Siebert	31	8	206	145	88	146	12	10	2.97
*Paul	36	0	92	72	35	86	5	8	3.91
Hargan	32	4	158	139	80	78	8	15	4.16

DETROIT TIGERS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	ct.
Kaline	102	327	50	94	10	52	6	.287
Horton	143	512	68	146	31	85	0	.285
*Northrup	154	580	76	153	26	90	4	.264
Freehan	155	540	73	142	25	84	1	.263
*Cash	127	411	50	108	25	63	1	.263
Stanley	154	588	88	151	11	60	4	.259
*McAuliffe	151	570	95	142	16	56	8	.249
*Matchick	80	227	18	46	3	14	0	.203
West	150	536	43	107	12	37	0	.200
Price	84	132	12	23	3	13	0	.174
Tracewski	90	212	30	33	4	15	3	.156
Oyler	111	215	13	29	1	12	0	.135

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
McLain	41	28	336	241	63	280	31	6	1.96
McMahon	45	0	82	53	30	65	5	2	1.98
*Patterson	38	0	68	53	27	49	2	3	2.12
*Hiller	39	4	128	92	51	78	9	6	2.39
Dobson	47	2	125	89	48	92	5	8	2.66
Wilson	34	10	224	192	65	168	13	12	2.85
*Lolich	39	8	220	178	65	197	17	9	3.19
Sparma	34	7	182	169	77	110	10	10	3.71

MINNESOTA TWINS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	ct.
*Oliva	128	470	54	136	18	68	10	.289
*Uhlender	140	488	52	138	7	52	16	.283
*Carew	127	461	46	126	1	42	12	.273
Tovar	157	613	89	167	6	47	35	.272
*Reese	123	332	40	86	4	28	3	.259
Allison	145	468	63	116	22	52	9	.248
*Look	59	118	7	29	0	9	0	.246
Quilici	97	229	22	56	1	22	0	.245
Rollins	93	203	14	49	6	30	3	.241
Kostro	63	108	9	26	0	9	0	.241
*Roseboro	135	380	31	82	8	39	2	.216
Killebrew	100	296	40	62	17	40	0	.209
*Holt	70	106	9	22	0	8	0	.208
Clark	104	227	14	42	1	13	3	.185
Hernandez	83	199	13	35	2	17	5	.176
*Rookie	Left	handed				Switch	hitter	

MINNESOTA TWINS (cont.)

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Perry	32	3	139	113	26	69	8	6	2.27
Chance	43	15	292	224	63	234	16	16	2.53
Wrth'ton	54	0	76	67	32	57	4	5	2.61
Miller	45	0	72	65	24	41	0	3	2.75
*Kaat	30	9	208	192	40	129	14	12	2.94
*Per'noski	66	0	87	86	39	66	8	7	3.10
*Merritt	38	11	239	207	52	182	12	16	3.28
Boswell	34	7	190	148	86	143	10	13	3.32
*Roland	28	0	62	55	23	36	4	1	3.48

NEW YORK YANKEES

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	ct.
*White	159	577	89	154	17	82	20	.267
*Pepitone	108	380	41	93	15	56	8	.245
Kosco	131	466	47	112	15	59	2	.240
Robinson	108	342	34	82	6	40	7	.240
*Mantle	144	435	57	103	18	54	6	.237
*Clarke	148	579	52	133	2	26	20	.230
*Peterson	136	437	33	100	7	31	3	.229
*Gibbs	123	422	31	90	3	29	9	.213
*Michael	61	116	8	23	1	8	3	.198
*Tresh	152	507	60	99	11	52	10	.195
*Fernandez	51	135	15	29	7	30	1	.170
Howser	85	150	24	23	0	3	0	.153

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
McDaniel	24	0	51	30	12	43	4	1	1.76
*Bahnsen	37	10	267	216	68	161	17	12	2.06
*Hamilton	40	0	51	37	13	42	2	2	2.12
Stot'myre	36	19	279	243	65	140	21	12	2.45
*Peterson	6	2	187	293	110	72	12	11	2.63
Verbanic	40	2	97	104	41	39	6	7	3.15
Womack	45	0	62	53	29	28	3	7	3.19
*Barber	20	3	123	127	64	88	6	5	3.23
Talbot	29	1	99	89	42	67	1	9	3.36
*Downing	15	1	61	54	20	40	3	3	3.54
M'bouquet	17	2	89	92	13	32	5	7	4.45

OAKLAND ATHLETICS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	ct.
Cater	147	504	53	146	6	62	8	.290
*Campaneris	159	642	87	177	4	38	62	.276
*Monday	148	482	56	132	8	49	15	.274
Hershberger	99	245	22	67	5	32	8	.273
Bando	162	605	67	152	9	67	13	.251
*Jackson	154	553	83	138	29	74	14	.250
*Kublak	48	120	10	30	0	8	1	.250
Pagliaroni	66	199	19	49	6	20	0	.246
Green	76	202	19	47	6	18	3	.233
*Donaldson	126	363	37	80	2	27	5	.229
*Webster	65	196	17	42	3	23	3	.214
Duncan	82	244	15	47	7	28	1	.193
*Gosger	89	150	7	27	0	6	3	.180
*Rudi	68	181	10	32	1	12	1	.177

Pitching	g.	cg.	ip.	h.	bb.	so.	w.	l.	era.
Nash	34	12	229	185	55	170	13	13	2.28
Segui	52	0	83	51	32	71	6	5	2.39
Odom	32	9	231	179	98	143	16	10	2.43
*Lindblad	47	0	56	51	14	42	4	3	2.79
Dobson	35	11	225	197	80	169	12	14	3.00
Krausse	36	2	185	146	62	104	10	11	3.11
*Sprague	47	0	68	51	34	34	3	4	3.31
Hunter	36	11	234	210	69	174	13	13	3.35
Aker	54	0	76	72	33	42	4	4	4.14

WASHINGTON SENATORS

Batting	g.	ab.	r.	h.	hr.	rbi.	sb.	pct.
F. Howard	158	598	79	164	44	106	0	.274
*Alyea	53	150	18	40	6	23	0	.267
McMullen	151	557	66	137	20	62	1	.246
†B. Allen	121	373	33	90	6	39	2	.241
†Stroud	105	306	41	73	4	23	10	.239
†Epstein	123	385	40	90	13	33	1	.234
*Unser	156	635	66	146	1	30	11	.230
Cullen	119	269	24	62	3	29	0	.230
H. Allen	68	128	16	28	1	9	0	.219
Peterson	94	226	20	46	3	18	2	.204
†Bryan	40	108	7	22	3	8	2	.204
Casanova	96	322	19	63	4	26	0	.196
†French	59	165	9	32	1	10	1	.194
Bowens	57	115	14	22	4	7	0	.191
Brinkman	77	193	12	36	0	6	0	.187
*Coggins	62	171	15	30	0	7	1	.175

Champion Batters and Their Averages

NATIONAL LEAGUE				AMERICAN LEAGUE			
Yr.	Player	Club	Aver.	Yr.	Player	Club	Aver.
1943	Stan Musial	St. Louis	.357	1943	Luke Appling	Chicago	.328
1944	Dixie Walker	Brooklyn	.357	1944	Lou Boudreau	Cleveland	.327
1945	Phil Cavarretta	Chicago	.355	1945	George Sirmmweiss	New York	.309
1946	Stan Musial	St. Louis	.365	1946	Mickey Vernon	Washington	.353
1947	Harry Walker	Philadelphia	.363	1947	Ted Williams	Boston	.343
1948	Stan Musial	St. Louis	.376	1948	Ted Williams	Boston	.369
1949	Jackie Robinson	Brooklyn	.342	1949	George Kell	Detroit	.343
1950	Stan Musial	St. Louis	.346	1950	Billy Goodman	Boston	.354
1951	Stan Musial	St. Louis	.355	1951	Ferris Fain	Philadelphia	.344
1952	Stan Musial	St. Louis	.336	1952	Ferris Fain	Philadelphia	.327
1953	Carl Furillo	New York	.344	1953	Mickey Vernon	Washington	.337
1954	Willie Mays	Brooklyn	.345	1954	Roberto Avila	Cleveland	.341
1955	Richte Ashburn	Philadelphia	.338	1955	Al Kaline	Detroit	.340
1956	Hank Aaron	Milwaukee	.328	1956	Mickey Mantle	New York	.353
1957	Stan Musial	St. Louis	.351	1957	Ted Williams	Boston	.388
1958	Richte Ashburn	Philadelphia	.350	1958	Ted Williams	Boston	.328
1959	Hank Aaron	Milwaukee	.355	1959	Harvey Kuenn	Detroit	.353
1960	Dick Groat	Pittsburgh	.325	1960	Pete Runnels	Boston	.320
1961	Roberto Clemente	Pittsburgh	.351	1961	Norm Cash	Detroit	.361
1962	Tommy Davis	Los Angeles	.346	1962	Pete Runnels	Boston	.326
1963	Tommy Davis	Los Angeles	.326	1963	Carl Yastrzemski	Boston	.321
1964	Roberto Clemente	Pittsburgh	.339	1964	Tony Oliva	Minnesota	.323
1965	Roberto Clemente	Pittsburgh	.329	1965	Tony Oliva	Minnesota	.321
1966	Matty Alou	Pittsburgh	.342	1966	Frank Robinson	Baltimore	.316
1967	Roberto Clemente	Pittsburgh	.357	1967	Carl Yastrzemski	Boston	.326
1968	Pete Rose	Cincinnati	.335	1968	Carl Yastrzemski	Boston	.361

Home Run Leaders

Home Run Leaders					
Year	NATIONAL LEAGUE		Year	AMERICAN LEAGUE	
1943	Bill Nicholson, Chicago	29	1943	Rudy York, Detroit	34
1944	Bill Nicholson, Chicago	33	1944	Nick Etten, New York	22
1945	Tommy Holmes, Boston	23	1945	Vern Stephens, St. Louis	24
1946	Ralph Kiner, Pittsburgh	23	1946	Hank Greenberg, Detroit	44
1947	Ralph Kiner, Pitts.; John Mize, N. Y.	51	1947	Ted Williams, Boston	32
1948	Ralph Kiner, Pitts.; John Mize, N. Y.	40	1948	Joe DiMaggio, New York	35
1949	Ralph Kiner, Pittsburgh	54	1949	Ted Williams, Boston	43
1950	Ralph Kiner, Pittsburgh	47	1950	Al Rosen, Cleveland	37
1951	Ralph Kiner, Pittsburgh	42	1951	Gus Zernial, Chicago-Philadelphia	33
1952	Ralph Kiner, Pittsburgh; Hank Sauer, Chicago	37	1952	Larry Doby, Cleveland	32
1953	Ed Mathews, Milwaukee	47	1953	Al Rosen, Cleveland	43
1954	Ted Kluszewski, Cincinnati	49	1954	Larry Doby, Cleveland	32
1955	Willie Mays, New York	51	1955	Mickey Mantle, New York	37
1956	Duke Snider, Brooklyn	43	1956	Mickey Mantle, New York	52
1957	Hank Aaron, Milwaukee	44	1957	Roy Sievers, Washington	42
1958	Ernie Banks, Chicago	47	1958	Mickey Mantle, New York	42
1959	Ed Mathews, Milwaukee	46	1959	Rocky Colavito, Cleveland	
1960	Ernie Banks, Chicago	41		Harmon Killebrew, Washington	42
1961	Orlando Cepeda, San Francisco	46	1960	Mickey Mantle, New York	40
1962	Willie Mays, San Francisco	49	1961	Roger Maris, New York	61
1963	Hank Aaron, Milwaukee		1962	Harmon Killebrew, Minnesota	48
	Willie McCovey, San Francisco	44	1963	Harmon Killebrew, Minnesota	45
1964	Willie Mays, San Francisco	47	1964	Harmon Killebrew, Minnesota	49
1965	Willie Mays, San Francisco	52	1965	Tony Conigliaro, Boston	32
1966	Hank Aaron, Atlanta	39	1966	Frank Robinson, Baltimore	49
1967	Hank Aaron, Atlanta	44	1967	Carl Yastrzemski, Boston	
1968	Willie McCovey, San Francisco	36		Harmon Killebrew, Minn.	44
			1968	Frank Howard, Wash	44

All-time Major League Record (154-game Season)—60—Babe Ruth, New York Yankees (A.), 1927. (162-game Season)—61—Roger Maris, New York Yankees, 1961. Prior to the 1931 season, a batted ball that bounced into the stands was a home run (now a ground-rule double). None of Babe Ruth's record 60 homers bounced into the stands.

Runs Batted In Leaders

NATIONAL LEAGUE			AMERICAN LEAGUE		
Yr.	Batter, Club	RBI	Yr.	Batter, Club	RBI
1947	John Mize, New York	138	1947	Ted Williams, Boston	114
1948	Stan Musial, St. Louis	131	1948	Joe DiMaggio, New York	155
1949	Ralph Kiner, Pittsburgh	127	1949	Ted Williams, Vern Stephens, Boston	159
1950	Del Ennis, Philadelphia	126	1950	Walt Dropo, Boston	
1951	Monte Irvin, New York	121		Vern Stephens, Boston	144
1952	Hank Sauer, Chicago	121	1951	Gus Zernial, Chi.-Phila.	129
1953	Roy Campanella, Brooklyn	142	1952	Al Rosen, Cleveland	105
1954	Ted Kluszewski, Cincinnati	141	1953	Al Rosen, Cleveland	145
1955	Duke Snider, Brooklyn	136	1954	Larry Doby, Cleveland	126
1956	Stan Musial, St. Louis	139	1955	Ray Boone, Detroit	
1957	Hank Aaron, Milwaukee	122		Jack Jensen, Boston	116
1958	Ernie Banks, Chicago	129	1956	Mickey Mantle, New York	130
1959	Ernie Banks, Chicago	143	1957	Roy Sievers, Washington	114
1960	Hank Aaron, Milwaukee	126	1958	Jack Jensen, Boston	122
1961	Orlando Cepeda, San Francisco	142	1959	Jack Jensen, Boston	112
1962	Tommy Davis, Los Angeles	153	1960	Roger Maris, New York	112
1963	Hank Aaron, Milwaukee	130	1961	Roger Maris, New York	142
1964	Ken Boyer, St. Louis	119	1962	Harmon Killebrew, Minn.	126
1965	Deron Johnson, Cincinnati	130	1963	Dick Stuart, Boston	118
1966	Hank Aaron, Atlanta	127	1964	Brooks Robinson, Baltimore	118
1967	Orlando Cepeda, St. Louis	111	1965	Rocky Colavito, Cleveland	108
1968	Willie McCovey, San Francisco	105	1966	Frank Robinson, Baltimore	122
			1967	Carl Yastrzemski, Boston	121
			1968	Ken Harrelson, Boston	109

American Legion Junior Baseball World Champions

1952—Cincinnati, Ohio	1957—Cincinnati, Ohio	1961—Phoenix, Ariz.	1965—Charlotte, N. C.
1953—Yakima, Wash.	1958—Cincinnati, Ohio	1962—St. Louis, Mo.	1966—Oakland, Calif.
1954—San Diego, Calif.	1959—Detroit, Mich.	1963—Long Beach, Calif.	1967—Tuscaloosa, Ala.
1955—Cincinnati, Ohio	1960—New Orleans, La.	1964—Upland, Calif.	1968—Memphis, Tenn.

Major League No-Hit Games Since 1938

(Complete Nine-Inning Games)

Date	Pitcher	Club	Score
1938—June 11.....	Johnny Vander Meer	Cincinnati-Boston N	3-0
1938—June 15.....	Johnny Vander Meer	Cincinnati-Brooklyn N (night game)	6-0
1938—Aug. 27.....	Monte Pearson	New York-Cleveland A (2nd game)	13-0
1940—April 16.....	Bob Feller	Cleveland-Chicago A (opening day)	1-0
1940—April 30.....	Tex Carleton	Brooklyn-Cincinnati N	3-0
1941—Aug. 20.....	Lon Warneke	St. Louis-Cincinnati N	2-0
1944—April 27.....	Jim Tobin	Boston-Brooklyn N	2-0
1944—May 15.....	Clyde Shoun	Cincinnati-Boston N	1-0
1945—Sept. 9.....	Dick Fowler	Philadelphia-St. Louis A	1-0
1946—April 23.....	Ed Head	Brooklyn-Boston N	5-0
1946—April 30.....	Bob Feller	Cleveland-New York A	1-0
1947—June 18.....	Ewell Blackwell	Cincinnati-Boston N (night game)	6-0
1947—July 10.....	Don Black	Cleveland-Philadelphia A	3-0
1947—Sept. 3.....	Bill McCahan	Philadelphia-Washington A	1-0
1948—June 30.....	Bob Lemon	Cleveland-Detroit A	2-0
1948—Sept. 9.....	Rex Barney	Brooklyn-New York N (night game)	2-0
1950—Aug. 11.....	Vern Bickford	Boston-Brooklyn N (night game)	7-0
1951—May 6.....	Cliff Chambers	Pittsburgh-Boston N (2nd game)	3-0
1951—July 1.....	Bob Feller	Cleveland-Detroit A (1st game)	2-1
1951—July 12.....	Allie Reynolds	New York-Cleveland A (night game)	1-0
1951—Sept. 28.....	Allie Reynolds	New York-Boston A (1st game)	8-0
1952—May 15.....	Virgil Trucks	Detroit-Washington A	1-0
1952—June 19.....	Carl Erskine	Brooklyn-Chicago N	5-0
1952—Aug. 25.....	Don Lusk	Detroit-New York A	1-0
1953—May 6.....	Bobo Holloman	St. Louis-Philadelphia A (night game)	1-0
1954—June 12.....	Jim Wilson	Milwaukee-Philadelphia N	2-0
1955—May 12.....	Sam Jones	Chicago-Pittsburgh N	4-0
1956—May 12.....	Carl Erskine	Brooklyn-New York N	3-0
1956—July 14.....	Mel Parnell	Boston-Chicago A	4-0
1956—Sept. 25.....	Sal Maglie	Brooklyn-Philadelphia N (night game)	5-0
1956—Oct. 8.....	Don Larsen (1)	New York-Brooklyn N	2-0
1957—Aug. 20.....	Bob Keegan	Chicago-Washington A	6-0
1958—July 20.....	Jim Bunning	Detroit-Boston A	3-0
1958—Sept. 20.....	Hoyt Wilhelm	Baltimore-New York A	1-0
1959—May 26.....	Harvey Haddix (2)	Pittsburgh-Milwaukee N	0-2
1960—May 15.....	Don Cardwell	Chicago-St. Louis N (2nd game)	4-0
1960—Aug. 18.....	Lew Burdette	Milwaukee-Philadelphia N	1-0
1960—Sept. 16.....	Warren Spahn	Milwaukee-Philadelphia N	4-0
1961—April 28.....	Warren Spahn	Milwaukee-San Francisco N (night)	1-0
1962—May 5.....	Bo Belinsky	Los Angeles-Baltimore A (night game)	2-0
1962—June 26.....	Earl Wilson	Boston-Los Angeles A (night game)	2-0
1962—June 30.....	Sandy Koufax	Los Angeles-New York N (night game)	5-0
1962—Aug. 1.....	Bill Monbouquette	Boston-Chicago A (night game)	1-0
1962—Aug. 26.....	Jack Kralchick	Minnesota-Kansas City A	1-0
1963—May 17.....	Sandy Koufax	Los Angeles-San Francisco N (night)	8-0
1963—May 17.....	Don Nottebart	Houston-Philadelphia N (night)	4-1
1963—June 15.....	Juan Marichal	San Francisco-Houston N	1-0
1964—April 23.....	Ken Johnson (3)	Houston-Cincinnati N	0-1
1964—June 4.....	Sandy Koufax	Los Angeles-Philadelphia N	3-0
1964—June 21.....	Jim Bunning (4)	Philadelphia-New York N	6-0
1965—June 14.....	Jim Maloney (5)	Cincinnati-New York N (night)	0-1
1965—Aug. 19.....	Jim Maloney (6)	Cincinnati-Chicago N (1st game)	1-0
1965—Sept. 9.....	Saul Kogovin (4)	Los Angeles-Chicago N	1-0
1965—Sept. 16.....	Dave Morehead	Boston-Cleveland A	2-0
1966—June 10.....	Sonny Siebert	Cleveland-Washington A (night)	2-0
1967—Apr. 30.....	S. Barber, Stu Miller (7)	Baltimore-Detroit A	0-2
1967—June 18.....	Don Wilson	Houston-Atlanta N	2-0
1967—Aug. 25.....	Dean Chance	Minnesota-Cleveland A	2-1
1967—Sept. 10.....	Joe Horlen	Chicago-Detroit A	4-0
1968—April 27.....	Tom Phoebus	Baltimore-Boston A	6-0
1968—May 8.....	Jim Hunter (4)	Oakland-Minnesota A (night)	4-0
1968—July 29.....	George Culver	Cincinnati-Philadelphia N (night)	6-1
1968—Sept. 17.....	Gaylord Perry	San Francisco-St. Louis N (night)	1-0
1968—Sept. 18.....	Ray Washburn	St. Louis-San Francisco N	2-0

(1) Perfect game and first World Series no-hitter. (2) Pitched 12 perfect innings. He allowed one hit in the 13th and lost the game. (3) Lost game on two errors in ninth inning. (4) Perfect game. (5) Maloney pitched ten hitless innings, then allowed two hits in the eleventh. Struck out eighteen batters. (6) Ten innings. (7) Barber pitched 8½ innings, Miller ½ of an inning. Detroit scored two 9th-inning runs on a wild pitch and an error.

Leading Pitchers—Earned-Run Average

Based on 10 complete games through 1950 then 154 innings until A. L. expanded in '61, N. L. in '62, then 162 innings. Bob Gibson of the Cardinals set NL record in 1968 with a 1.12 ERA.

NATIONAL LEAGUE					AMERICAN LEAGUE				
Yr.	Pitcher, Club	G	IP	ERA	Yr.	Pitcher, Club	G	IP	ERA
1947	Warren Spahn, Boston	40	290	2.33	1947	Spud Chandler, New York....	17	128	2.46
1948	Harry Brecheen, St. Louis	33	233	2.24	1948	Gene Bearden, Cleveland....	37	230	2.43
1949	Dave Kosslo, New York	38	212	2.50	1949	Mel Parnell, Boston	39	295	2.78
1950	Jim Hearn, St. L.-N. Y.	22	134	2.49	1950	Early Wynn, Cleveland	32	214	3.20
1951	Chet Nichols, Boston	33	156	2.88	1951	Saul Rogovin, Det.-Chl.	27	217	2.78
1952	Hoyt Wilhelm, New York	71	159	2.43	1952	Allie Reynolds, New York	35	244	2.07
1953	Warren Spahn, Milwaukee	35	266	2.10	1953	Ed Lopat, New York	25	178	2.43
1954	John Antonelli, New York	39	259	2.29	1954	Mike Garcia, Cleveland	45	259	2.64
1955	Bob Friend, Pittsburgh	44	200	2.84	1955	Billy Pierce, Chicago	33	206	1.97
1956	Lew Burdette, Milwaukee	39	256	2.71	1956	Whitey Ford, New York	31	226	2.47
1957	Johnny Podres, Brooklyn	31	196	2.66	1957	Bobby Shantz, New York	30	173	2.45
1958	Stu Miller, San Francisco	41	182	2.47	1958	Whitey Ford, New York	30	219	2.01
1959	Sam Jones, San Francisco	50	271	2.82	1959	Hoyt Wilhelm, Baltimore	32	226	2.19
1960	Mike McCormick, San Fran	40	253	2.70	1960	Frank Baumann, Chicago	47	185	2.68
1961	Warren Spahn, Milwaukee	38	263	3.01	1961	Dick Donovan, Washington	23	169	2.40
1962	Sandy Koufax, Los Angeles	28	184	2.56	1962	Hank Aguirre, Detroit	42	216	2.21
1963	Sandy Koufax, Los Angeles	40	311	1.88	1963	Gary Peters, Chicago	41	243	2.33
1964	Sandy Koufax, Los Angeles	29	223	1.74	1964	Dean Chance, Los Angeles	46	278	1.56
1965	Sandy Koufax, Los Angeles	43	336	2.04	1965	Sam McDowell, Cleveland	42	274	2.17
1966	Sandy Koufax, Los Angeles	41	323	1.73	1966	Gary Peters, Chicago	29	204	2.03
1967	Phil Niekro, Atlanta	46	207	1.87	1967	Joe Horlen, Chicago	35	258	2.06
1968	Bob Gibson, St. Louis	34	305	1.12	1968	Luis Tiant, Cleveland	34	258	1.60

Earned-run average is computed by multiplying the number of earned runs allowed by 9, then dividing by the number of innings pitched

Members of National Baseball Hall of Fame and Museum

The shrine of organized baseball, dedicated June 12, 1939 is located in Cooperstown, N. Y.

Alexander, Grover Cleveland
Anson (Cap), Adrian O.
Appling, Lucius B.
Baker (Home Run), J. Frank
Barrow, Edward G.
Bender (Chief), Charles
Bresnahan, Roger
Brothers, Dan
Brown (Three Finger), Mordecai P.
Bulkeley, Morgan C.
Burkett, Jesse C.
Carey, Max George
Cartwright, Alexander J., Jr.
Chadwick, Henry
Chance, Frank L.
Chesbro, John D.
Clarke, Fred
Clarkson, John G.
Cobb, Tyrum
Cochrane (Mickey), Gordon S.
Collins, Edward T.
Collins, James
Comiskey, Charles A.
Connolly, Thomas H.
Crawford (Wahoo), Samuel E.
Cronin, Joseph Edward
Cummings (Candy), W. A.
Cuyler (Kiki), Hazen
Dean (Dizzy), Jay Hanna
DeLahanty, Eric
Dickey, William M.
DiMaggio, Joseph Paul
Duffy, Hugh
Evers, John J.
Ewing (Buck), William B.
Faber, Urban C.
Feller, Robert William

Flick, Elmer H.
Foss, James E.
Frisch, Frank
Galvin (Pud), James
Gehrig (Lou), Henry Louis
Gehring, Charles
Goslin (Goose), Leon
Greenberg, Henry Benjamin
Griffith, Clark C.
Grimes, Burleigh A.
Grove (Lefty) Robert M.
Hamilton, William Robert
Hartnett (Gabby), Charles L.
Heilmann, Harry Edwin
Hornsby, Rogers
Hubbell, Carl
Huggins, Miller J.
Jennings, Hugh
Johnson, Byron B.
Johnson, Walter P.
Keefe, Timothy J.
Keeler, William
Kelly (King), Mike J.
Klem, William J.
Lajoie, Napoleon
Landis, Kenesaw M.
Lyons, Theodore A.
Mack, Connie
Manush, Henry E.
Maranville (Rabbit), Walter J.
Mathewson, Christy
McCarthy, Joseph V.
McCarthy, Thomas F.
McGinnity, Joseph J.
McGraw, John J.
McKechnie, William Boyd
Medwick, Joe

Nichols (Kid), Charles A.
O'Rourke, James H.
Ott (Mel), Melvin T.
Pennock, Herbert J.
Plank, Edward S.
Radbourne (Old Hoss), Charlie
Rice (Sam), Edgar C.
Rickey, Branch
Rixey, Eppa
Robinson, Jackie
Robinson, Wilbert
Roush, Edd J.
Ruffing (Red), Charles
Ruth (Babe), George H.
Schalk, Raymond W.
Simmons (Al), Aloysius Harry
Sisler, George H.
Spalding, Albert G.
Speaker (Tris), Tristram E.
Stengel (Casey), Charles D.
Terry, William H.
Tinker, Joseph B.
Traynor (Pie), Harold J.
Vance (Dazzy), Arthur Charles
Waddell (Rube), George Edward
Wagner (Honus), John Peter
Wallace, Roderick J.
Walsh, Edward A.
Waner, Lloyd
Waner, Paul Glee
Ward, John Montgomery
Wheat, Zachariah Davis
Williams, Theodore
Wright, George
Wright, Harry
Young (Cy), Denton T.

Most Valuable Player Awards

Source: Baseball Writers' Association.

NATIONAL LEAGUE

Year	Player	Club
1936	Carl Hubbell	New York
1937	Joe Medwick	St. Louis
1938	Ernie Lombardi	Cincinnati
1939	Bucky Walters	Cincinnati
1940	Frank McCormick	Cincinnati
1941	Dolph Camilli	Brooklyn
1942	Mort Cooper	St. Louis
1943	Stan Musial	St. Louis
1944	Martin Marion	St. Louis
1945	Phil Cavarretta	Chicago
1946	Stan Musial	St. Louis
1947	Bob Elliott	Boston
1948	Stan Musial	St. Louis
1949	Jackie Robinson	Brooklyn
1950	Jim Konstanty	Philadelphia
1951	Roy Campanella	Brooklyn
1952	Hank Sauer	Chicago
1953	Roy Campanella	Brooklyn
1954	Willie Mays	New York
1955	Roy Campanella	Brooklyn
1956	Don Newcombe	Brooklyn
1957	Henry Aaron	Milwaukee
1958	Ernie Banks	Chicago
1959	Ernie Banks	Cincinnati
1960	Dick Groat	Chicago
1961	Frank Robinson	Pittsburgh
1962	Maury Wills	Cincinnati
1963	Sandy Koufax	Los Angeles
1964	Ken Boyer	St. Louis
1965	Willie Mays	San Francisco
1966	Roberto Clemente	Pittsburgh
1967	Orlando Cepeda	St. Louis

AMERICAN LEAGUE

Year	Player	Club
1936	Lou Gehrig	New York
1937	Charles Gehring	Detroit
1938	Jimmy Foss	Boston
1939	Joe DiMaggio	New York
1940	Hank Greenberg	Detroit
1941	Joe DiMaggio	New York
1942	Joe Gordon	New York
1943	Spurgeon Chandler	New York
1944	Hal Newhouse	Detroit
1945	Hal Newhouse	Detroit
1946	Ted Williams	Detroit
1947	Joe DiMaggio	New York
1948	Lou Boudreau	Cleveland
1949	Ted Williams	Boston
1950	Phil Rizzuto	New York
1951	Yogi Berra	New York
1952	Bobby Shantz	Philadelphia
1953	Al Rosen	Cleveland
1954	Yogi Berra	New York
1955	Yogi Berra	New York
1956	Mickey Mantle	New York
1957	Mickey Mantle	New York
1958	Jackie Jensen	Boston
1959	Nellie Fox	Chicago
1960	Roger Maris	New York
1961	Roger Maris	New York
1962	Mickey Mantle	New York
1963	Elston Howard	New York
1964	Brooks Robinson	Baltimore
1965	Zolo Versalles	Minnesota
1966	Frank Robinson	Baltimore
1967	Carl Yastrzemski	Boston

Rookie of the Year Award

Source: Baseball Writers' Assn.

1947—Combined Selection—Jackie Robinson, Brooklyn, 1b

1948—Combined Selection—Alvin Dark, Boston, N. L., ss

Year National League

Year	Player	Club
1949	Don Newcombe	Brooklyn, p
1950	Sam Jethroe	Boston, of
1951	Willie Mays	N. Y., of
1952	Joe Black	Brooklyn, p
1953	Jim Gilliam	Brooklyn, 2b
1954	Wally Moon	St. Louis, of
1955	Bill Virdon	St. Louis, of
1956	Frank Robinson	Cinn., of
1957	Jack Sanford	Phil., p
1958	Orlando Cepeda	S. F., 1b
1959	Willie McCovey	S. F., 1b
1960	Frank Howard	Los Angeles, of
1961	Billy Williams	Chicago, of
1962	Ken Hubbs	Chicago, 2b
1963	Pete Rose	Cinn., 2b
1964	Richie Allen	Phil., 3b
1965	Jim Lefebvre	L. A., 2b
1966	Tommy Helms	Cinn., 3b
1967	Tom Seaver	N. Y., p

Year American League

Year	Player	Club
1949	Roy Slevers	St. Louis, of
1950	Walt Dropo	Boston, 1b
1951	Gil McDougald	N. Y., 3b
1952	Harry Byrd	Phil., p
1953	Harvey Kuhn	Detroit, ss
1954	Bob Grim	N. Y., p
1955	Heib Score	Cleveland, p
1956	Luis Aparicio	Chicago, ss
1957	Tony Kubek	N. Y., if-of
1958	Albie Pearson	Wash., of
1959	Bob Allison	Wash., of
1960	Ron Hansen	Balt., ss
1961	Don Schwall	Boston, p
1962	Tom Tresh	N. Y., if-of
1963	Gary Peters	Chicago, p
1964	Tony Oliva	Minn., of
1965	Curt Blefary	Balt., of
1966	Tommie Agee	Chicago, of
1967	Rod Carew	Minn., 2b

Major League Baseball Attendance

NATIONAL LEAGUE				AMERICAN LEAGUE			
	1968	1967	1966		1968	1967	1966
St. Louis.....	2,011,177	2,100,838	1,712,980	Detroit.....	2,031,847	1,445,184	1,124,293
New York.....	1,781,657	1,565,492	1,932,693	Boston.....	1,940,588	1,692,349	811,172
Los Angeles.....	1,581,093	1,662,590	2,617,029	Minnesota.....	1,143,257	1,483,421	1,259,374
Houston.....	1,312,887	1,333,862	1,872,108	New York.....	1,125,124	1,141,714	1,124,648
Atlanta.....	1,126,340	1,362,849	1,539,801	California.....	1,025,956	1,301,557	903,359
Chicago.....	1,043,409	977,984	635,891	Baltimore.....	868,709	858,822	1,203,366
San Francisco.....	837,220	1,243,400	1,657,192	Cleveland.....	857,994	685,698	903,359
Cincinnati.....	733,354	952,788	742,958	Oakland.....	838,501	652,246	733,929
Pittsburgh.....	693,485	904,121	1,196,618	Chicago.....	798,914	966,284	990,016
Philadelphia.....	664,546	824,252	1,108,201	Washington.....	572,052	770,868	576,260
Total	11,785,368	12,927,185	15,015,471	Total	11,172,942	10,883,915	10,166,738
Previous Years				Previous Years			
1965—13,581,136		1962—11,360,169		1965—8,860,764		1962—10,015,056	
1964—12,045,190		1961—8,731,502		1964—9,235,151		1961—10,163,016	
1963—11,382,277		1960—10,684,963		1963—10,015,056		1960—9,226,526	

MAJOR LEAGUE ATTENDANCE RECORDS

All-time Season Record, Both Leagues—25,203,229—set in 1966.
 All-time Season Record, One Club—2,756,184—Los Angeles Dodgers, 1962.
 Record Attendance, Six-Game World Series—420,784—1959 Series between Los Angeles Dodgers and Chicago White Sox. (Exceeded seven-game Series record.)
 Record Attendance, World Series Game—92,700—fifth game, 1959 Series, Los Angeles, Oct. 6.
 Record Attendance, Regular Season Game—84,587—Municipal Stadium, Cleveland, Ohio, Sept. 12, 1954, in doubleheader between Cleveland Indians and New York Yankees. Cleveland won both, 4 to 1 and 3 to 2. (Including the pass list of 1,976, overall attendance was 86,563.)
 Attendance, Regular-Season Single Game—78,672—Los Angeles Memorial Coliseum, April 18, 1958, in opening game between Los Angeles Dodgers and San Francisco Giants.
 Exhibition Game—93,103—Game honoring Roy Campanella; New York Yankees vs. Los Angeles Dodgers, Los Angeles Coliseum, May 7, 1959.

1968 All-Major League Baseball Team

The following is the second annual All-Players All-Star Baseball Team as selected by the players of both leagues in a poll conducted by Newspaper Enterprise Assn. Players could not vote for members of their own team.

Name	Team	Votes	Name	Team	Votes
First Base			Catcher		
Willie McCovey, San Francisco (NL)		264	Matty Alou, Pittsburgh (NL)		44
Rusty Staub, Houston (NL)		84	Billy Williams, Chicago (NL)		39
Ernie Banks, Chicago (NL)		76	Tony Oliva, Minnesota (AL)		34
Boog Powell, Baltimore (AL)		76	Henry Aaron, Atlanta (NL)		27
Orlando Cepeda, St. Louis (NL)		17	Carl Yastrzemski, Boston (AL)		26
Mickey Mantle, New York (AL)		3	Lou Brock, St. Louis (NL)		21
Second Base			Willie Mays, San Francisco (NL)		19
Tommy Helms, Cincinnati (NL)		187	Bobby Bonds, San Francisco (NL)		9
Rod Carew, Minnesota (AL)		96	Alex Johnson, Cincinnati (NL)		3
Glenn Beckert, Chicago (NL)		74	Rick Monday, Oakland (AL)		2
Dick McAuliffe, Detroit (AL)		69	Joe Pepitone, New York (AL)		2
Mike Andrews, Boston (AL)		55	Reggie Smith, Boston (AL)		1
Ken Boswell, New York (NL)		20	Roberto Clemente, Pittsburgh (NL)		1
Bill Mazeroski, Pittsburgh (NL)		19	Del Unser, Washington (AL)		1
Felix Millan, Atlanta (NL)		7	Jose Tartabull, Boston (AL)		1
Cookie Rojas, Philadelphia (NL)		5	Starting Pitcher		
Julian Javier, St. Louis (NL)		4	Bill Freehan, Detroit (AL)		174
Third Base			John Bench, Cincinnati (NL)		126
Brooks Robinson, Baltimore (AL)		171	Tom Haller, Los Angeles (NL)		95
Ron Santo, Chicago (NL)		162	Tim McCarver, St. Louis (NL)		74
Mike Shannon, St. Louis (NL)		58	Joe Torre, Atlanta (NL)		62
Tony Perez, Cincinnati (NL)		43	Jerry Grote, New York (NL)		15
Richie Allen, Philadelphia (NL)		18	Joe Azcue, Cleveland (AL)		9
Mauri Wills, Pittsburgh (NL)		14	Mike Ryan, Philadelphia (NL)		4
Jim Hart, San Francisco (NL)		12	Relief Pitcher		
Bobby Cox, New York (AL)		11	Denny McLain, Detroit (AL)		164
Ed Charles, New York (NL)		3	Bob Gibson, St. Louis (NL)		150
Ron Clark, Minnesota (AL)		2	Juan Marichal, San Francisco (NL)		132
Shortstop			Jerry Koosman, New York (NL)		9
Jim Fregosi, California (AL)		156	Don Drysdale, Los Angeles (NL)		6
Luis Aparicio, Chicago (AL)		101	Luis Tiant, Cleveland (AL)		4
Don Kessinger, Chicago (NL)		32	Outfield		
Gene Alie, Pittsburgh (NL)		16	Curt Flood, St. Louis (NL)		242
Campy Campaneris, Oakland (AL)		11	Pete Rose, Cincinnati (NL)		214
Dal Maxvill, St. Louis (NL)		7	Ken Harrelson, Boston (AL)		190
Rico Petrocelli, Boston (AL)		2	Frank Howard, Washington (AL)		132
Zoilo Versalles, Los Angeles (NL)		2	Willie Horton, Detroit (AL)		60

Cy Young Award Winners

1966—Don Newcombe, Dodgers	1961—Whitey Ford, Yankees	1966—Sandy Koufax, Dodgers
1957—Warren Spahn, Braves	1962—Don Drysdale, Dodgers	1967—(NL) Mike McCormick, Giants
1958—Bob Turley, Yankees	1963—Sandy Koufax, Dodgers	(AL) Jim Lonborg, Red Sox
1959—Early Wynn, White Sox	1964—Dean Chance, Angels	1968—(NL) Bob Gibson, Cardinals
1960—Vernon Law, Pirates	1965—Sandy Koufax, Dodgers	(AL) Dennis McLain, Tigers

1968 Little League World Series

The 22nd annual Little League World Series was won by Wakayama (Japan) as they defeated Richmond (Virginia) by the score of 1-0 on Aug. 24, 1968, at Williamsport, Pa. This was the second straight year that a Japanese team won the Little League title. West Tokyo was the winner in 1967.

Minor League Pennant Winners in 1968

Major League Affiliations in Parentheses

INTERNATIONAL LEAGUE

Club	W.	L.	Pct.	G.B.	Club	W.	L.	Pct.	G.B.
Toledo (Tigers)	83	64	.565	...	Syracuse (Yankees)	72	75	.490	11
Columbus (Pirates)	82	64	.562	½	Louisville (Red Sox)	72	75	.490	11
Rochester (Orioles)	77	69	.527	5½	Buffalo (Senators)	66	81	.449	17
Jacksonville (Mets)	75	71	.514	7½	Richmond (Braves)	59	87	.404	23½

Batting Averages
(over 250 at bats)

Player—Club	g.	ab.	h.	hr.	rbi.	pct.
Rettenmund, Rochester	114	393	130	22	59	.331
Christian, Toledo	123	473	151	5	57	.319
Reynolds, Jacksonville	114	404	129	9	50	.319
Sanguillen, Columbus	105	377	119	8	60	.316
Jimenez, Columbus	139	499	157	14	77	.315
Oliver, Columbus	132	473	149	14	74	.315
Hegan, Syracuse	119	424	129	11	39	.304
Demeter, Rochester	111	369	111	10	63	.301
Sorrell, Jacksonville	117	384	115	9	56	.299
Chance, Buffalo	138	508	149	29	84	.293
Ferraro, Syracuse	118	440	129	6	41	.293
Woods, Toledo	137	500	146	16	58	.292
Thomas, Louisville	136	475	137	6	52	.288
Calero, Louisville	131	467	134	8	66	.287
Floyd, Rochester	102	359	103	6	52	.287
Otis, Jacksonville	139	500	143	15	70	.286
de la Hoz, Richmond	81	308	88	9	33	.286
Derrick, Toledo	132	456	129	11	74	.283
Smith, Columbus	131	491	138	9	52	.281
Pfeil, Jacksonville	143	560	157	8	49	.280
Billings, Columbus	130	387	107	11	35	.276
Hebner, Columbus	104	381	105	6	51	.276
Hiller, Columbus	84	273	75	3	36	.275
Spriggs, Columbus	138	521	143	3	34	.274
Kelly, Richmond	101	385	105	3	28	.273
LaHoud, Louisville	101	326	89	8	40	.273
Tracy, Jacksonville	75	368	73	6	40	.272
Fiore, Rochester	108	376	102	19	62	.271
Garrido, Richmond	121	456	123	6	40	.270
Boehmer, Syracuse	144	518	139	10	75	.268
Kennedy, Syr-Col	140	471	126	8	57	.268
Campbell, Toledo	97	339	90	26	64	.265

Player—Club	g.	ab.	h.	hr.	rbi.	pct.
O'Brien, Lou	129	471	124	12	60	.263
Brown, Toledo	110	350	92	13	54	.263
Valdespino, Richmond	74	255	67	7	25	.263
Crowley, (Red Sox)	75	271	71	8	34	.262
Lopez, Buffalo	117	353	91	13	53	.258
Stone, Rochester	120	460	118	5	42	.257
Green, Toledo	95	288	74	5	28	.257
Lehrer, Louisville	145	516	132	3	53	.256
Aleya, Buffalo	87	297	75	31	61	.253
Walrath, Buffalo	102	345	87	7	30	.252
Harrison, Richmond	146	522	131	25	83	.251
Heise, Jacksonville	114	415	104	2	29	.251

Pitching Records
(over 100 innings)

Pitcher—Club	g.	ip.	so.	w.	l.	era.
Scherman, Toledo	30	102	69	8	2	1.76
Cisco, Louisville	29	204	157	11	12	2.21
Cox, Buffalo	60	104	65	7	5	2.34
McAndrew, Jacksonville	23	117	117	8	3	2.54
Beene, Rochester	43	114	100	8	7	2.68
Magrini, Syracuse	26	153	105	8	10	2.71
Shellenback, Columbus	25	142	90	9	8	2.85
Gentry, Jacksonville	30	198	156	12	8	2.91
Rooker, Toledo	25	190	206	14	8	2.91
Lasko, Syracuse	33	166	126	8	7	2.93
Marshall, Toledo	31	211	190	15	9	2.94
Connors, Jacksonville	23	112	63	8	5	2.97
Jones, Buffalo	25	185	184	12	8	3.02
Radatz, Toledo	24	101	103	6	7	3.03
Gelnar, Columbus	25	183	97	10	10	3.10
Closter, Syracuse	23	122	110	7	8	3.10
Roberts, Columbus	27	193	133	18	5	3.17

PACIFIC COAST LEAGUE

EASTERN DIVISION

Club	W.	L.	Pct.	G.B.
Tulsa (Cardinals)	95	53	.642	...
San Diego (Phillies)	76	70	.521	18
Phoenix (Giants)	76	71	.517	18½
Denver (Twins)	73	72	.503	20½
Indianapolis (Reds)	65	78	.458	27
Oklahoma City (Astros)	61	84	.421	32½

Batting Averages
(over 250 at bats)

Player—Club	g.	ab.	h.	hr.	rbi.	pct.
Hicks, Tulsa	117	407	149	23	85	.366
Piniella, Portland	88	331	103	13	62	.317
Sizemore, Spokane	81	258	81	0	34	.314
Kelly, Denver	108	395	129	4	78	.306
Scheiblum, Portland	122	457	139	14	78	.304
Money, San Diego	127	482	146	9	59	.303
Burda, Phoenix	119	445	134	7	51	.301
Fosse, Portland	103	339	102	9	42	.301
Gutierrez, Phoenix	139	531	158	0	52	.298
Oliver, Denver	137	515	153	20	93	.297
Nettles, Denver	130	451	134	22	83	.297
McRae, Indianapolis	119	444	131	16	65	.295
Hague, Tulsa	147	529	155	23	89	.293
Barry, San Diego	130	441	129	9	59	.293
Labbay, Tulsa	142	527	154	15	100	.292
Mason, Phoenix	131	424	123	1	28	.290
J. Miller, Spokane	131	463	133	12	70	.287
Gaines, Den-Haw	125	414	119	8	38	.287
Werhas, San Diego	122	426	122	8	65	.286
Gelger, Tulsa	124	406	116	14	50	.286
Klimchuck, Portland	118	432	123	9	53	.285
Hunt, Tulsa	144	504	143	10	74	.284
Mooring, Denver	127	402	114	8	43	.284
Conde, Indianapolis	97	308	87	2	39	.283
Cowan, San Diego	143	564	158	19	73	.280
Etheridge, Phoenix	113	399	111	4	46	.278
Sinnerud, Okla. City	96	299	83	6	44	.277
E. Johnson, Okla. City	129	466	128	19	73	.277
McGuire, Seattle	109	376	104	3	44	.277
Johnstone, Seattle	84	314	87	13	56	.277
Napoleon, Ha-Den	96	271	75	9	35	.277
Hutton, Spokane	132	439	121	6	54	.276
Sprague, Portland	86	314	86	2	19	.274
LaRose, Tacoma	120	436	119	4	31	.273
Breedon, Tulsa	118	407	111	5	44	.273

WESTERN DIVISION

Club	W.	L.	Pct.	G.B.
Spokane (Dodgers)	85	60	.586	...
Hawaii (White Sox)	78	69	.531	8½
Portland (Indians)	72	71	.500	12½
Seattle (Angels)	71	76	.483	15
Tacoma (Cubs)	65	83	.439	21½
Vancouver (Athletics)	58	88	.397	27½

Player—Club	g.	ab.	h.	hr.	rbi.	pct.
Rowe, Vancouver	90	256	70	3	16	.272
McKnight, Phoenix	136	489	133	14	75	.272
Nagelson, Portland	118	371	101	15	56	.272
Glover, Denver	101	324	88	2	29	.272
W. Williams, S-H	106	305	83	3	25	.272
Mashore, Indianapolis	123	477	129	9	41	.270
Lewis, San Diego	123	423	114	16	57	.270
Wicker, Tulsa	109	386	104	9	40	.269
Freese, Tac-Haw	83	271	75	6	42	.269
Boccabella, Tacoma	73	268	72	16	43	.268
Jones, Tacoma	146	523	140	24	76	.268
James, Spokane	113	395	106	5	44	.268

Pitching Records
(over 100 innings)

Pitcher—Club	g.	ip.	so.	w.	l.	era.
Mikkelsen, Tulsa	26	184	136	16	4	1.91
Moeller, Spokane	32	227	141	15	9	2.22
Coates, Seattle	22	213	189	17	10	2.28
Strahler, Spokane	27	137	108	7	9	2.30
R. Robertson, Phoenix	34	258	216	18	9	2.34
Taylor, Tulsa	34	230	128	18	7	2.35
Foster, Spokane	16	104	87	8	5	2.60
Meyer, Vancouver	27	130	137	6	9	2.63
Raffo, San Diego	34	148	86	11	7	2.68
Sherrod, Tacoma	25	168	82	11	11	2.79
O. Pena, Port-Sea	56	132	99	7	6	2.80
Lersch, San Diego	26	174	114	11	8	2.84
Tsiskuris, Indianapolis	17	111	76	7	8	2.92
Everitt, Spokane	33	240	201	17	16	2.93
Belinsky, Hawaii	29	176	181	9	14	2.97
G. Woodson, Portland	34	183	112	13	10	3.04
Fisher, Hawaii	24	140	56	8	9	3.09
J. Pena, Indianapolis	42	194	178	11	14	3.15
Wynne, Hawaii	28	152	98	9	12	3.20
Garibaldi, Phoenix	30	182	128	10	9	3.21

Minor League Player of the Year

Toila (Tony) Solaita, 20, a native of Samoa, has been named Minor League Player of the Year for 1968. A lefthanded hitting first baseman, Solaita batted .302 and hit 49 home runs for High Point-Thomasville in the Carolina League before being called up by the New York

Yankees late in the season. He received the Topps Award and the J.G. Taylor Spink Memorial Award. For his selection as the outstanding player in his league he also received a George M. Trautman Memorial Plaque.

Minor League Final Standings

Major League Affiliations in parentheses

Class AA

EASTERN LEAGUE

Club	W	L	Pct.	GB
Pittsfield (Red Sox)	84	55	.604	...
Reading (Phillies)	81	59	.579	3½
Elmira (Orioles)	77	63	.550	7½
Binghamton (Yankees)	67	72	.482	17
York (Pirates)	58	82	.414	26½
Waterbury (Indians)	52	88	.371	32½

SOUTHERN LEAGUE

Club	W	L	Pct.	GB
Asheville (Reds)	86	54	.614	...
Montgomery (Tigers)	80	57	.584	4½
Charlotte (Twins)	72	68	.514	14
Birmingham (Athletics)	66	74	.471	20
Savannah (Senators)	57	79	.419	27
Evansville (White Sox)	55	84	.396	30½

TEXAS LEAGUE

Eastern Division

Club	W	L	Pct.	GB
Arkansas (Cardinals)	82	58	.586	...
Shreveport (Braves)	78	62	.557	4
Memphis (Mets)	67	69	.493	13
Dallas-Ft. Worth (Astros)	60	79	.432	21½

Western Division

Club	W	L	Pct.	GB
El Paso (Angels)	77	60	.562	...
Albuquerque (Dodgers)	70	69	.504	8
Amarillo (Giants)	67	71	.486	10½
San Antonio (Cubs)	53	86	.381	25

Class A

CALIFORNIA LEAGUE

Club	W	L	Pct.	GB
Fresno (Giants)	43	26	.623	...
Stockton (Orioles)	38	32	.543	5½
San Jose (Angels)	36	34	.514	7½
Lodi (Cubs)	35	35	.500	8½
Modesto (Cardinals)	34	36	.486	9½
Visalia (Mets)	33	37	.471	10½
Reno (Indians)	33	39	.455	13
Bakersfield (Dodgers)	30	40	.429	13½

CAROLINA LEAGUE

Eastern Division

Club	W	L	Pct.	GB
Raleigh-Durham (Mets)	81	56	.591	...
Tidewater (Phillies)	79	58	.577	2
Peninsula (Athletics)	76	62	.551	5½
Wilson (Twins)	70	67	.511	11
Rocky Mount (Tigers)	69	71	.493	13½
Kinston (Yankees)	59	76	.437	21

Western Division

Club	W	L	Pct.	GB
*Salem (Pirates)	84	54	.609	...
Lynchburg (White Sox)	68	71	.489	16½
H.P.-Thomasville (Co-op)	68	71	.489	16½
Greensboro (Astros)	61	78	.439	23½
Burlington (Senators)	56	81	.409	27½
Winston-Salem (Red Sox)	55	81	.400	28

*Salem won regular-season pennant on basis of highest percentage.

FLORIDA STATE LEAGUE

Eastern Division

Club	W	L	Pct.	GB
*Miami (Orioles)	87	55	.613	...
Cocoa (Astros)	74	65	.532	11½
Daytona Beach (Dodgers)	73	70	.510	14½
Ft. Lauderdale (Yanks)	62	75	.453	22½
West Palm Beach (Braves)	59	77	.434	25

Western Division

Club	W	L	Pct.	GB
Orlando (Twins)	81	59	.579	...
St. Petersburg (Cards)	80	63	.559	2½
Tampa (Reds)	74	62	.544	5
Lakeland (Tigers)	58	81	.417	22½
Leesburg (Athletics)	51	92	.357	31½

*Miami won regular-season pennant on basis of highest percentage.

MIDWEST LEAGUE

Club	W	L	Pct.	GB
Decatur (Giants)	40	21	.656	...
Quincy (Cubs)	35	26	.574	5
Waterloo (Red Sox)	33	28	.541	7
Appleton (White Sox)	31	29	.517	8½
Cedar Rapids (Cards)	31	31	.500	9½
Quad Cities (Angels)	30	31	.492	10
Wisconsin Rapids (Twins)	30	31	.492	10
Burlington (Athletics)	26	35	.426	14
Clinton (Pirates)	26	35	.426	14
Dubuque (Royals)	22	37	.373	17

NYP LEAGUE

Club	W	L	Pct.	GB
Auburn (Twins)	49	27	.645	...
Oneonta (Yankees)	43	34	.558	6½
Williamsport (Co-op)	40	35	.533	8½
Newark (Pilots)	38	36	.514	10
Batavia (Tigers)	37	38	.493	11½
Geneva (Senators)	38	40	.487	12
Jamestown (Red Sox)	31	44	.413	17½
Corning (Royals)	27	49	.355	22

NORTHERN LEAGUE

Club	W	L	Pct.	GB
St. Cloud (Twins)	43	27	.614	...
Mankato (Mets)	42	27	.609	½
Sioux Falls (Reds)	41	29	.586	2
Duluth-Superior (White Sox)	31	39	.443	12
Huron (Phillies)	26	43	.377	16½
Aberdeen (Orioles)	26	44	.371	17

NORTHWEST LEAGUE

Club	W	L	Pct.	GB
Tri-City (Dodgers)	45	30	.600	...
Eugene (Phillies)	41	32	.562	3
Medford (Giants)	34	43	.442	12
Lewiston (Cardinals)	30	45	.400	15

Record of All-Star Baseball Games, 1933-1968

All-Star games are played annually by teams composed of players from the American and National Leagues. Formerly the teams were selected by a nationwide poll of fans, but beginning in 1958 the procedure was changed to one in which the players, coaches and managers make the selections. From the receipts of the game, plus radio and television receipts of the world series, \$4,100,000 goes into the players' pension fund. The game was not played in 1945.

Game	Year	Winner	Score	Location	Game	Year	Winner	Score	Location
1st	1933	American	4-2	Chicago	21st	1954	American	11-9	Cleveland
2nd	1934	American	9-7	New York	22nd*	1955	National	6-5	Milwaukee
3rd	1935	American	4-1	Cleveland	23rd	1956	National	7-3	Washington
4th	1936	National	4-3	Boston	24th	1957	American	6-5	St. Louis
5th	1937	American	8-3	Washington	25th	1958	American	4-3	Baltimore
6th	1938	National	4-1	Cincinnati	26th	1959	National	5-4	Pittsburgh
7th	1939	American	3-1	New York	27th	1959	American	5-3	Los Angeles
8th	1940	National	4-0	St. Louis	28th	1960	National	5-3	Kansas City
9th	1941	American	7-5	Detroit	29th	1960	National	6-0	New York
10th	1942	American	3-1	New York	30th*	1961	National	5-4	San Francisco
11th*	1943	American	5-3	Philadelphia	31st	1961	Called-Rain	1-1	Boston
12th*	1944	National	7-1	Pittsburgh	32nd*	1962	National	3-1	Washington
13th	1946	American	12-0	Boston	33rd	1962	American	9-4	Chicago
14th	1947	American	2-1	Chicago	34th	1963	National	5-3	Cleveland
15th	1948	American	5-2	St. Louis	35th	1964	National	7-4	New York
16th	1949	American	11-7	New York	36th	1965	National	6-5	Minnesota
17th	1950	National	4-3	Chicago	37th*	1966	National	2-1	St. Louis
18th	1951	National	8-3	Detroit	38th*	1967	National	2-1	Anaheim
19th	1952	National	3-2	Philadelphia	39th*	1968	National	1-0	Houston
20th	1953	National	5-1	Cincinnati					

114 innings. *12 innings. *10 innings. *15 innings. *Night game.

Home Run Distances in Baseball Parks

AMERICAN LEAGUE					NATIONAL LEAGUE				
Team	Name of park	Ft. from plate to fence			Team	Name of park	Ft. from plate to fence		
		RF	CF	LF			RF	CF	LF
New York.....	Yankee Stadium.....	296	461	301	Atlanta.....	Atlanta Stadium.....	330	402	330
Boston.....	Fenway Park.....	302	420	315	New York.....	Shea Stadium.....	341	410	341
Cleveland.....	Municipal Stadium.....	320	410	320	Houston.....	Astrodome.....	340	406	340
Detroit.....	Tiger Stadium.....	325	440	340	San Francisco.....	Candlestick Park.....	335	410	335
Chicago.....	White Sox Park.....	352	415	352	Los Angeles.....	Dodger Stadium.....	330	410	330
Baltimore.....	Memorial Stadium.....	309	410	309	Chicago.....	Wrigley Field.....	353	400	355
Oakland.....	Oak-Alameda Co.....	330	410	330	Pittsburgh.....	Forbes Field.....	300	457	365
Minnesota.....	Metropolitan Stad.....	330	425	346	Cincinnati.....	Crosley Field.....	366	387	328
California.....	Anaheim Stadium.....	333	406	333	St. Louis.....	Busch Mem. Stad.....	330	414	330
Washington.....	D. C. Stadium.....	335	410	335	Philadelphia.....	Connie Mack Stad.....	329	447	334

Baseball Parks Seating Capacity

Astrodome (Houston, Tex.).....	44,500	Forbes Field, Pittsburgh, Pa.....	35,000
Anaheim Stadium.....	43,204	Kansas City (Mo.) Municipal Stadium.....	32,561
Atlanta (Ga.) Stadium.....	51,383	Memorial Stadium, Baltimore.....	52,185
Busch Memorial Stadium, St. Louis, Mo.....	49,450	Metropolitan Sta., Bloomington, Minn.....	43,826
Candlestick Park, San Francisco.....	42,500	Milwaukee County Stadium.....	50,000
Cleveland (Ohio) Municipal Stadium.....	76,977	Oakland-Alameda County Coliseum.....	50,000
White Sox Park, Chicago.....	46,550	Shea Sta., Queens, N. Y. C.....	56,000
Connie Mack Stad., Philadelphia, Pa.....	33,608	Tiger Stadium, Detroit, Mich.....	53,089
Crosley Field, Cincinnati, Ohio.....	29,468	Washington (D. C.) Stadium.....	45,016
Dodger Stadium, (Chavez Ravine), L. A.....	56,000	Wrigley Field, Chicago, Ill.....	36,644
Fenway Park, Boston, Mass.....	33,375	Yankee Stadium, New York, N. Y.....	67,000

McLain Wins 31 Games

Dennis McLain of the Detroit Tigers became in 1968 the first pitcher in 34 years to win 30 games in the major leagues. A complete list of hurlers who have won 30 or more games since 1900 follows.

1968—Dennis McLain, Detroit Tigers.....	31	1912—Joe Wood, Boston Red Sox.....	34
1934—Dizzy Dean, St. Louis Cardinals.....	34	1910—Jack Coombs, Philadelphia Athletics.....	31
1931—Lefty Grove, Philadelphia Athletics.....	31	1908—Ed Walsh, Chicago White Sox.....	40
1920—Jim Bagby, Cleveland Indians.....	31	1908—Christy Mathewson, New York Giants.....	37
1917—Grover Cleveland Alexander, Philadelphia Phillies.....	31	1905—Christy Mathewson, New York Giants.....	31
1916—Grover Cleveland Alexander, Philadelphia Phillies.....	33	1904—Christy Mathewson, New York Giants.....	33
1915—Grover Cleveland Alexander, Philadelphia Phillies.....	31	1904—Joe McGinnity, New York Yankees.....	35
1913—Walter Johnson, Washington Senators.....	36	1904—Jack Chesbro, New York Yankees.....	30
1912—Walter Johnson, Washington Senators.....	32	1903—Christy Mathewson, New York Giants.....	31
		1903—Joe McGinnity, New York Giants.....	32
		1902—Cy Young, Boston Red Sox.....	32
		1901—Cy Young, Boston Red Sox.....	32

Jim Hunter Pitches a Perfect Game

Jim (Catfish) Hunter of the Oakland Athletics became the 10th pitcher in baseball history to hurl a perfect game when he retired all 27 Minnesota Twin batters at Oakland, Calif., on May 8, 1968. The game was witnessed by 6,298 spectators. A list of perfect game hurlers since 1880 follows:

Year	Pitcher	Club	Date	Score
1880.....	John L. Richmond.....	Worcester vs. Cleveland (N.).....	June 12.....	1—0
	John M. Ward.....	Providence vs. Buffalo (N.).....	June 17.....	5—0
1904.....	Denton T. Young.....	Boston vs. Philadelphia (A.).....	May 5.....	3—0
1908.....	Adrian C. Joss.....	Cleveland vs. Chicago (A.).....	Oct. 2.....	1—0
1912.....	Ernest C. Shore.....	Boston vs. Washington (A.).....	June 23.....	4—0
1956.....	Donald J. Larsen.....	Chicago vs. Detroit (A.).....	April 30.....	2—0
1964.....	James P. Bunning.....	New York (A.) vs. Brooklyn (N.).....	Oct. 8.....	2—0
1965.....	Sanford Koufax.....	Philadelphia vs. New York (N.).....	June 21.....	6—0
1968.....	Jim Hunter.....	Los Angeles vs. Chicago (A.).....	Sept. 9.....	1—0
		Oakland vs. Minnesota (A.).....	May 8.....	4—0

*Babe Ruth, the starting pitcher, was banished from the game after walking the first batter. That batter was caught stealing and Shore retired the next 26 batters.

†World Series game.

Playing Cards and Dice Chances

POKER HANDS (Four-Suit)			
Hand	Number Possible	Odds Against	
Royal Flush.....	4	649,739 to 1	
Other Straight Flush.....	36	72,192 to 1	
Four of a kind.....	624	4,164 to 1	
Full House.....	3,744	693 to 1	
Flush.....	5,108	508 to 1	
Straight.....	10,200	254 to 1	
Three of a kind.....	54,912	46 to 1	
Two Pairs.....	123,552	20 to 1	
One Pair.....	1,098,240	4 to 3 (1.37 to 1)	
Nothing.....	1,302,540	1 to 1	
Total.....	2,598,960		

BRIDGE

Perfect hand—In dealing a hand of 13 cards from 52, the probability of drawing a perfect hand—13 spades—is 1 in 635,013,559,600.

One suit—Chances of drawing 13 cards of one suit are 1 in 158,753,389,900.

PINOCHLE AUCTION

Odds Against Finding in "Widow" of Three Cards Open Places..... Odds Against

1.....	5 to 1
2.....	2 to 1
3.....	Even
4.....	3 to 2 for
5.....	2 to 1 for

DICE			
Totals Probabilities on Two Dice			
Total	Odds Against	Single toss	
2.....	35 to 1		
3.....	17 to 1		
4.....	11 to 1		
5.....	8 to 1		
6.....	5 to 1		
7.....	3 to 1		
8.....	3 to 1		
9.....	8 to 1		
10.....	11 to 1		
11.....	17 to 1		
12.....	35 to 1		

Probabilities of Consecutive Winning Plays

No. Consecutive Wins	By 7, 11, or Point
1.....	244 in 495
2.....	24 in 100
3.....	3 in 25
4.....	1 in 17
5.....	1 in 34
6.....	1 in 70
7.....	1 in 141
8.....	1 in 287
9.....	1 in 582
10.....	1 in 1,181

U. S. Tennis Championships

MEN'S SINGLES

Year	Champion	Final Opponent	Year	Champion	Final Opponent
1938	J. Donald Budge	C. Gene Mako	1953	Tony Trabert	E. Victor Seixas, Jr.
1939	R. L. Riggs	W. Van Horn	1954	E. Victor Seixas, Jr.	Rex Hartwig
1940	D. McNeill	R. L. Riggs	1955	Tony Trabert	Ken Rosewall
1941	R. L. Riggs	F. L. Kovacs	1956	Kenneth Rosewall	Lewis Hoad
1942	F. R. Schroeder, Jr.	F. A. Parker	1957	Malcolm Anderson	Ashley Cooper
1943	Lieut. (J. G.)—J. R. Hunt	(C. G. Seaman)	1958	Ashley Cooper	Malcolm Anderson
1944	Sgt. Frank Parker	J. A. Kramer	1959	Neale A. Fraser	Alejandro Olmedo
1945	Sgt. Frank Parker	W. F. Talbert	1960	Neale A. Fraser	Rodney Laver
1946	John Kramer	W. F. Talbert	1961	Roy Emerson	Rodney Laver
1947	John Kramer	Thomas Brown, Jr.	1962	Rodney Laver	Roy Emerson
1948	Richard Gonzales	Frank Parker	1963	Rafael Osuna	F. A. Froehling, 3d
1949	Richard Gonzales	Eric Sturges	1964	Roy Emerson	Fred Stolle
1950	Arthur Larsen	F. R. Schroeder, Jr.	1965	Manuel Santana	Cliff Drysdale
1951	Frank Sedgman	Herbert Flam	1966	Fred Stolle	John Newcombe
1952	Frank Sedgman	E. Victor Seixas, Jr.	1967	John Newcombe	Clark Graebner
		Gardnar Mulloy	1968	Arthur Ashe	Robert Lutz

MEN'S DOUBLES

Year	Doubles Champions	Year	Doubles Champions
1937...	H. Henkle and Baron G. Von Cramm (Ger.)	1953...	Rex Hartwig and Mervyn Rose
1938...	J. D. Budge and C. G. Mako	1954...	E. Victor Seixas, Jr. and Tony Trabert
1939...	A. K. Quist & J. E. Bromwich (Aust.)	1955...	Kosel Kamo and Atsushi Miyagi
1940...	J. A. Kramer and F. R. Schroeder, Jr.	1956...	Lewis Hoad and Kenneth Rosewall
1941...	J. A. Kramer and F. R. Schroeder, Jr.	1957...	Ashley Cooper and Neale Fraser
1942...	Lt. G. Mulloy and W. F. Talbert	1958...	Hamilton Richardson and Alejandro Olmedo
1943...	J. Kramer and Frank Parker	1959...	Neale A. Fraser and Roy Emerson
1944...	Lt. W. D. McNeill and a/e R. Falkenburg	1960...	Neale A. Fraser and Roy Emerson
1945...	Lt. G. Mulloy and W. F. Talbert	1961...	Dennis Ralston and Chuck McKinley
1946...	G. Mulloy and W. F. Talbert	1962...	Rafael Osuna and Antonio Palafox
1947...	J. A. Kramer and F. R. Schroeder, Jr.	1963...	Dennis Ralston and Chuck McKinley
1948...	G. Mulloy and W. F. Talbert	1964...	Dennis Ralston and Chuck McKinley
1949...	John Bromwich and William Sidwell	1965...	Roy Emerson and Fred Stolle
1950...	John E. Bromwich and Frank Sedgman	1966...	Roy Emerson and Fred Stolle
1951...	Frank Sedgman & Kenneth McGregor (Aust.)	1967...	John Newcombe and Tony Roche
1952...	Mervyn Rose and E. Victor Seixas, Jr.	1968...	Robert Lutz and Stan Smith

WOMEN'S SINGLES, DOUBLES, MIXED DOUBLES

Yr.	Singles Champions	Doubles Champions	Mixed Doubles Champions
1938	Miss Alice Marble.....	Miss A. Marble & Mrs. S. P. Fabryan	Miss A. Marble & J. D. Budge
1939	Miss Alice Marble.....	Miss A. Marble & Mrs. S. P. Fabryan	Miss Alice Marble & H. C. Hopman
1940	Miss Alice Marble.....	Miss A. Marble & Miss S. Palfrey..	Miss Alice Marble & R. L. Riggs
1941	Mrs. E. T. Cooke.....	Mrs. E. T. Cooke & Miss M. Osborne	Mrs. E. T. Cooke & J. A. Kramer
1942	Miss Pauline Betz.....	Misses A. L. Brough & M. Osborne..	Miss A. L. Brough & F. R. Schroeder, Jr.
1943	Miss Pauline Betz.....	Misses A. L. Brough & M. Osborne..	Miss M. Osborne & W. F. Talbert
1944	Miss Pauline Betz.....	Misses A. L. Brough & M. Osborne..	Miss M. Osborne & W. F. Talbert
1945	Mrs. E. T. Cooke.....	Misses A. L. Brough & M. Osborne..	Miss M. Osborne & W. F. Talbert
1946	Miss Pauline Betz.....	Misses A. L. Brough & M. Osborne..	Miss M. Osborne & W. F. Talbert
1947	Miss A. L. Brough.....	Misses A. L. Brough & M. Osborne..	Miss A. L. Brough & J. Bromwich
1948	Mrs. M. O. du Pont.....	Miss A. L. Brough & Mrs. M. O. du Pont..	Miss A. L. Brough & T. Brown, Jr.
1949	Mrs. M. O. du Pont.....	Miss A. L. Brough & Mrs. M. O. du Pont..	Miss A. L. Brough & E. Sturges
1950	Mrs. M. O. du Pont.....	Miss A. L. Brough & Mrs. M. O. du Pont..	Mrs. M. O. du Pont & Kenneth MacGregor
1951	Maureen Connolly.....	Doris Hart and Shirley Fry.....	Doris Hart & Frank Sedgman
1952	Maureen Connolly.....	Doris Hart and Shirley Fry.....	Doris Hart & Frank Sedgman
1953	Maureen Connolly.....	Doris Hart and Shirley Fry.....	Doris Hart & E. Victor Seixas, Jr.
1954	Doris Hart.....	Doris Hart and Shirley Fry.....	Doris Hart & E. Victor Seixas, Jr.
1955	Doris Hart.....	A. Louise Brough and Mrs. Margaret du Pont.....	Doris Hart & E. Victor Seixas, Jr.
1956	Shirley J. Fry.....	A. Louise Brough and Mrs. Margaret du Pont.....	Mrs. Margaret du Pont and Kenneth Rosewall
1957	Althea Gibson.....	A. Louise Brough and Mrs. Margaret du Pont.....	Althea Gibson and Gardnar Mulloy
1958	Althea Gibson.....	Darlene Hard and Jeanne Arth.....	Mrs. M. O. du Pont and Neale Fraser
1959	Maria E. Bueno.....	Darlene Hard and Jeanne Arth.....	Mrs. M. O. du Pont and Neale Fraser
1960	Darlene R. Hard.....	Darlene R. Hard and Maria Bueno.....	Mrs. M. O. du Pont and Neale Fraser
1961	Darlene R. Hard.....	Darlene R. Hard and Lesley Turner.....	Margaret Smith and Robert Mark
1962	Margaret Smith.....	Maria Bueno and Darlene Hard.....	Margaret Smith and Fred Stolle
1963	Maria E. Bueno.....	Margaret Smith and Robyn Ebbenn.....	Margaret Smith and Kenneth Fletcher
1964	Maria E. Bueno.....	Billie Jean Moffitt & Karen Susman.....	Margaret Smith & John Newcombe
1965	Margaret Smith.....	Mrs. Carol Gardner & Nancy Richey.....	Margaret Smith & Fred Stolle
1966	Maria Bueno.....	Maria Bueno & Nancy Richey.....	Donna Floyd Fales & Owen Davidson
1967	Billie Jean King.....	Rosemary Casals & Billie Jean King.....	Billie Jean King & Owen Davidson
1968	Mrs. Margaret S. Court.....	Maria Bueno & Mrs. M. S. Court.....	Mary Ann Elsel & Peter Curtis

CLAY COURT CHAMPIONS

Yr.	Champion	Doubles Champions	Yr.	Champion	Doubles Champions
1948	R. A. Gonzales.....	S. Match-T. Chambers	1958	Bernard Bartenzen	B. MacKay-S. Giammariva
1949	R. A. Gonzales.....	E. V. Seixas-S. Match	1959	B. Bartenzen.....	B. Bartenzen-G. Golden
1950	Herbert Flam.....	H. Flam-A. Larsen	1960	Barry MacKay.....	Bob Hewitt-Marty Mulligan
1951	Pony Trabert.....	T. Trabert-H. Richardson	1961	B. Bartenzen.....	C. McKinley-R. D. Ralston
1952	Arthur Larsen.....	G. Golden-A. Larsen	1962	Chuck McKinley.....	R. Earnhart-M. Riessen
1953	E. Vie Seixas, Jr.....	B. Bartenzen-G. Golden	1963	Chuck McKinley.....	M. Riessen-C. Graebner
1954	E. Bartenzen.....	Trabert-E. V. Seixas, Jr.	1964	Dennis Ralston.....	C. McKinley-D. Ralston
1955	Pony Trabert.....	T. Trabert-H. Richardson	1965	Dennis Ralston.....	C. Graebner-M. Riessen
1956	Herbert Flam.....	P. Contreras-A. Olmedo	1966	Cliff Richey.....	D. Ralston-C. Graebner
1957	E. Victor Seixas, Jr.....	Ashley Cooper-Neale Fraser	1967	Arthur Ashe.....	M. Riessen-C. Graebner
			1968	Clark Graebner.....	Robert Lutz and Stan Smith

MEN'S INDOOR CHAMPIONS

Yr.	Singles	Doubles	Yr.	Singles	Doubles
1949	R. A. Gonzales	Wm. Talbert and D. McNeill	1960	Barry MacKay	Andres Gimeno-Manuel Santana
1950	Dou McNeill	Wm. Talbert and D. McNeill	1961	Richard Savitt	C Crawford-R Holmberg
1951	William Talbert	Wm. Talbert and D. McNeill	1962	Chas McKinley	R. Laver-C. McKinley
1952	Richard Savitt	Wm. Talbert and Budge Patty	1963	Dennis Ralston	D. Ralston-C. McKinley
1953	Arthur Larsen	A. Larsen and K. Nielsen	1964	Chas. McKinley	M. Santana-J. L. Arilla
1954	Sven Davidson	W. F. Talbert and Tony Trabert	1965	Jan Erik Lundquist	D. Ralston-C. McKinley
1955	Tony Trabert	E. V. Selxas, Jr. and T. Trabert	1966	C. Pasarell	B. Lutz-S. Smith
1956	Ulf Schmidt	S. Glanmaiva & E. V. Selxas, Jr.	1967	C. Pasarell	A. Ashe-C. Pasarell
1957	Kurt Nielsen	Grant Golden-Barry MacKay	1968	Cliff Richey	Thomas Koch and Tom Okker
1958	Richard Savitt	Grant Golden-Barry MacKay			
1959	Alex Olmedo	Alex Olmedo-Barry MacKay			

WOMEN'S INDOOR CHAMPIONS

Yr.	Champion	Doubles Champions	Yr.	Champion	Doubles Champions
1948	Mrs. P. C. Todd	Miss D. Hart and Miss B. Scotchell	1959	Lols Felix	Lols Felix and Katharine Hubbell
1949	Miss G. Moran	Miss G. Moran and Mrs. R. A. Buck	1960	Carole Wright	Mrs. Richard A. Buck and Ruth Jeffery
1950	Miss Nancy Chaffee	Miss Nancy Chaffee and Mrs. R. A. Buck	1961	Janet S. Hopps	Janet S. Hopps and Kay Hubbell
1951	Miss Nancy Chaffee	Miss Nancy Chaffee and Mrs. Richard Buck	1962	Carole Wright	Ruth Jeffery and Belmar Gunderson
1952	Mrs. Nancy Chaffee Klier	Mrs. Nancy Chaffee Klier and Mrs. Patricia Todd	1963	Carol Hanks	Carol Hanks and Mary Ann Elsel
1953	Mrs. Thelma Long	Mrs. Thelma Long and Mrs. Barbara Davidson	1964	Mary Ann Elsel	Mary Ann Elsel & Katharine Hubbell
1954	Mrs. Dorothy W. Levine	Mrs. Dorothy W. Levine and Mrs. Barbara Ward	1965	Nancy Richey	Carol Hanks Aucamp and Mary Ann Elsel
1955	Katharine Hubbell	K. Hubbell and R. Jeffery	1966	Billie Jean King	Billie Jean King & Rosemary Casals
1956	Lols Felix	L. Felix and K. Hubbell	1967	Billie Jean King	Carol Hanks Aucamp & Mary Ann Elsel
1957	Mrs. Dorothy Levine	Mrs. Dorothy Levine and Nancy O'Connell	1968	Billie Jean King	Billie Jean King & Rosemary Casals
1958	Nancy O'Connell	Carol Hanks and Nancy O'Connell			

NATIONAL INTERCOLLEGIATE CHAMPIONS

Yr.	Singles	College	Doubles	College
1948	Harry Likas	San Francisco U.	F. Kovaleski & B. Bartzen	Wm. & Mary Washington
1949	Jack Tuero	Tulane	J. Brinks and Fred Fischer	U. C. L. A.
1950	Herbert Flam	U. C. L. A.	H. Flam and W. E. Garrett	U. C. L. A.
1951	Tony Trabert	Cincinnati	Earl Coehell and Hugh Stewart	So. California
1952	Hugh Stewart	So. California	Hugh Ditzler and Cliff Mayne	California
1953	Hamilton Richardson	Tulane	Lawrence Huebner and Robert Perry	U. C. L. A.
1954	Hamilton Richardson	Tulane	Robert Perry and Ron Livingston	U. C. L. A.
1955	Jose Aguerro	Tulane	Pancho Contreras and Joaquin Reyes	So. California
1956	Alejandro Olmedo	So. California	Alejandro Olmedo and Pancho Contreras	So. California
1957	Barry MacKay	Michigan	Crawford Henry and Ronald Holmberg	Tulane
1958	Alejandro Olmedo	So. California	Ronald Holmberg and Edward Atkinson	So. California
1959	Whitney Reed	San Jose State	Ronald Holmberg and Crawford Henry	Tulane
1960	Larry Nagler	U. C. L. A.	Larry Nagler and Allen Fox	U. C. L. A.
1961	Allen Fox	U. C. L. A.	Rafael Osuna and Ramsey Earnhart	So. California
1962	Rafael Osuna	So. California	Rafael Osuna and Ramsey Earnhart	So. California
1963	Dennis Ralston	So. California	Dennis Ralston and Rafael Osuna	So. California
1964	Dennis Ralston	So. California	Dennis Ralston and Bill Bond	So. California
1965	Arthur Ashe	U. C. L. A.	Arthur Ashe and Ian Crookenden	U. C. L. A.
1966	Charles Pasarell	U. C. L. A.	Charles Pasarell and Ian Crookenden	U. C. L. A.
1967	Bob Lutz	So. Calif.	Stan Smith & Bob Lutz	So. Calif.
1968	Stan Smith	So. Calif.	Stan Smith & Bob Lutz	So. Calif.

British (Wimbledon) Champions

Inaugurated 1877

Year	Men's singles	Women's singles	Year	Men's singles	Women's singles
1953	Victor Seixas	Maureen Connolly	1961	Rodney Laver	Angela Mortimer
1954	Jaroslav Drobny	Maureen Connolly	1962	Rodney Laver	Karen Hantze Susman
1955	Tony Trabert	Louise Brough	1963	Chuck McKinley	Margaret Smith
1956	Lewis Hoad	Shirley Fry	1964	Roy Emerson	Maria Bueno
1957	Lewis Hoad	Althea Gibson	1965	Roy Emerson	Margaret Smith
1958	Ashley Cooper	Althea Gibson	1966	Manuel Santana	Billie Jean King
1959	Alex Olmedo	Maria Bueno	1967	John Newcombe	Billie Jean King
1960	Neale Fraser	Maria Bueno	1968	Rod Laver	Billie Jean King

Other Tennis Championships in 1968

Australian Championships, Melbourne, Australia—Men's Singles: Bill Bowrey; Men's Doubles: Cressly-Stone; Women's Singles: Billie Jean King; Women's Doubles: Karen Krantzcke-Kerry Melville.

Eastern Grass Court Championships, South Orange, N. J.—Men's Singles: Charles Pasarell; Women's Singles: Mary Ann Elsel; Women's Doubles: Mary Ann Elsel-Valerie Ziegenfuss.

French Championships, Paris, France—Men's Singles: Ken Rosewall; Men's Doubles: Ken Rosewall-Fred Stolle; Women's Singles: Nancy Richey; Women's Doubles: Francoise Durr-Ann Haydon Jones.

Italian Championships, Rome, Italy—Men's Singles: Tom Okker; Men's Doubles: Marty Riesen-Tom Okker; Women's Singles: Lesley Turner

Bowrey; Women's Doubles: Margaret Smith Court-Virginia Wade.

Pennsylvania Grass Court Championships—Men's Singles: Arthur Ashe; Men's Doubles: Arthur Ashe-Marty Riesen; Women's Singles: Kristy Pigeon; Women's Doubles: Mary Ann Elsel-Valerie Ziegenfuss.

Women's Collegiate Championships, Carlton College, Northfield, Minn.—Singles: Emilie Burrer; Doubles: Emilie Burrer-Becky Vest.

Wightman Cup Matches (Women's Team of U. S. & England)—Great Britain defeated U. S. 4-3. Series standing since 1932: U. S. 33, Great Britain 7.

Federation Cup—(Women's Team of all Nations) Paris, France—Final Round: Australia d. Netherlands 3-0.

Davis Cup International Tennis—Challenge Round

Yr.	Winner	Loser	Score	Yr.	Winner	Loser	Score	Yr.	Winner	Loser	Score
1900	U. S.	Brit. Isles.	5-0	1925	U. S.	France	5-0	1949	U. S.	Australia	4-1
1902	U. S.	Brit. Isles.	3-2	1926	U. S.	France	4-1	1950	Australia	U. S.	4-1
1903	British	U. S.	4-1	1927	U. S.	France	3-2	1951	Australia	U. S.	3-2
1904	British	Belgium	5-0	1928	France	U. S.	4-1	1952	Australia	U. S.	4-1
1905	British	U. S.	5-0	1929	U. S.	France	3-2	1953	Australia	U. S.	3-2
1906	British	U. S.	5-0	1930	France	U. S.	4-1	1954	U. S.	Australia	3-2
1907	Australia	British	3-2	1931	France	England	3-2	1955	Australia	U. S.	5-0
1908	Australia	U. S.	3-2	1932	France	U. S.	3-2	1956	Australia	U. S.	5-0
1909	Australia	U. S.	5-0	1933	Gt. Britain	France	3-2	1957	Australia	U. S.	3-2
1910	Australia	U. S.	5-0	1934	Gt. Britain	U. S.	4-1	1958	U. S.	Australia	3-2
1911	Australia	U. S.	3-2	1935	Gt. Britain	U. S.	5-0	1959	Australia	U. S.	3-2
1912	British	Australia	3-2	1936	Gt. Britain	Australia	3-2	1960	Australia	Italy	4-1
1913	U. S.	British	3-2	1937	U. S.	England	4-1	1961	Australia	Italy	5-0
1914	Australia	U. S.	3-2	1938	U. S.	Australia	3-2	1962	Australia	Mexico	5-0
1919	Australia	British	4-1	1939	Australia	U. S.	3-2	1963	U. S.	Australia	3-2
1920	U. S.	Australia	5-0	1940-1945	(Not played)			1964	Australia	U. S.	3-2
1921	U. S.	Japan	5-0	1946	U. S.	Australia	5-0	1965	Australia	Spain	4-1
1922	U. S.	Australia	4-1	1947	U. S.	Australia	4-1	1966	Australia	India	4-1
1923	U. S.	Australia	4-1	1948	U. S.	Australia	5-0	1967	Australia	Spain	4-1
1924	U. S.	Australia	5-0								

National Junior Tennis Champions

JUNIOR OUTDOOR SINGLES

1958 Earl Buchholz, Jr.	1964 Stanley Smith
1959 Dennis Ralsdon	1965 Robert Lutz
1960 William Lenoir	1966 Steve Ayoyer
1961 Charles Pasarell	1967 Jeff Borowiak
1962 Mike Belkin	1968 Bob McKinley

JUNIOR OUTDOOR DOUBLES

1958 Earl Buchholz, Jr. and Chuck McKinley	
1959 Chuck McKinley and Martin Riessen	
1960 Frank Froehling and William Lenoir	
1961 Clark Graebner and Charles Pasarell	
1962 Jackie Cooper and Mickey Schad	
1963 Jack Jackson and John Pickens	
1964 Dean Pendero and Jeff Brown	
1965 Marcello Lara and Jasjit Singh	
1966 Alberto Carrero and Stan Pasarell	
1967 Zan Guerry and Antonio Ortiz	
1968 Bob McKinley and P. D. Robbins	

BOYS' 16 OUTDOOR SINGLES

1958 Clark Graebner	1964 Alberto Carrero
1959 James Beste	1965 Zan Guerry
1960 Mike Belkin	1966 Erik van Dillen
1961 Bill Harris	1967 Richard Stockton
1962 Cliff Richey	1968 Jimmy Connors
1963 Bill Harris	

BOYS' 16 OUTDOOR DOUBLES

1958 Clark Graebner and Warren Deane	
1959 Charles Pasarell and Jorge de Jesus	
1960 Frank Froehling and William Lenoir	
1961 Jeff Brown and Dean Pendero	
1962 Jackie Cooper and Mickey Schad	
1963 Roy Barth and Robert Lutz	
1964 William Davidson and James Rombeau	
1965 Mike Estep and George Taylor	
1966 Dick Stockton and Erik van Dillen	
1967 Mike Machette and Dick Stockton	
1968 James Hagey and Robert Kreiss	

GIRLS' OUTDOOR SINGLES

1958 Sally Moore	1964 Mary Ann Eisler
1959 Karen Hantze	1965 Peaches Bartkowicz
1960 Karen Hantze	1966 Pam Richmond
1961 Victoria Palmer	1967 Peaches Bartkowicz
1962 Victoria Palmer	1968 Kristy Pigeon
1963 Julie Heldman	

GIRLS' OUTDOOR DOUBLES

1958 Karen Hantze and Helene Weill	
1959 Karen Hantze and Kathy Chabot	
1960 Karen Hantze and Kathy Chabot	
1961 Victoria Palmer and Judy Alvarez	
1962 Jane Albert and Mary Arfars	
1963 Stephanie DePina and Jane Albert	
1964 Mary Ann Eisler and Wendy Overton	
1965 Peaches Bartkowicz and Valerie Ziegenfuss	
1966 Peaches Bartkowicz and Valerie Ziegenfuss	
1967 Peaches Bartkowicz and Valerie Ziegenfuss	
1968 Kristy Pigeon and Denise Carter	

GIRLS' 16 OUTDOOR SINGLES

1959 Victoria Palmer
1960 Julie Heldman
1961 Janie Albert
1962 Kathy Blake
1963 Jane Bartkowicz
1964 Jane Bartkowicz
1965 Peaches Bartkowicz
1966 Linda Tuero
1967 Kristien Kemmer
1968 Janet Newberry

GIRLS' 16 OUTDOOR DOUBLES

1959—Victoria Palmer and Margaret Taylor
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1960—Patty Barth and Margaret Taylor
1961—Janie Albert and Jean Danilovich
1963—Rosemary Casals and Pixie Lamm
1964—Patsy Rippey and Paulette Verzin
1965—Peaches Bartkowicz and Valerie Ziegenfuss
1966—Linda Tuero and Connie Capozzi
1967—Gail Hansen and Patty Ann Reese
1968—Kristine Kemmer and Janet Newberry

JUNIOR INDOOR SINGLES

1958 Chuck McKinley	1963 Cliff Richey
1959 Chuck McKinley	1964 Frank Conner
1960 Arthur Ashe, Jr.	1965 Armistead Neely
1961 Arthur Ashe, Jr.	1966 Jeff Borowiak
1962 Gary Pilser	1967 Don Lutz

JUNIOR INDOOR DOUBLES

1958—Chuck McKinley and Raymond Senkowski
1959—Chuck McKinley and Clifford Buchholz
1960—Frank Froehling III and Butch Newman
1961—Cliff Buchholz and Butch Newman
1962—Bill Brown and Gary Rieser
1963—Bill Brown and Gary Rieser
1964—John Good and Brian Marcus
1965—Dick Dell and Turner Howard
1966—Jeff Borowiak and Mike Estep
1967—Don Lutz and John Fort

BOYS' 16 INDOOR SINGLES

1958 Clifford Buchholz	1963 Chuck Brainard
1959 Karl Hedrick	1964 Jasjit Singh
1960 Martin Schad	1965 Jeff Borowiak
1961 Cliff Richey	1966 George Taylor
1962 Cliff Richey	1967 Dick Stockton

BOYS' 16 INDOOR DOUBLES

1958—Claude Bakewell and James Parker
1959—Martin Schad and Jackie Cooper
1960—John Pickens and Martin Schad
1961—Jeff Brown and Cliff Richey
1962—Cliff Richey and Steve Stockton
1963—Chuck Brainard and John Towner
1964—Leo Estopare and Dan Oram
1965—Bob Alloo and Leo Estopare
1966—Jack Hughes and Robin Sandage
1967—Dick Stockton and Mike Machette

GIRLS' INDOOR SINGLES

1958 Bonnie Mencher	1963 Yale Stockwell
1959 Justina Bricka	1964 Carolyn Clarke
1960 Sue Behlmar	1965 Vicki Rogers
1961 Alice B. Christner	1966 Judy Dixon
1962 Yale Stockwell	1967 Andrea Volkos

GIRLS' INDOOR DOUBLES

1958—Susan Behlmar and Bonnie Mencher
1959—Justina Bricka and Sue Behlmar
1960—Sue Behlmar and Heidi Lincoln
1961—Virginia Gilbane and Joanne Swanson
1962—Duane Horan and Joanne Swanson
1963—Yale Stockwell and Roberta Zimman
1964—Carolyn Clarke and Susan Mabrey
1965—Charlotte Atwater and Carolyn Clarke
1966—Evelyn Haase and Bonnie Logan
1967—Connie Capozzi and Marjorie Gengler

GIRLS' 16 INDOOR SINGLES

1959 Virginia Gilbane
1960 Barbara Menoff
1961 Yale Stockwell
1962 Yale Stockwell
1963 Marilyn Ashner
1964 Carolyn Clarke
1965 Vicki Rogers
1966 Andrea Volkos
1967 Andrea Volkos

Indianapolis Speedway Winners

DISTANCE 500 MILES (Inaugurated 1911)

Year	Car and driver	Time	MPH	Year	Car and driver	Time	MPH
1954.	Fuel Injection Special, Billy Vukovich.....	3:49:17.27	130.840	1961.	Bowes Seal Fast Spec., A. J. Foyt.....	3:35:37.40	139.130
1955.	John Zink Special, Bob Sweikert.....	3:53:59.53	128.209	1962.	Leader Card Spec., Rodger Ward.....	3:33:50.33	140.290
1956.	John Zink Special, Pat Flaherty.....	3:53:00.00	128.490	1963.	Agassian-Willard Battery Special, Parulli Jones.....	3:29:35.40	143.130
1957.	Belond Exhaust Special, Sam Hawks.....	3:41:14.25	135.601	1964.	Sheraton-Thompson Spl., A. J. Foyt.....	3:23:35.83	147.350
1958.	Belond A P.Special, Jimmy Bryan.....	3:44:13.00	133.791	1965	Lotus Powered by Ford, Jimmy Clark.....	3:19:05.34	150.680
1959.	Leader Card Special, Rodger Ward.....	3:40:49.20	135.857	1966.	American Red Ball Spec., Graham Hill.....	3:27:52.53	144.310
1960.	Ken-Paul Special, Jim Rathmann.....	3:36:11.36	138.775	1967.	Sheraton-Thompson Spl., A. J. Foyt.....	3:18:24.42	151.200
				1968.	Rtstone Spl., Bobby Unser.....	3:16:13.76	152.880

(1) Race stopped at 345 miles, rain. Race Record—152.882 mph—Bobby Unser, 1968.

World Drivers' Championship

Year	Driver (car)	Year	Driver (car)	Year	Driver (car)
1950	G. Farina (Alfa Romeo)	1957	J. Fangio (Maserati)	1963	J. Clark (Lotus-Climax)
1951	J. Fangio (Alfa Romeo)	1958	J. Hawthorn (Ferrari)	1964	J. Surtees (Ferrari)
1952	A. Ascari (Ferrari)	1959	J. Brabham (Cooper-Ferrari)	1965	J. Clark (Lotus-Climax)
1953	A. Ascari (Ferrari)	1960	J. Brabham (Cooper-Climax)	1966	J. Brabham (Brabham-Repco)
1954	J. Fangio (Mercedes & Maserati)	1961	P. Hill (Ferrari)	1967	D. Hulme (Brabham-Repco)
1955	J. Fangio (Mercedes)	1962	G. Hill (BRM)		
1956	J. Fangio (Lancia-Ferrari)				

American Road Race of Champions

Sponsored by Newspaper Enterprise Assn. and Nine Flags—Daytona Beach, Fla. Nov. 25-26, 1967. Determines National Class Champions of Sports Car Club of America

Class	Driver (Car)	Class	Driver (Car)	Class	Driver (Car)
A Prod.	R. Smith (Cobra)	C Sports	J. Hansen (Lola)	Formula	R. Campbell (Zink)
B Prod.	F. Van Beuren (M-tang)	D Sports	W. Koch (Koch)	Sedan A	J. McComb (Mustang)
C Prod.	A. Johnson (Porsche)	E Sports	R. Mitchell (Elva-BMW)	Sedan B	V. Provenzano (Alfa Romeo GTA)
D Prod.	J. Thompson (Yenko)	F Sports	P. Jett (Lotus 23B)	Sedan C	R. McDaniel (Austin Cooper)
E Prod.	L. Midgley (TR-3)	G Sports	C. Gibson (Lotus 23)	Sedan D	D. Parkinson (Fiat Abarth)
F Prod.	R. Sharp (Datsun)	H Sports	J. Iglehart (Bobby)		
G Prod.	J. Truitt (A-H Sprite)	Formulas	A, B, C, Dietrich (McLaren)		
H Prodd.	R. LaPeer (A-H Sprite)				

World's Land Speed Records

Evolution of the Mile Record

Date	Driver	Car	MPH	Date	Driver	Car	MPH
12/18/98	Chasseloup-Laubat	Jeantaud	39.24	3/29/27	/Seagrave	Sunbeam	203.79
4/29/99	Jenatzky	Jamais Contente	65.79	4/22/28	Keech	White Triplex	207.55
11/17/02	Augieres	Mars	77.13	3/11/29	Seagrave	Irving-Napier	231.44
11/ 5/03	Duray	Gabron-Brillie	84.73	2/ 5/31	Campbell	Napier-Campbell	246.08
12/30/04	Barras	Darracq	109.65	2/24/32	Campbell	Napier-Campbell	253.96
1/25/05	B. wden	Mercedes	109.75	2/ 22/33	Campbell	Napier-Campbell	272.10
1/26/06	Marriott	Stanley (Steam)	127.659	9/ 3/35	Campbell	Bluebird Spl.	301.13
3/16/10	Oldfield	Benz	131.724	11/19/37	Eyston	Thunderbolt #1	311.42
4/23/11	Burman	Benz	141.732	9/16/38	Eyston	Thunderbolt #1	357.5
2/12/19	DePalma	Packard	149.875	8/23/39	Cobb	Railton	368.9
4/27/20	Milton	Duesenberg	156.046	9/16/47	Cobb	Railton-Mobil	394.2
4/28/26	Parry-Thomas	Thomas Spl.	170.624	8/ 5/63	Breedlove	Spirit of America	407.45
				10/27/64	Arfons	Green Monster	536.71
				11/15/65	Breedlove	Spirit of America	600.601

National Automobile Champions (U. S. Auto Club)

1950 Henry Banks	1955 Bob Sweikert	1959 Rodger Ward	1963 A. J. Foyt
1951 Tony Bettenhausen	1956 Jimmy Bryan	1960 A. J. Foyt	1964 A. J. Foyt
1952 Chuck Stevenson	1957 Jimmy Bryan	1961 A. J. Foyt	1965 Mario Andretti
1953 Sam Hanks	1958 Tony Bettenhausen	1962 Rodger Ward	1966 Mario Andretti
1954 Jimmy Bryan			1967 A. J. Foyt

Daytona 500 Winners

Year	Driver (Car)	Avg. MPH	Year	Driver (Car)	Avg. MPH
1959	L. Petty (Oldsmobile)	135.521	*1965	F. Lorenzen (Ford)	141.530
1960	J. Johnson (Chevrolet)	124.740	*1966	R. Petty (Plymouth)	160.627
1961	M. Panch (Pontiac)	149.601	1967	M. Andretti (Ford)	146.926
1962	P. Roberts (Pontiac)	152.529	1968	C. Yarborough (Mercury)	143.251
1963	T. Lund (Ford)	151.566			
1964	R. Petty (Plymouth)	154.334			

Canadian-American Challenge Cup

Year	Driver (Car)
1966	J. Surtees (Lola T-70 Chev.)
1967	B. McLaren (McLaren M6A Chev.)

Trans-American Championship

Over 2-Liter	Under 2-Liter
1966 Ford Motor Co.	Alfa-Romeo
1967 Ford Motor Co.	Porsche
1968 Chevrolet Div.	Porsche

Grand National Champions (NASCAR)

National Assn. of Stock Car Auto Racing

Year	Driver (Car)	Year	Driver (Car)	Year	Driver (Car)
1949	R. Byron (Oldsmobile)	1956	E. Baker (Chrysler-Dodge)	1963	J. Weatherly (Pontiac-Mercury)
1950	W. Rexford (Oldsmobile)	1957	E. Baker (Chevrolet)	1964	R. Petty (Plymouth)
1951	H. Thomas (Ply.-Hudson)	1958	L. Petty (Oldsmobile)	1965	N. Jarrett (Ford)
1952	T. Flock (Hudson)	1959	L. Petty (Olds.-Plymouth)	1966	D. Pearson (Dodge)
1953	H. Thomas (Hudson)	1960	R. White (Chevrolet)	1967	R. Petty (Plymouth)
1954	L. Petty (Chrysler)	1961	N. Jarrett (Chevrolet)	1968	D. Pearson (Ford)
1955	T. Flock (Chrysler)	1962	J. Weatherly (Pontiac)		

Trotting and Pacing Records

Source: Larry Evans, United States Trotting Association. Records to Oct. 15, 1968

TROTting RECORDS

Asterisk (*) denotes that record was made in a race.

One Mile Records

(Mile Track)

All-age Stallion—*1:55½—Noble Victory, Du Quoin, Ill., Sept. 1, 1966.
All-age Mare—1:56¼—Rosalind, Lexington, Ky., Oct. 4, 1938.
All-age Gelding—1:55¼—Greyhound, Lexington, Ky., Sept. 29, 1938.
Yearling Colt—2:15¼—Airdale, Lexington, Ky., Oct. 2, 1912.
Yearling Filly—2:15½—Rilda Rose, Lexington, Ky., Oct. 8, 1955.
Two-year-old Colt—*1:58½—Nevele Pride, Lexington, Ky., Oct. 4, 1967.
Two-year-old Filly—1:58¾—Impish, Lexington, Ky., Sept. 29, 1961.
Two-year-old Gelding—2:02¾—Record Mat, Lexington, Ky., Oct. 8, 1957; *Argo Kid, Lexington, Ky., Oct. 3, 1963.
Three-year-old Colt—*1:56¾—Nevele Pride, Indianapolis, Ind., Aug. 31, 1968.
Three-year-old Filly—1:58—Yankee Lass, Lexington, Ky., Oct. 20, 1957; Emily's Pride, Lexington, Ky., Oct. 8, 1958; Expresson, Lexington, Ky., Oct. 12, 1959; Worth Seefin, Lexington, Ky., Oct. 4, 1962.
Three-year-old Gelding—*1:59—Senator Frost, Inglewood, Calif., Nov. 19, 1958.
Four-year-old Stallion—*1:55¾—Noble Victory, Du Quoin, Ill., Sept. 1, 1966.
Four-year-old Mare—1:57½—Fresh Yankee, Lexington, Ky., Oct. 3, 1967.
Four-year-old Gelding—*1:57¼—Greyhound, Springfield, Ill., Aug. 21, 1936.

(Half-Mile Track)

All-age Stallion—1:58¾—Matastar, Delaware, Ohio, Sept. 16, 1963. *1:58¾—Speedy Rodney, Yonkers, N. Y., Sept. 2, 1966.
All-age Mare, *1:56¾—Armbro Flight, Delaware, Ohio, Sept. 20, 1965.
All-age Gelding—1:59¼—Greyhound, Goshen, N. Y., July 16, 1937.
Two-year-old Colt—*2:00¾—Ayres, Delaware, Ohio, 1963.

Two-year-old Filly—*2:03¾—Impish, Delaware, Ohio, 1961.
Two-year-old Gelding—*2:05¾—Mustard Seed, Saratoga Springs, N. Y., 1965.
Three-year-old Colt—*2:00¾—Snow Speed, Delaware, Ohio, Sept. 18, 1968.
Three-year-old Filly—*1:59¼—Armbr Flight, Delaware, Ohio, 1965.
Three-year-old Gelding—*2:01¼—Bonus Boy, Saratoga Springs, N. Y., 1966.
Four-year-old Stallion—*1:59—Noble Victory, Saratoga Springs, N. Y., 1966.
Four-year-old Mare—*2:00¾—Flamboyant, Yonkers, N. Y., Aug. 2, 1968.
Four-year-old Gelding—*2:01¾—Sleepy Play, Wilmington, Del., 1966.

Odd Distances

1-1/16 Miles—*2:05¾—Senator Frost, Inglewood, Calif., Oct. 17, 1959, and Dartmouth, Westbury, N. Y., Sept. 26, 1964.
1-1/16 Miles, Half-mile Track—*2:08¾—Perfect Freight, Westbury, N. Y., 1966.
1-3/16 Miles—*2:22¾—Scotch Victor, Inglewood, Calif., Nov. 6, 1954.
1¼ Miles—*2:30¾—Pronto Don, Inglewood, Calif., Nov. 24, 1951.
1¼ Miles, Half-mile Track—*2:31¾—Speedy Scot, Westbury, N. Y., 1964; Noble Victory, Westbury, N. Y., 1966.
1½ Miles—*3:02¼—Greyhound, Indianapolis, Ind., Sept. 14, 1937.
1½ Miles, Half-mile Track—*3:05¾—Duke Rodney, Yonkers, N. Y., July 2, 1964.
2 Miles—4:06—Greyhound, Indianapolis, Ind., Sept. 19, 1939.
2 Miles, Half-mile Track—*4:10¾—Pronto Don, Westbury, N. Y., Sept. 13, 1951.
Fastest Two Heats—*1:57¾; *1:56¾—Nevele Pride, Indianapolis, Aug. 31, 1968.
Fastest Two Heats, Half-mile Track—*1:58¾, *2:00¾—Speedy Rodney, Goshen, N. Y., 1966.
Fastest Three Heats—2:01, 2:00¼, 2:00—Greyhound, Goshen, N. Y., Aug. 13, 1936; 2:02, 2:00, 1:59¼—Rosalind, Lexington, Ky., Sept. 30, 1937.

PACING RECORDS

One Mile Records

(Mile Track)

All-age Stallion—1:53¾—Bret Hanover, Lexington, Ky., Oct. 7, 1966.
All-age Mare—*1:56¾—Tarport Lib, Lexington, Ky., Oct. 7, 1966.
All-age Gelding—1:57¾—Cardigan Bay, Inglewood, Calif., Oct. 30, 1965.
Two-year-old Colt—*1:57—Bullet Hanover, Indianapolis, Ind., Sept. 9, 1959.
Two-year-old Filly—1:57½—Timely Beauty, Lexington, Ky., Oct. 15, 1962.
Two-year-old Gelding—*1:59¾—Corsican, Lexington, Ky., Oct. 1, 1957.
Three-year-old Colt—*1:55—Bret Hanover, Indianapolis, Ind., 1965.
Three-year-old Filly—*1:56¾—Tarport Lib, Lexington, Ky., 1966.
Three-year-old Gelding—*1:59—Frisco Creed, Inglewood, Calif., Nov. 9, 1955; Egyptian Pride, Philadelphia, Pa., June 26, 1963; Royal Gene Pick, Vernon, N. Y., 1966. 1:59—Tarport Jimmy, Lexington, Ky., 1961.
Four-year-old Stallion—1:53¾—Bret Hanover, Lexington, Ky., 1966.
Four-year-old Mare—1:56¾—Dottie's Pick, Inglewood, Calif., Nov. 16, 1956.
Four-year-old Gelding—*1:57¼—Ace of Spades, Inglewood, Calif., Nov. 9, 1961.

(Half-Mile Track)

All-age Stallion—1:55¾—Adios Butler, Delaware, Ohio, Sept. 21, 1961.
All-age Mare—*1:59¼—Countess Adios, Delaware, Ohio, Sept. 18, 1960.
All-age Gelding—*1:58¾—Cardigan Bay, Yonkers, N. Y., July 16, 1964.
Two-year-old Colt—1:59¼—Laverne Hanover, Saratoga Springs, N. Y., June 24, 1968.
Two-year-old Filly—*2:01¾—Good Counsel, Delaware, Ohio, 1956.

Two-year-old Gelding—*2:02¾—Corsican, Saratoga Springs, N. Y., 1957.
Three-year-old Colt—*1:57—Bret Hanover, Delaware, Ohio, Sept. 23, 1965.
Three-year-old Filly—*1:59¼—Countess Adios, Delaware, Ohio, 1960.
Three-year-old Gelding—*2:00¾—Skipper Gene, Maywood, Ill., 1965.
Four-year-old Stallion—*1:57¼—Bye Bye Byrd, Westbury, N. Y., 1959.
Four-year-old Mare—*1:59¾—Adios Claire, Westbury, N. Y., 1959.
Four-year-old Gelding—*1:59¾—Meadow Elva, Yonkers, N. Y., Sept. 27, 1968.

Odd Distances

1¼ Miles—*2:30¾—Dr. Stanton, Arcadia, Calif., May 15, 1943.
1¼ Miles, Half-mile Track—*2:29¾—Irvin Paul, Westbury, N. Y., Sept. 1, 1962.
1-1/16 Miles—*2:03¾—Adios Vic, Inglewood, Calif., Oct. 23, 1965.
1-1/16 Miles, Half-mile Track—*2:06¾—Amortizer, Westbury, N. Y., June 29, 1956.
1½ Miles—*2:11¾—Adios Butler, Inglewood, Calif., Nov. 4, 1961; Irvin Paul, Inglewood, Calif., 1962.
1½ Miles, *3:05¾—Right Time, Inglewood, Calif., 1961; and K. D. Senator, E. Boston, Mass., 1963.
1½ Miles, Half-mile Track—*3:03—Tarquinius, Westbury, N. Y., Sept. 12, 1964.
2 Miles—4:17—Dan Patch, Macon, Ga., 1903.
2 Miles, Half-mile Track—*4:08¾—Irvin Paul, Yonkers, N. Y., June 28, 1962.
Fastest Two Heats—*1:55¾, 1:56¾—Adios Harry, Vernon, N. Y., July 8, 1955.
Fastest Three Heats—*1:58¼, 1:58½, 1:59¼—Her Ladyship, Syracuse, N. Y., Aug. 31, 1938.

Winners of Famous Harness Stakes

THE HAMBLETONIAN (3-year-old trotters)

Yr.	Winner	Best Time	Value	Yr.	Winner	Best Time	Value
1939	Peter Astra	2:04 1/4	\$40,502	1954	Newport Dream	2:02 1/4	\$106,830
1940	Spencer Scott	2:02	43,658	1955	Scott Frost	2:00 1/4	86,863
1941	Bill Gallon	2:05	38,729	1956	The Intruder	2:01 1/4	98,591
1942	The Ambassador	2:04	38,954	1957	Hickory Smoke	2:00 1/4	111,126
1943	Volo Song	2:02 1/2	42,993	1958	Early's Pride	1:59	106,719
1944	Yankee Maid	2:04	33,577	1959	Diller Hanover	2:01 1/4	125,284
1945	Tiltan Hanover	2:04	50,190	1960	Blaze Hanover	1:59 1/4	144,590
1946	Chestertown	2:02 1/4	50,905	1961	Harlan Dean	1:58 1/4	131,573
1947	Hot Mon	2:00	46,267	1962	A.C.'s Viking	1:59 1/4	116,312
1948	Demmon Hanover	2:02	59,941	1963	Speedy Scot	1:58	115,549
1949	Miss Tilly	2:01 1/2	69,791	1964	Ayres	1:56 1/4	115,281
1950	Lusty Song	2:02	75,209	1965	Egyptian Candor	2:04 1/4	122,245
1951	Maidling	2:02 1/4	95,263	1966	Kerry Way	1:58 1/4	122,540
1952	Sharp Note	2:02 1/4	87,657	1967	Speedy Streak	2:00	122,650
1953	Helicopter	2:01 1/4	117,118	1968	Nevele Pride	1:59 1/4	116,190

Year	FOX STAKE 2-yr.-old pacers		LITTLE BROWN JUG 3-yr.-old pacers		HORSEMAN STAKE 2-yr.-old trotters		KENTUCKY FUTURITY 3-yr.-old trotters	
	Winner	Time	Winner	Time	Winner	Time	Winner	Time
1961	Coffee Break.....	1:58 1/2	Henry T. Adios.....	1:58 1/4	Safe Mission.....	2:03 1/4	Duke Rodney.....	1:58 1/4
1962	(rained out).....		Lehigh Hanover.....	1:58 1/4	(rained out).....		Safe Mission.....	1:59 1/4
1963	Race Time.....	1:58	Overtrick.....	1:57 1/4	Smart Rodney.....	2:03 1/4	Speedy Scot.....	1:57 1/4
1964	Bret Hanover.....	1:58	Vicar Hanover.....	2:01	Noble Victory.....	2:00 1/4	Ayres.....	1:58 1/4
1965	Romeo Hanover.....	1:59	Bret Hanover.....	1:57	Kerry Way.....	2:02 1/4	Armbro Flight.....	1:59
1966	Best of All.....	1:59 1/4	Romeo Hanover.....	1:59 1/4	Kimberly Dutchess.....	2:04 1/4	Governor Armbro	2:00 1/4
1967	Golden Money Maker.....	1:58 1/4	Best of All.....	1:59	Nevele Pride.....	2:02 1/4	Speed Model.....	1:59 1/4
1968	Laverne Hanover.....	1:59 1/4	Rum Customer.....	1:59 1/4	Nevele Major.....	2:02 1/4	Nevele Pride.....	1:57

OTHER HARNESS RACING WINNERS IN 1968

Event	Winner	Best Time	Value
The Dexter Cup (3-year-old) (trot)	Nevele Pride	2:02 2-5	\$166,746
Yonkers Futurity (3-year-old) (trot)	Nevele Pride	2:03 3-5	150,000
The Colonial (3-year-old) (trot)	Nevele Pride	2:03 3-5	100,000
Roosevelt International Trot (1 1/4 miles)	Roquepine	2:38 3-5	100,000
The Empire (1 1/4 miles) (pace)	Romulus Hanover	2:34 4-5	100,000
The Hilltop (1 1/4 miles) (trot)	Flamboyant	2:36	100,000
Realization (4-year-old) (trot) (1 1/16 miles)	Flamboyant	2:12	99,561
The Adios (3-year-old) (pace)	Bye And Large	2:00 1-5	93,920
American-National Maturity (4-year-old) (pace)	Best of All	1:57 1-5	85,318
American-National Maturity (4-year-old) (trot)	Proven Freight	2:02	71,151
N. Y. State Fair Open Pace (3-year-olds)	Chester J. P.	2:03 1-5	64,580
Ill. Colt Stake (2-year-old) (pace)	Active Don	2:00	58,800
Ill. Colt Stake (3-year-old) (pace)	Shoestring	1:59 3-5	53,350
N. Y. State Fair Open Trot (3-year-olds)	Flare Shot	2:04 1-5	52,000
The International (1 1/4 miles) (pace)	Cardinal King	3:06	50,000
Good Time (1 1/4 miles) (pace)	Cardinal King	2:32 2-5	50,000
N. H. Sweepstakes Inv. (3-year-old) (pace)	Nob Hill	2:01 4-5	50,000
National Championship (1 1/4 miles) (pace)	Cardinal King	3:05 4-5	50,000
The Ed Sullivan (pace)	Romulus Hanover	2:00	50,000
The Washington Park Inv. Pace	Nardin's Byrd	2:05 3-5	50,000
The Summer Classic (pace)	True Duane	1:58	50,000
American Trotting Championship (1 1/4 miles)	Carlisle	2:34 2-5	50,000
The United Nations (1 1/4 miles) (trot)	Earl Laird	3:17 2-5	50,000
The Gotham (1 1/4 miles) (trot)	Carlisle	2:35 1-5	50,000
The Midwest Derby (pace)	Careless Time	2:02 1-5	50,000
The Lawrence B. Sheppard (2-year-old) (pace)	Hammerin' Hank	2:03	50,000

LEADING DRIVERS

Yr.	Races Won	Grand Circuit	Money Won			
1956	Bill Haughton	167	Joe O'Brien	\$242,787	Bill Haughton	\$572,945
1957	Bill Haughton	136	John Simpson	367,670	Bill Haughton	586,950
1958	Bill Haughton	176	Joe O'Brien	287,342	Bill Haughton	816,659
1959	William Gilmour	165	Joe O'Brien	263,636	Bill Haughton	711,435
1960	Del Insko	156	Del Miller	338,594	Del Miller	567,282
1961	Bob Farrington	201	Jimmy Arthur	248,211	Stanley Dancer	674,723
1962	Bob Farrington	203	Stanley Dancer	306,434	Stanley Dancer	760,343
1963	Donald Busse	201	Ralph Baldwin	299,899	Bill Haughton	790,086
1964	Bob Farrington	312	Stanley Dancer	269,080	Stanley Dancer	1,051,538
1965	Bob Farrington	310	Joe O'Brien	304,791	Bill Haughton	1,088,943
1966	Bob Farrington	283	George Sholtz	293,531	Stanley Dancer	1,219,403
1967	Bob Farrington	277	Bill Haughton	418,294	Bill Haughton	1,305,773

Queen's Plate

The Queen's Plate (known as King's Plate during reign of male), Canada's most famous thoroughbred race, is the oldest continuously run stakes race in North America. Originated in 1860 over 1 1/4 miles (now 1 1/2 miles) for 3-year-olds, Canadian-foaled, race is staged under Royal tutelage for trophy and 50 gold sovereigns plus purse. Trophy is not a plate but a foot-high gold cup valued at \$5,000. However, race is identified as a plate race because of 17th Century English tradition of awarding plates.

Year	Winner	Jockey	Time	Dollars	Year	Winner	Jockey	Time	Dollars
1950	McGill, C. Rogers		1:52.2	\$14,290	1960	Victoria Park	A. Gomez	2:02	\$42,750
1951	Major Factor	A. Bayington	1:53	16,152	1961	Blue Light	H. Dutta	2:05	46,475
1952	Epigram	G. Robillard	1:58.3	17,022	1962	Flaming Page	J. Fitzsimmons	2:04 1/4	51,225
1953	Canadiana	E. Arcaro	1:52.1	20,592	1963	Canebora	M. Ycaza	2:04	54,850
1954	Collisteo	C. Rogers	1:52	22,452	1964	Northern Dancer	W. Hartack	2:02.1	49,234
1955	Ace Marine	G. Walker	1:52.2	25,514	1965	Whistling Sea	T. Inouye	2:03.4	47,852
1956	Canadian Champ	D. Stevenson	1:55	25,480	1966	Titled Hero	A. Gomez	2:03.3	52,173
1957	Lyford Cay	A. Gomez	2:02.1	26,210	1967	Jammed Lovely	J. Fitzsimmons	2:03	51,821
1958	Calicon Beau	A. Coy	2:04.1	26,151	1968	Merger	W. Harris	2:05.2	53,641
1959	New Providence	R. Ussery	2:04.4	51,767					

Kentucky Derby, 3 Yr. Olds

Churchill Downs, Louisville, Ky.
Inaugurated 1875. Distance 1½ miles; 1½ miles until 1896

Yr.	Winner, weight	Time	Doll'rs	Yr.	Winner, weight	Time	Doll'rs
1875.	Arlstides (100)	2:37 3-4	2,850	1922.	Morvick (126)	2:04 3-5	53,775
1876.	Vagrant (97)	2:38 1-4	2,950	1923.	Zev (126)	2:05 2-5	53,600
1877.	Baden Baden (100)	2:38	3,300	1924.	Black Gold (126)	2:05 1-5	52,775
1878.	Day Star (100)	2:37 1-4	4,050	1925.	Flying Ebony (126)	2:07 3-5	52,950
1879.	Lord Murphy (100)	2:37	3,550	1926.	Whiskery Over (126)	2:03 4-5	50,075
1880.	Rosa (105)	2:27 1-2	3,800	1927.	Whiskery (126)	2:07	51,000
1881.	Hindoo (105)	2:40	4,410	1928.	Relgh Count (126)	2:10 2-5	55,375
1882.	Apollu (102)	2:40 1-4	4,560	1929.	Clyde Van Duane (126)	2:10 4-5	53,950
1883.	Leonatus (105)	2:43	3,760	1930.	Gallant Fox (126)	2:07 3-5	50,725
1884.	Buchanan (110)	2:40 1-4	3,990	1931.	Twenty Grand (126)	2:01 4-5	48,725
1885.	Joy Cotton (110)	2:37 1-5	4,630	1932.	Burgoyne King (126)	2:05 1-5	52,350
1886.	Ben Ali (118)	2:36 1-2	4,890	1933.	Brokers' Tip (126)	2:06 4-5	48,925
1887.	Montrose (118)	2:39 1-4	4,200	1934.	Cavalcade (126)	2:04	28,175
1888.	Macbeth (11 115)	2:38 1-4	4,740	1935.	Omaha (126)	2:05	39,525
1889.	Spokane (118)	2:34 1-2	4,970	1936.	Bold Venture (126)	2:03 3-5	37,725
1890.	Riley (118)	2:45	5,460	1937.	Wad Adams (126)	2:04 1-5	34,050
1891.	Kingman (122)	2:52 1-2	4,680	1938.	Lawrin (126)	2:04 4-5	47,050
1892.	Azra (122)	2:41 1-2	4,230	1939.	Johnstown (126)	2:03 2-5	46,350
1893.	Lookout (122)	2:39 1-4	4,090	1940.	Gallahadon (126)	2:05	60,150
1894.	Chant (122)	2:41	4,020	1941.	Whirlaway (126)	2:01 2-5	61,275
1895.	Halma (122)	2:37 1-2	2,970	1942.	Shut Out (126)	2:04 2-5	64,225
1896.	Ben Brush (117)	2:07 3-4	4,850	1943.	Count Fleet (126)	2:04	60,725
1897.	Gyphoon II (117)	2:12 1-2	4,850	1944.	Pensive (126)	2:04 1-5	64,675
1898.	Plaudit (117)	2:09	4,850	1945.	Hoof, Jr. (126)	2:07	64,850
1899.	Manuel (117)	2:12	4,850	1946.	Assault (126)	2:06 3-5	96,400
1900.	Lieut. Gibson (117)	2:06 1-4	4,250	1947.	Jet Pilot (126)	2:06 3-5	92,160
1901.	Hs. Eminence (117)	2:07 3-4	4,850	1948.	Citation (126)	2:05 2-5	83,400
1902.	Alan-a-Dale (117)	2:08 3-4	4,850	1949.	Ponder (126)	2:04 1-5	91,600
1903.	Judge Himes (117)	2:09	4,850	1950.	Middleground (126)	2:01 3-5	92,650
1904.	Elwood (117)	2:08 1-2	4,850	1951.	Count Turf (126)	2:02 3-5	98,050
1905.	Agile (122)	2:10 3-4	4,850	1952.	Hill Gail (126)	2:01 3-5	96,300
1906.	Sir Huon (117)	2:08 4-5	4,850	1953.	Dark Star (126)	2:02	90,050
1907.	Pink Star (117)	2:12 3-5	4,850	1954.	Determine (126)	2:03	102,050
1908.	Stone Street (117)	2:15 1-5	4,850	1955.	Swaps (126)	2:01 4-5	108,400
1909.	Wintergreen (117)	2:08 1-5	4,850	1956.	Needles (126)	2:03 2-5	123,450
1910.	Donau (117)	2:06 2-5	4,850	1957.	Iron Liege (126)	2:02 1-5	107,950
1911.	Meridian (117)	2:05	4,850	1958.	Tim Tam (126)	2:05	116,400
1912.	Worth (117)	2:09 2-5	4,850	1959.	Tommy Lee (126)	2:02 1-5	119,650
1913.	Donerall (117)	2:04 4-5	5,475	1960.	Venetian Way (126)	2:02 2-5	114,850
1914.	Old Rosebud (114)	2:03 2-5	9,125	1961.	Carry Back (126)	2:04	120,500
1915*.	Regret (112)	2:05 2-5	11,450	1962.	Decidedly (126)	2:00 2-5	119,650
1916.	George Smith (117)	2:04	9,750	1963.	Chateaugay (126)	2:01 4-5	108,900
1917.	Omar Khayyam (117)	2:04 3-5	16,600	1964.	Northern Dancer (126)	2:00	114,300
1918.	Exterminator (114)	2:10 4-5	14,700	1965.	Lucky Debonair (126)	2:01 1-5	112,000
1919.	Sir Barton (12 ½)	2:00 4-5	8,825	1966.	Kaual King (126)	2:02	120,500
1920.	Paul Jones (126)	2:09	30,375	1967.	Proud Clarion (126)	2:00 3-5	119,700
1921.	Behave Yourself (126)	2:04 1-5	38,450	1968.	(A) Forward Pass (126)	2:02 1-5	122,600

(A) This race was won by Dancer's Image, who was disqualified after chemical tests disclosed he had run with a pain-killing drug, phenyltolazone, in his system. All wagers were paid on Dancer's Image and the winning time is for that horse.

The Kentucky Derby has been won five times by one jockey—Eddie Arcaro, 1938, 1941, 1945, 1948 and 1952; four times by Bill Hartack, 1957, 1960, 1962 and 1964; and three times by each of three jockeys—Isaac Murphy, 1884, 1890 and 1891; Earle Sande, 1923, 1925 and 1930, and Willie Shoemaker, 1955, 1958, 1965. *Regret only filly ever to win the Derby.

Preakness

Pimlico, Baltimore, Md. (1873); 1-3/16 Miles, 3 Yr. Olds

Yr.	Winner, weight	Time	Doll'rs	Yr.	Winner, weight	Time	Doll'rs
1933.	Head Play (126)	2:02	26,850	1951.	Bold (126)	1:56 2-5	83,100
1934.	High Quest (126)	1:58 1-5	25,175	1952.	Blue Man (126)	1:57 2-5	86,135
1935.	Omaha (126)	1:58 2-5	25,325	1953.	Native Dancer (126)	1:57 4-5	85,200
1936.	Bold Venture (126)	1:59	27,325	1954.	Hastv Road (126)	1:57 2-5	91,600
1937.	War Admiral (126)	1:58 2-5	45,600	1955.	Nashua (126)	1:54 3-5	67,550
1938.	Dauber (126)	1:59 4-5	51,875	1956.	Fabius (126)	1:58 2-5	84,250
1939.	Chalcedon (126)	1:59 4-5	53,710	1957.	Bold Ruler (126)	1:56 1-5	65,250
1940.	Bimelech (126)	1:58 3-5	53,230	1958.	Tim Tam (126)	1:57 1-5	97,900
1941.	Whirlaway (126)	1:58 4-5	49,365	1959.	Royal Orbit (126)	1:57 3-5	121,000
1942.	Alsab (126)	1:57	58,150	1960.	Bally Ach (126)	1:57 3-5	124,200
1943.	Count Fleet (126)	1:57 2-5	43,190	1961.	Carry Back (126)	1:56 1-5	135,000
1944.	Pensive (126)	1:59 1-5	60,075	1962.	Greek Money (126)	1:56 1-5	135,000
1945.	Polyneslan (126)	1:58 4-5	66,170	1963.	Candy Spots (126)	1:56 1-5	127,500
1946.	Assault (126)	2:01 2-5	96,020	1964.	Northern Dancer (126)	1:56 4-5	142,200
1947.	Faultless (126)	1:59	98,005	1965.	Tom Rolfe (126)	1:56 1-5	128,100
1948.	Citation (126)	2:02 2-5	91,870	1966.	Kaual King (126)	1:55 2-5	129,000
1949.	Capot (126)	1:56	79,985	1967.	Damascus (126)	1:55 1-5	141,500
1950.	Hill Prince (126)	1:59 1-5	56,110	1968.	Forward Pass (126)	1:56 4	142,700

Belmont Stakes

(1867); 1½ Miles, 3 Yr. Olds, Belmont Park, Elmont, L. I., N. Y.

Run at Jerome Park prior to 1880; Morris Park, 1890-1905. Distance 1½ miles prior to 1874; 1½ miles, 1874-1889; 1¼ miles, 1890-1892; 1½ miles, 1893-1894; 1¼ miles, 1895; 1½ miles, 1896-1925; increased to 1½ miles, 1926. Run at 1¼ miles, 1904 and 1905. Not run 1911 or 1912. Aqueduct, 1963-1967.

Year	Winner, weight	Time	Dollars	Year	Winner, weight	Time	Dollars
1839.	Johnstown (126)	2:29 3-5	37,020	1954.	High Gun (126)	2:30 4-5	89,000
1940.	Bimelech (126)	2:29 3-5	35,030	1955.	Nashua (126)	2:29 4-5	83,700
1941.	Whirlaway (126)	2:31	39,770	1956.	Needles (126)	2:29 4-5	83,600
1942.	Shut Out (126)	2:29 1-5	44,520	1957.	Gallant Man (126)	2:26 3-5	77,300
1943.	Count Fleet (126)	2:28 1-5	35,340	1958.	Cavan (126)	2:30 1-5	73,400
1944.	Bounding Home (126)	2:32 1-5	55,000	1959.	Sword Dancer (126)	2:28 2-5	93,525
1945.	Pavot (126)	2:30 1-5	52,675	1960.	Celtic Ash (126)	2:29 3-5	96,785
1946.	Assault (126)	2:30 4-5	75,400	1961.	Sherluck (126)	2:29 1-5	104,900
1947.	Phalanx (126)	2:29 2-5	78,900	1962.	Jaipur (126)	2:28 4-5	109,550
1948.	Citation (126)	2:28 1-5	77,700	1963.	Chateaugay (126)	2:30 1-5	101,700
1949.	Capot (126)	2:30 1-5	60,900	1964.	Quadrangle (126)	2:28 2-5	110,850
1950.	Middleground (126)	2:29 3-5	61,350	1965.	Hard Spun (126)	2:28 2-5	104,150
1951.	Countergout (126)	2:29	82,000	1966.	Amberold (126)	2:29 2-5	117,700
1952.	One Count (126)	2:30 1-5	82,400	1967.	Damascus (126)	2:28 4-5	104,950
1953.	Native Dancer (126)	2:28 3-5	82,500	1968.	Stage Door Johnny (126)	2:27 1-5	117,700

Horse Racing Revenues to States in 1967

State	Racing days		Attendance		Pari-mutuel turnover		*Revenue to state	
	Thoroughbred	Harness	Thoroughbred	Harness	Thoroughbred	Harness	Thoroughbred	Harness
Ariz.	107	13	338,502	35,209	\$17,877,051	\$282,572	\$954,967	\$12,575
Ark.	43		451,155		31,250,200		2,071,707	
Calif.	316	65	5,275,554	631,493	491,991,737	54,067,243	38,481,031	3,568,207
Colo.	71		325,182		14,507,281		489,607	
Del.	25	205	618,533	1,128,608	54,515,185	63,297,696	3,433,871	2,961,993
Fla.	60	93	1,432,345	230,450	177,275,294	11,080,053	15,220,270	922,578
Idaho	62		61,695		1,682,952		88,001	
Ill.	307	357	3,636,286	3,027,306	92,590,158	211,603,523	23,708,950	14,094,587
Ky.	206	193	4,119,041	663,338	30,923,229	17,036,143	4,452,596	731,018
La.	179		1,603,643		69,139,164		3,968,037	
Me.	48	157	209,844	350,000	6,787,844	10,302,127	484,742	721,528
Md.	164	126	1,746,380	495,770	172,146,494	24,690,992	9,863,614	1,583,205
Mass.	89	90	862,199	730,033	74,720,992	36,849,239	5,737,124	2,343,497
Mich.	163	218	1,867,803	888,923	149,762,003	67,690,788	12,896,193	3,861,527
Mont.	60		139,513		1,262,970			
Neb.	163		1,014,038		52,631,799		2,040,498	
N. H.	53	222	601,962	1,003,298	54,756,956	49,103,808	4,500,036	3,175,327
N. J.	108	90	2,936,604	587,776	301,410,852	46,153,225	28,088,319	3,120,700
N. M.	187		681,571		22,630,940		567,221	
N. Y.	355	984	7,014,464	8,970,124	689,878,653	72,319,079	77,200,632	70,314,792
Ohio	400	397	1,782,512	1,492,470	124,310,733	62,543,684	9,499,394	3,756,153
Ore.	60		346,731		14,121,093		927,243	
Pa.		248		1,786,103		117,934,895		6,839,270
R. I.	143		1,323,386		109,185,902		9,947,832	
S. D.	49		70,987		4,116,930		131,591	
Vt.	119	48	379,090	117,277	23,068,858	6,947,409	1,441,986	287,817
W. Va.	141		327,732		37,716,747		1,905,912	
Wash.	458		2,009,638		140,830,408		8,273,689	
Totals	4,397	3,561	38,526,589	22,343,639	\$3,241,092,425	\$1,518,936,315	\$266,385,121	\$119,347,809

*Fairs and Quarter-horse Racing—A number of states received additional revenues from county fairs and quarter-horse racing: California, \$2,777,738; Colorado, \$107,402; Idaho, \$5,821; Maine, \$227,732; Maryland, \$1,644,337; Massachusetts, \$668,371; New Hampshire, \$41,757; New Mexico, \$173,969; Ohio, \$51,821; Oregon, \$41,692; South Dakota, \$9,997; Washington, \$5,860.

TOTAL RACING REVENUE TO STATES BY YEARS (DOLLARS)

1945	65,265,405.48	1952	142,489,696.00	1960	258,039,365.00
1946	94,035,859.47	1953	167,426,465.00	1961	264,858,077.00
1947	97,926,984.16	1954	178,015,828.00	1962	287,930,030.00
1948	95,803,363.95	1955	186,989,588.00	1963	316,570,791.00
1949	95,327,052.96	1956	207,456,272.00	1964	350,095,928.00
1950	98,366,166.67	1957	216,747,621.00	1965	369,892,036.00
1951	117,250,564.00	1958	222,409,651.00	1966	388,452,125.00
		1959	243,388,655.00	1967	394,381,913.00

LEADING MONEY-WINNING HORSES OF THE WORLD

Horse	Sta.	1st	2nd	3rd	Amt. won	Horse	Sta.	1st	2nd	3rd	Amt. won
Kelso	62	39	12	2	\$1,977,396	Hill Rise	39	13	6	8	\$634,599
Round Table	66	43	8	5	1,749,869	Bardstown	31	18	7	1	628,752
Buckpasser	31	25	4	1	1,462,014	Jalpur	19	10	6	0	618,926
Nashua	30	22	4	1	1,288,565	Prove It	25	15	4	1	613,820
Carry Back	61	21	11	1	1,241,165	Tosmah	39	23	6	2	612,591
Damascus (a)	31	21	7	3	1,176,781	Olden Times	54	17	10	5	603,875
Citation	45	32	10	2	1,075,760	Pin Reality	19	11	8	0	601,024
Native Diver	81	37	7	12	1,026,500	Needles	21	11	3	3	590,455
Swoon's Son	51	30	10	3	970,605	Terrang	66	15	9	12	590,285
Dr. Fager (a)	21	17	2	1	965,592	Mark-Ye-Well	40	14	2	4	581,910
Roman Brother	42	16	10	5	913,473	Northern Dancer	18	14	2	2	580,806
Stylite	131	35	33	28	918,485	Old Capitol	80	19	10	9	580,756
T. V. Lark	72	19	13	6	902,194	Forward Pass (a)	23	10	4	2	580,631
Swaps	25	19	2	2	848,900	Determine	44	18	7	9	573,360
Sword Dancer	39	12	7	4	829,610	Tom Fool	30	21	7	1	570,165
Candy Spots	22	12	5	1	824,718	Whirlaway	60	32	15	9	561,161
Monro	46	22	10	4	820,766	Quadrangle	26	10	5	6	559,386
Armed	81	41	20	10	817,475	Old Hat	80	35	18	9	556,401
Find	110	22	27	27	803,615	On Trust	88	23	19	13	554,125
Gut Bow	42	17	8	4	798,722	Rejected	47	11	10	2	549,500
Crimson Satan	58	18	9	9	796,077	Affectionately	52	18	8	6	546,660
Native Dancer	22	21	1	0	785,240	Tompson	39	11	11	6	545,173
Cleota	42	23	8	6	783,674	Summer Tan	28	11	12	2	542,796
First Landing	37	19	2	2	779,577	Promised Land	77	21	10	16	541,707
Bold Ruler	33	23	4	2	764,204	Hasty Road	28	14	5	3	541,402
Billy Arise	31	16	9	4	758,522	Pounder	41	14	7	4	541,275
Bald Eagle	23	9	5	3	676,442	Clem	47	12	8	13	535,681
Assault	42	18	6	7	675,470	Dedicate	43	12	9	5	533,200
Tom Rolfe	31	16	5	5	671,297	Success	22	6	6	6	527,479
Socch Outcast	58	18	9	6	668,300	Edute Schmidt	101	20	10	18	526,292
†Straight Deal	74	19	15	7	658,463	Porterhouse	70	19	8	12	519,460
Intentionally	34	18	7	2	652,258	Bold Lad	19	14	2	1	516,465
Hillsdale	41	23	6	4	646,935	Gallant Man	26	14	4	1	510,358
Crozier	34	10	12	3	641,733	Talent Show	116	16	15	22	507,030
Never Bend	23	13	4	4	641,524	Bobby Brocato	88	21	16	14	504,515
Ridan	23	13	6	2	635,074						

(a) Record to Oct. 15, 1968. †Not including 1968 record.

Triple Crown Turf Winners, Owners and Jockeys

(Kentucky Derby, Preakness and Belmont Stakes)

Year	Horse	Owner	Jockey	Year	Horse	Owner	Jockey
1919	Sir Barton	J. K. L. Ross	J. Loftus	1941	Whirlaway	Warren Wright	E. Arcaro
1930	Gallant Fox	W. Woodward	E. Sande	1943	Count Fleet	Mrs. J. D. Hertz	J. Longder
1935	Omaha	W. Woodward	W. Sanders	1946	Assault	R. J. Kieberg	W. Mehrtens
1937	War Admiral	S. D. Riddle	C. Kurtzinger	1948	Citation	Warren Wright	E. Arcaro

1968 LEADING JOCKEYS

Money Won					As of Oct. 1, 1968					Races Won				
Jockey	Mts.	1st	Pct.	Amt. Won	Jockey	Mts.	1st	Pct.	Amt. Won					
Baeza, B.	938	176	.188	\$2,223,196	Cordero, A.	1,179	233	.198	\$1,884,657					
Pincay, L.	1,064	212	.199	2,037,538	Pineda, A.	1,468	221	.151	1,450,635					
Cordero, A.	1,179	233	.198	1,884,657	Cusimano, G. J.	1,170	216	.185	902,240					
Ycaza, M.	630	119	.189	1,705,499	Pincay, L.	1,064	212	.199	2,037,538					
Rotz, J. L.	939	154	.164	1,572,577	Manganello, M.	1,020	208	.204	534,206					
Belmonte, E.	962	151	.157	1,564,847	Moyers, L.	1,204	198	.164	746,685					
Lambert, J.	1,017	186	.183	1,472,899	Perret, C.	1,312	197	.150	985,960					
Pineda, A.	1,468	221	.151	1,450,635	Whited, D.	1,070	191	.179	638,611					
Velasquez, J.	1,018	184	.181	1,258,677	Lambert, J.	1,017	186	.183	1,472,899					
Sellers, J.	948	145	.153	1,230,839	Rini, A.	1,091	185	.169	350,399					
Pierce, D.	1,058	165	.156	1,229,332	Velasquez, J.	1,018	184	.181	1,258,677					
Blum, W.	1,237	171	.138	1,152,702	Lopez, J.	1,353	184	.136	739,591					
Fires, E.	1,033	151	.146	1,100,171	Grubb, R.	916	181	.198	788,336					
Baltazar, C.	1,126	162	.144	1,099,092	Baeza, B.	938	176	.188	2,223,196					
Turcotte, R.	1,009	127	.126	1,086,998	Marquez, C.	763	173	.226	268,972					
Perret, C.	1,312	197	.150	985,960	Holmes, D.	1,059	172	.162	555,864					

Annual Leading Jockey

RACES WON				MONEY WON				
Year	Jockey	Mounts	Wins	Year	Jockey	Mounts	Wins	Amt. Won
1953	W. Shoemaker.....	1,683	485	1954	W. Shoemaker.....	1,251	380	1,876,760
1954	W. Shoemaker.....	1,251	380	1955	E. Arcaro.....	820	158	1,864,796
1955	W. Hartack.....	1,702	417	1956	W. Hartack.....	1,387	347	2,343,955
1956	W. Hartack.....	1,387	347	1957	W. Hartack.....	1,238	341	3,060,501
1957	W. Hartack.....	1,238	341	1958	W. Shoemaker.....	1,133	300	2,961,693
1958	W. Shoemaker.....	1,133	300	1959	W. Shoemaker.....	1,285	347	2,843,133
1959	W. Shoemaker.....	1,285	347	1960	W. Shoemaker.....	1,227	274	2,123,961
1960	W. Hartack.....	1,402	307	1961	W. Shoemaker.....	1,266	304	2,690,819
1961	J. Sellers.....	1,394	328	1962	W. Shoemaker.....	1,126	311	2,916,844
1962	R. Ferraro.....	1,755	352	1963	W. Shoemaker.....	1,203	271	2,526,925
1963	W. Blum.....	1,704	360	1964	W. Shoemaker.....	1,056	246	2,649,553
1964	W. Blum.....	1,577	324	1965	B. Baeza.....	1,245	270	2,582,702
1965	J. Davidson.....	1,582	319	1966	B. Baeza.....	1,341	289	2,951,220
1966	A. Gomez.....	996	318	1967	B. Baeza.....	1,064	256	3,088,888
1967	J. Velasquez.....	1,939	438					

1968 LEADING TRAINERS

Money Won				As of Oct. 1, 1968				Races Won			
Trainer	Sts.	1st	Pct.	Amt. Won	Trainer	Sts.	1st	Pct.	Amt. Won		
Maloney, J. W.	134	36	.269	\$963,694	Hammond, E.	1,052	176	.167	\$320,542		
Whittingham, C.	464	75	.162	795,594	Van Berg, J.	835	168	.201	598,519		
Forrest, H.	140	32	.228	740,994	Smithers, A. G.	630	117	.186	294,161		
Hirsch, M.	181	44	.243	671,384	Cavalaris, L. Jr.	450	112	.249	641,104		
Millerick, M. E.	401	73	.182	656,842	Smith, J. R.	576	103	.179	310,471		
Cavalaris, L. Jr.	450	112	.249	641,104	Smith, D.	495	102	.206	323,708		
Neloy, E. A.	179	42	.234	635,284	Winick, A. N.	582	100	.172	652,550		
Carroll, D. W.	601	66	.110	611,455	Baird, D.	495	94	.190	97,672		
Van Berg, J.	835	168	.201	598,519	Maxwell, P.	337	86	.253	114,961		
Winick, A. N.	582	100	.172	582,550	Bishop, W. H.	818	86	.105	309,680		
Nerud, J. A.	178	25	.140	570,723	Jacobson, H.	383	82	.214	385,408		
Burch, E.	184	28	.152	533,403	Delp, G. G.	409	79	.193	330,181		
Resseguet, W. Jr.	528	75	.142	519,442	Ramirez, J.	328	77	.235	90,327		
Yowell, E.	229	36	.157	480,330	Irwin, R. L.	429	75	.175	271,494		
King, E. W.	278	34	.122	464,698	Threewitt, N.	437	75	.171	369,473		

Annual Leading Trainer

RACES WON					MONEY WON				
Year	Trainer	No. of Starts	No. of Wins	Amount won	Year	Trainer	No. of Starts	No. of Wins	Amount won
1952.	R. H. McDaniel.		168	573,837	1953.	H. Trotsek. . .		54	1,028,873
1953.	R. H. McDaniel.		211	751,957	1954.	W. Molter. . .		136	1,107,860
1954.	R. H. McDaniel.		206	834,390	1955.	J. Fitzsimmons.		66	1,270,055
1955.	F. H. Merrill, Jr.		154	298,794	1956.	W. Molter. . .		142	1,227,402
1956.	V. R. Wright.		177	532,344	1957.	H. A. Jones. . .		70	1,140,910
1957.	V. R. Wright.		192	527,271	1958.	W. Molter. . .		69	1,116,544
1958.	F. H. Merrill, Jr.		171	320,827	1959.	W. Molter. . .		71	847,290
1959.	V. R. Wright.		172	534,319	1960.	H. Jacobs. . .		97	748,349
1960.	F. H. Merrill, Jr.		143	344,459	1961.	H. A. Jones. . .		62	759,856
1961.	V. R. Wright.		178	442,650	1962.	M. A. Tenney.		58	1,099,474
1962.	W. H. Bishop. . .		162	544,261	1963.	M. A. Tenney.	192	40	860,703
1963.	H. Jacobson. . .	688	140	730,418	1964.	W. C. Winfrey. .	287	61	1,350,534
1964.	H. Jacobson. . .	730	169	801,869	1965.	H. Jacobs. . .	610	91	1,331,628
1965.	H. Jacobson. . .	886	200	863,721	1966.	E. A. Neloy. . .	282	93	2,456,250
1966.	L. C. Cavalaris. .	635	175	763,201	1967.	E. A. Neloy. . .	262	72	1,776,089
1967.	E. Hammond. . .	996	200	325,905					

Largest Winnings By One Horse in a Year

Year	Horse	Dollars	Year	Horse	Dollars	Year	Horse	Dollars
1937..	Seabiscuit	168,580	1948..	Citation	709,470	1959..	Sword Dancer	537,004
1938..	Starehand	189,710	1949..	Ponder	321,825	1960..	Bally Ache	455,405
1939..	Chalcedon	174,535	1950..	Count Fleet	346,940	1961..	Carry Back	565,349
1940..	Blmcliff	111,005	1951..	Count Fleet	250,525	1962..	Never Bend	402,969
1941..	Whirlaway	272,386	1952..	Crafty Admiral	277,225	1963..	Candy Spots	604,481
1942..	Shut Out	238,972	1953..	Native Dancer	513,425	1964..	Gun Bow	580,100
1943..	Count Fleet	174,055	1954..	Determine	327,700	1965..	Buckpasser	568,096
1944..	Pavot	179,040	1955..	Nashua	752,550	1966..	Buckpasser	669,078
1945..	Busher	273,735	1956..	Needles	440,850	1967..	Damascus	817,941
1946..	Assault	424,195	1957..	Round Table	600,258	1968*	Forward Pass	546,674
1947..	Armed	376,325	1958..	Round Table	662,780			

*Through Oct. 1.

Major Stakes Races 1968

Event	Track	Added Value	Winner	Dist. Furl.	Time	Jockey
3 YEAR OLDS AND UP						
Aqueduct Stakes	Aqueduct	100,000	Damascus	9	1:48.2	B. Baeza
Arlington Classic	Arlington	100,000	Exclusive Native	8	1:36	I. Valenzuela
Benj. Lindheimer Hdcp.	Arlington	100,000	War Censor	9 1/2	1:57.2	E. Fires
Bowling Green Hdcp.	Belmont	50,000	High Hat	12	2:29.4	E. Belmonte
Brooklyn Hdcp.	Aqueduct	100,000	Damascus	10	1:59.1	M. Ycaza
Californian	Hollywood Park	100,000	Dr. Fager	8 1/2	1:40.4	B. Baeza
Carter Hdcp.	Belmont	50,000	In Reality	7	1:21.4	J. Velasquez
Dixie Hdcp.	Pimlico	50,000	High Hat	12	2:29.4	R. Broussard
Excelsior Hdcp.	Gulfstream	50,000	Favorable Turn	9	1:48.1	E. Belmonte
Grey Lag Hdcp.	Aqueduct	50,000	Peter Piper	9	1:48	J. Velasquez
Gulfstream Park Hdcp.	Gulfstream	75,000	Bold Hour	9	1:48.4	J. Rotz
Haskell Hdcp.	Gulfstream	100,000	Goldie Man James	10	2:02.1	R. Grubb
Hialeah Turf Cup	Monmouth	100,000	Bold Hour	10	2:03	W. Boland
Jockey Gold Cup	Hialeah	75,000	He's A Smoothie	12	2:32.4	B. Baeza
John B. Campbell Hdcp.	Belmont	100,000	Quicken Tree	16	3:22.4	B. Hartack
Manhattan Hdcp.	Bowie	100,000	In Reality	8 1/2	1:42	C. Baltazar
Man O' War Stakes	Belmont	50,000	Quicken Tree	12	2:28	B. Hartack
Massachusetts Hdcp.	Belmont	100,000	Czar Alexander	12	2:30.4	J. Velasquez
Metropolitan Hdcp.	Suffolk	50,000	Out Of The Way	10	2:02.4	J. Rotz
Michigan Mile	Belmont	100,000	In Reality	8	1:35	J. Rotz
Roseben Hdcp.	Detroit	100,000	No Double	9	1:49	Heath
San Juan Capistrano Hdcp	Aqueduct	50,000	Dr. Fager	7	1:21.2	J. Rotz
Santa Anita Hdcp.	Santa Anita	125,000	Niarkos	14	2:47.4	A. Pineda
Santa Anita Hdcp.	Santa Anita	100,000	Smash	10	2:04.3	Yanez
Seminole Hdcp.	Hialeah	50,000	Favorable Turn	10	1:47.1	E. Belmonte
Suburban Hdcp.	Aqueduct	100,000	Dr. Fager	9	1:59.3	L. Pincay
Sunset Hdcp.	Hollywood Park	100,000	Fort Marcy	12	2:26.3	L. Pincay
Tidal Hdcp.	Aqueduct	50,000	More Scents	9	1:47.3	A. Cordero
U.N. Hdcp.	Atlantic City	100,000	Dr. Fager	9 1/2	1:55.1	B. Baeza
Westchester Stakes	Aqueduct	50,000	R. Thomas	8	1:35.2	J. Nichols
*Whitney Hdcp.	Saratoga	50,000	Dr. Fager	9	1:48.2	B. Baeza
William DuPont Hdcp.	Hialeah	100,000	Sette Bello	10	2:01.3	E. Fires
Woodward Stakes	Delaware	50,000	Damascus	8 1/2	1:43.3	B. Baeza
*4 year olds and up.	Belmont	100,000	Mr. Right	12	2:03	H. Gustines
3 YEAR OLDS AND UP, FILLIES AND MARES						
Barbara Fritchie Hdcp.	Bowie	50,000	Too Bald	7	1:21.4	M. Ycaza
Beldame Stakes	Aqueduct	75,000	Gamely	9	1:49.3	L. Pincay
Black Helen Hdcp.	Hialeah	50,000	Treacherous	9	1:49	H. Gustines
Delaware Hdcp.	Delaware	100,000	Politely	10	2:02.4	A. Cordero
Matchmaker Stakes	Atlantic City	100,000	Politely	8 1/2	1:55.1	A. Cordero
Santa Margarita	Santa Anita	100,000	Gamely	9	1:49	M. Ycaza
Sheepshead Bay Hdcp.	Aqueduct	40,000	Ludham	9 1/2	1:54.4	J. Vasquez
Top Flight Hdcp.	Aqueduct	40,000	Politely	9 1/2	1:55.2	A. Cordero
3 YEAR OLDS						
American Derby	Arlington	100,000	Forward Pass	9	1:48.4	I. Valenzuela
Belmont Stakes	Belmont	125,000	Stage Dr. Jo'ny	12	2:27.1	H. Gustines
Dwyer Hdcp.	Aqueduct	75,000	Stage Dr. Jo'ny	10	2:01.3	H. Gustines
Flamingo	Hialeah	75,000	Wise Exchange	9	1:49.1	E. Belmonte
Florida Derby	Gulfstream	100,000	Forward Pass	9	1:49	D. Brumfield
Gotham	Aqueduct	50,000	Verbatim	8	1:34	J. Rotz
Governors Gold Cup	Bowie	100,000	Dancer's Image	8 1/2	1:42.4	R. Ussery
Hollywood Derby	Hollywood	100,000	Poleax	10	1:59.4	B. Hartack
Jerome Hdcp.	Belmont	50,000	Iron Ruler	8	1:35.1	J. Velasquez
Jersey Derby	Garden State	100,000	Out Of The Way	9	1:49	E. Belmonte
Kentucky Derby	Churchill Downs	125,000	Forward Pass	10	2:02.1	I. Valenzuela
Lawrence Realization	Belmont	50,000	Funny Fellow	13	2:41.1	B. Baeza
Preakness	Pimlico	150,000	Forward Pass	9 1/2	1:56.4	I. Valenzuela
Santa Anita Derby	Santa Anita	100,000	Alley Fighter	9	1:49	L. Pincay
Saratoga Hdcp.	Belmont	50,000	Stage Dr. Jo'ny	8	1:35.2	H. Gustines
Travers Stakes	Saratoga	75,000	Chomplon	10	2:04.4	J. Cruet
Withers Hdcp.	Aqueduct	50,000	Call Me Prince	8	1:35.1	W. Boland
Wood Memorial	Aqueduct	100,000	Dancer's Image	9	1:49	R. Ussery
3 YEAR OLDS, FILLIES						
Acorn Stakes	Belmont	50,000	Dark Mirage	8	1:34.4	M. Ycaza
Alabama Stakes	Saratoga	50,000	Gay Matelda	10	2:04.2	J. Rotz
Coaching C. Amer. Oaks	Belmont	100,000	Dark Mirage	10	2:01.4	M. Ycaza
Gazelle Hdcp.	Aqueduct	50,000	Another Nell	9	1:50.4	C. Perret
Kentucky Oaks	Churchill Downs	50,000	Dark Mirage	8 1/2	1:44.3	M. Ycaza
Monmouth Oaks	Monmouth	50,000	Dark Mirage	9	1:51.2	M. Ycaza
Mother Goose Stakes	Belmont	75,000	Dark Mirage	9	1:49.2	M. Ycaza
Pucker Up Hdcp.	Arlington	50,000	Another Nell	8	1:34	C. Perret
2 YEAR OLDS						
Arch Ward Stakes	Arlington	50,000	Trusty Pro.	6	1:10.2	J. Lopez
Arlington-Wash. Futurity	Arlington	150,000	Strong Strong	7	1:22.4	D. Gargen
Champagne Stakes	Belmont	125,000	Top Knight	8	1:35.1	M. Ycaza
Cowdin Stakes	Belmont	50,000	King Emperor	7	1:22.3	B. Baeza
Futurity	Belmont	75,000	Top Knight	6 1/2	1:16.1	M. Ycaza
Sapling Hdcp.	Monmouth	50,000	Reviewer	5	1:10.2	B. Baeza
2 YEAR OLDS, FILLIES						
Arlington-Wash. Lassie Stks.	Arlington	150,000	Process Scot	6 1/2	1:17.2	C. Baltazar
Frizette Stakes	Belmont	75,000	Shuvee	8	1:37	J. Davidson
Matron Stakes	Aqueduct	50,000	Gallant Bloom	6	1:10.2	E. Belmonte
Selima Stakes	Laurel	50,000	Shuvee	8 1/2	1:44.4	R. Turcotte
Sorority Stakes	Monmouth	100,000	Big Advance	6	1:11	B. Baeza
Spinway Stakes	Saratoga	50,000	Queen's Double	6	1:11.2	B. Baeza

Record of Citation

Year	Age	Starts	1st	2nd	3rd	Unpl.	Won	Year	Age	Starts	1st	2nd	3rd	Unpl.	Won
1947.	2	9	8	1	0	0	\$155,680	1950.	5	9	2	7	0	0	\$73,490
1948.	3	20	19	1	0	0	709,470	1951.	6	7	3	1	2	1	147,130
1949.	4	(Did not start due to injuries)						Tot.		45	32	10	2	1	\$1,085,760

Citation was retired at age of 6, July 19, 1951. His last winning race, the Hollywood Gold Cup, Inglewood, Calif., July 14, 1951, brought his total winnings to \$1,085,760. A bay colt by Bull Lea—Hydroplane II, he was bred and owned by the Calumet Farm.

Skeet Shooting Championships in 1968

NATIONAL SKEET SHOOTING ASSOCIATION

Bucyrus, Kansas, July 27-Aug. 3

OPEN INDIVIDUAL CHAMPIONS

All-Around—James A. Bellows, Lackland AFB, Tex., 547 x 550.
12 Gauge—(Co-Champions)—Allen F. Buntrock, Fallon, Nev., 250 x 250; Thomas J. Heffron Jr., Groton, N. Y., 250 x 250.
20 Gauge—James (Mike) Martin, South Bend, Ind., 100 x 100.
28 Gauge—T/Sgt. Cecil H. Trammell, Lackland AFB, Tex., 100 x 100.
410 Gauge—Carl N. Poston Sr., Chattanooga, Tenn., 98 x 100.

SPECIAL EVENTS—12 GAUGE

Military Individual—Allen F. Buntrock, Fallon, Nev., 250 x 250.
Civilian—Thomas J. Heffron Jr., Groton, N. Y., 250 x 250.
Collegiate—Jay I. Gerlich, West Des Moines, Iowa, 250 x 250.
Junior Lady—Michelle V. Keithley, Northridge, Calif., 97 x 100.
Sub-Junior—Tito Killian, San Antonio, Tex., 99 x 100.
Western Open—John L. Davis, Jr., Columbia, S. C., 100 x 100.
Eastern Open—Richard C. Bienapfel, Minneapolis, Minn., 100 x 100.
Referees' Championship—Richard W. Smith, Auburn, N. Y., 100 x 100.

LADY CHAMPIONS

All-Around—Mrs. Philip D. Armour Jr., Coral Gables, Fla., 533 x 550.
12 Gauge—Mrs. Sallie H. Durbin, Kirkwood, Mo., 249 x 250.
20 Gauge—Miss Leslee Nelson, Bloomington, Minn., 100 x 100.
28 Gauge—Mrs. Philip D. Armour Jr., Coral Gables, Fla., 99 x 100.
410 Gauge—Helen L. Donn, Fort Smith, Ark., 94 x 100.

VETERAN CHAMPIONS

All-Around—George T. Vicknair, Baton Rouge, La., 529 x 550.
12 Gauge—Carl B. Stutzman, Peoria, Ill., 249 x 250.
20 Gauge—Carl B. Stutzman, Peoria, Ill., 99 x 100.
28 Gauge—George T. Vicknair, Baton Rouge, La., 99 x 100.
410 Gauge—R. B. Ross, Brownwood, Tex., 92 x 100.

SENIOR CHAMPIONS

All-Around—Ted V. Hannaford, Warren, Mich., 539 x 550.
12 Gauge—Claude W. Purbrough, Monrovia, Calif., 250 x 250.
20 Gauge—Tom Jones, Birmingham, Ala., 100 x 100.

Trapshooting Championships in 1968

69th GRAND AMERICAN TOURNAMENT

Vandalia, Ohio, Aug. 19-24

Grand American Handicap

Men—Denton Childers, Rochester, Mich., 100x100
Women—Rosemary Miller, New Castle, Del., 98x100
Juniors—Mike Meader, Luna Pier, Mich., 98x100
Sub-Juniors—Brad Sleetor, Markham, Ill., 99x100
Veterans—Henry Bullock, Milmay, N. J., 98x100
Industry—Foster Mosher, Pewaukee, Wis., 97x100
Jimmy Robinson Trophy to High Canadian—Ron Scordo, Glen Williams, Ont., 99x100
High Fast Winner Trophy—Oscar Scheske, Belleville, Ill., 96x100

Preliminary Handicap

Men—John Morelli, Pittsburgh, Pa., 100x100
Women—Booge Mercer, Chatsworth, Calif., 97x100
Juniors—John Morelli, Pittsburgh, Pa., 100x100
Veterans—W. L. Acker, Dallas, Tex., 96x100
Industry—Larry French Jr., Salt Lake City, Utah, 97x100

Clay Target Championships

Men—Bueford Bailey, Big Springs, Neb., 200x200
Women—Loral I. Delaney, Anoka, Minn., 199x200
Juniors—Doug Bedwell, Brazil, Ind., 200x200
Sub-Juniors—W. R. Jacobsen, Clearwater, Fla., 200x200
Veterans—J. O. Bates, Ft. Worth, Tex., 198x200
Industry—Walt Langhorst, Salt Lake City, Utah, 199x200
Class AA—Don Beiler, Cincinnati, O., 200x200
Class A—Tony Vasaturo, Brooklyn, N. Y., 200x200
Class B—Clifford Sweeney, Greensboro, Pa., 199x200
Class C—Mel Meyers, Cincinnati, O., 199x200
Class D—Randy Gates, Needles, Calif., 198x200

Introductory Singles

Men—Jack Morris, San Antonio, Tex., 200x200
Women—Loral I. Delaney, Anoka, Minn., 197x200

28 Gauge—Ted V. Hannaford, 99 x 100.
410 Gauge—Ted V. Hannaford, 97 x 100.

SUB-SENIOR CHAMPIONS

All-Around—Charles F. Garberson, Los Angeles, Calif., 539 x 550.
12 Gauge—Charles F. Garberson, 250 x 250.
20 Gauge—Chesley J. Crites, Detroit, Mich., 100 x 100.
28 Gauge—Paul Guillory, Lake Charles, La., 99 x 100.
410 Gauge—Alex H. Kerr, Beverly Hills, Calif., 98 x 100.

JUNIOR CHAMPIONS

All-Around—Steve Pakis, Hot Springs, Ark., 541 x 550.
12 Gauge—Michael V. Keithley, Northridge, Calif., 250 x 250.
20 Gauge—Chuck Mayhew, Dallas, Tex., 100 x 100.
28 Gauge—Steve Pakis, Hot Springs, Ark., 99 x 100.
410 Gauge—Gus Blass III, Little Rock, Ark., 97 x 100.

INDUSTRY CHAMPIONS

All-Around—Barney C. Hartman, St. Lambert, P. Q., 547 x 550.
12 Gauge—Barney C. Hartman, 250 x 250.
20 Gauge—Barney C. Hartman, 100 x 100.
28 Gauge—Fred D. Missildine, Sea Island, Ga., 100 x 100.
410 Gauge—Barney C. Hartman, 99 x 100.

TWO-MAN TEAMS

All-Around—James A. Bellows and T/Sgt. Cecil H. Trammell, Lackland AFB, Tex., 1089 x 1100.
12 Gauge—Kenny Barnes, Jr., Bakersfield, and Charles F. Garberson, Los Angeles, Calif., 500 x 500.
20 Gauge—2nd Lt. Allen W. Morrison and Lt. Kenneth L. Wilson, Quantico, Va., 200 x 200.
28 Gauge—James A. Bellows and T/Sgt. Cecil H. Trammell, 200 x 200.
410 Gauge—Charles H. Collins, Hixson, and Carl N. Poston Sr., Chattanooga, Tenn., 196 x 200.

HUSBAND AND WIFE TEAMS

All-Around—John R. and Sallie H. Durbin, Kirkwood, Mo., 1072 x 1100.
12 Gauge—John R. and Sallie H. Durbin, 499 x 500.
20 Gauge—John R. and Sallie H. Durbin, 197 x 200.
28 Gauge—Fred and Esther Schmitt, Peoria, Ill., 191 x 200.
410 Gauge—John R. and Sallie H. Durbin, 187 x 200.

CHAMPION OF CHAMPIONS

Champion, 4 guns, 25 Targets each—James W. Austin, Honolulu, Hawaii, 100 x 100.

Junior—Doug Bedwell, Brazil, Ind., 199x200
Industry—Lee Davidson, Tipp City, O., 200x200
Veterans—Oz Conrad, Stillwater, Minn., 97x100
Husband & Wife—Ed and Mary Beranek, Strongsville, O., 392x400
Parent & Child—Gene and Garland Sears, El Reno, Okla., 394x400
Brothers—Fred and Tony Vasaturo, Staten Island & Brooklyn, N. Y., 396x400

Champion of Champions

Men—Mark Huff, Minot, N. D., 100x100
Women—Nadine Ljutic, Yakima, Wash., 99x100
Junior—W. David Iseley, Gaston, Ind., 100x100
Zone—Southwestern, 989x1000

Doubles Championships

Men—Hugh Driggs, Palmyra, Mich., 100x100
Women—Marian Harrison, Los Angeles, 92x100
Juniors—Jim Burke, Los Alamitos, Calif., 98x100
Veterans—Walter Johnson, Inglewood, Calif., 94x100
Industry—Walt Langhorst, Salt Lake City, Utah, 98x100

Vandalia Handicap

Men—Pete Kennedy, Cranston, R. I., 99x100
Women—Linda Goachee, Ft. Myers, Fla., 98x100
Juniors—Robert Green, Flint, Mich., 97x100
Veterans—George Tony, Indianapolis, 94x100
Industry—Lee Davidson, Tipp City, O., 95x100

High Over-All

Men—Hugh Driggs, Palmyra, Mich., 985x1000
Women—Loral I. Delaney, Anoka, Minn., 949x1000
Junior—Doug Bedwell, Brazil, Ind., 980x1000
Veteran—J. O. Bates, Ft. Worth, Tex., 963x1000
Industry—Lee Davidson, Tipp City, O., 971x1000
All-Around—Hugh Driggs, 395x 400

COLLEGE BASKETBALL

Final Standings in 1967-1968 Season

Conference Games				All Games				Conference Games				All Games				Conference Games				All Games				
IVY LEAGUE				OHIO VALLEY				WESTERN ATHLETIC				PACIFIC EIGHT				WEST COAST ATHLETIC				INDIANA COLLEGIATE				
Columbia.....	W.	L.	W.	L.	Murray State.....	W.	L.	W.	L.	New Mexico.....	W.	L.	W.	L.	UCLA.....	W.	L.	W.	L.	So. California.....	W.	L.	W.	L.
Princeton.....	12	2	23	5	East Tennessee.....	10	4	16	8	Wyoming.....	8	2	23	5	Washington St.....	11	3	18	8	San Francisco.....	10	4	16	10
Yale.....	8	6	15	9	W. Kentucky.....	9	5	18	7	Utah.....	5	5	17	9	California.....	7	7	15	9	San Jose State.....	8	6	13	12
Dartmouth.....	6	8	8	16	Morehead State.....	8	6	12	9	Brigham Young.....	4	6	13	12	Oregon State.....	5	9	12	13	Pacific (Calif.).....	5	9	16	10
Cornell.....	6	8	14	11	Mid. Tennessee.....	7	7	15	9	Arizona.....	4	6	11	13	Stanford.....	5	9	10	15	U.C. Barbara.....	3	11	9	17
Pennsylvania.....	4	10	9	17	E. Kentucky.....	6	8	10	14	Arizona State.....	4	6	11	17	Washington.....	4	10	12	14	St. Mary's (Cal.).....	3	11	4	20
Brown.....	4	10	9	16	Tenn. Tech.....	4	10	9	17					Oregon.....	2	12	7	19	Pepperdine.....	2	12	9	17	
Harvard.....	4	10	7	14	Austin Peay.....	2	12	8	16															
YANKEE				MID-AMERICAN				BIG TEN				OHIO				SOUTHWESTERN				FAR WESTERN				
Rhode Island.....	W.	L.	W.	L.	Bowling Green.....	W.	L.	W.	L.	Denison.....	W.	L.	W.	L.	Jackson State.....	W.	L.	W.	L.	Alcorn A. & M.....	W.	L.	W.	L.
Massachusetts.....	8	2	15	11	Marshall.....	10	2	18	7	Baldwin-Wallace.....	11	2	19	9	Southern Univ.....	9	5	17	6	Arkansas.....	8	6	18	7
Connecticut.....	7	3	11	13	Toledo.....	9	3	17	8	Kenyon.....	10	2	13	8	Prairie View.....	6	8	13	12	Texas Southern.....	5	9	11	12
Vermont.....	5	5	12	12	W. Michigan.....	5	7	11	13	Otterbein.....	9	3	13	8	Grambling.....	4	10	11	12	Wiley.....	0	14	4	21
Maine.....	2	8	7	17	Miami (O.).....	4	8	11	12	Wooster.....	8	4	14	8										
New Hampshire.....	0	10	1	22	Kent State.....	3	9	9	15	Wittenberg.....	8	5	13	13										
					Ohio.....	3	9	7	16	Marletta.....	0	6	8	12										
METROPOLITAN				BIG TEN				MISSOURI VALLEY				OHIO				SOUTHWESTERN				FAR WESTERN				
St. Peter's.....	W.	L.	W.	L.	Ohio State.....	W.	L.	W.	L.	Louisville.....	W.	L.	W.	L.	Jackson State.....	W.	L.	W.	L.	Alcorn A. & M.....	W.	L.	W.	L.
Long Island.....	7	1	22	2	Iowa.....	10	4	21	8	Bradley.....	12	4	19	9	Baldwin-Wallace.....	11	2	19	9	Alcorn A. & M.....	12	2	—	—
Wagner.....	5	3	20	7	Purdue.....	10	4	16	9	Cincinnati.....	11	5	18	8	Kenyon.....	10	2	13	8	Southern Univ.....	9	5	17	6
Fairleigh Dickinson.....	4	4	10	12	Northwestern.....	9	5	15	9	Drake.....	9	7	18	8	Otterbein.....	9	3	13	8	Arkansas.....	8	6	18	7
Iona.....	4	4	13	9	Wisconsin.....	7	7	13	11	St. Louis.....	9	7	15	11	Wooster.....	8	4	14	8	Prairie View.....	6	8	13	12
Seton Hall.....	4	4	9	15	Michigan St.....	6	8	13	10	Wichita State.....	7	9	12	14	Wittenberg.....	8	5	13	13	Texas Southern.....	5	9	11	12
Mannhattan.....	3	5	8	14	Illinois.....	6	8	11	13	Missouri.....	5	11	11	12	Marletta.....	0	6	8	12	Grambling.....	4	10	11	12
Hofstra.....	1	7	13	12	Indiana.....	6	8	11	13	Iowa State.....	8	6	12	13	Holdelberg.....	5	7	11	9	Wiley.....	0	14	4	21
St. Francis (N. Y.).....	0	8	7	16	Minnesota.....	4	10	7	17	N. Texas State.....	3	13	8	18	Ohio Wesleyan.....	5	8	9	14					
										Memphis State.....	2	14	8	17	Hiram.....	4	9	9	13					
ATLANTIC COAST				BIG EIGHT				MISSOURI VALLEY				OHIO				SOUTHWESTERN				FAR WESTERN				
North Carolina.....	W.	L.	W.	L.	Kansas State.....	W.	L.	W.	L.	Louisville.....	W.	L.	W.	L.	Jackson State.....	W.	L.	W.	L.	Alcorn A. & M.....	W.	L.	W.	L.
Duke.....	12	2	28	4	Kansas.....	11	3	19	9	Bradley.....	14	2	21	7	Baldwin-Wallace.....	11	2	19	9	Alcorn A. & M.....	12	2	—	—
So. Carolina.....	11	3	22	6	Nebraska.....	10	4	22	8	Cincinnati.....	12	4	19	9	Kenyon.....	10	2	13	8	Southern Univ.....	9	5	17	6
No. Carolina St.....	9	5	15	7	Oklahoma.....	8	6	15	10	Drake.....	9	7	18	8	Otterbein.....	9	3	13	8	Arkansas.....	8	6	18	7
Virginia.....	9	5	16	10	Iowa State.....	8	6	13	13	St. Louis.....	9	7	15	11	Wooster.....	8	4	14	8	Prairie View.....	6	8	13	12
Maryland.....	5	9	9	16	Missouri.....	5	9	10	16	Wichita State.....	7	9	12	14	Wittenberg.....	8	5	13	13	Texas Southern.....	5	9	11	12
Clemson.....	4	10	8	16	Oklahoma State.....	3	11	10	16	Marletta.....	0	6	8	12	Marletta.....	0	6	8	12	Grambling.....	4	10	11	12
Wake Forest.....	3	11	4	20	Colorado.....	3	11	9	16	Holdelberg.....	5	7	11	9	Ohio Wesleyan.....	5	8	9	14	Wiley.....	0	14	4	21
	3	11	5	21						Ohio Wesleyan.....	5	8	9	14	Hiram.....	4	9	9	13					
SOUTHERN				BIG EIGHT				MISSOURI VALLEY				OHIO				SOUTHWESTERN				FAR WESTERN				
Davidson.....	W.	L.	W.	L.	Kansas State.....	W.	L.	W.	L.	Louisville.....	W.	L.	W.	L.	Jackson State.....	W.	L.	W.	L.	Alcorn A. & M.....	W.	L.	W.	L.
West Virginia.....	9	1	24	5	Kansas.....	11	3	19	9	Bradley.....	14	2	21	7	Baldwin-Wallace.....	11	2	19	9	Alcorn A. & M.....	12	2	—	—
Citadel.....	9	2	19	9	Nebraska.....	10	4	22	8	Cincinnati.....	12	4	19	9	Kenyon.....	10	2	13	8	Southern Univ.....	9	5	17	6
Virginia Military.....	6	5	11	14	Oklahoma.....	8	6	15	10	Drake.....	9	7	18	8	Otterbein.....	9	3	13	8	Arkansas.....	8	6	18	7
Furman.....	8	7	9	12	Iowa State.....	8	6	13	13	St. Louis.....	9	7	15	11	Wooster.....	8	4	14	8	Prairie View.....	6	8	13	12
Richmond.....	6	6	13	14	Missouri.....	5	9	10	16	Wichita State.....	7	9	12	14	Wittenberg.....	8	5	13	13	Texas Southern.....	5	9	11	12
East Carolina.....	8	8	12	13	Oklahoma State.....	3	11	10	16	Marletta.....	0	6	8	12	Marletta.....	0	6	8	12	Grambling.....	4	10	11	12
William & Mary.....	6	7	9	16	Colorado.....	3	11	9	16	Holdelberg.....	5	7	11	9	Ohio Wesleyan.....	5	8	9	14	Wiley.....	0	14	4	21
G. Washington.....	4	10	6	17						Ohio Wesleyan.....	5	8	9	14	Hiram.....	4	9	9	13					
	2	12	5	19						Capital.....	3	10	6	16	Capital.....	3	10	6	16					
SOUTHEASTERN				BIG EIGHT				MISSOURI VALLEY				OHIO				SOUTHWESTERN				FAR WESTERN				
Kentucky.....	W.	L.	W.	L.	Kansas State.....	W.	L.	W.	L.	Louisville.....	W.	L.	W.	L.	Jackson State.....	W.	L.	W.	L.	Alcorn A. & M.....	W.	L.	W.	L.
Tennessee.....	15	3	22	5	Kansas.....	11	3	19	9	Bradley.....	14	2	21	7	Baldwin-Wallace.....	11	2	19	9	Alcorn A. & M.....	12	2	—	—
Vanderbilt.....	12	5	20	6	Nebraska.....	10	4	22	8	Cincinnati.....	12	4	19	9	Kenyon.....	10	2	13	8	Southern Univ.....	9	5	17	6
Georgia.....	12	6	20	6	Oklahoma.....	8	6	15	10	Drake.....	9	7	18	8	Otterbein.....	9	3	13	8	Arkansas.....	8	6	18	7
Florida.....	11	7	17	8	Iowa State.....	8	6	13	13	St. Louis.....	9	7	15	11	Wooster.....	8	4	14	8	Prairie View.....	6	8	13	12
Louisiana State.....	11	5	15	10	Missouri.....	5	9	10	16	Wichita State.....	7	9	12	14	Wittenberg.....	8	5	13	13	Texas Southern.....	5	9	11	12
Auburn.....	8	9	13	13	Oklahoma State.....	3	11	10	16	Marletta.....	0	6	8	12	Marletta.....	0	6	8	12	Grambling.....	4	10	11	12
Mississippi St.....	5	13	9	17	Colorado.....	3	11	9	16	Holdelberg.....	5	7	11	9	Ohio Wesleyan.....	5	8	9	14	Wiley.....	0	14	4	21
Mississippi.....	4	14	7	17						Ohio Wesleyan.....	5	8	9	14	Hiram.....	4	9	9	13					
Alabama.....	3	15	10	16						Capital.....	3	10	6	16	Capital.....	3	10	6	16					
	3	15	10	16						Muskingum.....	3	10	6	16	Muskingum.....	3	10	6	16					
SOUTHWEST				BIG EIGHT				MISSOURI VALLEY				OHIO				SOUTHWESTERN				FAR WESTERN				
Air Force.....	W.	L.	W.	L.	Kansas State.....	W.	L.	W.	L.	Louisville.....	W.	L.	W.	L.	Jackson State.....	W.	L.	W.	L.	Alcorn A. & M.....	W.	L.	W.	L.
American.....	9	15	14	12	Kansas.....	11	3	19	9	Bradley.....	14	2	21	7	Baldwin-Wallace.....	11	2	19	9	Alcorn A. & M.....	12	2	—	—
Army.....	14	12	Fairfield.....	16	Nebraska.....	10	4	22	8	Cincinnati.....	12	4	19	9	Kenyon.....	10	2	13	8	Southern Univ.....	9	5	17	6
Boston College.....	20	5	Florida State.....	19	Oklahoma.....	8	6	15	10	Drake.....	9	7	18	8	Otterbein.....	9	3	13	8	Arkansas.....	8	6	18	7
Boston Univ.....	17	8	Fordham.....	19	Iowa State.....	8	6	13	13	St. Louis.....	9	7	15	11	Wooster.....	8	4	14	8	Prairie View.....	6	8	13	12
Bucknell.....	10	14	Georgetown.....	11	Missouri.....	5	9	10	16	Wichita State.....	7	9	12	14	Wittenberg.....	8	5	13	13	Texas Southern.....	5	9	11	12
Butler.....	12	11	(D. C.).....	11	Oklahoma State.....	3	11	10	16	Marletta.....	0	6	8	12	Marletta.....	0	6	8	12	Grambling.....	4	10	11	12
Canisius.....	11	14	Georgia Tech.....	12	Colorado.....	3	11	9	16	Holdelberg.....	5	7	11	9	Ohio Wesleyan.....	5	8	9	14	Wiley.....	0	14	4	21
Centenary.....	6	17	Gettysburg.....	14						Ohio Wesleyan.....	5	8	9	14	Hiram.....	4	9	9	13					
Colgate.....	3	7	Hardin.....	3						Capital.....	3	10	6	16	Capital.....	3	10	6	16					
Colorado St.....	10	16	Simmons.....	10						Muskingum.....	3	10	6	16	Muskingum.....	3	10	6	16					
Creighton.....	11	13	Holy Cross.....	15						Notre Dame.....	21	9	10	17	Notre Dame.....	21	9	10	17					
Dayton.....	8	17	Jacksonville.....	13						Oklahoma City.....	20	7	15	14	Oklahoma City.....	20	7	15	14					
Delaware.....	21	9	Lafayette.....	5						Penn State.....	10	10	10	10	Penn State.....	10	10	10	10					
Denver.....	16	7	LaSalle.....	20						Portland.....	7	15	14	14	Portland.....	7	15	14	14					
DePaul.....	11	14	Lough.....	12						Providence.....	11	14	14	14	Providence.....	11	14	14	14					
Detroit.....	13	12	Loyola (Ill.).....	15						Rider.....	10	14	14	14	Rider.....	10	14	14	14					

Basketball Champions by Years

National Invitation Tournament					National Collegiate A. A.				
Winner		Runner-up			Winner		Runner-up		
1954....	Holy Cross.....	71	Duquesne.....	62	La Salle.....	92	Bradley.....	76	
1955....	Duquesne.....	70	Dayton.....	58	San Francisco.....	77	La Salle.....	63	
1956....	Louisville.....	93	Dayton.....	80	San Francisco.....	83	Iowa.....	71	
1957....	Bradley.....	84	Memphis State.....	83	North Carolina.....	54	Kansas.....	53	
1958....	Xavier.....	78	Dayton.....	74	Kentucky.....	84	Seattle.....	72	
1959....	St. John's.....	76	Bradley.....	71	California.....	71	West Virginia.....	70	
1960....	Bradley.....	88	Providence.....	72	Ohio State.....	75	California.....	55	
1962....	Providence.....	62	St. Louis.....	59	Cincinnati.....	69	Ohio State.....	65	
1962....	Dayton.....	73	St. John's.....	67	Cincinnati.....	71	Ohio State.....	69	
1963....	Providence.....	81	Canisius.....	86	Loyola (Chicago).....	60	Cincinnati.....	58	
1964....	Bradley.....	86	New Mexico.....	54	UCLA.....	98	Duke.....	83	
1965....	St. John's.....	55	Villanova.....	51	UCLA.....	91	Michigan.....	80	
1966....	Brigham Young.....	97	NYU.....	84	Texas Western.....	72	Kentucky.....	65	
1967....	Southern Illinois.....	71	Marquette.....	56	UCLA.....	79	Dayton.....	64	
1967....	Dayton.....	61	Kansas.....	48	UCLA.....	78	North Carolina.....	55	

NCAA Individual Statistics

(University Division)

SCORING

	G.	FG.	FT.	Pt.	Avg.
Maravitch, Louisiana St.	26	432	274	1138	43.8
Murphy, Niagara.....	24	337	242	916	38.2
Hayes, Houston.....	33	519	176	1214	36.8
Travis, Oklahoma City	27	324	160	808	29.9
Portman, Creighton....	25	303	132	738	29.5
Mount, Purdue.....	24	259	165	683	28.5
Hill, W. Texas State....	21	237	99	573	27.3
Hallmon, Utah State....	25	256	159	671	26.8
Foster, Miami (O.).....	23	230	157	617	26.8
Walk, Florida.....	25	239	185	663	26.5
Lanier, St. Bonaventure	25	272	112	656	26.2
Alcindor, UCLA.....	28	294	146	734	26.2
Powell, Loyola (La.)....	25	263	125	651	26.0
Williams, Iowa.....	25	219	194	632	25.3
Hollins, Denver.....	25	241	144	625	25.0
Webster, St. Peter's....	28	279	142	700	25.0
Allen, Bradley.....	28	258	170	686	24.5
Smith, Iowa State.....	25	197	210	604	24.2
Platkowski, Bowl. Grn.	25	263	75	601	24.0
Jackson, Utah.....	26	247	128	622	23.9
Stone, Marshall.....	25	238	116	592	23.7
Quick, Xavier.....	26	218	179	615	23.7
Hayes, Boston U.....	24	194	177	565	23.5
Hochstein, Holy Cross..	22	166	185	517	23.5
May, Dayton.....	30	239	223	701	23.4
Sludut, Holy Cross.....	23	216	102	534	23.2
McCartier, Drake.....	26	252	99	603	23.2
Brown, Middle Tenn....	24	229	98	556	23.2
Toimle, Navy.....	20	177	107	461	23.1
Stephenson, Maine.....	24	215	123	553	23.0

FIELD GOAL PERCENTAGE

(Minimum 130 Scored)

	G.	FG.	FGA.	Pct.
Allen, Bradley.....	28	258	394	.655
Hunt, Army.....	22	154	248	.621
Alcindor, UCLA.....	28	294	480	.613
Unsel, Louisville.....	28	234	382	.613
Sorenson, Ohio State....	29	196	329	.596
Sidle, Oklahoma.....	26	189	321	.589
Webster, St. Peter's....	28	279	477	.585
Lanier, St. Bonaventure..	25	272	466	.584

FREE THROW PERCENTAGE

(Minimum 90 Scored)

	G.	FT.	FTA.	Pct.
Helser, Princeton.....	26	117	130	.900
Ward, Centenary.....	26	94	106	.887
Carpenter, Pacific.....	26	96	109	.881
Luchini, Marquette.....	29	107	124	.863
Williams, Rice.....	24	113	131	.863
Garrett, So. Illinois....	24	100	116	.862
Montgomery, Wk Forest..	25	134	157	.854
Wininger, Butler.....	24	97	114	.851

REBOUNDS

	G.	No.	Avg.
Walk, Florida.....	25	494	19.8
Smith, Eastern Kentucky..	24	472	19.7
Hayes, Houston.....	33	624	18.9
Unsel, Louisville.....	28	513	18.3
Cunningham, Murray State	23	410	17.8
Lewis, St. Francis (Pa.)..	25	443	17.7
Wilson, Idaho State.....	24	420	17.5
Cowens, Florida State....	27	456	16.9

NEA All-America Team, 1968

The following is the 1968 college All-America team selected for Newspaper Enterprise Assn. by the 12 NBA coaches and their talent scouts.

Name	First Team School
Lew Alcindor, UCLA	
Elvin Hayes, Houston	
Pete Maravich, LSU	
Don May, Dayton	
Westley Unsel, Louisville	

Name	Second Team School
Larry Miller, North Carolina	
Calvin Murphy, Niagara	
Jo Jo White, Kansas	
Bob Lanier, St. Bonaventure	
Don Smith, Iowa State	

SPECIAL MENTION

Lucius Allen, UCLA; Mike Lewis, Duke; Butch Beard, Louisville; Henry Logan, Western Carolina; Charlie Scott, North Carolina; Simmie Hill, West Texas State; Mervin Jackson, Utah; Shaler Hallmon, Utah State; Ron Williams, West Virginia; Tom Boerwinkle, Tennessee; Harry Hollins, Denver.

Basketball Hall of Fame

Springfield, Mass.

The Naismith Memorial Basketball Hall of Fame was incorporated in 1959 to serve as a memorial to James Naismith, who invented the game of basketball for students of the School for Christian Workers (now Springfield College) in December, 1891, at Springfield, Mass. The following persons have been enshrined in the Basketball Hall of Fame for outstanding contributions to basketball:

College Players

Harold (Bud) Foster, Wisconsin; Victor Hanson, Syracuse; Charles (Chuck) Hyatt, Pittsburgh; Robert Kurland, Oklahoma State; Angelo (Hank) Luisetti, Stanford; Branch McCracken, Indiana; C. Edward Macauley, St. Louis; George Mikan, DePaul; Charles (Stretch) Murphy, Purdue; H. O. (Pat) Page, Chicago; Andy Phillip, Illinois; John Roosma, U. S. Military Academy; John Schommer, Chicago; Christian Steinmetz, Wisconsin; J. A. (Cat) Thompson, Montana State; John R. Wooden, Purdue.

Professional Players

Bennie Borgmann, Nat Holman, Joe Lapchick, John (Honey) Russell, Barney Sedran, Edward A. Wachter.

AAU Players

Forrest S. DeBernardi, Robert (Ace) Gruenig, Jack McCracken.

Coaches

Ernest A. Blood, Howard G. Cann, Dr. H. Clifford Carlson, Everett S. Dean, Amory T. Gill, Howard A. Hobson, Alvin F. Julian, Frank Keane, George E. Keogan, Ward (Piggy) Lambert, Kenneth Loeffler, Dr. Walter E. Meanwell, Leonard D. Sachs.

Referees

George Hepbrun, George Hoyt, Matthew P. Kennedy, Ernest Quigley, David Tobey, David Walsh.

Contributors

Dr. Forrest C. (Phog) Allen, Walter A. Brown, John W. Bunn, Clair F. Bee, Dr. Luther Gulick, Edward J. Hickox, Paul D. Hinkle, Edward S. (Ned) Irish, R. William Jones, William G. Mokray, Ralph Morgan, Frank (Pop) Morgenweck, Dr. James Naismith, John J. O'Brien, Sr., Harold Olsen, H. V. Porter, William Reid, Lynn St. John, A. A. Schabinger, Amos Alonzo Stagg, Oswald Tower, Arthur L. Trester.

NATIONAL BASKETBALL ASSOCIATION

Eastern Division						Western Division					
	W.	L.	Pct.	Pts.	Op.		W.	L.	Pct.	Pts.	Op.
Philadelphia.....	62	20	.756	10051	9346	St. Louis.....	56	26	.683	9266	9042
Boston.....	54	28	.659	9523	9186	Los Angeles.....	52	30	.634	9937	9477
New York.....	43	39	.524	9523	9374	San Francisco.....	43	39	.524	9598	9647
Detroit.....	40	42	.488	9725	9889	Chicago.....	29	53	.354	8952	9310
Cincinnati.....	39	43	.476	9562	9631	Seattle.....	23	59	.280	9732	10261
Baltimore.....	36	46	.439	9627	9659	San Diego.....	15	67	.183	9215	9919

Eastern Divisional Championship—Boston defeated Philadelphia, 4 games to 3.

Western Divisional Championship—Los Angeles defeated San Francisco, 4 games to 0.

Championship Series—Boston defeated Los Angeles, 4 games to 2.

Individual Scoring Leaders					Field Goal Percentage Leaders (A)				
	FG	FT	Pts.	Avg.*		FG	FGA	Pct.	
Bing, Detroit.....	835	472	2143	27.1	Chamberlain, Philadelphia.....	819	1377	.595	
Baylor, Los Angeles.....	757	488	2002	26.0	Bellamy, New York.....	511	944	.541	
Chamberlain, Philadelphia.....	819	354	1992	24.3	Lucas, Cincinnati.....	707	1361	.519	
Monroe, Baltimore.....	742	507	1991	24.3	West, Los Angeles.....	476	926	.514	
Greer, Philadelphia.....	777	422	1976	24.1	Chappell, Detroit.....	235	458	.513	
Robertson, Cincinnati.....	660	576	1896	29.2	Robertson, Cincinnati.....	660	1321	.500	
Hazzard, Seattle.....	733	428	1894	23.9	Hawkins, Los Angeles.....	389	779	.499	
Lucas, Cincinnati.....	707	346	1760	21.4	Ischinger, Detroit.....	394	797	.494	
Beatty, St. Louis.....	639	455	1733	21.1	Nelson, Boston.....	312	632	.494	
LaRusso, San Francisco.....	602	522	1726	21.8	Boozler, Chicago.....	622	1265	.492	
					Finkel, San Diego.....	242	492	.492	

Leaders in Rebounds					Free Throw Percentage Leaders (A)					Leaders in Assists				
	G.	No.	Avg.*			FT	FTA	Pct.			G.	No.	Avg.*	
Chamberlain, Phil.....	82	1952	23.8	Robertson, Cinn.....	576	660	.873	Chamberlain, Phil.....	82	702	8.6			
Lucas, Cinn.....	82	1560	19.0	Siegrist, Boston.....	236	272	.868	Wilkins, St. Louis.....	82	679	8.3			
Russell, Boston.....	8	1431	18.6	Gambel, San Diego.....	321	379	.847	Robertson, Cinn.....	85	633	9.7			
C. Lee, S. F.....	82	1141	13.9	Hetzl, S. F.....	395	474	.833	Bing, Detroit.....	79	500	6.4			
Thurmond, S. F.....	51	1121	22.0	Smith, Cinn.....	320	386	.829	Hazzard, Seattle.....	79	493	6.2			
Scott, Baltimore.....	81	1111	13.7	S. Jones, Boston.....	311	376	.827	Williams, San Diego.....	79	391	4.9			
Bridges, St. Louis.....	82	1102	13.4	Robinson, Chicago.....	288	352	.818	Attles, S. F.....	67	390	5.8			
DeBusschere, Det.....	80	1081	13.5	Havlicek, Boston.....	368	453	.812	Havlicek, Boston.....	82	384	4.7			
Reed, N. Y.....	81	1073	13.2	West, L. A.....	391	482	.811	Rodgers, Chi.-Cinn.....	78	380	4.9			
Bellamy, N. Y.....	82	961	11.7	Russell, N. Y.....	282	349	.808	Greer, Phil.....	82	372	4.5			

*Per game (A) minimum 220.

Podoloff Trophy Winners

Wilt Chamberlain of Philadelphia was selected as the winner of the Maurice Podoloff Trophy for the third straight year as the Most Valuable Player in the N. B. A. for the 1967-68 season. The award was determined in a poll of all players on the twelve teams conducted by Newspaper Enterprise Association.

1956—Bob Pettit, St. Louis
 1957—Bob Cousy, Boston
 1958—Bill Russell, Boston
 1959—Bob Pettit, St. Louis
 1960—Wilt Chamberlain, Philadelphia
 1961—Bill Russell, Boston
 1962—Bill Russell, Boston

1963—Bill Russell, Boston
 1964—Oscar Robertson, Cincinnati
 1965—Bill Russell, Boston
 1966—Wilt Chamberlain, Philadelphia
 1967—Wilt Chamberlain, Philadelphia
 1968—Wilt Chamberlain, Philadelphia

N. B. A. SCORING LEADERS

Yr.	Scoring Champion	Pts.	Avg.	Yr.	Scoring Champion	Pts.	Avg.
1947	Joe Fuiks, Philadelphia.....	1,389	23.2	1958	George Yardley, Detroit.....	2,061	27.8
1948	Max Zaslofsky, Chicago.....	1,007	21.0	1959	Bob Pettit, St. Louis.....	2,105	29.2
1949	George Mikan, Minneapolis.....	1,698	28.3	1960	Wilt Chamberlain, Philadelphia.....	2,707	37.9
1950	George Mikan, Minneapolis.....	1,865	27.4	1961	Wilt Chamberlain, Philadelphia.....	3,033	38.4
1951	George Mikan, Minneapolis.....	1,932	28.4	1962	Wilt Chamberlain, Philadelphia.....	4,029	50.4
1952	Paul Arizin, Philadelphia.....	1,674	25.4	1963	Wilt Chamberlain, San Francisco.....	3,586	44.8
1953	Neil Johnston, Philadelphia.....	1,564	22.3	1964	Wilt Chamberlain, San Francisco.....	2,948	36.5
1954	Neil Johnston, Philadelphia.....	1,759	24.4	1965	Wilt Chamberlain, San Fran., Phila.....	2,534	34.7
1955	Neil Johnston, Philadelphia.....	1,631	22.7	1966	Wilt Chamberlain, Philadelphia.....	2,649	33.5
1956	Bob Pettit, St. Louis.....	1,849	25.7	1967	Rick Barry, San Francisco.....	2,775	35.6
1957	Paul Arizin, Philadelphia.....	1,817	25.6	1968	Dave Bing, Detroit.....	2,142	27.1

NBA CHAMPIONS 1948-1968

Regular Season				Playoffs	
Year	Eastern Division	Western Division	Winner	Loser	
1948.....	Philadelphia.....	St. Louis.....	Baltimore.....	Philadelphia.....	
1949.....	Washington.....	Rochester.....	Minneapolis.....	Washington.....	
1950.....	Syracuse.....	Minneapolis.....	Minneapolis.....	Syracuse.....	
1951.....	Philadelphia.....	Minneapolis.....	Rochester.....	New York.....	
1952.....	Syracuse.....	Rochester.....	Minneapolis.....	New York.....	
1953.....	New York.....	Minneapolis.....	Minneapolis.....	New York.....	
1954.....	New York.....	Minneapolis.....	Minneapolis.....	Syracuse.....	
1955.....	Syracuse.....	Ft. Wayne.....	Syracuse.....	Ft. Wayne.....	
1956.....	Philadelphia.....	Ft. Wayne.....	Philadelphia.....	Ft. Wayne.....	
1957.....	Boston.....	St. Louis.....	Boston.....	St. Louis.....	
1958.....	Boston.....	St. Louis.....	St. Louis.....	Boston.....	
1959.....	Boston.....	St. Louis.....	Boston.....	Minneapolis.....	
1960.....	Boston.....	St. Louis.....	Boston.....	St. Louis.....	
1961.....	Boston.....	St. Louis.....	Boston.....	St. Louis.....	
1962.....	Boston.....	Los Angeles.....	Boston.....	Los Angeles.....	
1963.....	Boston.....	Los Angeles.....	Boston.....	Los Angeles.....	
1964.....	Boston.....	San Francisco.....	Boston.....	San Francisco.....	
1965.....	Boston.....	Los Angeles.....	Boston.....	Los Angeles.....	
1966.....	Philadelphia.....	Los Angeles.....	Boston.....	Los Angeles.....	
1967.....	Philadelphia.....	San Francisco.....	Philadelphia.....	San Francisco.....	
1968.....	Philadelphia.....	St. Louis.....	Boston.....	Los Angeles.....	

AMERICAN BASKETBALL ASSOCIATION

Eastern Division					Western Division						
	W.	L.	Pct.	Pts.	Op.		W.	L.	Pct.	Pts.	Op.
Pittsburgh...	54	24	.692	8731	8479	New Orleans...	48	30	.615	8712	8334
Minnesota...	50	28	.641	8469	8163	Dallas.....	46	32	.590	8576	8470
Indiana.....	38	40	.487	8546	8530	Denver.....	45	33	.577	8244	7914
Kentucky...	36	42	.462	8150	8207	Houston.....	29	49	.372	8074	8407
New Jersey...	36	42	.462	8641	8768	Anaheim.....	25	53	.321	8704	9057
						Oakland.....	22	56	.282	8642	9160

Eastern Divisional Championship—Pittsburgh defeated Minnesota, 4 games to 1.

Western Divisional Championship—New Orleans defeated Dallas, 4 games to 1.

Championship Series—Pittsburgh defeated New Orleans, 4 games to 3.

Scoring Leaders					Free Throw % Leaders					Leaders in Assists				
	FG	FT	Pts.	Avg.		Pct.					No.		Avg.	
C. Hawkins, Pitts...	633	603	1875	26.8	C. Beasley, Dal...	87.2	L. Brown, N. O...	506	6.5					
D. Moe, N. O...	662	551	1884	24.2	B. Lloyd, N. J...	85.4	C. Hagan, Dal...	276	4.9					
L. Tart, Oak-N. J.	632	451	1718	23.5	J. Beasley, Dal...	84.2	S. Chubin, Ana...	364	4.7					
D. Carrier, Ky...	559	395	1765	22.9	T. Jackson, N. J.	82.9	C. Hawkins, Pitts...	316	4.5					
L. Jones, Den...	594	530	1742	22.9	M. Nowell, N. J.	82.6	R. Brown, Ind...	327	4.3					
M. Daniels, Minn...	668	390	1729	22.2	D. Carrier, Ky...	82.5	M. McHartley, Dal	230	4.0					
W. Somerset, Hous...	434	359	1326	21.7	L. Dampier, Ky...	82.3	A. Heyman, Pitts...	272	3.7					
C. Williams, Pitts...	591	290	1625	20.8	A. Becker, Hous...	82.0	C. Beasley, Dal...	290	3.7					
L. Dampier, Ky...	582	209	1487	20.7	L. Brown, N. O...	81.3	B. Leibowitz, Pitts...	300	3.7					
F. Lewis, Ind...	526	465	1565	20.6	S. Chubin, Ana...	81.1	N. J.-Oakland...	225	3.7					
							W. Somerset, Hous...	225	3.7					

2-Pt. F. G. % Leaders					3-Pt. F. G. % Leaders					Leaders in Rebounds				
	FG	FGA	Pct.			FG	Pct.				No.		Avg.	
T. Washington, Pitts...	310	594	52.2	D. Carrier, Ky...	84	35.7	M. Daniels, Minn...	1213	15.6					
C. Hawkins, Pitts...	633	1214	52.1	R. Perry, Minn...	62	34.8	C. Hawkins, Pitts...	945	13.5					
B. Netolicky, Ind...	468	927	50.5	C. Vaughn, Pitts...	137	33.4	J. Beasley, Dal...	982	12.8					
C. Beasley, Dal...	371	745	49.8	J. Rayl, Ind...	57	32.6	I. Harge, Pitt-Oak...	1088	12.7					
A. Robbins, N. O...	446	912	49.5	L. Selvaige, Ana...	147	32.0	A. Robbins, N. O...	894	12.2					
D. Anderson, N. J...	463	938	49.4	B. Warley, Ana...	52	31.3	J. Hadnot, Oak...	936	12.2					
J. Beasley, Dal...	622	1262	49.3	H. Hale, Hous...	35	31.3	J. Ligon, Ky...	929	11.9					
C. Hagan, Dal...	371	756	49.1	T. Jackson, N. J.	91	30.1	B. Netolicky, Ind...	819	11.5					
C. Powell, Dal...	532	1085	49.0	C. Williams, Pitts...	51	28.7	D. Anderson, N. J...	856	11.0					
J. Hammond, Den...	224	458	48.9	L. Dampier, Ky...	38	26.8	T. Washington, Pitts...	672	10.7					

ABA Champions

Regular Season		Playoffs	
Year	Eastern Division	Western Division	Winner
1968	Pittsburgh	New Orleans	Pittsburgh
			Loser
			New Orleans

ABA Most Valuable Player

Connie Hawkins of Pittsburgh was selected as the Most Valuable Player in the ABA for the 1967-68 season. The award was determined in a poll of sports writers taken by the U. S. Basketball Writers Association.

Biddy Basketball Champions

Biddy basketball competition, with scaled down courts, equipment and shorter periods of play, is open to boys up to 12 and girls up to 13. Local, regional and national tournaments are held annually under jurisdiction of Biddy Basketball national headquarters, Scranton, Pa. National champions have been:

Winner		Runner-up		Winner		Runner-up	
1957....	New Orleans, La.	45	Atlantic City, N.J.	42	1963....	New Orleans, La.	44
1958....	Bridgeport, Conn.	49	Puerto Rico.....	46	1964....	Chester, Pa.....	61
1959....	Bridgeport, Conn.	50	New Orleans, La.	36	1965....	New York, N. Y.	37
1960....	Gary, Ind.....	51	Jersey City, N.J.	47	1966....	New Orleans, La.	53
1961....	Jefferson, La.....	46	Wichita, Kan.....	42	1967....	Wichita, Kans.....	41
1962....	Wichita, Kansas.	41	Jefferson, La.....	40	1968....	Augusta, Ga.....	46

Mr. Biddy Basketball, 1968—James White, Augusta, Ga.

Fencing Championships in 1968

76th ANNUAL U. S. NATIONAL CHAMPIONSHIPS

Miami, Florida, June 22-30

Foil—Heizaburo Okawa, Mori; Jeffrey Checkes, N. Y. Fencers Club; Herbert Cohen, N. Y. Fencers Club.	Women—Janice Romary, Mori; Harriet King, Lucia; Maxine Mitchell, Los Angeles FC.
Epee—Paul Pesthy, New York AC; David Micahnik, Csiszar; Robert Beck, Unattached.	Foil Team—Salle Santelli, N. Y.
Sabre—A. Jack Keane, New York AC; Alex Orban, New York AC; Thomas Balla, Csiszar.	Epee Team—Salle Csiszar, Phila.
	Sabre Team—New York Athletic Club.
	Women's Team—Salle Santelli, N. Y.
	Martini & Rossi Trophy—New York A.C.

71st ANNUAL INTERCOLLEGIATE FENCING ASS'N. CHAMPIONSHIPS

Princeton, N. J., March 15, 16

Foil—Jeffrey Kostler, Columbia; Arthur Baer, Columbia; John McKay, Columbia.	Penn. Norman Braslow, Penn.
Epee—Burt Pearlman, Columbia; George Mosin, NYU; Van Wolosin, NYU.	Foil Team—NYU and Columbia tied.
Sabre—Frank Lowy, Columbia; Todd Makler.	Epee Team—NYU.
	Sabre Team—Pennsylvania.
	Three-weapon Team—NYU.

MARTINI & ROSSI INTERNATIONAL TOURNAMENT

NYAC, April 19-21

Foil—Adam Lisewski, Poland; Jeff Checkes, USA; Christian Noel, France.	Sabre—Jerzy Pawlowski, Poland; Tibor Pesza, Hungary; Marcel Parent, France.
Epee—Zoltan Nemere, Hungary; James Melcher, USA; Paul Pesthy, USA.	

24th ANNUAL NCAA FENCING CHAMPIONSHIPS

Foil—Gerard Esponda, U. of San Francisco.	Sabre—Todd Makler, Penn.
Epee—Don Sjeja, Cornell.	Team Trophy—Columbia.

40th INTERCOLLEGIATE WOMEN'S FENCING ASSOCIATION CHAMPIONSHIPS

Fairleigh Dickinson, Teaneck, N. J.

Individual—Karen Denton, Cornell; Nelda Latham, CCNY; Ann O'Donnell, J. C. State.	Team—Cornell University.
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Hockey Champions in 1967-68

NATIONAL HOCKEY LEAGUE

Final Standings

EAST DIVISION

	W	L	T	Pts.	GF	GA
Montreal.....	42	22	10	236	167	94
New York.....	39	23	12	226	183	90
Boston.....	37	27	10	259	216	84
Chicago.....	32	26	16	212	222	80
Toronto.....	33	31	10	209	176	76
Detroit.....	27	35	12	245	257	66

WEST DIVISION

	W	L	T	Pts.	GF	GA
Philadelphia.....	31	32	11	173	179	73
Los Angeles.....	31	32	10	200	224	72
St. Louis.....	27	31	16	177	191	70
Minnesota.....	27	32	15	191	226	69
Pittsburgh.....	27	34	13	195	216	67
Oakland.....	15	42	17	153	219	47

LEADING SCORERS

	GP	G	A	Pts.	PIM
Stan Mikita, Chi.....	72	40	47	87	14
Phil Esposito, Bos.....	74	35	49	84	21
Gordie Howe, Det.....	74	39	43	82	53
Jean Ratelle, N. Y.....	74	32	46	78	18
Don Gilbert, N. Y.....	73	29	48	77	12
Bobby Hull, Chi.....	71	44	31	75	39
Norm Ullman, Det., Tor.....	71	35	37	72	28
Alex Delvecchio, Det.....	74	22	48	70	14
Johnny Bucyk, Bos.....	72	30	39	69	8
Ken Wharram, Chi.....	74	27	42	69	18
Jean Beliveau, Mtl.....	59	31	27	68	28
John McKenzie, Bos.....	74	28	38	66	107
Phil Goyette, N. Y.....	73	25	40	65	10
Bobby Rousseau, Mtl.....	74	19	46	65	47
Fred Stanfield, Bos.....	73	20	44	64	10
Yvan Cournoyer, Mtl.....	73	28	32	60	23
Mike McMahon, Tor.....	73	30	29	59	48
Andy Bathgate, Pitt.....	74	20	39	59	55
Bob Nevin, N. Y.....	74	28	30	58	20
Ed Joyal, L. A.....	74	23	34	57	20
Wayne Connelly, Minn.....	74	35	21	56	40
Ken Hodge, Bos.....	74	25	31	56	31
Dean Prentice, Det.....	69	17	38	55	42
Red Berenson, N.Y., St. L.....	74	24	30	54	24
Ted Hampson, Det., Oak.....	71	17	37	54	14

ADDITIONAL PLAYERS BY DIVISION

EAST

	GP	G	A	Pts.	PIM
Doug Mohns, Chi.....	65	24	29	53	53
Frank Mahovlich, Tor., Det.....	63	26	26	52	32
Gilles Tremblay, Mtl.....	71	23	28	51	8
Bob Pulford, Tor.....	74	20	30	50	40
Tom Williams, Bos.....	68	18	32	50	14
Derek Sanderson, Bos.....	71	24	25	49	97
Don Marshall, N. Y.....	70	19	30	49	2
Ron Ellis, Tor.....	74	28	20	48	8
Dave Keon, Tor.....	67	11	37	48	4
Dick Duff, Mtl.....	66	25	21	46	21
Floyd Smith, Det., Tor.....	63	24	22	46	14
Ralph Backstrom, Mtl.....	70	20	25	45	14
Det., Tor.....	63	18	26	44	43
Claude Provost, Mtl.....	73	14	30	44	28
Ted Green, Bos.....	72	7	36	43	133
Eddie Shack, Bos.....	70	23	19	42	109
Jacques Lemaire, Mtl.....	69	22	20	42	16
Gary Bergman, Det.....	74	13	28	41	109
Vic Hadfield, N. Y.....	59	20	19	39	45
Gary Jarrett, Det.....	68	18	21	39	20
Bruce MacGregor, Det.....	71	15	24	39	13
Pat Stapleton, Chi.....	67	4	34	38	34
Murray Oliver, Tor.....	74	16	21	37	18
Pierre Pilote, Chi.....	74	1	36	37	69
Ed Westfall, Bos.....	73	14	22	36	38
Eric Nesterenko, Chi.....	71	11	25	36	37
Pit Martin, Chi.....	63	16	13	35	35
Orland Kurtenbach, N. Y.....	73	15	20	35	82
Jim Neilson, N. Y.....	67	6	29	35	60
George Armstrong, Tor.....	62	13	21	34	4
Dennis Hull, Chi.....	74	18	15	33	34
John Ferguson, Mtl.....	61	15	18	33	117
Kent Douglas, Oak., Det.....	76	11	21	32	126
Bobby Orr, Bos.....	46	11	20	31	63
Pete Stenkowski, Tor., Det.....	73	10	21	31	86
J. C. Tremblay, Mtl.....	74	4	26	30	18
Harry Howell, N. Y.....	74	5	24	29	62
Jim Pappin, Tor.....	58	13	15	28	37
Henri Richard, Mtl.....	54	9	19	28	16
Tim Horton, Tor.....	69	4	23	27	82
Dallas Smith, Bos.....	74	4	23	27	65
Ron Stewart, St. L., N. Y.....	74	14	12	26	30
Arnie Brown, N. Y.....	74	1	25	26	83
Brian Conacher, Tor.....	64	11	14	25	31
Jacques Laperriere, Mtl.....	72	4	21	25	84
Red Fleming, N. Y.....	73	17	7	24	132
Chico Maki, Chi.....	68	8	16	24	11
Doug Jarrett, Chi.....	74	4	19	23	48
Bernie Geoffrion, N. Y.....	59	5	16	21	11
Ted Harris, Mtl.....	67	5	16	21	78
Gilles Marotte, Chi.....	73	0	21	21	122
Camille Henry, N. Y.....	36	8	12	20	0
Glen Sather, Bos.....	65	8	12	20	34
Larry Hillman, Tor.....	55	3	17	20	13
Marcel Pronovost, Tor.....	70	3	17	20	48
Wayne Carleton, Tor.....	65	8	11	19	34
Howie Young, Det.....	62	2	9	17	112
Doug Roberts, Det.....	37	8	9	17	12
Garry Unger, Tor., Det.....	28	6	11	17	6
Rod Seiling, N. Y.....	71	5	11	16	44
Bart Crashley, Det.....	57	2	14	16	18
Don Awrey, Bos.....	74	3	12	15	150
Serge Savard, Mtl.....	67	2	13	15	34
Allan Stanley, Tor.....	64	1	13	14	16
Skip Krake, Bos.....	68	5	7	12	13
Gary Doak, Bos.....	59	2	10	12	100
Mickey Redmond, Mtl.....	41	6	5	11	8
Jimmy Peters, Det.....	45	5	6	11	6
Terry Harper, Mtl.....	57	3	8	11	66
Claude Larose, Mtl.....	42	2	9	11	28

WEST

	GP	G	A	Pts.	PIM
Ray Cullen, Minn.....	67	28	25	53	18
Andre Boudrias, Minn.....	74	18	35	53	42
Gerry Melnyk, St. L.....	73	15	35	50	14
Lou Angotti, Phil.....	70	12	37	49	35
Dave Balon, Minn.....	73	15	32	47	84
Mike McMahon, Minn.....	74	14	33	47	71
Bill Flett, L. A.....	73	26	20	46	97
Lowell MacDonald, L. A.....	74	21	24	45	12
Gerry Ehman, Oak.....	73	19	25	44	20
Ab McDonald, Pitt.....	74	22	21	43	38
Gary Dornhoefer, Phil.....	65	13	30	42	134
Leon Rochford, Phil.....	74	21	21	42	16
Parker MacDonald, Minn.....	69	19	23	42	22
Art Stratton, Pitt., Phil.....	70	16	25	41	20
Bill Hicke, Oak.....	52	21	19	40	32
Ted Irvine, L. A.....	73	18	22	40	26
Gord Lahossiere, L. A.....	68	13	27	40	31
Bill Schlicht, Pitt.....	57	14	25	39	19
Bill White, L. A.....	74	11	27	38	100
Earl Ingarfield, Pitt.....	50	15	22	37	12
Jim Roberts, St. L.....	74	14	23	37	66
Ed Hoekstra, Phil.....	70	15	21	36	6
Real Lemieux, L. A.....	74	12	23	35	60
Charlie Burns, Oak.....	73	9	26	35	20
Val Fonteyne, Pitt.....	69	6	28	34	0
Gene Ubracio, Pitt.....	65	18	15	33	16
Bill Goldsworthy, Minn.....	68	14	19	33	68
Wally Boyer, Oak.....	74	13	20	33	44
Noel Price, Pitt.....	70	6	27	33	48
Frank St. Martelle, St. L.....	57	16	16	32	12
Paul Andrea, Phil.....	65	11	21	32	2
Brit Selby, Pitt.....	56	15	15	30	24
Bill Sutherland, Phil.....	60	20	9	29	8
Billy Harris, Oak.....	62	12	17	29	2
Don McKenney, St. L.....	39	9	20	29	4
Don Blackburn, Phil.....	67	9	20	29	23
Terry Crisp, St. L.....	73	9	20	29	10
Billy Dea, Pitt.....	73	16	12	28	6
Terry Gray, L. A.....	65	12	16	28	22
Jean-Paul Fariac, Tor., Minn.....	44	11	17	28	27
Forbes Kennedy, Phil.....	73	10	18	28	130
Keith McCreary, Pitt.....	70	14	12	26	44
Bill McCreary, St. L.....	70	13	13	26	22
Pat Hannigan, Phil.....	65	11	15	26	36
Claude Laforge, Phil.....	63	9	16	25	36
Howie Menard, L. A.....	35	9	15	24	32
Larry Caban, Oak.....	74	9	15	24	80
Gary Sabourin, St. L.....	50	13	10	23	50
Howie Hughes, L. A.....	74	9	14	23	20
Bob Wall, L. A.....	71	5	18	23	66
Alain Caron, Oak.....	58	9	13	22	18
Leo Bolvin, Pitt.....	74	5	17	22	74
John Miszuk, Phil.....	74	5	17	22	79
Brian Campbell, L. A.....	44	6	15	21	16
Bob Woytowich, Minn.....	66	4	17	21	63
Larry Keenan, St. L.....	40	12	8	20	4
John Brennenman, Det., Oak.....	40	10	10	20	14
Bill Collins, Minn.....	71	9	11	20	41
Wayne Hicks, Phil., Pitt.....	47	6	14	20	8
Barclay Plager, St. L.....	49	5	15	20	153
Brian Smith, L. A.....	58	10	9	19	33
Bob Dillabough, Pitt.....	47	7	12	19	18
Larry Popeln, Oak.....	47	5	14	19	12
Joe Watson, Phil.....	73	5	14	19	56
George Swarbrick, Oak.....	49	13	5	18	62
Doug Robinson, L. A.....	34	9	9	18	6
Ron Schock, St. L.....	55	9	9	18	17
Bob Rivard, Pitt.....	27	5	12	17	4
Milan Mariceta, Minn.....	36	4	13	17	6
Ed Van Impe, Phil.....	67	4	13	17	141
Dale Rolfe, L. A.....	68	3	13	16	84

STANLEY CUP PLAYOFF RESULTS

(BEST 4 OUT OF 7 GAMES)

Series "A"

Apr. 4 at Montreal—Montreal 2, Boston 1
 Apr. 6 at Montreal—Montreal 5, Boston 3
 Apr. 9 at Boston—Montreal 5, Boston 2
 Apr. 11 at Boston—Montreal 3, Boston 2
 Montreal won series "A" 4 games to 0.

Series "B"

Apr. 4 at New York—Chicago 1, New York 3
 Apr. 9 at New York—Chicago 1, New York 2
 Apr. 11 at Chicago—Chicago 7, New York 4
 Apr. 13 at Chicago—Chicago 3, New York 1
 Apr. 14 at New York—Chicago 2, New York 1
 Apr. 16 at Chicago—Chicago 4, New York 1
 Chicago won series "B" 4 games to 2.

Series "C"

Apr. 4 at Philadelphia—St. Louis 1, Philadelphia 0
 Apr. 6 at Philadelphia—St. Louis 3, Philadelphia 4
 Apr. 10 at St. Louis—St. Louis 3, Philadelphia 2
 Apr. 11 at St. Louis—St. Louis 5, Philadelphia 2
 Apr. 13 at Philadelphia—St. Louis 1, Philadelphia 6
 Apr. 16 at St. Louis—St. Louis 1, Philadelphia 2
 Apr. 18 at Philadelphia—St. Louis 3, Philadelphia 1
 St. Louis won series "C" 4 games to 3.

Series "D"

Apr. 4 at Los Angeles—Minnesota 1, Los Angeles 2
 Apr. 6 at Los Angeles—Minnesota 0, Los Angeles 2
 Apr. 9 at Minnesota—Minnesota 7, Los Angeles 5
 Apr. 11 at Minnesota—Minnesota 3, Los Angeles 2

Apr. 13 at Los Angeles—Minnesota 2, L. A. 3
 Apr. 16 at Minnesota—Minnesota 4, Los Angeles 3
 Apr. 18 at Los Angeles—Minnesota 9, L. A. 4
 Minnesota won series "D" 4 games to 3.

Series "E"

Apr. 18 at Montreal—Montreal 9, Chicago 2
 Apr. 20 at Montreal—Montreal 4, Chicago 1
 Apr. 23 at Chicago—Montreal 4, Chicago 2
 Apr. 25 at Chicago—Montreal 1, Chicago 2
 Apr. 28 at Montreal—Montreal 4, Chicago 3
 Montreal won series "E" 4 games to 1.

Series "F"

Apr. 21 at St. Louis—St. Louis 5, Minnesota 3
 Apr. 22 at Minnesota—St. Louis 2, Minnesota 3
 Apr. 25 at St. Louis—St. Louis 1, Minnesota 5
 Apr. 27 at St. Louis—St. Louis 4, Minnesota 3
 (Played at St. Louis: Minnesota home game)
 Apr. 29 at St. Louis—St. Louis 3, Minnesota 2
 May 1 at Minnesota—St. Louis 1, Minnesota 5
 May 3 at St. Louis—St. Louis 2, Minnesota 1
 St. Louis won series "F" 4 games to 3.

Series "G"

May 5 at St. Louis—Montreal 3, St. Louis 2
 May 7 at St. Louis—Montreal 4, St. Louis 0
 May 9 at Montreal—Montreal 3, St. Louis 3
 May 11 at Montreal—Montreal 3, St. Louis 2
 Montreal won Stanley Cup 4 games to 0.

1968 STANLEY CUP SCORING

	GP	G	A	Pts.	PIM
Bill Goldsworthy, Minn....	14	8	7	15	12
Milan Marcetta, Minn....	14	7	7	14	4
Dickie Moore, St. L....	18	7	7	14	15
Yvan Cournoyer, Mtl....	13	6	8	14	4
Jacques Lemaire, Mtl....	13	7	6	13	6
Frank St. Marselle, St. L.	18	5	8	13	0
Dave Balon, Minn....	14	4	9	13	14
Stan Mikita, Chi....	11	5	7	12	6
Wayne Connelly, Minn....	14	8	3	11	2
Jean Beliveau, Mtl....	10	7	4	11	6

	GP	G	A	Pts.	PIM
Bobby Hull, Chi....	11	4	6	10	15
Mike McMahon, Minn....	14	3	7	10	4
Claude Provost, Mtl....	13	2	8	10	10
Parker MacDonald, Minn.	14	4	5	9	2
Larry Keenan, St. L....	18	4	5	9	4
Pit Martin, Chi....	11	3	6	9	2
J. C. Tremblay, Mtl....	13	8	6	9	2
Andre Boudrias, Minn....	14	3	6	9	8
Henri Richard, Mtl....	13	4	4	8	4
John Ferguson, Mtl....	13	3	5	8	25

Stanley Cup Champions

1937—Detroit Red Wings	1946—Montreal Canadiens	1954—Detroit Red Wings	1962—Toronto Maple Leafs
1938—Chicago Black Hawks	1947—Toronto Maple Leafs	1955—Detroit Red Wings	1963—Toronto Maple Leafs
1939—Boston Bruins	1948—Toronto Maple Leafs	1956—Montreal Canadiens	1964—Toronto Maple Leafs
1940—New York Rangers	1949—Toronto Maple Leafs	1957—Montreal Canadiens	1965—Montreal Canadiens
1941—Boston Bruins	1950—Detroit Red Wings	1958—Montreal Canadiens	1966—Montreal Canadiens
1942—Toronto Maple Leafs	1951—Toronto Maple Leafs	1959—Montreal Canadiens	1967—Toronto Maple Leafs
1943—Detroit Red Wings	1952—Detroit Red Wings	1960—Montreal Canadiens	1968—Montreal Canadiens
1944—Montreal Canadiens	1953—Montreal Canadiens	1961—Chicago Black Hawks	
1945—Toronto Maple Leafs			

HOCKEY TROPHY WINNERS

ROSS TROPHY

Leading Scorer

1968—Stan Mikita, Chicago
 1967—Stan Mikita, Chicago
 1966—Bobby Hull, Chicago
 1965—Stan Mikita, Chicago
 1964—Stan Mikita, Chicago
 1963—Gordie Howe, Detroit
 1962—Bobby Hull, Chicago
 1961—Bernie Geoffrion, Can.
 1960—Bobby Hull, Chicago
 1959—Dickie Moore, Canadiens

HART TROPHY

M. V. P.

1968—Stan Mikita, Chicago
 1967—Stan Mikita, Chicago
 1966—Bobby Hull, Chicago
 1965—Bobby Hull, Chicago
 1964—Jean Beliveau, Montreal
 1963—Gordie Howe, Detroit
 1962—Jacques Plante, Montreal
 1961—Bernie Geoffrion, Mont.
 1960—Gordie Howe, Detroit
 1959—Andy Bathgate, New York

NORRIS TROPHY

Best Defenseman

Bobby Orr, Boston
 Harry Howell, New York
 Jacques Laperriere, Montreal
 Pierre Pilote, Chicago
 Pierre Pilote, Chicago
 Doug Harvey, New York
 Doug Harvey, Montreal
 Doug Harvey, Montreal
 Tom Johnson, Montreal

VEZINA TROPHY

Leading Goalie

Worsley, Vachon, Montreal
 Hall, De Jordy, Chicago
 Hodge, Worsley, Montreal
 Sawchuck, Bower, Toronto
 Charlie Hodge, Montreal
 Glenn Hall, Chicago
 Jacques Plante, Montreal
 Johnny Bower, Toronto
 Jacques Plante, Montreal
 Jacques Plante, Montreal

CALDER TROPHY

Best Rookie

Derek Sanderson, Boston
 Bobby Orr, Boston
 Brit Selby, Toronto
 Roger Crozier, Detroit
 Jacques Laperriere, Montreal
 Kent Douglas, Toronto
 Bobby Rousseau, Montreal
 Dave Keon, Toronto
 Bill (Red) Hay, Chicago
 Ralph Backstrom, Montreal

LADY BYNG TROPHY

Sportsmanship

Stan Mikita, Chicago
 Stan Mikita, Chicago
 Alex Delvecchio, Detroit
 Bobby Hull, Chicago
 Ken Wharram, Chicago
 Dave Keon, Toronto
 Dave Keon, Toronto
 Red Kelly, Toronto
 Don McKenney, Boston
 Alex Delvecchio, Detroit

All-Star Teams 1968

Position	First Team	Second Team
Goal	Gump Worsley, Montreal	Ed Giacomin, New York
Defense	Bobby Orr, Boston	J. C. Tremblay, Montreal
Center	Tim Horton, Toronto	Jim Neilson, New York
Right Wing	Stan Mikita, Chicago	Phil Esposito, Boston
Left Wing	Gordie Howe, Detroit	Rod Gilbert, New York
	Bobby Hull, Chicago	John Buyck, Boston

AMERICAN HOCKEY LEAGUE

Final Standings
EASTERN DIVISION

	W	L	T	Pts.	GF	GA
Hershey Bears....	34	30	8	76	274	248
Springfield Kings...	31	33	8	70	247	275
Providence Reds...	30	33	9	69	235	272
Baltimore Clippers...	28	34	10	66	235	255

WESTERN DIVISION

	W	L	T	Pts.	GF	GA
Rochester Amer....	38	25	9	85	273	233
Quebec Aces.....	33	28	11	77	277	240
Buffalo Bisons.....	32	28	12	76	239	223
Cleveland Barons...	28	30	14	70	236	255

ONTARIO JUNIOR LEAGUE

Final Standings

	W	L	T	Pts.	GF	GA
Kitchener Rangers...	38	10	6	82	326	175
Montreal Canadiens...	39	12	3	81	261	170
Hamilton Red Wgs...	31	13	10	72	253	162
Niagara Falls Flyers...	32	15	7	71	255	169
Toronto Marlboros...	31	17	6	68	273	179
St. Catharines Black Hawks...	21	30	3	45	200	211
London Nationals...	17	31	6	40	177	262
Peterboro Petes...	13	30	11	37	183	243
Oshawa Generals...	12	37	5	29	177	310
Ottawa 67's.....	6	45	3	15	105	329

WESTERN HOCKEY LEAGUE

Final Standings

	W	L	T	Pts.	GF	GA
Portland Buckaroos...	40	26	6	86	246	168
Seattle Totems....	35	30	7	77	297	199
San Diego Gulls....	31	36	5	67	241	236
Phoenix Road Run...	28	40	4	60	215	276
Vancouver Canucks...	26	41	5	57	213	253

CENTRAL HOCKEY LEAGUE

Final Standings

NORTHERN DIVISION

	W	L	T	Pts.	GF	GA
Tulsa Oilers.....	37	22	11	85	278	241
Kansas City Blues...	31	29	10	72	249	243
Memphis So. Stars...	24	34	12	60	206	244
Omaha Knights...	14	46	10	38	167	272

SOUTHERN DIVISION

	W	L	T	Pts.	GF	GA
Okl. City Blazers...	38	20	12	88	245	174
Ft. Worth Wings...	34	25	11	79	245	199
Dallas Bk Hawks...	30	29	11	71	230	251
Houston Apollos...	28	31	11	67	220	216

Soccer in 1968

North American Soccer League, 1968

Final Standings

Eastern Conference

Atlantic Division

	W	L	T	BP	Pts	GF	GA
Atlanta.....	18	7	6	48	174	50	32
Washington.....	15	10	7	56	167	63	53
New York.....	12	8	12	56	164	62	54
Baltimore.....	13	16	3	41	128	42	43
Boston.....	9	17	6	49	121	51	69

Lakes Division

	W	L	T	BP	Pts	GF	GA
Cleveland.....	14	7	11	58	175	62	44
Chicago.....	13	10	9	59	164	68	68
Toronto.....	13	13	6	48	144	55	69
Detroit.....	6	21	4	40	88	48	65

Each victory worth 6 points. Tie—3 points. Loss—none. 1 Bonus Point (BP) awarded for each goal up to a maximum of 3 per game.

Eastern Conference Championship—Atlanta Defeated Cleveland 3 goals to 2 (2 games).

Western Conference Championship—San Diego defeated Kansas City 2 goals to 1 (2 games).

Championship Series—Atlanta defeated San Diego 3 goals to 0 (2 games).

Attendance—Total for 292 games, 1,550,588 (5,310 average per game).

Western Conference

Gulf Division

	W	L	T	BP	Pts	GF	GA
Kansas City ...	16	11	5	47	158	61	43
Houston	14	12	6	48	150	58	41
St. Louis	12	14	6	40	130	47	59
Dallas	2	26	4	28	52	28	109

Pacific Division

	W	L	T	BP	Pts	GF	GA
San Diego.....	18	8	6	60	186	65	38
Oakland.....	13	8	6	59	185	71	38
Los Angeles....	11	13	8	49	139	55	52
Vancouver.....	12	15	5	49	136	51	60

Leading Scorers

	GP	G	A	Pts
John Kowalk, Chi.....	28	30	9	69
Cirilo Fernandez, S. D.....	29	30	7	67
Ilija Mitic, Oak.....	28	18	12	48
Henri Klein, Van.....	26	20	4	44
Iris DeBrito, Tor.....	24	21	2	44
Eric Barber, K. C.....	31	17	8	42
Casey Frankiewicz, St. L....	31	16	7	39
Pete Sulincevski, Chi.....	30	16	7	39
Carlos Metidieri, L. A.....	32	16	5	37
Enrique Mateos, Clev.....	31	16	4	36
Selimir Milosevic, Oak.....	22	17	1	35
Dieter Perau, N. Y.....	32	13	7	33

International Matches Sponsored

Feb. 17 at Vancouver—Bonsucesso (Argentina) 3, Vancouver 1.
 Feb. 25 at Vancouver—Racing (Argentina) 4, Vancouver 0.
 Mar. 3 at San Francisco—Guadalajara (Mexico) 1, Oakland 0 (OT).
 Mar. 24 at San Diego—San Diego 5, Club America (Mexico) 1.
 May 27 at Atlanta—Atlanta 3, Manchester City (England) 2.
 May 30 at Kansas City—Kansas City 1, Dunfermline (Scotland) 1.
 June 9 at Oakland—Oakland 3, Manchester City 0.
 June 13 at Kansas City—Borussia Dortmund (Germany) 3, Kansas City 1.
 June 15 at Atlanta—Atlanta 3, Manchester City 1.

by NASL Teams in NASL Cities

June 19 at Vancouver—Borussia Dortmund 2, Vancouver 1.
 June 21 at New York—Santos (Brazil) 4, Napoli (Italy) 2.
 June 28 at Toronto—Santos 5, Napoli 2.
 June 30 at St. Louis—Santos 3, St. Louis 2.
 July 4 at Kansas City—Santos 4, Kansas City 1.
 July 8 at Boston—Santos 7, Boston 1.
 July 10 at Cleveland—Cleveland 2, Santos 1.
 July 12 at New York—New York 5, Santos 3.
 July 14 at Washington—Santos 3, Washington 1.
 July 19 at Chicago—Gornik-Zabrze 3, Chicago 2.
 Aug. 21 at New York—Real Madrid 4, New York 1.
 Aug. 28 at Atlanta—Santos 6, Atlanta 2.
 Aug. 30 at Oakland—Santos 3, Oakland 1.
 Sept. 1 at New York—Santos 3, Benfica 3.
 Sept. 22 at Oakland—Oakland 2, Israel national team 1.

The World Cup

The World Cup, emblematic of international soccer supremacy, was won by England on July 20, 1966, by defeating West Germany, 4-2 in overtime. For this eighth tournament, 14 teams besides England and West Germany were entered. The others were Argentina, Bulgaria, Chile, France, Hungary, No. Korea, Mexico, Portugal, Spain, Switzerland, the Soviet Union, Italy, Uruguay and Brazil. Winners and sites of previous World Cup play follow:

Year	Winner	Site	Year	Winner	Site
1930	Uruguay	Uruguay	1954	W. Germany	Switzerland
1934	Italy	Italy	1958	Brazil	Sweden
1938	Italy	France	1962	Brazil	Chile
1950	Uruguay	Brazil	1966	England	England

Table Tennis Championships in 1968**38TH UNITED STATES OPEN CHAMPIONSHIPS**

Detroit, Mich., Mar. 15-17

Men's Singles—Dal Joon Lee, Columbus, Ohio.
Women's Singles—Vi Nesukaitis, Toronto.
Mixed Doubles—Dell Sweeris & Connie Sweeris, Grand Rapids, Mich.
Women's Doubles—Barbara Kaminsky, Lanham, Md. & Vi Nesukaitis, Toronto.
Men's Doubles—Bernie Bukiet, New York & Dell Sweeris, Grand Rapids, Mich.
Senior Women Over 40—Velta Adminis, Toronto.
Senior Men Over 40—Chuck Burns, Detroit.
Esquire Men Over 50—Max Marinko, Toronto.
Sr. Esquire Men Over 60—Simon Ratner, Silver Spring, Md.
Sr. Men's Doubles Over 40—Bernie Bukiet, New York & Fran Delaney, Stratford, Conn.
Esquire Men's Doubles Over 50—Sol Schiff, New York & Bill Cross, North Brunswick, N. J.

Junior Boys Under 17—Surasek Koakietavechchi, Thailand.
Boys Under 13—Mitchell Sealtiel, Trenton, N. J.
Boys Under 15—Gary Adelman, Roslyn, N. Y.
Junior Miss Under 17—Vi Nesukaitis, Toronto.
Girls Under 15—Wendy Hicks, Santa Barbara, Calif.
Girls Under 13—Angelita Rosal, San Diego, Calif.
Boys Doubles Under 17—Dan LeBaron, Grand Rapids, Mich. & John Tannehill, Middleport, Ohio.
Boys Doubles Under 15—Alton Everett, Phoenix & Raymond Martinez, San Diego, Calif.
Boys Doubles Under 13—John Quick, Orlando, Fla. & Chris Sylvan, Ft. Lauderdale, Fla.
Junior Mixed Doubles Under 17—Vi Nesukaitis, Toronto & Shirley Gero, Montreal.
Junior Mixed Doubles Under 17—Bob Bisno, L. A. & Vi Nesukaitis, Toronto.

Badminton Championships in 1968**UNITED STATES OPEN CHAMPIONS**

Fullerton, Calif., Apr. 10-13

Men's Singles—Channarong Ratanasaengsuang, Thailand, def. Jim Poole, Louisiana, 15-7, 15-11.
Men's Doubles—Don Paup, California, & Jim Poole, Louisiana, def. Eiichi Sakai & Takeshi Miyanaga, Japan, 15-8, 15-18, 17-15.
Woman's Singles—Miss Tyna Barinaga, Arizona, def. Miss Dot O'Neill, Connecticut, 11-2, 11-6.

ALL-ENGLAND WORLD CHAMPIONSHIPS

Wembley, England, March 20-23

Men's Singles—Rudy Hartano, Indonesia, def. Tan Aik Huang, Malaysia, 15-12, 15-9.
Men's Doubles—Erland Kops & Henning Borch, Denmark, def. Ng Boon Bee & Tan Yee Khan, Malaysia, 15-6, 15-4.
Women's Singles—Mrs. Eva Twedberg, Sweden, def. Miss Minarni, Indonesia, 11-6, 11-2.

Women's Doubles—Mrs. Helen Tibbetts, California & Miss Tyna Barinaga, Arizona, def. Miss Doris Haase & Mrs. Lois Alston, California, 15-4, 8-15.
Mixed Doubles—Larry Saben & Mrs. Carlene Starkey, California, def. Jim Poole, Louisiana, & Miss Tyna Barinaga, Arizona, 15-5, 15-4.

Women's Doubles—Miss Minarni & Miss Retno Koestijah, Indonesia, def. Miss Noriko Takagi & Miss Hiroe Amano, Japan, 15-5, 15-8.
Mixed Doubles—Tony Jordan & Miss Sue Pound, England, def. Robert McCoig & Mrs. Muriel Woodcock, Scotland, 15-6, 15-6.

Archery Championships in 1968**23rd ANNUAL NATIONAL FIELD ARCHERY CHAMPIONSHIP TOURNAMENT**

Salinas, Calif., July 29-Aug. 2

Bare Bow

Open Men—David Hughes, Irving, Texas, 2593.
Amateur Men—Norman Coon, Otis A.F.B. Mass., 2397.
Open Women—Mary Ellen Durham, Ft. Pierce, Fla., 1964.
Amateur Women—Eunice Schewe, Roscoe, Ill., 2038.
Youth Boy—Chris Labucki, Westfield, Mass., 2216.
Youth Girl—Rosemary Peterson, Jersey City, N. J., 1773.

Freestyle

Open Men—Clarence Kozlowski, Coalinga, Calif., 2615.
Amateur Men—Don Snipes, Spring Valley, Calif., 2524.
Open Women—Ann Butz, Suffern, New York, 2384.
Amateur Women—Diane Vetrecin, Chula Vista, Calif., 2277.
Youth Boy—Stephen Lieberman, Reading, Pa., 2515.
Youth Girl—Megan MacDonald, Anaheim, Calif., 1433.

NATIONAL ARCHERY ASSOCIATION CHAMPIONSHIP

Men's Amateur—Hardy Ward, Mt. Pleasant, Tex.
Intermediate Boys—Dennis Israel, Sheridan, Ind.
Junior Boy—Judd Myers, Waterloo, Iowa.
Cadet Boy—George C. Ruth, Columbia, Pa.

Women's Amateur—Victoria L. Cook, Minneapolis, Minn.
Intermediate Girl—Cynthia E. Slade, Oxford, Miss.
Junior Girl—Pamela Slade, Oxford, Miss.

Crane Wins Pocket Billiard Championship

Irving Crane of Rochester, N. Y., won his fourth world pocket billiard championship by defeating Luther Lassiter, the defending champion, in a playoff match at the Statler Hilton Hotel, N. Y., on Apr. 20, 1968. Crane was awarded \$3,000 for his victory. Lassiter's second-place finish netted him \$1,500. The following is the final standing of the championship event.

	W	L		W	L
Irving Crane, Rochester, N. Y.	11	3	Jack Colavita, West Caldwell, N. J.	6	8
Luther Lassiter, Elizabeth City, N. C.	11	3	Danny Gartner, Newark, N. J.	5	9
Steve Mizerak, Jr., Perth Amboy, N. J.	10	4	Jimmy Relihan, Springfield, Mass.	5	9
Frank McGown, Brooklyn, N. Y.	10	4	Cicero Murphy, Brooklyn, N. Y.	4	10
Lou Butera, West Pittston, Pa.	9	5	Petey Margo, Union City, N. J.	3	11
Joe Balsis, Minersville, Pa.	9	5	Bill Amodeo, Baldwin, L. I.	3	11
Art Cranfield, Syracuse, N. Y.	8	6	Onofrio Lauri, Seaford, L. I.	3	11
Dallas West, Rockford, Ill.	7	7			

Helms World Trophy Winners

The Helms World Trophy Award, instituted in 1949, recognizing the six foremost amateur athletes of the six continents, is an annual project of the Helms Athletic Foundation, Los Angeles, Calif. Selections are retroactive to 1896, year of the first modern Olympiad. The trophy itself, made of bronze, silver and gold and standing six feet high, bears the names of those honored. Those chosen receive silver plaques commemorating their recognition.

WORLD TROPHY WINNERS, 1967

Continent	Winner	Country	Sport
North America	Randy Matson	United States	Track and Field
South America	Jose Silvio Fiolo	Brazil	Swimming
Europe	Liesel Westermann	West Germany	Track and Field
Africa	Naftali Temu	Kenya	Track and Field
Asia	Kenji Kimihara	Japan	Marathon
Australasia	Judy Pollock	Australia	Track and Field

World Swimming Records

Approved by International Swimming Federation to Sept. 15, 1968

Under a F.I.N.A. decision of May 1, 1957, only records made in 55-yards or 50-meter pools are accepted as world marks. A number of new records await confirmation.

MEN'S FREESTYLE

Distance	Time	Holder	Country	Where made	Date
100 meters....	0:52.6	Ken Walsh	U. S. A.	Winnipeg, Canada	July 27, 1967
110 yards....	0:53.5	Zac Zorn	U. S. A.	Long Beach, Calif.	Sept. 2, 1968
200 meters....	1:54.3	R. B. McGregor	Gt. Britain	Blackpool, Eng.	Sept. 10, 1966
220 yards....	1:57	Don Schollander	U. S. A.	Long Beach, Calif.	Aug. 30, 1968
400 meters....	4:06.5	Don Schollander	U. S. A.	Vancouver, B. C.	Aug. 27, 1966
440 yards....	4:12.2	Ralph Hutton	Canada	Lincoln, Nebr.	Aug. 1, 1968
800 meters....	8:34.3	Greg Charlton	U. S. A.	Vancouver, B. C.	Aug. 26, 1966
880 yards....	8:55.5	Mike Burton	U. S. A.	Long Beach, Calif.	Sept. 3, 1968
1,500 meters....	16:08.5	Murray Rose	Australia	Vancouver, B. C.	Sept. 5, 1964
1,650 yards....	17:11.0	Mike Burton	U. S. A.	Long Beach, Calif.	Sept. 3, 1968
		Jon Konrads	Australia	Sydney, Aust.	Feb. 27, 1960

MEN'S BREASTSTROKE—SURFACE STROKE

100 meters....	1:06.2	Nikolai Pankin	USSR	Moscow, USSR	Apr. 18, 1968
110 yards....	1:08.2	Ian O'Brien	Australia	Kingston, Jamaica	Aug. 12, 1966
200 meters....	2:27.4	Vladimir Kosinsky	USSR	Kalev, Estonia	Apr. 3, 1968
220 yards....	2:28	Ian O'Brien	Australia	Kingston, Jamaica	Aug. 6, 1966

MEN'S BUTTERFLY

100 meters....	0:55.6	Mark Spitz	U. S. A.	Long Beach, Calif.	Aug. 30, 1968
110 yards....	0:56.3	Mark Spitz	U. S. A.	London, Eng.	Sept. 30, 1967
200 meters....	2:05.7	Mark Spitz	U. S. A.	Berlin, Germany	Oct. 8, 1967
220 yards....	2:08.4	Kevin Berry	Australia	Sydney, Aust.	Jan. 12, 1963

MEN'S BACKSTROKE

100 meters....	0:58.4	Roland Matthes	E. Germany	Leipzig, E. Germany	Sept. 21, 1967
110 yards....	1:00.1	Roland Matthes	E. Germany	Leipzig, E. Germany	Sept. 20, 1967
200 meters....	2:07.5	Roland Matthes	E. Germany	Leipzig, E. Germany	Aug. 14, 1968
220 yards....	2:12	Peter Reynolds	Australia	Kingston, Jamaica	Aug. 9, 1966

MEN'S INDIVIDUAL MEDLEY

200 meters....	2:10.6	Charles Hickcox	U. S. A.	Long Beach, Calif.	Aug. 31, 1968
400 meters....	4:39.0	Charles Hickcox	U. S. A.	Long Beach, Calif.	Aug. 30, 1968
440 yards....	4:46.8	Michael Holthaus	W. Germany	London, Eng.	Aug. 20, 1968

MEN'S FREESTYLE RELAYS

400 m. (4x100)	3:32.5	Nat'l team (Zorn, Rerych, Walsh, Schollander)	U. S. A.	Long Beach, Calif.	Sept. 3, 1968
440 yds. (4x110)	3:35.6	Nat'l team (Wenden, Dickson, Ryan, Windle)	Australia	Kingston, Jamaica	Aug. 11, 1966
800 m. (4x200)	7:52.1	Nat'l team (Clark, Saar, Ilman, Schollander)	U. S. A.	Tokyo, Japan	Oct. 18, 1964
880 yds. (4x220)	7:59.5	Nat'l team (Wenden, Reynolds, Dickson, Windle)	Australia	Kingston, Jamaica	Aug. 5, 1966

MEN'S MEDLEY RELAYS

400 m. (4x100)	3:56.5	Nat'l team (Matthes, Henninger, Gregor, Weigand)	E. Germany	Leipzig, E. Germany	Nov. 8, 1967
440 yds. (4x110)	4:03.2	Nat'l team (Reynolds, O'Brien, Dunn, Wenden)	Australia	Kingston, Jamaica	Aug. 12, 1966

WOMEN'S FREESTYLE

100 meters....	0:58.9	Dawn Fraser	Australia	Sydney, Aust.	Feb. 29, 1964
110 yards....	0:59.5	Dawn Fraser	Australia	Melbourne, Aust.	Nov. 24, 1962
200 meters....	2:06.7	Debbie Meyer	U. S. A.	Los Angeles, Calif.	Aug. 24, 1968
220 yards....	2:11.6	Dawn Fraser	Australia	Sydney, Aust.	Feb. 27, 1960
400 meters....	4:24.5	Debbie Meyer	U. S. A.	Los Angeles, Calif.	Aug. 25, 1968
440 yards....	4:38.8	Kathy Wainwright	Australia	Kingston, Jamaica	Aug. 12, 1966
800 meters....	9:10.4	Debbie Meyer	U. S. A.	Los Angeles, Calif.	Aug. 28, 1968
880 yards....	9:44.1	Debbie Meyer	U. S. A.	London, England	Sept. 30, 1967
1,500 meters....	17:31.2	Debbie Meyer	U. S. A.	Los Angeles, Calif.	July 21, 1968
1,650 yards....	18:47.8	Angela Coughlan	Canada	Hamilton, Ont.	July 27, 1968

WOMEN'S BREASTSTROKE—SURFACE STROKE

100 meters....	1:14.2	Catie Ball	U. S. A.	Los Angeles, Calif.	Aug. 25, 1968
110 yards....	1:17	Catie Ball	U. S. A.	London, Eng.	Sept. 30, 1967
200 meters....	2:38.5	Catie Ball	U. S. A.	Los Angeles, Calif.	Aug. 26, 1968
220 yards....	2:46.9	Catie Ball	U. S. A.	London, Eng.	Sept. 30, 1967

WOMEN'S BUTTERFLY

Distance	Time	Holder	Country	Where made	Date
100 meters....	1:04.5	Ada Kok	Netherlands	Budapest	Aug. 14, 1965
110 yards....	1:05.1	Ada Kok	Netherlands	Blackpool, Eng.	May 30, 1967
200 meters....	2:21	Ada Kok	Netherlands	Blackpool, Eng.	Aug. 25, 1967
220 yards....	2:21	Ada Kok	Netherlands	Blackpool, Eng.	Aug. 25, 1967

WOMEN'S BACKSTROKE

100 meters....	1:06.4	Karen Muir	So. Africa	Montreuil, France	Apr. 6, 1968
110 yards....	1:06.7	Karen Muir	So. Africa	Kimberley, S. Africa	Jan. 30, 1968
200 meters....	2:23.8	Karen Muir	So. Africa	Los Angeles, Calif.	July 21, 1968
220 meters....	2:24.1	Karen Muir	So. Africa	Kimberley, S. Africa	Jan. 29, 1968

World Swimming Records continued

WOMEN'S INDIVIDUAL MEDLEY

200 meters.....	2:23.4.....	Claudia Kolb.....	U. S. A.....	Los Angeles, Calif.....	Aug. 25, 1968
400 meters.....	5:04.7.....	Claudia Kolb.....	U. S. A.....	Los Angeles, Calif.....	Aug. 21, 1968
440 yards.....	5:25.1.....	Mary Ellen Olcese.....	U. S. A.....	Cardiff, Wales.....	Aug. 21, 1965

WOMEN'S FREESTYLE RELAYS

400 m. (4x100).....	4:03.5.....	Santa Clara, S. C.....	U. S. A.....	Philadelphia, Pa.....	Aug. 19, 1967
		(Gustavson, Ryan, Fritz, Watson)			
440 yds. (4x110).....	4:10.8.....	Nat'l team.....	Canada.....	Kingston, Jamaica.....	Aug. 5, 1966
		(Tanner, Hughes, Kennedy, Lay)			

WOMEN'S MEDLEY RELAYS

400 m. (4x100).....	4:30.....	Nat'l team.....	U. S. A.....	Winnipeg, Canada.....	July 30, 1967
		(Moore, Ball, Daniel, Fordyce)			
440 yds. (4x110).....	4:37.4.....	Nat'l team.....	U. S. A.....	London, Eng.....	Sept. 30, 1967
		(Watson, Ball, Daniel, Barkman)			

Swimming Championships in 1968

MEN'S NATIONAL AAU SHORT COURSE CHAMPIONSHIPS

Greenville, N. C., Apr. 11-13

100 Yd. Freestyle—Don Havens, USC. Time—0:45.67.	200 Yd. Backstroke—Charles Hickcox. Time—1:54.93.
200 Yd. Freestyle—Bill Burrell, Indiana. Time—1:43.46.	100 Yd. Butterfly—Mark Spitz. Time—0:49.72.
500 Yd. Freestyle—Trevor Charlton, Pasadena City College. Time—4:37.23.	200 Yd. Butterfly—Mark Spitz. Time—1:51.50.
1,650 Yd. Freestyle—Mike Burton, Arden Hills. Time—16:04.56.	200 Yd. Individual Medley—Charles Hickcox. Time—1:53.30.
100 Yd. Breaststroke—Ken Merten, LAAC. Time—0:58.83.	400 Yd. Individual Medley—Gary Hall. Time—4:10.07.
200 Yd. Breaststroke—Brian Job. Time—2:08.00.	400 Yd. Medley Relay—Yale (Bettendoff, Buckley, Waples, Job). Time—3:30.41.
100 Yd. Backstroke—Charles Hickcox, Indiana. Time—0:52.51.	400 Yd. Freestyle Relay—Phillips 66 (MacMillan, Hammer, Grimm, Zorn). Time—3:04.70.
	800 Yd. Freestyle Relay—Indiana (Burrell, Windle, Utley, Hickcox). Time—6:55.11.

WOMEN'S NATIONAL AAU SHORT COURSE CHAMPIONSHIPS

Pittsburgh, Pa., Apr. 17-20

100 Yd. Freestyle—Jane Barkman, Vesper BC. Time—0:52.1.	200 Yd. Backstroke—Kaye Hall. Time—2:10.8.
200 Yd. Freestyle—Debbie Meyer, Arden Hills. Time—1:52.1.	100 Yd. Butterfly—Ellie Daniel, Vesper BC. Time—0:58.2.
500 Yd. Freestyle—Debbie Meyer. Time—4:54.1.	200 Yd. Butterfly—Ellie Daniel. Time—2:06.6.
1,650 Yd. Freestyle—Debbie Meyer. Time—17:04.4.	200 Yd. Individual Medley—Claudia Kolb, Santa Clara SC. Time—2:08.5.
100 Yd. Breaststroke—Jan Henne, Santa Clara SC. Time—1:07.0.	400 Yd. Individual Medley—Claudia Kolb. Time—4:32.2.
200 Yd. Breaststroke—Sharon Wickman, Olympic Club. Time—2:25.2.	400 Yd. Medley Relay—Santa Clara SC (Swagerty, Henne, Kolb, Gustavson). Time—4:02.4.
100 Yd. Backstroke—Kaye Hall, Tacoma SC. Time—0:59.3.	400 Yd. Freestyle Relay—Santa Clara SC (Henne, Watson, Ryan, Gustavson). Time—3:32.6.
	800 Yd. Freestyle Relay—Santa Clara SC (Gustavson, Henne, Ryan, Kolb). Time—7:42.7.

NATIONAL AAU LONG COURSE CHAMPIONSHIPS

Lincoln, Nebr., Aug. 1-4

Men	Women
100 Meter Freestyle—Mark Spitz, Santa Clara SC. Time—0:53.6.	100 Meter Freestyle—Jane Barkman, Vesper BC, Philadelphia. Time—1:00.1.
200 Meter Freestyle—Mark Spitz. Time—1:57.	200 Meter Freestyle—Eadie Wetzell, Lake Forest SC. Time—2:08.8.
400 Meter Freestyle—Ralph Hutton, Foothills AC, Calif. Time—4:06.5.	400 Meter Freestyle—Debbie Meyer, Arden Hills, Calif. Time—4:26.7.
1,500 Meter Freestyle—Mike Burton, Arden Hills. Time—16:20.4.	1,500 Meter Freestyle—Debbie Meyer. Time—17:38.5.
200 Meter Backstroke—Jack Horsley, Red Shield Triton SC. Time—2:12.2.	100 Meter Breaststroke—Catie Ball, Jacksonville, Fla. Time—1:15.7.
100 Meter Breaststroke—Mike Dirksen, Oregon. Time—1:08.8.	200 Meter Backstroke—Karen Muir, So. Africa. Time—2:24.3.
100 Meter Butterfly—Mark Spitz. Time—0:57.	100 Meter Butterfly—Ellie Daniel, Vesper BC. Time—1:06.9.
200 Meter Individual Medley—Juan Bello, Peru. Time—2:14.1.	200 Meter Individual Medley—Claudia Kolb, Santa Clara SC. Time—2:27.5.
400 Meter Individual Medley—Gary Hall, Phillips 66. Time—4:48.	400 Meter Individual Medley—Sue Pedersen, Arden Hills, Calif. Time—5:10.3.
400 Meter Medley Relay—Santa Clara SC (Haywood, Job, Spitz, Schollander). Time—4:00.3.	400 Meter Medley Relay—Santa Clara SC (Swagerty, Henne, Kolb, Gustavson). Time—4:33.8.
400 Meter Freestyle Relay—Los Angeles AC (Johnson, Kidder, Saari, Havens). Time—3:35.3.	400 Meter Freestyle Relay—Santa Clara SC. Time—4:02.1.
Team Champion—Santa Clara SC, 168 points.	Team Champion—Santa Clara SC, 201 points.

National AAU Indoor Diving Championships in 1968

Held at Greenville & Pittsburgh during Swimming Championships

Men	Women
One-Meter Diving—Jim Henry, Indiana Aquatic Club. 485.5 pts.	One-Meter Diving—Keala O'Sullivan, Oahu, Hawaii. 415.89 pts.
Three-Meter Diving—Win Young, Indiana Aquatic Club. 456.15 pts.	Three-Meter Diving—Lesley Bush, Princeton, N. J. 407.01 pts.
Ten-Meter Diving—Larry Andreason, Los Alamitos, Calif. 445.38 pts.	Platform Diving—Lesley Bush, Princeton, N. J. 288.28 pts.

1968 Winter Olympic Games

Grenoble, France, Feb. 6-18

A record total of 1,272 men and women athletes from 37 nations participated in 35 events in the tenth Winter Olympic Games held at Grenoble, France.

MEDAL STANDINGS

	Gold	Silver	Bronze
Norway	6	6	2
Soviet Union	5	5	3
France	4	3	2
Italy	4	0	0
Austria	3	4	4
Netherlands	3	3	3
Sweden	3	2	3
West Germany	2	2	3
United States	1	5	1
East Germany	1	2	2
Czechoslovakia	1	2	1
Canada	1	1	1
Switzerland	0	2	4
Romania	0	0	1

FIGURE SKATING

Men—Wolfgang Schwartz, Austria, 1,904.1 pts.; Tim Wood, U.S.A., 1,891.6 pts.; 3, Patrick Pera, France, 1,864.5 pts.

Women—Peggy Fleming, U.S.A., 1,970.5 pts.; Gabriele Seyfert, E. Germany, 1,882.3 pts.; Hana Maskova, Czech., 1,828.8 pts.

Pairs—Ludmila Belousova & Oleg Protopopov, USSR, 315 pts.; Tatiana Kouchkervina & Alexander Gorelik, USSR, 312.3 pts.; Margot Glockshuber & Wolfgang Danne, W. Germany, 304.4 pts.

SPEED SKATING—MEN

500 Meters—Erhard Keller, W. Germany; Magne Thomassen, Norway and Terry McDermott, U.S.A. (tie for second). Time—0:40.3.

1,500 Meters—Cornelis Verberk, Holland; Art Schenk, Holland and Ivar Eriksen, Norway (tie for second). Time—2:03.4.

5,000 Meters—F. Anton Maier, Norway; Cornelis Verberk, Holland; Petrus Nottet, Holland. Time—7:22.4.

10,000 Meters—Johnny Hoeglin, Sweden; F. Anton Maier, Norway; Derjan Sandler, Sweden. Time—15:23.6.

SPEED SKATING—WOMEN

500 Meters—Ludmila Titova, USSR; Mary Meyers, U.S.A.; Dianne Holum, U.S.A. and Jennifer Fish, U.S.A. (3 way tie for second). Time—0:46.1.

1,000 Meters—Carolina Geijssen, Holland; Ludmila Titova, USSR; Dianne Holum, U.S.A. Time—1:32.6.

1,500 Meters—Kajla Mustonen, Finland; Carolina Geijssen, Holland; Christina Kaiser, Holland. Time—2:22.4.

3,000 Meters—Johanna Schut, Holland; Kajla Mustonen, Finland; Christina Kaiser, Holland. Time—4:56.2.

SKIING—MEN

Downhill—Jean Claude Killy, France; Guy Perillat, France; J. Daniel Daetwyler, Switzerland. Time—1:59.85.

Slalom—Jean Claude Killy, France; T. Herbert Huber, Austria; Alfred Matt, Austria. Time—99.73.

Giant Slalom—Jean Claude Killy, France; Willy Favre, Switzerland; Heinrich Messner, Austria. Time—3:29.28.

Olympic Winter Games Champions, 1924-1968

SITES AND UNOFFICIAL WINNERS OF GAMES

1924—Chamonix, France (Norway)
 1928—St. Moritz, Switzerland (Norway)
 1932—Lake Placid, N. Y. (U. S.)
 1936—Garmisch-Partenkirchen (Norway)
 1948—St. Moritz (Sweden)

1952—Oslo, Norway (Norway)
 1956—Cortina d'Ampezzo, Italy (USSR)
 1960—Squaw Valley, Calif. (USSR)
 1964—Innsbruck, Austria (USSR)
 1968—Grenoble, France (Norway)
 1972—Sapporo, Japan (scheduled)

BIATHLON

	Time
1960—Klas Lestander, Sweden	1:33.21.6
1964—Vladimir Melanin, USSR	1:20.26.8
1968—Magnar Solberg, Norway	1:13.45.9

BOBLEDGING

4-MAN BOB

(Driver in parentheses)	Time
1924—Switzerland (Edward Scherrer)	5:45.54
*1928—United States (William Fiske)	3:20.5
1932—United States (William Fiske)	7:53.68
1936—Switzerland (Pierre Musy)	5:19.85
1948—United States (Edward Rimkus)	5:20.1
1952—Germany (Andreas Ostler)	5:07.84
1956—Switzerland (Franz Kapus)	5:10.44
1964—Canada (Victor Emery)	4:14.46
1968—Italy (Eugenio Monti)	2:17.39
*Five-man bobsled	

2-MAN BOB

	Time
1932—U.S.A. (Hubert Stevens)	8:14.74
1936—U.S.A. (Ivan Brown)	5:29.29

15 Km. Cross Country—Harald Groenningen, Norway; Erro Maentyranta, Finland; Gunnar Larsson, Sweden. Time—47:54.2.

30 Km. Cross Country—Franco Nones, Italy; Odd Martinsen, Norway; Erro Maentyranta, Finland. Time—1:35:39.2.

50 Km. Cross Country—Ole Ellefsaeter, Norway; Vlatches Vedenine, USSR; Josef Haas, Switzerland. Time—2:28:45.8.

90 Meter Jumping—Vladimir Belousov, USSR; Jiri Raska, Czech.; Lars Grini, Norway. Points—231.3.

70 Meter Jumping—Jiri Raska, Czech.; Reinhold Bachler, Austria; Balduz Premil, Austria. Points—216.5.

15 Km. Cross Country & 70 Meter Jump—Franz Keller, W. Germany; Alois Kaelin, Switzerland; Andreas Kunz, E. Germany. Points—449.04.

40 Km. Relay—Norway (Martinsen, Tyldum, Groenningen, Ellefsaeter); Sweden; Finland. Time—2:08:33.5.

Biathlon—Magnar Solberg, Norway; Alexandre Tikhonov, USSR; Vladimir Goundartsev, USSR. Time—1:13:45.9.

Biathlon Relay—USSR (Tikhonov, Pousanov, Mamatov, Goundartsev); Norway; Sweden. Time—2:13:02.4.

SKIING—WOMEN

Downhill—Olga Pall, Austria; Isabelle Mir, France; Christi Haas, Austria. Time—1:40.87.

Slalom—Marielle Goitschel, France; Nancy Greene, Canada; Annie Famose, France. Time—85.86.

Giant Slalom—Nancy Greene, Canada; Annie Famose, France; Fernando Bochaty, Switzerland. Time—1:51.97.

5 Km. Cross Country—Toini Gustafsson, Sweden; Galina Koulakova, USSR; Alevtina Kolichina, USSR. Time—16:45.2.

10 Km. Cross Country—Toini Gustafsson, Sweden; Berit Moerde, Norway; Inger Aufles, Norway. Time—36:46.5.

15 Km. Relay—Norway (Aufles, Damon, Moerde); Sweden; USSR. Time—57:30.

BOBSLEIGH

Two-Man—Italy (Eugenio Monti, Luciano De Paolis); W. Germany; Romania. Time—4:41.54.

Four-Man—Italy (Eugenio Monti, Luciano De Paolis, Roberto Zandonelli, Mario Armano); Austria; Switzerland. Time—2:17.39.

LUGE

Men's Single—Manfred Schmid, Austria; Thomas Koehli, E. Germany; Klaus Bonsack, E. Germany. Time—2:52.48 (3 runs).

Men's Doubles—Klaus Bonsack & Thomas Koehler, E. Germany; Manfred Schmid & Ewald Walch, Austria; Wolfgang Winkler & Fritz Nachmann, W. Germany. Time—1:35.85 (2 runs).

Woman's Single—Erica Lechner, Italy; Christa Schmuck, W. Germany; Angelika Duenhaupt, W. Germany. Time—2:28.66 (3 runs).

ICE HOCKEY

1, USSR (6 wins, 1 loss); 2, Czech (5 wins, 1 tie, 1 loss); 3, Canada (5 wins, 2 losses).

1948—Switzerland (F. Endrich)	5:29.2
1952—Germany (Andreas Ostler)	5:24.54
1956—Italy (Dalla Costa)	5:30.14
1964—Great Britain (Antony Nash)	4:21.90
1968—Italy (Eugenio Monti)	4:41.54

FIGURE SKATING

MEN'S SINGLES

1908—Ulrich Sachow, Sweden	
1920—Gillis Grafstrom, Sweden	
1924—Gillis Grafstrom, Sweden	
1928—Gillis Grafstrom, Sweden	
1932—Karl Schaefer, Austria	
1936—Karl Schaefer, Austria	
1948—Richard T. Buton, U.S.A.	
1952—Richard T. Buton, U.S.A.	
1956—Hayes Alan Jenkins, U.S.A.	
1960—David W. Jenkins, U.S.A.	
1964—Manfred Schneldorfer, Germany	
1968—Wolfgang Schwartz, Austria	

WOMEN'S SINGLES

1908—Madge Syers, Great Britain

1920—Magda Julin-Mauroy, Sweden	
1924—Mrs. Helma von Szabo-Planck, Austria	
1928—Sonja Henie, Norway	
1932—Sonja Henie, Norway	
1936—Sonja Henie, Norway	
1948—Barbara Ann Scott, Canada	
1952—Jeanette Altwegg, Great Britain	
1956—Tenley E. Albright, U.S.A.	
1960—Carol Heiss, U.S.A.	
1964—Sjoukje Dijkstra, Holland	
1968—Peggy Fleming, U.S.A.	

PAIRS

1908—Anna Hübler & Heinrich Burger, Germany	
1920—Ludovika & Walter Jakobsson, Finland	
1924—Helene Engelman & Alfred Berger, Austria	
1928—Andrée Joly & Pierre Brunet, France	
1932—Andrée Joly & Pierre Brunet, France	
1936—Maxie Herber & Ernest Baier, Germany	
1948—Micheline Lannoy & Pierre Baugnet, Belgium	
1952—Ria and Paul Falk, Germany	
1956—Elizabeth Schwarz & Kurt Oppelt, Austria	
1960—Barbara Wagner & Robert Paul, Canada	
1964—Ludmila Belousova & Oleg Protopopov, USSR	
1968—Ludmila Belousova & Oleg Protopopov, USSR	

ALPINE SKIING

MEN'S DOWNHILL

	Time
1948—Henri Oreiller, France	2:55.0
1952—Zeno Colo, Italy	2:30.8
1956—Anton Sailer, Austria	2:52.2
1960—Jean Vuarnet, France	2:06.0
1964—Egon Zimmermann, Austria	2:18.1
1968—Jean Claude Killy, France	1:59.85

MEN'S GIANT SLALOM

1952—Stein Eriksen, Norway	2:25.0
1956—Anton Sailer, Austria	3:00.1
1960—Roger Staub, Switzerland	1:49.3
1964—François Bonlieu, France	1:46.7
1968—Jean Claude Killy, France	99.73

MEN'S SLALOM

	Time
1948—Edi Reinalter, Switzerland	2:10.3
1952—Othmar Schneider, Austria	2:00.0
1956—Anton Sailer, Austria	194.7 pts.
1960—Ernst Hinterseer, Austria	2:08.9
1964—Josef Stiegler, Austria	2:11.1
1968—Jean Claude Killy, France	3:29.28

WOMEN'S DOWNHILL

1948—Hedi Schlunegger, Switzerland	2:28.3
1952—Trude Jochum-Beiser, Austria	1:47.1
1956—Madeline Berthod, Switzerland	1:40.7
1960—Heidi Biebl, Germany	1:37.6
1964—Christl Haas, Austria	1:55.3
1968—Olga Pall, Austria	1:40.87

WOMEN'S GIANT SLALOM

1952—Andrea Mead Lawrence, U.S.A.	2:06.8
1956—Ossi Reichert, Germany	1:56.5
1960—Yvonne Ruegg, Switzerland	1:39.9
1964—Marielle Goitschel, France	1:52.2
1968—Marielle Goitschel, France	85.86

WOMEN'S SLALOM

1948—Gretchen Fraser, U.S.A.	1:57.2
1952—Andrea Mead Lawrence, U.S.A.	2:10.6
1956—Renée Colliard, Switzerland	112.3 pts.
1960—Anne Heggtveit, Canada	1:49.6
1964—Christine Goitschel, France	1:35.11
1968—Nancy Greene, Canada	1:51.97

NORDIC SKIING

MEN'S CROSS-COUNTRY EVENTS

15 Kilometers (9.3 miles) or Equivalent

	Time
1924—Thorleif Haug, Norway	1:14:31.0
1928—Johan Grottnusbraaten, Norway	1:37:01.0
1932—Sven Utterström, Sweden	1:23:07.0
1936—Erik August Larson, Sweden	1:14:38.0
1948—Martin Lundström, Sweden	1:13:50.0
1956—Halgeir Brenden, Norway	49:39.0
1960—Haakon Brusveen, Norway	51:55.0
1964—Haakon Brusveen, Norway	0:51:55.0
1968—Eero Mantiyranta, Finland	1:30:50.7
1968—Harald Groenningen, Norway	47:54.2

(Note: Approx. 18-kilo course 1924-1952)

30 Kilometers (18.6 miles)

1956—Veikko Hakulinen, Finland	1:44:06.0
1960—Sören Jernberg, Sweden	1:51:03.9
1964—Eero Mantiyranta, Finland	50:54.1
1968—Franco Nones, Italy	1:53:39.2

50 Kilometers (31 miles)

1924—Thorleif Haug, Norway	3:41:2.0
1928—Per Erik Hedlund, Sweden	4:52:03.0
1932—Veli Saarinen, Finland	4:22:00.0
1936—Ells Viklund, Sweden	3:50:11.0
1948—Nils Karlsson, Sweden	3:47:48.0
1952—Veikko Hakulinen, Finland	3:33:33.0
1956—Sören Jernberg, Sweden	2:50:27.0
1960—Kalevi Hamalainen, Finland	2:59:06.3
1964—Sören Jernberg, Sweden	2:43:52.6
1968—Ole Ellefsæter, Norway	2:28:45.8

40 Kilometer Cross-Country Relay

1936—Finland, Norway, Sweden	2:41:33.0
1948—Sweden, Finland, Norway	2:32:08.0
1952—Finland, Norway, Sweden	2:20:16.0
1956—USSR, Finland, Sweden	2:15:30.0

1960—Finland, Norway, USSR	2:18:45.6
1964—Sweden, Finland, USSR	2:18:34.6
1968—Norway, Sweden, Finland	2:08:33.5

15 Km. Cross-Country & Jumping Points	
1924—Thorleif Haug, Norway	453.800
1928—Johan Grottnusbraaten, Norway	443.200
1932—Johan Grottnusbraaten, Norway	443.200
1936—Oddbjørn Hagen, Norway	430.300
1948—Heikki Hasu, Finland	448.800
1952—Simon Slattvik, Norway	451.621
1956—Sverre Stenersen, Norway	455.000
1960—Georg Thoma, Germany	457.952
1964—Tormod Knutsen, Norway	469.280
1968—Franz Keller, W. Germany	449.04

Ski Jumping (90 meters) Points	
1924—Jacob T. Thams, Norway	227.5
1928—Alfred Andersen, Norway	230.5
1932—Birger Ruud, Norway	228.0
1936—Birger Ruud, Norway	228.0
1948—Petter Hugsted, Norway	228.1
1952—A. Bergmann, Norway	226.0
1956—Antti Hyvärinen, Finland	227.0
1960—Helmut Recknagel, Germany	227.2
1964—Toralf Engan, Norway	230.7
1968—Vladimir Belousov, USSR	231.3

Ski Jumping (70 meters) Points	
1964—Veikko Kankkonen, Finland	229.9
1968—Jiri Raska, Czech	216.5

WOMEN'S EVENTS

5 Kilometers (approx. 3.1 miles) Time	
1964—Claudia Boyarskikh, USSR	17:50.5
1968—Toini Gustafsson, Sweden	16:45.2

10 Kilometers (6.2 miles) Time	
1952—Lydia Wideman, Finland	41:40.0
1956—Lyubob Kosyreva, USSR	38:11.0
1960—Maria Gusakova, USSR	39:46.6
1964—Claudia Boyarskikh, USSR	40:24.3
1968—Toini Gustafsson, Sweden	36:46.5

15 Kilometer Cross-Country Relay Time	
1956—Finland, USSR, Sweden	1:09:01.0
1960—Sweden, USSR, Finland	1:04:21.4
1964—USSR, Sweden, Finland	59:20.2
1968—Norway, Sweden, USSR	57:30

SPEED SKATING

MEN'S EVENTS

500 Meters Time	
1924—Charles Jewtraw, U.S.A.	0:44.0
1928—Clas Thunberg, Finland & Bernt Evensen, Norway (tie)	0:43.4
1932—John A. Shea, U.S.A.	0:43.4
1936—Ivar Ballangrud, Norway	0:43.4
1948—Finn Helgesen, Norway	0:43.1
1952—Kenneth Henry, U.S.A.	0:43.2
1956—Evgeny Grishin, USSR	0:40.2
1960—Evgeny Grishin, USSR	0:40.2
1964—R. Terrence McDermott, U.S.A.	0:40.1
1968—Erhard Keller, W. Germany	0:40.3

1,500 Meters

Time	
1924—Clas Thunberg, Finland	2:50.8
1928—Clas Thunberg, Finland	2:21.1
1932—John A. Shea, U.S.A.	2:57.2
1936—Charles Mathiesen, Norway	2:19.2
1948—Sverre Farstad, Norway	2:17.6
1952—Hjalmar Anderson, Norway	2:20.4
1956—Evgeny Grishin, USSR	2:08.6
1960—Rold Edgar Aas, Norway & Evgeny Grishin, USSR (tie)	2:10.4
1964—Ants Anston, USSR	2:10.3
1968—Cornelis Verkerk, Holland	2:03.4

5,000 Meters

Time	
1924—Clas Thunberg, Finland	8:39.0
1928—Ivar Ballangrud, Norway	8:50.5
1932—Irving Jaffe, U.S.A.	9:40.8
1936—Ivar Ballangrud, Norway	8:19.6
1948—Reidar Liakle, Norway	8:29.4
1952—Hjalmar Anderson, Norway	8:10.5
1956—Boris Skliov, USSR	7:48.7
1960—Viktor Kosichkin, USSR	7:51.3
1964—Knut Johanneesen, Norway	7:38.4
1968—F. Anton Maier, Norway	7:22.4

10,000 Meters

Time	
1924—Julius Skutnabb, Finland	18:04.8
1928—Event not held, thawing of ice	
1932—Irving Jaffe, U.S.A.	19:13.5
1936—Ivar Ballangrud, Norway	17:24.3
1948—Ake Seyffarth, Norway	17:20.3
1952—Hjalmar Anderson, Norway	16:45.8
1956—Sigvard Ericsson, Sweden	16:35.9
1960—Knut Johanneesen, Norway	15:46.1
1964—Jonny Nilsson, Sweden	15:50.1
1968—Johnny Hoeglin, Sweden	15:23.6

WOMEN'S EVENTS

500 Meters Time	
1960—Helga Haase, Germany	0:45.9
1964—Lydia Skoblikova, USSR	0:45.0
1968—Ludmila Titova, USSR	0:46.1

1,000 Meters

Time	
1960—Klara Guseva, USSR	1:34.1
1964—Lydia Skoblikova, USSR	1:33.2
1968—Carolina Gelissen, Holland	1:32.6

1,500 Meters

Time	
1960—Lydia Skoblikova, USSR	2:52.2
1964—Lydia Skoblikova, USSR	2:22.6

1968—Kaija Mustonen, Finland	2:22.4
3,000 Meters	Time
1960—Lydia Skoblikova, USSR	5:14.3
1964—Lydia Skoblikova, USSR	5:14.9
1968—Johanna Schut, Holland	4:56.2

ICE HOCKEY

(Three medal winners, in order)

1920—Canada, U.S.A., Czechoslovakia	
1924—Canada, U.S.A., Great Britain	
1928—Canada, Sweden, Switzerland	
1932—Canada, U.S.A., Germany	
1936—Great Britain, Canada, U.S.A.	
1948—Canada, Czechoslovakia, Switzerland	
1952—Canada, U.S.A., Sweden	

1956—USSR, U.S.A., Canada	
1960—U.S.A., Canada, USSR	
1964—USSR, Sweden, Czechoslovakia	
1968—USSR, Czechoslovakia, Canada	

LUGE

MEN'S SINGLES	Time
1964—Thomas Kohler, Germany	3:25.77
1968—Manfred Schmid, Austria	2:52.48

MEN'S DOUBLES

1964—Austria	1:41.62
1968—East Germany	1:35.85

WOMEN'S SINGLES

1964—Ortun Enderlein, Germany	3:24.67
1968—Elzsa Lechner, Italy	2:28.66

Figure Ice-Skating Championships in 1968**UNITED STATES CHAMPIONSHIPS**

Philadelphia, Pa., Jan. 18-21

Senior Men—Tim Wood, Detroit Skating Club.
 Senior Ladies—Peggy Fleming, Broadmoor Skating Club.
 Senior Pairs—Cynthia & Ronald Kauffman, Seattle Skating Club.
 Dance Championship—Judy Schwomeyer, Winter Club of Indianapolis, & James Sladky, Genesee Figure Skating Club.
 Junior Men—Kenneth Shelley, Arctic Blades Figure Skating Club.

Junior Ladies—Barbara Ray, Burlingame, Calif.
 Junior Pairs—Tisha Baird, Philadelphia Skating Club & Humane Society, & Richard Inglesi, City of Ardmore, Pa.
 Silver Dance—Joan Bitterman & Brad Hislop, Seattle Skating Club.
 Novice Men—Dean Hiltzik, Metropolitan Figure Skating Club.
 Novice Ladies—Peggen Naughton, Long Island Figure Skating Club.

WORLD CHAMPIONSHIPS

Geneva, Switzerland, Feb. 27-Mar. 3

Men—Emmerich Danzer, Austria.
 Ladies—Peggy Fleming, United States.
 Pairs—Ludmila Belousova & Oleg Protopopov, Soviet Union.

Dance—Diane Towler & Bernard Ford, Great Britain.

United States Sectional Championships**EASTERN CHAMPIONSHIPS**

South Weymouth, Mass., Dec. 28-30, 1967

Senior Ladies—Wendy Jones, Hershey Figure Skating Club.
 Gold Dance—Ann & Harvey Miller, Philadelphia Skating Club & Humane Society.
 Junior Men—Richard Inglesi, City of Ardmore, Pa.
 Junior Ladies—Lise Gantz, Philadelphia Skating Club & Humane Society.
 Junior Pairs—Tisha Baird, Philadelphia Skating Club & Humane Society, & Richard Inglesi, City of Ardmore, Pa.
 Silver Dance—Mary Bonacci, Rye Figure Skating Club, & Roger Bennett, Southern Connecticut Figure Skating Club.
 Novice Men—James Webb, The Skating Club of Boston.
 Novice Ladies—Melissa Militano, Long Island Figure Skating Club.
 Novice Pairs—Karen Cohen, North Jersey Figure Skating Club, & George Magill, Laurelton Pines Figure Skating Club.
 Bronze Dance—Sally West & Malcolm McKown, Bay Path Figure Skating Club.
 Intermediate Men—Thomas Lombard, Philadelphia Skating Club & Humane Society.
 Intermediate Ladies—Ellen Kinney, Rye Figure Skating Club.
 Veterans Dance—Katrine Neil, Essex Skating Club, & Charles Lally, Garden State Skating Club.

MIDWESTERN CHAMPIONSHIPS

Green Bay, Wis., Jan. 4-6

Senior Men—Duane Maki, Detroit Skating Club.
 Senior Ladies—Janet Lynn, Wagon Wheel Figure Skating Club.
 Senior Pairs—Joanne Heckert & Gary Clark, Lansing Skating Club.
 Gold Dance—Vicky Camper & Eugene Heffron, Detroit Skating Club.
 Junior Men—John Baldwin, Broadmoor Skating Club.
 Junior Ladies—Wen-An Sun, Broadmoor Skating Club.

Junior Pairs—Susan & Will Smith, Tulsa Figure Skating Club.
 Silver Dance—Caren Cady & Warren Danner, Winter Club of Indianapolis.
 Novice Men—Tim Flynn, Denver Figure Skating Club.
 Novice Ladies—Barbara Freyer, Winter Club of Indianapolis.
 Novice Pairs—Nancy & Roger Glenn, Wagon Wheel Figure Skating Club.
 Bronze Dance—Jane Pankey & Richard Horne, Detroit Skating Club.
 Intermediate Men—Tom Van Camp, Lansing Skating Club.
 Intermediate Ladies—Kris Sherard, Wagon Wheel Figure Skating Club.

PACIFIC COAST CHAMPIONSHIPS

Portland, Ore., Nov. 30-Dec. 2, 1967

Senior Men—J. Misha Petkevich, Great Falls Figure Skating Club.
 Senior Ladies—Dawn Glab, Arctic Blades Figure Skating Club.
 Senior Pairs—Jo Jo Starbuck & Kenneth Shelley, Arctic Blades Figure Skating Club.
 Gold Dance—Cale Shoman & Roger Berry, Los Angeles Figure Skating Club.
 Junior Men—Atoy Wilson, Los Angeles Figure Skating Club.
 Junior Ladies—Barbara Ray, City of Burlingame, Calif.
 Junior Pairs—Jill Ritchie & Ralph Meredith, Overlake Skating Club.
 Silver Dance—Joan Bitterman & Brad Hislop, Seattle Skating Club.
 Novice Men—Bob Stephens, Los Angeles Figure Skating Club.
 Novice Ladies—Teri Beckerman, Los Angeles Figure Skating Club.
 Novice Pairs—Diane Puckett, Lakewood Winter Club, & Rollee Arthur, City of Tacoma.
 Bronze Dance—Denese Abden-Nur & Jack Danks, Los Angeles Figure Skating Club.
 Intermediate Men—James Demogines, Los Angeles Figure Skating Club.
 Intermediate Ladies—Sylvia Mennine, All Year Figure Skating Club.

1968 Canadian Figure Skating Champions

Senior Men's—Jay Humphry.
 Senior Ladies'—Karen Magnussen.
 Senior Pairs—Bette & John McKilligan.
 Senior Dance—Jonl Graham & Don Philips.
 Junior Ladies'—Judy Williams.

Junior Men's—Patrick McKilligan.
 Junior Dance—Mary Church & Tom Falls.
 Novice Men's Singles—Steven Sugar.
 Novice Ladies' Singles—Madeleine Begg.

Rodeo Cowboy All Around Champions

Source: Rodeo Cowboys Association, Inc.

1954|Buck Rutherford, Lenapah, Okla.	\$40,404	1961|Benny Reynolds, Melrose, Mont.	\$31,309
1955|Casey Tibbs, Ft. Pierre, S. D.	42,665	1962|Tom Nesmith, Bethel, Okla.	32,611
1956|Jim Shoulders, Henryetta, Okla.	43,381	1963|Dean Oliver, Boise, Idaho.	31,329
1957|Jim Shoulders, Henryetta, Okla.	33,209	1964|Dean Oliver, Boise, Idaho.	31,150
1958|Jim Shoulders, Henryetta, Okla.	33,212	1965|Dean Oliver, Boise, Idaho.	33,163
1959|Jim Shoulders, Henryetta, Okla.	32,905	1966|Larry Mahan, Brooks, Oregon.	40,358
1960|Harry Tompkins, Dublin, Texas.	32,522	1967|Larry Mahan, Brooks, Oregon.	51,996

National Roller Skating Champions in 1968

U. S. AMATEUR ROLLER SKATING ASSOCIATION

Cleveland, Ohio, July 21-27

Senior Men—Jackie Courtney, Marion, Ind.
Senior Ladies—Kathleen Schreiber, Levittown, N. Y.

Senior Dance—Thomas Straker & Bonnie Lambert, Livonia, Mich.

Senior Mixed Pairs—Jack Courtney & Sheryl Trueman, Marion, Ind.

Senior Ladies Pairs—Kathleen Schreiber & Karen Seekamp, Levittown, N. Y.

Senior Fours—Terry Neeley, Barbara Grimes, William Spooner and Donna Presson, Bladensburg, Md.

Junior Men—Rick Gunning, Frankfort, Ind.

Junior Ladies—Karen Seekamp, Levittown, N. Y.

Junior Dance—Richard Horne & Jane Pankey, Livonia, Mich.

Junior Mixed Pairs—Tim Abell-Gigi Leleu, Harvey, Ill.

Intermediate Men Singles—Richard Veliko, Levittown, N. Y.

Intermediate Ladies Singles—Nancy Buehl, South Amboy, N. J.

Intermediate Men Figures—Wally Sloan, Summit, Ill.

Intermediate Ladies Figures—Karen Ehman, Bay Shore, N. Y.

Intermediate Dance—Thomas LeVan & Patti Seipp, Melrose Park, Ill.

Intermediate Mixed Pairs—Richard Veliko & Nancy Buehl, Levittown, N. Y.

Intermediate Ladies Pairs—Melody Gerdon & Bonnie Murphy, Bay Shore, N. Y.

Intermediate Fours—Michael Maslan, Mary Klein, Wally Sloan and Judy Mueller, Summit, Ill.

Senior Veteran Dance—Earl King & Nancy King, Bay Shore, N. Y.

Junior Veteran Dance—George Burghardt & Mary Burghardt, Levittown, N. Y.

Speed Events

Senior Men—Don Rogers, Pomona, Calif.

Senior Ladies—Linda Barber, Grandville, Mich.

Senior Men Relays—Michael Figard & Doug Kraal, Grand Rapids, Mich.

Senior Ladies Relay—Vickie Duffy & Barbara Skelton, Indianapolis, Ind.

Junior Men—Dan Lees, Grandville, Mich.

Junior Ladies—Vickie Duffy, Indianapolis, Ind.

Intermediate Men—Joseph Aidukas, Bayonne, N. J.

Intermediate Ladies—Suzanne Ardale, South Amboy, N. J.

North American Amateur Roller Skating Championships, 1968

Lincoln, Neb.

Senior Men's Singles—Michael Jacques, Norwood, Mass.

Senior Ladies Singles—Darlene Barile, Agawam, Mass.

Intermediate Men's Singles—Joseph Polinski, Lakewood, N. J.

Intermediate Ladies Singles—Gail Robovitsky, Clawson, Mich.

Novice Men's Singles—Raymond Phillips, Norwood, Mass.

Novice Ladies Singles—Robyn White, Pontiac, Mich.

Senior Men's Figure—Richard Gustafson, New Britain, Conn.

Senior Ladies Figure—Carol Langlois, New Britain, Conn.

Intermediate Men's Figure—Richard Hodgekinson, Detroit, Mich.

Intermediate Ladies Figure—Debra Jackson, Carmichael, Calif.

Novice Men's Figure—Garry Crow, Arnold, Mich.

Novice Ladies Figure—Colleen Hanley, Clawson, Mich.

Senior Pairs—Gail Robovitsky, Ron Robovitsky, Clawson, Mich.

Intermediate Pairs—P. J. Gormley, Sandi Barton, Elmhurst, Ill.

Novice Pairs—David Ripp Weaver, Beth Benbow, Dayton, Ohio.

Senior Fours—Dennis Collier, Karen Marshall, Richard Toon, Judy Jerue, San Leandro, Calif.

Novice Fours—John Gustafson, Ray Lentz, Mary O'Mara, Laura O'Mara, Vancouver, Wash.

Queen Contest—Carol Moore, Fort Lauderdale, Fla.

Senior Dance—Adolph Wacker, Linda Mottice, San Leandro, Calif.

Intermediate Dance—Ronald Miner, Sandra Boston, Indianapolis.

Novice Dance—Darcy Clay, Mike Fleming, Whit-tier, Calif.

Junior Dance—Donna Shaw, Ronald Milton, Norwood, Mass.

Speed Events

Senior Men—Malcolm Williamson, Irving, Texas.

Senior Ladies—Sharon Van Lue, Glendora, Calif.

Intermediate Men—Pat Bergin, Irving, Texas.

Intermediate Ladies—Jan Irvin, Fort Worth, Texas.

Junior Boys—Randy Wardlaw, Pontiac, Mich.

Junior Girls—Susie Johnson, Fort Worth, Texas.

Men's Relay—Mike Layport, Pat Layport, Jeff McDermott, Mark Cole, Santa Ana, Calif.

Water Ski Championships in 1968

26th ANNUAL NATIONAL CHAMPIONSHIPS

Canton, Ohio, Aug. 2-25

Men's Overall—Mike Suyderhoud, San Anselmo, Calif., 2848 points.

Men's Slalom—Mike Suyderhoud, 44 buoys.

Men's Jumping—Mike Suyderhoud, 156 ft.

Men's Tricks—Alan Kempton, Tampa, Fla., 4310 points.

Women's Overall—Liz Allan, Winter Park, Fla., 3000 points.

Women's Slalom—Liz Allan, 45 buoys.

Women's Jumping—Liz Allan, 109 ft.

Women's Tricks—Liz Allan, 3605 points.

Sr. Men's Overall—Bill Stevenson, Greenville, S. C., 2625 points.

Sr. Men's Slalom—Art Smrekar, Richmond, Calif., 45 buoys.

Sr. Men's Jumping—Joe Hessel, Xenia, Ohio, 103 ft.

Sr. Men's Tricks—Al Tyll, Bantam, Conn., 4297 points.

Sr. Women's Overall—Thelma Salmas, Novato, Calif., 2864 points.

Sr. Women's Slalom—Thelma Salmas, 38 buoys.

Sr. Women's Jumping—Fran Mooney, Miami, Fla., 76 ft.

Sr. Women's Tricks—Artis Price, Mundelein, Ill., 2304 points.

10th ANNUAL MASTERS TOURNAMENT

Callaway Gardens, Ga., July 12-14

Men's Overall—Frankie Dees, Cypress Gardens, Fla., 2705 points.

Men's Slalom—Kris LaPoint, Castro Valley, Calif., 47 buoys.

Men's Jumping—Mike Suyderhoud, San Anselmo, Calif., 155 ft.

Boys' Overall—Ricky McCormick, Independence, Mo., 2886 points.

Boys' Slalom—Kris LaPoint, Castro Valley, Calif., 46½ buoys.

Boys' Jumping—Frankie Dees, Cypress Gardens, Fla., 123 ft.

Boys' Tricks—Ricky McCormick, 4907 points.

Girls' Overall—Linda Leavengood, Coral Gables, Fla., 2539 points.

Girls' Slalom—Lisa St. John, Falls River Mills, Calif., 52 buoys.

Girls' Jumping—Linda Leavengood, 107 ft.

Girls' Tricks—Lisa St. John, 3420 points.

Jr. Boys' Overall—Wayne Grinditch, Pompano Beach, Fla., 2882 points.

Jr. Boys' Slalom—Bob LaPoint, Castro Valley, Calif., 55 buoys.

Jr. Boys' Jumping—Wayne Grinditch, 102 ft.

Jr. Boys' Tricks—Wayne Grinditch, 3506 pts.

Jr. Girls' Overall—Whitney Ballentine, Anderson, S. C., 2451 points.

Jr. Girls' Slalom—Whitney Ballentine, 40½ buoys.

Jr. Girls' Jumping—Paula Clower, Grant, Ala., 74 ft.

Jr. Girls' Tricks—Janie Peckinpugh, Muncie, Ind., 1972 points.

Women's Overall—Elizabeth Allan, Winter Park, Fla., 3000 points.

Women's Slalom—Elizabeth Allan, 51 buoys.

Women's Jumping—Elizabeth Allan, 110 ft.

Women's Tricks—Elizabeth Allan, 4140 points.

Intercollegiate Rowing Association Records

ONONDAGA LAKE, SYRACUSE, N. Y.

UNIVERSITY EIGHT-OAR CREWS (Course four miles)

Year	Winner	Time	Second	Third	Fourth	Fifth
1952...	Navy (a)	15:08.1	Princeton	Cornell	Wisconsin	California
1953...	Navy (a)	15:29.6	Cornell	Washington	Wisconsin	Columbia
1954...	Navy (a)	16:04.4	Cornell	Washington	Wisconsin	California
1955...	Cornell (a)	15:49.9	Pennsylvania	Navy	Washington	Stanford
1956...	Cornell (a)	16:22.4	Navy	Wisconsin	Washington	Stanford
1957...	Cornell (a)	15:26.6	Pennsylvania	Stanford	Princeton	Syracuse
1958...	Cornell (a)	17:12.1	Navy	Syracuse	Princeton	California
1959...	Wisconsin (a)	18:01.7	Syracuse	Navy	California	Washington
1960...	California (a)	15:57.0	Navy	Washington	Brown	Cornell-Penn
1961...	California (a)	16:49.2	Cornell	M. I. T.	Washington	Penn
1962...	Cornell (a)	17:02.9	Washington	California	Wisconsin	Penn
1963...	Cornell (a)	17:24.0	Navy	M. I. T.	California	Wisconsin
1964...	California (b)	6:31.1	Washington	Cornell	Princeton	M. I. T.
1965...	Navy (a)	16:51.3	Cornell	Washington	Rutgers	Brown
1966...	Wisconsin (a)	16:03.4	Navy	Princeton	Brown	Penn
1967...	Penn (a)	16:13.9	Wisconsin	Cornell	Princeton	Navy
1968...	Penn (b)	6:15.6	Washington	Princeton	Northeastern	Rutgers

Course record for four miles—18:12.6 (California in 1939).

(a) Race at 3 miles. (b) Race at 2,000 meters.

Yale-Harvard Rowing

The Yale-Harvard rowing contests were begun in 1852. The original race, the first intercollegiate athletic event, was an 8-oared race with coxswain rowed over a two-mile course at Center Harbor, Lake Winnepesaukee. From 1859 through 1875 coxswains were dispensed with and the 8-oared boats were steered by a rudder controlled by the bow oar, in races at various sites. The two colleges returned to eight oars with cox for their first four-mile race, June 30, 1876, on the Connecticut River at

Springfield, Mass., Yale winning in 22 m. 2 sec. The course was changed to the Thames River at New London, Conn., in 1878.

The race was omitted in 1917, but in 1918 a two-mile race was rowed on the Housatonic River, Derby, Conn., on June 1, which Harvard won, time 10 m. 58 sec. From 1852 to 1923 inclusive Yale won 30 races and Harvard 30.

Yale-Harvard freshmen eights began their contests in 1899 on the Thames, Harvard winning. The 1902 race was a dead heat.

VARSITY EIGHTS (Four miles)

Date	Won by	Time		Date	Won by	Time	
		Winner	Loser			Winner	Loser
1951...	Harvard	21:26.0	21:48.2	1960...	Harvard	19:41.0	20:08.3
1952...	Yale	22:49.0	22:52.8	1961...	Harvard	22:00.0	22:29.5
1953...	Harvard	20:09.0	20:20.0	1962...	Yale	21:26.0	21:27.0
1954...	Yale	21:58.4	22:02.0	1963...	Harvard	19:47.0	20:15.0
1955...	Yale	20:05.0	.....	1964...	Harvard	20:48.2	21:06.0
1956...	Yale	19:26.0	.....	1965...	Harvard	19:41.6	20:21.0
1957...	Yale	20:35.0	21:03.0	1966...	Harvard	19:44.0	.....
1958...	Yale	22:39.0	22:52.0	1967...	Harvard	22:43.4	23:08.2
1959...	Harvard	19:52.0	20:02.0	1968...	Harvard	20 21.0	.....

Downstream and course record—19:21.4 (Harvard in 1948). Upstream record—19:44.0 (Harvard in 1966). Varsity victories—Yale 47; Harvard 56.

Oxford-Cambridge Boat Race

Inaugurated, 1841. Course, 4¼ miles

Yr.	Date	Winner	Time	Yr.	Date	Winner	Time	Yr.	Date	Winner	Time
1945	Feb. 24	Cambridge ..	.....	1953	Mar. 28	Cambridge ..	19:54	1961	April 1	Cambridge ..	19:22
1946	Mar. 30	Oxford	19:54	1954	Apr. 3	Oxford	20:22	1962	April 7	Cambridge ..	19:46
1947	Mar. 29	Cambridge ..	23:01	1955	Mar. 26	Cambridge ..	19:10	1963	Mar. 23	Oxford	19:20
1948	Mar. 27	Cambridge ..	17:50	1956	Mar. 24	Cambridge ..	18:36	1964	Mar. 28	Cambridge ..	19:18
1949	Mar. 26	Cambridge ..	18:57	1957	Mar. 30	Cambridge ..	19:01	1965	April 3	Oxford	18:07
1950	April 1	Cambridge ..	20:15	1958	Apr. 5	Cambridge ..	19:01	1966	Mar. 26	Oxford	19:12
1951	Mar. 26	Cambridge ..	20:50	1959	Mar. 28	Oxford	18:52	1967	Mar. 25	Oxford	18:52
1952	Mar. 29	Oxford	20:23	1960	April 2	Oxford	18:59	1968	Mar. 30	Cambridge ..	18:22

Recapitulation (Races of 1940, 1943, 1944 not counted) 1941-1942—no races on account of war.

Cambridge 62, Oxford 51, dead heat 1 (1877).

Course Record—17:50—Set by Cambridge in 1943.

Amateur Rowing Championships in 1968

94th NATIONAL CHAMPIONSHIPS

New York, N. Y., Aug. 9-10

Quarter Mile Dash—Jim Dietz, NYAC, New York City. Time—1:15.0.

150 Lb. Quarter Mile—Larry Klecatsky, Bachelors Barge, Phila. Time—1:17.5.

150 Lb. Single Sculls—Larry Klecatsky, Bachelors Barge, Phila. Time—7:44.5.

150 Lb. Double Sculls—Bachelors Barge, Phila. Time—7:04.6.

150 Lb. Quadruple Sculls—Detroit B. C., Detroit, Mich. Time—6:42.8.

150 Lb. Four Oared Shell With Cox.—St. Catharines, Ontario. Time—7:03.5.

150 Lb. Eight Oared Shell—St. Catharines, Ontario. Time—6:16.0.

Association Single Sculls—Thos. McKibbin, Long Beach, Calif. Time—7:29.0.

Intermediate Eight Oared Shells—Ecorse B. C., Ecorse, Mich. Time—6:29.6.

Intermediate Four Oared Shell With Cox.—Vesper B. C., Phila. Time—6:59.0.

Quadruple Sculls—Potomac B. C., Wash., D. C. Time—6:36.0.

Fair Oared Shell With Cox.—Potomac B. C., Wash., D. C. Time—7:27.2.

Fair Oared Shell Without Cox.—Potomac B. C., Wash., D. C. Time—6:56.7.

Four Oared Shell With Cox.—Vesper B. C., Phila., Pa. Time—6:34.6.

Four Oared Shell Without Cox.—Vesper B. C., Phila. Time—6:29.0.

Championship Single Sculls—Thos. McKibbin, Long Beach, Calif. Time—7:22.7.

Eight Oared Shells—St. Catharines, Ontario. Time—6:00.0.

Double Sculls—Vesper B. C., Phila. Time—6:38.0.

Barnes Trophy—Vesper B. C. 110½ Points.

Crew Racing Regattas in 1968

Date	Site	Distance	Winner	Second	Winner's time
Mar. 30	Philadelphia, Pa.	2,000 meters	Temple	Fordham	6:24
Apr. 6	Princeton, N. J.	2,000 meters	Princeton	Rutgers	6:03.4
Apr. 13	Harlem River, N. Y.	2,000 meters	MIT	Columbia	6:42.4
Apr. 13	Orchard Beach, N. Y.	2,000 meters	Holy Cross	Villanova	6:48.1
Apr. 13	(Grimaldi Cup)				
Apr. 13	Annapolis, Md.	2,000 meters	Princeton	Navy	7:15
Apr. 20	Princeton, N. J.	2,000 meters	Cornell	Princeton	6:12
Apr. 20	(Platt Cup)				
Apr. 20	Harlem River, N. Y.	2,000 meters	Penn	Princeton	5:22.8
Apr. 27	(Childs Cup)				
Apr. 27	Boston, Mass.	2,000 meters	Northeastern	Brown	6:31.7
Apr. 27	Princeton, N. J.	2,000 meters	Harvard	Princeton	6:13.3
Apr. 27	(Compton Cup)				
May 4	Derby, Conn.	2,000 meters	Princeton	Yale	5:39
May 4	(Carnegie Cup)				
May 4	Annapolis, Md.	2,000 meters	Harvard	Penn	6:05.7
May 4	(Adams Cup)				
May 4	Marletta, Ohio	2,000 meters	Marletta	Purdue	5:42.3
May 11	(Mid-Am Regatta)				
May 11	Philadelphia, Pa.	2,000 meters	Georgetown	Temple	6:00.6
May 18	(Dad Vall Regatta)				
May 18	Ithaca, N. Y.	2,000 meters	Penn	Cornell	6:08
May 18	(Madelra Cup)				
May 18	Seattle, Wash.	2,000 meters	Wash.	UCLA, Stanford	5:56.7
May 18	(West Spring Regatta)			(tie)	

Royal Canadian Henley Regatta

1968—St. Catharines Rowing Club, 395 points; Hamilton Leanders, 145 points; Buffalo West Side, 116½ points.
 1967—St. Catharines Rowing Club, 214½ points; Ecorse, Michigan Boat Club, 136½ points; Hamilton Leander Rowing Club, 136 points.

1966—St. Catharines Rowing Club, 268½ points; Philadelphia Undine Rowing Club, 160 points; New York Rowing Club, 119 points.
 1965—St. Catharines Rowing Club, 254 points; Detroit Boat Club, 232½ points; Toronto Argonauts Rowing Club, 182½ points.

International Yacht Races for the America's Cup

Competition for the America's Cup grew out of the first contest to establish a world yachting championship, one of the carnival features of the London Exposition of 1851. The race, open to all classes of yachts from all over the world, covered a 60-mile course around the Isle of Wight; the prize was a cup worth about \$500, donated by the Royal Yacht Squadron of England, known as the "America's Cup" because it was first won by the United States yacht America. Successive efforts of British and Australian yachtsmen have failed to win the famous trophy, which remains in the United States. On Sept. 19, 1967, the 12-meter yacht Intrepid won a fourth straight victory over Australia's challenger, Dame Pattie, to keep the symbol of world sailing supremacy in the United States. The U. S. yacht was skippered by Emil (Buse) Mosbacher, Jr., of White Plains, N. Y., and designed by Olin Stephens of Scarsdale, N. Y. Dame Pattie was skippered by Jock Sturrock and designed by Warwick Hood of Australia.

WINNERS OF THE AMERICA'S CUP

1851 America.	1881 Mischief (2 races)	1901 Columbia (3 races)	ish) (2 races)
1870 Magic.	1885 Puritan (2 races)	1903 Reliance (3 races)	1937 Ranger (4 races)
1871 Columbia (2 races);	1886 Mayflower (2 races)	1920 Resolute (best of 7 races)	1958 Columbia (4 races)
Sappho (2 races);	1887 Volunteer (2 races)	1930 Enterprise (4 races)	1962 Weatherly (4-1)
Livonia (British) (1 race)	1893 Vigilant (3 races)	1934 Rainbow (4 races);	1964 Constellation (4-0)
1876 Madeleine (2 races)	1895 Defender (3 races)	Endeavour II (Brit-)	1967 Intrepid (4-0)
	1899 Columbia (3 races)		

North American Yachting Championships in 1968

James Hunt of South Dartmouth, Mass., won the Mallory Cup, symbolic of the men's sailing championship, on Aug. 30. He had a total of 48¾ points for the four-day, eight-race series on San Francisco Bay. Richard Rose of Seattle placed second with 43½ points.

The Adams Cup, symbolic of the women's sailing championship, was won by June Method of the Monmouth Boat Club, Red Bank, N. J., on Aug. 28. She had a total of 50 points in the event, held on Barnegat Bay. Martha McDougle of San Francisco was second with 41½ points.

Power Boat Racing Championships

GOLD CUP Distance: 90 miles

Year	Boat	Owner	Driver	Winner's fastest heat	Site
1949	My Sweetie.....	E. Gregory-E. Schoenherr.....	Bill Cantrell.....	78.64	Detroit, Mich.
1950	Slo-Mo-Shun IV....	S. S. Sayres.....	Ted Jones.....	80.99	Detroit, Mich.
1951	Slo-Mo-Shun V.....	S. S. Sayres.....	Lou Fagel.....	91.766	Seattle, Wash.
1952	Slo-Mo-Shun IV....	S. S. Sayres.....	Stanley Dollar.....	84.355	Seattle, Wash.
1953	Slo-Mo-Shun IV....	S. S. Sayres.....	Fagel-Taggart.....	95.268	Seattle, Wash.
1954	Slo-Mo-Shun V.....	S. S. Sayres.....	Lou Fagel.....	99.784	Seattle, Wash.
1955	Cale V.....	Joseph A. Schoenith.....	Lee Schoenith.....	100.954	Seattle, Wash.
1956	Miss Thriftway.....	Willard Rhodes.....	Bill Muncey.....	102.399	Detroit, Mich.
1957	Miss Thriftway.....	Willard Rhodes.....	Bill Muncey.....	109.828	Seattle, Wash.
1958	Hawai Kai III.....	Edgar Kaiser.....	Jack Regas.....	108.734	Seattle, Wash.
1959	Maverick.....	W. T. Waggoner, Jr.....	Bill Stead.....	106.278	Seattle, Wash.
1951	Miss Century 21....	Willard Rhodes.....	Bill Muncey.....	102.399	Reno, Nev.
1962	Miss Century 21....	Willard Rhodes.....	Bill Muncey.....	101.446	Seattle, Wash.
1963	Miss Bardahl.....	Ole Bardahl.....	Ron Musson.....	114.650	Detroit, Mich.
1964	Miss Bardahl.....	Ole Bardahl.....	Ron Musson.....	108.104	Detroit, Mich.
1965	Miss Bardahl.....	Ole Bardahl.....	Ron Musson.....	110.655	Seattle, Wash.
1966	Tahoe Miss.....	Harrah's.....	Mira Slovak.....	97.861	Detroit, Mich.
1967	Miss Bardahl.....	Ole Bardahl.....	Bill Schumacher.....	104.691	Seattle, Wash.
1968	Miss Bardahl.....	Ole Bardahl.....	Bill Schumacher.....		Detroit, Mich.

World Record Fish Caught by Rod and Reel

Source: Salt-water: International Game Fish Association. Fresh-water: Field & Stream Magazine.
Records confirmed to August 10, 1968

SALT-WATER FISH. All-tackle records, both men and women.

Species	Weight	Length	Girth	Where caught	Date	Angler
Albacore.....	69 lbs.	3' 6"	32½"	St. Helena	Apr. 7, 1956	P. Allen
	69 lbs. 1 oz.	4' ¼"	33¼"	Hudson Canyon, N. J.	Oct. 8, 1961	Walter C. Timm
	69 lbs. 2 oz.	3' 10"	32"	Montauk, N. Y.	Aug. 21, 1964	Larry R. Kranz
Amberjack.....	149 lbs.	5' 11"	41¼"	Bermuda	June 21, 1964	Peter Simons
Barracuda, Great....	103 lbs. 4 oz.	5' 6"	31¼"	Bahama Islands	1932	C. E. Benet
Bass, Cal. Black Sea..	557 lbs. 3 oz.	7' 4¼"	78"	Catania Is., Calif.	July 1, 1962	R. M. Lane
Bass, Cal. White Sea..	83 lbs. 12 oz.	5' 5½"	34"	San Felipe, Mexico	Mar. 31, 1953	L. C. Baumgardner
Bass, Channel.....	83 lbs.	4' 4"	29"	Cape Charles, Va.	Aug. 5, 1949	Zack Waters, Jr.
Bass, Giant Sea.....	680 lbs.	7' 1½"	66"	Fernandina, Fla.	May 20, 1961	Lynn Joyner
Bass, Sea.....	8 lbs.	1' 10"	19"	Nantucket Sound, Mass.	May 13, 1951	H. R. Rider
Bass, Striped.....	73 lbs.	5'	30¼"	Vineyard Sound, Mass.	Aug. 17, 1913	C. B. Church
Blackfish (or Tautog)..	21 lbs. 6 oz.	2' 7½"	23½"	Cape May, N. J.	June 12, 1954	R. N. Sheaffer
Bluefish.....	24 lbs. 3 oz.	3' 5"	22"	San Miguel, Azores	Aug. 27, 1953	M. A. da Silva Veloso
Bonefish.....	19 lbs.	3' 3½"	17"	Zuluiland, S. Africa	May 26, 1962	Brian W. Batchelor
Bonito, Oceanic.....	39 lbs. 15 oz.	3' 3"	28"	Walker Cay, Bahamas	Jan. 21, 1952	F. Drowley
Cobia.....	102 lbs.	5' 10"	34"	Cape Charles, Va.	July 3, 1953	J. E. Stansbury
Cod.....	81 lbs.	4' 6½"	35½"	Brielle, N. J.	Mar. 15, 1967	Joseph Chesla
Dolphin.....	76 lbs. 12 oz.	5'10½"	35"	Bimini, Bahamas	May 28, 1964	Charles Costello
Drum, Black.....	98½ lbs.	4' 5"	40"	Willis Wharf, Virginia	June 12, 1967	Gary Hilton Kelley
Flounder, Summer....	22 lbs. 1 oz.	3' 1"	35"	Caleta Horcon, Chile	Dec. 8, 1965	F. I. Aguirre-zabal
Kingfish (Tanguigue)..	81 lbs.	5' 11½"	29¼"	Karachi, Pakistan	Aug. 27, 1960	G. Rusinak
Marlin, Black.....	1,560 lbs.	14' 6"	81"	Cabo Blanco, Peru	Aug. 4, 1953	A. C. Glassell, Jr.
Marlin, Blue.....	845 lbs.	13' 1"	71"	St. Thomas, Virgin Is.	July 4, 1968	Elliott J. Fishman
Marlin, Pacific Blue..	1100 lbs.	13' 9½"	79¼"	Le Morne, Mauritius	Feb. 20, 1966	Andre D'Hotman
	1100 lbs.	14'4¾"	72½"	Kailua, Kona, Hawaii	May 23, 1967	De Villiers
Marlin, Striped.....	465 lbs.	10' 6"	65"	Mayor Is., N. Z.	Feb. 27, 1943	Hale L. Erickson
Marlin, White.....	161 lbs.	8' 8"	33"	Miami Beach, Fla.	1933	James Black
Permit.....	50 lbs.	3' 7"	34½"	Miami, Fla.	Mar. 27, 1965	L. F. Hooper
Pollack.....	43 lbs.	4'	29"	Brielle, N. J.	Oct. 21, 1964	Robert E. Miller
Rainbow Runner....	30 lbs. 15 oz.	3' 11"	22"	Kauai, Hawaii	Apr. 27, 1963	Phillip Barlow
Roosterfish.....	114 lbs.	5' 4"	33"	La Paz, Mex.	June 1, 1960	Holbrook Goodale
Sailfish, Atlantic....	141 lbs. 1 oz.	8' 5"	.....	Ivory Coast, Africa	Jan. 26, 1961	Abe Sackheim
Sailfish, Pacific.....	221 lbs.	10' 9"	.....	Santa Cruz Is., Galapagos	Feb. 12, 1947	Tony Burnand
Shark, Blue.....	410 lbs.	11' 6"	52"	Rockport, Mass.	Sept. 1, 1960	C. W. Stewart
	410 lbs.	11' 2"	52½"	Rockport, Mass.	Aug. 17, 1967	R. C. Webster
Shark, Mako.....	1,000 lbs.	12'	.....	Mayor Island, N. Z.	Mar. 14, 1943	Martha Webster
Shark, Man-Eater or White.....	2,664 lbs.	16' 10"	9' 6"	Ceduna, So. Australia	Apr. 21, 1959	B. D. H. Ross
Shark, Porbeagle.....	400 lbs. 8 oz.	7' 9½"	57½"	Fire Island, N. Y.	May 16, 1965	Alfred Dean
Shark, Thresher.....	922 lbs.	.....	.....	Bay of Islands, N. Z.	Mar. 21, 1937	James T. Kirkup
Shark, Tiger.....	1,780 lbs.	13'10½"	103"	Cherry Grove, S. C.	June 14, 1964	W. W. Dowding
Snook, or Robalo....	52 lbs. 6 oz.	4' 1½"	26"	Lapaz, Mexico	Jan. 9, 1963	Walter Maxwell
Swordfish.....	1,182 lbs.	14'11¼"	78"	Iquique, Chile	May 7, 1953	Jane Haywood
Tarpon.....	283 lbs.	7' 2½"	.....	L. Maracaibo, Venezuela	Mar. 19, 1956	L. Marron
Tuna, Allison (Yellowfin).....	269 lbs. 8 oz.	6' 9"	53"	Kauai, Hawaii	May 30, 1962	M. Salazar
Tuna, Atlantic Big-Eyed.....	295 lbs.	6' 6½"	40"	San Miguel, Azores	July 8, 1960	Henry Nishi-Kawa
Tuna, Pacific Big-Eyed	435 lbs.	7' 9"	63½"	Cabo Blanco, Peru	Apr. 17, 1957	Dr. Arsenio Cordelo
Tuna, Blackfin.....	36 lbs.	3' ¼"	28½"	Bermuda	July 14, 1963	Dr. Russel Lee
	36 lbs. 4 oz.	3' 1½"	28' ¼"	Challenger Bk., Bermuda	Aug. 6, 1966	Joseph E. Baptiste, Jr.
Tuna, Bluefin.....	977 lbs.	9' 8"	94¼"	St. Ann Bay, N. S.	Sept. 4, 1950	Raymond C. McPherson
						D. M. Hodgson

Species	Weight	Length	Girth	Where caught	Date	Angler
Wahoo.....	149 lbs.	6' 7½"	37½"	Cat Cay, Bahamas	June 15, 1962	John Pirovano
Weakfish.....	19 lbs. 8 oz.	3' 1"	23½"	Trinidad	Apr. 13, 1962	Dennis B. Hall
Weakfish, Spotted....	15 lbs. 3 oz.	2' 10½"	20½"	W. Indies	Jan. 13, 1949	C. W. Hubbard
Yellowtail.....	111 lbs.	5' 2"	38"	Fort Pierce, Fla.	June 11, 1961	A. F. Plim
FRESH-WATER FISH						
Black Bass, Large-mouth	22 lbs. 4 oz.	32½"	28½"	Montgomery Lake, Ga.	June 2, 1932	George W. Perry
Black Bass, Small-mouth	11 lbs. 15 oz.	27"	21½"	Dale Hollow Lake, Ky.	July 9, 1955	David L. Hayes
Bass, Redeye.....	6 lbs. ½ oz.	20½"	15 4/5"	Hallawakee Creek, Ala.	Mar. 24, 1967	Thomas Sharpe
Bass, White.....	5 lbs. 2 oz.	19"	15½"	Grenada Dam, Miss.	July 9, 1960	Eddy Vaughn
Black Bullhead.....	8 lbs.	24"	17½"	Lake Waccabuc, N. Y.	Aug. 1, 1951	Karl Evans
Bass, Spotted.....	8 lbs.	24"	18½"	Smith Lake, Ala.	Mar. 7, 1966	Bob Hamilton
Bluegill.....	4 lbs. 12 oz.	15"	18½"	Ketona Lake, Ala.	Apr. 9, 1950	T. S. Hudson
Carp.....	55 lbs. 5 oz.	42"	31"	Clearwater Lake, Minn.	July 10, 1957	Frank J. Ledwein
Catfish, Blue.....	97 lbs.	57"	37"	Missouri River, S. D.	Sept. 16, 1959	E. B. Elliott
Catfish, Channel.....	58 lbs.	47½"	29½"	Santee-Cooper Res., S. C.	July 7, 1964	W. B. Whaley
Char, Arctic.....	27 lbs. 4 oz.	40½"	26½"	Tree River, N. W. T.	Sept. 2, 1963	Wm. Murphy
Crapple, Black.....	5 lbs.	19½"	18½"	Santee-Cooper Res., S. C.	Mar. 15, 1957	Paul E. Foust
Crapple, White.....	5 lbs. 3 oz.	21"	19"	Enid Dam, Miss.	July 31, 1957	Fred L. Bright
Dolly Varden.....	32 lbs.	40½"	29½"	L. Pend Oreille, Idaho	Oct. 27, 1949	N. L. Higgins
Gar, Alligator.....	279 lbs.	93"	.....	Rio Grande R., Texas	Dec. 2, 1951	Bill Valverde
Gar, Longnose.....	50 lbs. 5 oz.	72½"	22½"	Trinity River, Texas	July 30, 1954	Townsend Miller
Grayling, Arctic.....	5 lbs.	21"	11"	Great Slave Lake, N.W.T.	Aug. 5, 1958	W. G. Clark
Muskellunge.....	69 lbs. 15 oz.	64½"	31½"	St Lawrence River, N. Y.	Sept. 22, 1957	Arthur Lawton
Perch, White.....	4 lbs. 12 oz.	19½"	13"	Mesa Lake, Maine	June 4, 1949	Mrs. Earl Small
Perch, Yellow.....	4 lbs. 3½ oz.	.....	.....	Bordentown, N. J.	May, 1865	Dr. C. C. Abbot
Pickeral, Chain.....	9 lbs. 6 oz.	31"	14"	Homerville, Ga.	Feb. 17, 1961	Baxley McQualg, Jr.
Pike, Northern.....	46 lbs. 2 oz.	52½"	25"	Sacandaga Res., N. Y.	Sept. 15, 1940	Peter Dubuc
Salmon, Atlantic.....	79 lbs. 2 oz.	.....	.....	Tanae, Nor.	1928	Henrik Henriksen
Salmon, Chinook.....	92 lbs.	58½"	36"	Skeena River, B. C.	July 19, 1959	H. Wichmann
Salmon, Silver.....	31 lbs.	.....	.....	Cowichan Bay, B. C.	Oct. 11, 1947	Mrs. Lee Hallberg
Salmon, Landlocked..	22 lbs. 8 oz.	36"	est. 20"	Sebago Lake, Maine	Aug. 1, 1907	Edward Biakely
Sauger.....	8 lbs. 5 oz.	28"	.....	Niobrara, Nebr.	Oct. 22, 1961	Mrs. Betty Tepner
Sturgeon, White.....	360 lbs.	111"	86"	Snake River, Idaho	April 24, 1956	Willard Cravens
Sunfish, Redear.....	2 lbs. 15 oz.	14"	15½"	Ponte Vedra Beach, Fla.	Mar. 6, 1965	Ronald D. Gray, Jr.
Trout, Brook.....	14½ lbs.	31½"	11½"	Nipigon River, Ontario	July, 1916	Dr. W. J. Cook
Trout, Brown.....	39½ lbs.	.....	.....	Loch Awe, Scotland	1866	W. Muir
Trout, Cutthroat.....	41 lbs.	39"	.....	Pyramid Lake, Nev.	Dec., 1925	J. Skimmerhorn
Trout, Golden.....	11 lbs.	28"	16"	Cook's Lake, Wyo.	Aug. 5, 1918	Charles S. Reed
Trout, Lake.....	63 lbs. 2 oz.	51½"	32½"	Lake Superior	Mar. 25, 1952	Hubert Hammers
Trout, Rainbow or Steelhead	37 lbs.	40½"	28"	Lake Pend Oreille, Idaho	Nov. 25, 1947	Wes Hamlet
Trout, Sunapee.....	11 lbs. 8 oz.	33"	17½"	Lake Sunapee, N. H.	Aug. 1, 1954	Ernest Theobaris
Walleye.....	25 lbs.	41"	20"	Old Hickory Lake, Tenn.	Aug. 1, 1960	Mabry Harper
Whitefish, Mountain..	5 lbs.	19"	14"	Athabasca R., Alberta	June 3, 1963	Orville Welch

Angling and Casting Championships in 1968

AMERICAN CASTING ASSOCIATION

Men's Combined (fresh water)

All Around—Zack Willson Jr., St. Charles, Mo.
 All Distance—Zack Willson Jr., 3,445 ft.
 All Accuracy—Zack Willson Jr., 391 pts.
 Distance Baits—B. L. Farley, San Antonio, Tex., 2,429 ft.
 Distance Flies—Zack Willson Jr., 1,062 ft.
 Accuracy Baits—Zack Willson Jr., 196 pts.
 Accuracy Flies—Jim Green, Stanton, Calif., 198 pts.

Men's Single Events (fresh water)

¾ oz. Distance—Ed Lanser, St. Louis, Mo., 365 ft. Avg.
 ¾ oz. Distance—Zack Willson, 448½ ft. Avg.
 Trout Fly Distance—Dick Ward, Springfield, Va., 161 ft. Avg.

Salmon Fly Distance—William Peters, Toledo, O., 198½ ft. Avg.

Dry Fly Accuracy—George Applegren, Arlington Heights, Ill., 99 pts.

Wet Fly Accuracy—Jim Green, Stanton, Calif., 100 pts.

¾ oz. Accuracy—Zack Willson Jr., 97 pts.

¾ oz. Accuracy—Zack Willson Jr., 99 pts.

Women's Single Events (fresh water)

All Accuracy—Donna Monty, Toronto, Ontario, 345 pts.

Accuracy Baits—Donna Monty, 180 pts.

Accuracy Flies—Elsie Seifert, Hartford, Conn., 186 pts.

Dry Fly Accuracy—Elsie Seifert, 92 pts.

Wet Fly Accuracy—Elsie Seifert, 94 pts.

¾ oz. Accuracy—Donna Monty, 91 pts.

¾ oz. Accuracy—Donna Monty, 89 pts.

Boxing Champions by Classes

As of Oct. 15, 1968

Heavyweight	Vacant*
Light-Heavyweight (175 lbs.)	Bob Foster, Washington, D. C.
Middleweight (160 lbs.)	Nino Benvenuti, Italy
Welterweight (147 lbs.)	Curtis Cokes, Dallas, Tex.
Junior Welterweight (140 lbs.)	Paul Fujii, Honolulu
Lightweight (135 lbs.)	Teo Cruz, Dom. Republic
Junior Lightweight (130 lbs.)	Hiroshi Kobayashi, Japan
Featherweight (126 lbs.)	Sho Saito, Japan
Bantamweight (118 lbs.)	Lionel Rose, Australia
Flyweight (112 lbs.)	Chartchai Chionoi, Thailand

*Jimmy Ellis is officially recognized as the heavyweight champion by the majority of state boxing commissions. The remainder recognize Joe Frazier. Ring magazine continues to regard Cassius Clay as champion.

Ring Champions by Years

HEAVYWEIGHTS

1882-1892	John L. Sullivan (A)
1892-1897	James J. Corbett (B)
1897-1899	Robert Fitzsimmons
1899-1905	James J. Jeffries (C)
1905-1906	Marvin Hart
1906-1908	Tommy Burns
1908-1915	Jack Johnson
1915-1919	Jess Willard
1919-1926	Jack Dempsey
1926-1928	Gene Tunney*
1928-1930	Vacant
1930-1932	Max Schmeling
1932	Jack Sharkey
1932	Primo Carnera
1934	Max Baer
1935-1936	James J. Braddock
1937-1949	Joe Louis*
1949-1951	Ezzard Charles
1951-1952	Joe Walcott
1952-1956	Rocky Marciano*
1956-1959	Floyd Patterson
1959	Ingemar Johansson
1960-1962	Floyd Patterson
1962-1963	Sonny Liston
1964-1967	Cassius Clay* (D)
(A) London Prize Ring (bare knuckle champion).	
(B) First Marquis of Queensberry Champion.	
(C) Jeffries abandoned the title (1905) and designated Marvin Hart and Jack Root as logical contenders and agreed to referee a fight between them, the winner to be declared champion. Hart defeated Root in 12 rounds (1905) and in turn was defeated by Tommy Burns (1906) who immediately laid claim to the title. Jack Johnson defeated Burns (1908) and was recognized as champion. He clinched the title by defeating Jeffries in an attempted comeback (1910).	
(D) Title declared vacant by the World Boxing Assn. and other groups in 1967 after Clay's refusal to fulfill his military obligation.	

LIGHT HEAVYWEIGHTS

1903	Jack Root, George Gardner
1903-1905	Bob Fitzsimmons
1905-1912	Philadelphia Jack O'Brien*
1912-1916	Jack Dillon
1916-1920	Battling Levinsky
1920-1922	Georges Carpentier
1922	Gene Tunney (outpointed Levinsky and gained American title)
1922	Harry Greb (outpointed Tunney for American title)
1923	Battling Siki (knocked out Carpentier for world title)
1923	Gene Tunney* (outpointed Greb)
1923-1925	Mike McTigue (outpointed Siki for world title)
1925	Paul Berlenbach (outpointed McTigue)
1926-1927	Jack Delaney* (outpointed Berlenbach)
1927-1929	Tommy Loughran* (outpointed McTigue)
1930-1934	Maxey Rosenberg (outpointed Jimmy Slattery, recognized as champion by the New York State Athletic Commission, National Boxing Association vacated Rosenberg's title)
1934-1935	Bob Olin (outpointed Rosenberg, recognized in New York as champion)
1935-1939	John Henry Lewis*
1939-1939	Mello Bettina (defeated Jack Fox in elimination tournament to gain title vacated by Lewis)
1939-1941	Billy Conn*
1941	Anton Christoforidis (won NBA elimination tournament for title)
1941-1949	Gus Lesnevich, Freddie Mills.
1949-1950	Freddie Mills
1950-1952	Joey Maxim
1953-1960	Archie Moore
1961	Harold Johnson (NBA); Archie Moore (New York, Mass.)
1962-1963	Harold Johnson
1963-1965	Willie Pastrano
1965-1966	Jose Torres

*Abandoned title.

1966-1968	Dick Tiger
1968	Bob Foster
MIDDLEWEIGHTS	
1884-1891	Jack "Nonpareil" Dempsey
1891-1897	Bob Fitzsimmons*
1897-1907	Tommy Ryan*
1907-1908	Stanley Ketchel, Billy Papke
1908-1910	Stanley Ketchel
1911-1913	Claimed by Billy Papke, Frank Klaus, Mike Gibbons, Ed McGoorty and George Chip
1913	Frank Klaus, George Chip
1914-1917	Al McCoy
1917-1920	Mike O'Dowd
1920-1923	Johnny Wilson
1923-1926	Harry Greb
1926	Tiger Flowers, Mickey Walker
1926-1931	Mickey Walker*
1931-1932	Gorilla Jones (NBA), Ben Jeby (New York)
1932-1937	Marcel Thil (NBA)
1933	Lou Brouillard (New York), Vince Dundee (New York)
1934	Teddy Yarosz (New York)
1935	Babe Risko (New York)
1936-1937	Freddie Steele (NBA and New York)
1938	Al Hostak (NBA), Solly Krieger (NBA), Fred Apostoli (New York)
1939-1940	Al Hostak (NBA)
1939	Fred Apostoli (New York), Ceferino Garcia (New York)
1940	Tony Zale (NBA), Ken Overlin (New York)
1941	Tony Zale (NBA), Billy Soose (New York)*
1942-1947	Tony Zale
1947-1948	Rocky Graziano
1948	Marcel Cerdan, Jake LaMotta
1949	Jake LaMotta
1950	Ray Robinson (universal); Randy Turpin; Ray Robinson
1951	Ray Robinson*
1952	Carl (Bobo) Olson
1953-1955	Ray Robinson
1955-1956	Gene Fullmer, Ray Robinson, Carmen Basilio
1956	Carmen Basilio, Ray Robinson
1959	Gene Fullmer (NBA); Ray Robinson (New York)
1960	Gene Fullmer (NBA); Paul Pender (New York and Mass.)
1961	Gene Fullmer (NBA); Terry Downes (New York, Mass., Europe)
1962	Gene Fullmer, Dick Tiger (NBA); Paul Pender (New York and Mass.)*
1963	Dick Tiger (universal).
1963-1965	Joey Giardello
1965-1966	Dick Tiger
1966-1967	Emile Griffith
1967	Nino Benvenuti
1967-1968	Emile Griffith
1968	Nino Benvenuti
WELTERWEIGHTS	
1892	Danny Needham, Mysterious Billy Smith
1892-1894	Mysterious Billy Smith
1894-1896	Tommy Ryan
1896	Kid McCoy (outgrew class)
1900	Mysterious Billy Smith, Rube Ferns
1901	Matty Matthews
1901-1904	Matty Matthews, Rube Ferns
1904-1906	Dixie Kid, Joe Walcott, Honey Mellody
1907-1911	Mike Sullivan
1911-1915	Vacant
1915-1919	Ted Lewis, Jack Britton
1919-1922	Jack Britton
1922-1926	Mickey Walker
1926	Pete Latzo
1927-1929	Joe Dundee
1929	Jackie Fields
1930	Jackie Fields, Jack Thompson, Tommy Freeman
1931	Freeman, Thompson, Lou Brouillard
1932	Jackie Fields
1933	Young Corbett, Jimmy McLarnin

1934	Barney Ross, Jimmy McLarnin
1935	Jimmy McLarnin, Barney Ross
1936-1938	Barney Ross
1938-1939	Henry Armstrong
1940	Fritzi Zivic
1941-1946	Fred Cochrane
1946-1947	Marty Servo*; Ray Robinson (A)
1947-1950	Ray Robinson
1951	Ray Robinson (England)*; Johnny Bratton (NBA); Kid Gavilan
1951-1953	Kid Gavilan
1954-1955	Johnny Saxton
1955	Tony De Marco; Carmen Basillo
1956	Carmen Basillo, Johnny Saxton, Carmen Basillo
1957	Carmen Basillo*
1958	Virgil Atkins; Don Jordan
1959	Don Jordan
1960	Benny Paret
1961	Emile Griffith, Benny Paret
1962	Benny Paret, Emile Griffith
1963	Luis Rodriguez, Emile Griffith
1964-1966	Emile Griffith* (B)
1966	Curtis Cokes

(A) Robinson gained the title by defeating Tommy Bell in an elimination agreed to by the NY Commission and the NBA. Both claimed Robinson waived his title when he won the middleweight crown from Lemaite in 1951. Gavilan defeated Bratton in an elimination to find a successor.

(B) Title became vacant when Griffith won the middleweight title.

LIGHTWEIGHTS

1885-1896	Jack McAuliffe* (American champion)
1896-1899	Kid Lavigne
1899-1902	Frank Erne
1901-1906	Joe Gans
1906-1910	Battling Nelson
1910-1912	Ad Wolgast
1912-1914	Willie Ritchie
1914-1917	Freddie Welsh
1917-1924	Benny Leonard*
1925	Jimmy Goodrich, Rocky Kanassa
1926-1930	Sammy Mandell
1930	Al Ringer, Tony Canzoneri
1930-1933	Tony Canzoneri
1933-1935	Barney Ross*
1935	Tony Canzoneri
1936	Tony Canzoneri, Lou Ambers
1937	Lou Ambers
1938	Henry Armstrong
1939	Lou Ambers
1940	Lew Jenkins
1941-1943	Sammy Angott
1943	Beau Jack (New York), Bob Montgomery, Beau Jack (New York)
1944-1947	Bob Montgomery (New York)
	S. Angott (NBA), J. Zurita (NBA)
1945-1951	Ike Williams (NBA; later universal)
1951-1952	James Carter
1952	Lauro Salas, James Carter
1953-1954	James Carter
1954	Paddy De Marco; James Carter
1955	James Carter; Bud Smith
1956	Eud Smith, Joe Brown
1957-1962	Joe Brown
1962-1965	Carlos Ortiz
1965	Ismael Laguarda
1965-1968	Carlos Ortiz
1968	Teo Cruz

FEATHERWEIGHTS

1892-1900	George Dixon (A)
1900-1901	Terry McGovern
1901-1904	Young Corbett
1904-1908	Tommy Sullivan
1908-1912	Abe Attie
1912-1922	Johnny Kilbane
1922	Johnny Kilbane, Eugene Criqui, Johnny Dundee
1923-1925	Johnny Dundee
1925-1927	Kid Kaplan*
1927-1928	Benny Bass
1928	Tony Canzoneri, Andre Routs
1929-1933	C. Battalino*
1932-1934	Tommy Paul (NBA), Freddie Miller (NBA)
1934-1936	Freddie Miller
1936-1937	Petey Sarron
1937	P. Sarron, Henry Armstrong*
1938-1940	Joey Archibald (B)
1940-1941	Harry Jeffra

*Abandoned title.

1941	Joey Archibald, Chalky Wright
1941-1942	Chalky Wright
1942-1948	Willie Pep
1948-1949	Sandy Saddler
1949-1950	Willie Pep
1950-1954	Sandy Saddler
1953-1954	Interim champion: Percy Bassett
1953-1956	Sandy Saddler*
1957-1959	Hogan (Kid) Bassey
1959-1962	Davey Moore
1963-1964	Sugar Ramos
1964-1967	Vicente Saldivar*
1968	Sho Salijo

(A) Claim disputed.

(B) After Pete Scalzo knocked out Archibald (Dec. 5, 1938) in an overweight match and was refused a title bout, the NBA named Scalzo champion. The NBA title succession was: Pete Scalzo, 1938-1941; Richard Lemos, 1941; Jackie Wilson, 1941-1943; Jackie Calhura, 1943; Phil Terranova, 1943-1944; Sal Bartolo, 1944-1946.

BANTAMWEIGHTS

1890-1892	George Dixon*
1892-1894	Vacant
1894-1899	Jimmy Barry*
1899-1900	Terry McGovern*
1901-1902	Harry Harris*
1902-1903	Harry Forbes
1903-1904	Frankie Neil
1904	Joe Bowker*, Digger Stanley (Eng.), Jimmy Walsh (U.S.)
1905-1907	Jimmy Walsh*
1907-1910	Vacant
1910-1914	Johnny Coulon
1914-1917	Kid Williams
1917-1920	Pete Herman
1920-1921	Joe Lynch
1921	Pete Herman, Johnny Buff
1922	Johnny Buff, Joe Lynch
1922-1924	Joe Lynch
1924	Abe Goldstein, Eddie Martin
1925	Eddie Martin, Charley (Phil) Rosenberg
1925-1926	Charley (Phil) Rosenberg
1927-1928	Bud Taylor* (NBA only)
1929-1935	Al Brown
1935-1936	Baltazar Sangchilli
1936	Tony Marino, Sixto Escobar
1937	Sixto Escobar, Harry Jeffra
1938-1940	Sixto Escobar*
1940-1942	Lou Salica
1942-1947	Manuel Ortiz
1947	Harold Dade, Manuel Ortiz
1948-1950	Manuel Ortiz
1950-1952	Vic Towel
1952	Vic Towel, Jimmy Carruthers
1953-1954	Jimmy Carruthers*
1954-1955	Robert Cohen (NBA)
1955	Raul Macias (NBA); Robert Cohen (New York and World Committee)
1956	Mario D'Agata (New York and World Committee); Raul Macias (NBA)
1957	Alphonse Halimi (New York and World Committee); Raul Macias (NBA)
1958-1959	Alphonse Halimi (universal)
1959-1960	Jose Becerra*
1961-1965	Eder Jofre (universal)
1965-1968	Fighting Harada
1968	Lionel Rose

FLYWEIGHTS

1916-1923	Jimmy Wilde
1923-1925	Pancho Villa
1925-1927	Fidel La Barba*
1927-1930	Izzy Schwartz (New York only)
1930	Midget Wolgast (New York); Frankie Genaro (NBA)
1931-1932	Young Perez (defeated Frankie Genaro)
1932-1935	Jackie Brown
1935-1938	Benny Lynch*
1939-1941	Peter Kane*
1941-1943	Vacant
1943-1947	Jackie Patterson
1947-1950	Rinty Monaghan*
1950-1952	Dado Marino
1952-1954	Yoshio Shirai
1954-1960	Pascual Perez
1960-1962	Pone Kingpetch
1962	Masahiko Harada
1963	Pone Kingpetch, Hiroyuki Ebihara
1964-1965	Pone Kingpetch
1965-1966	Salvatore Berruni
1966	Walter McGowen
1966	Chartchal Chionoi

AAU Senior Boxing Championships in 1968

Maumee, Ohio, Apr. 4-6

106 lbs.	—Harlan Marbley, Washington, D. C.
112 lbs.	—Kenneth Bazer, New Iberia, La.
119 lbs.	—Sam Goss, Trenton, N. J.
126 lbs.	—George McCarvey, Hyattsville, Md.
132 lbs.	—Ronnie Harris, Canton, Ohio.
139 lbs.	—Joe Louis Valdez, Houston, Texas.

147 lbs.	—Michael Colbert, Portland, Ore.
156 lbs.	—William Beeler, Louisville, Ky.
165 lbs.	—Alfred Jones, Detroit, Mich.
178 lbs.	—Leonard Hutchins, Detroit, Mich.
Heavyweight	—George Foreman, Pleasanton, Calif.
Team	—Pacific.

Major Professional Boxing Bouts in 1968

Nov. 13, 1967—Oct. 14, 1968

Date	Winner, weight	Loser, weight	Round	Site
1967				
Nov. 13	Brian London, 198	Zora Folley, 212	D-10	Liverpool, Eng.
Nov. 16	Danny Perez, 156	Jose Stable, 155	D-10	New York, N. Y.
Nov. 16	Paul Fujii, 140	Willi Quatour, 137	KO-4	Tokyo
*Nov. 17	Dick Tiger, 168	Roger Rouse, 174	KO-12	Las Vegas
Nov. 17	Eduardo Corlett	Everett Copeland	KO-5	Turin, Italy
Nov. 18	Buster Mathis, 242	Roberto Davila, 207	KO-7	Stockholm, Sweden
Nov. 27	Roger Russell	Leotis Martin	D-10	Philadelphia
Dec. 2	Jimmy Ellis, 191	Oscar Bonavena, 206	D-12	Louisville, Ky.
Dec. 6	Bob Foster, 179	Sonny Moore, 205	KO-2	Washington, D. C.
Dec. 11	Lionel Rose, 117	Rocky Gattellari, 114	KO-13	Sydney, Aust.
*Dec. 14	Kiroshi Kabayashi, 129	Teshlaki Numata, 129	KO-12	Tokyo
Dec. 15	Luis Rodriguez, 152	Benny Briscoe, 155	D-10	New York, N. Y.
Dec. 15	Emile Griffith, 157	Remo Golfarini, 161	KO-6	Rome, Italy
Dec. 18	Joe Frazier, 210	Marion Comer, 180	KO-3	Boston
1968				
Jan. 20	Nino Benvenuti, 159	Charlie Austin, 159	D-10	Rome, Italy
Jan. 28	Piero Tomasoni, 193	Bob Stallings, 197	D-10	Milan, Italy
*Jan. 29	Chartchal Chlonoi, 109	Efren Torres, 111	KO-13	Mexico City
Feb. 3	Harold Johnson, 170	Lothar Stengel, 168	D-10	Frankfurt, Germany
Feb. 3	Jerry Quarry, 193	Thad Spencer, 200	KO-12	Oakland, Calif.
Feb. 5	Curtis Cokes	Jean Joseph	D-10	Paris
Feb. 6	Luis Rodriguez, 154	Charlie Austin, 159	KO-6	Miami
Feb. 16	Oscar Bonavena	Felipe Marich	KO-6	Argentina
Feb. 16	Roscoe Bell, 152	Ray Malon, 149	KO-2	Orlando, Fla.
Feb. 19	Joe Harris, 155	Dick Di Veronica, 153	D-10	Philadelphia
Feb. 19	Ken Buchanan, 131	Maurice Cullen, 135	KO-11	London
Feb. 23	Moses Harrell, 200	Pedro Sanchez, 209	KO-3	Orlando, Fla.
Feb. 26	Johnny Pritchett	Leslie McAtee	D-15	Nottingham, Eng.
*Feb. 27	Lionel Rose, 117	Fighting Harada, 117	D-15	Tokyo
Feb. 29	Roberto Davila, 197	Brian London, 197	KO-6	Liverpool, Eng.
Mar. 3	Percy Pugh, 142	Jerry Pellegrini, 146	D-15	New Orleans
Mar. 4	Joe Frazier, 204	Buster Mathis, 243	KO-11	New York
*Mar. 4	Nino Benvenuti, 160	Emile Griffith, 154	D-15	New York
Mar. 7	Renaldo Victoria, 139	Roosevelt Ware, 147	D-10	Portland, Maine
Mar. 8	Roscoe Bell, 152	Dennis Riggs, 160	KO-4	Orlando, Fla.
Mar. 15	Curtis Cokes, 154	Jimmy Lester, 155	D-10	Oakland, Calif.
Mar. 15	Lavelle Franklin, 135	Jimmy Fields, 134	KO-2	Los Angeles
Mar. 26	Luis Rodriguez, 154	Carl Moore, 157	D-10	Miami Beach
*Mar. 29	Paul Rojas, 126	Enrique Higgins, 125	D-15	Los Angeles
Mar. 29	Jim Beattie, 170	Orville Qualls, 240	KO-3	Detroit
Apr. 1	Jose Torres, 155	Bobby Dunlop, 173	KO-6	Sydney, Aust.
Apr. 2	Paul Fujii, 140	Roberto Cruz, 142	KO-2	Sapporo, Japan
Apr. 5	Leotis Martin, 193	Karl Mildenberger, 205	KO-7	Frankfurt, Germany
Apr. 5	Sandro Mazzinghi, 157	Bob Cassidy, 157	KO-2	Rome, Italy
Apr. 9	Howard Winstone	Jimmy Anderson	D-10	Wembley, Eng.
Apr. 15	Ismael Laguna, 135	Bud Anderson, 138	KO-9	Philadelphia
*Apr. 16	Curtis Cokes, 145	Willie Ludick, 146	KO-5	Dallas, Tex.
Apr. 19	Jose Gonzalez, 161	Vincente Rondon, 160	KO-8	New York
Apr. 19	Jim Beattie, 251	Willie Richardson, 192	D-10	St. Paul, Minn.
*Apr. 27	Jimmy Ellis	Jerry Quarry	D-15	Oakland, Calif.
Apr. 30	Buster Mathis, 247	Mel Turnbow, 238	KO-7	Cincinnati
May 7	Luis Rodriguez, 156	Teddy Wright, 165	D-10	Miami Beach, Fla.
May 17	Jose Gonzalez, 161	Jimmy Ramos, 160	D-10	New York, N. Y.
*May 24	Bob Foster, 173	Dick Tiger, 168	KO-4	New York
*May 26	Sandro Mazzinghi, 151	Kim Ki-Soo, 151	D-15	Milan, Italy
May 27	Art Hernandez	Rudy Rodriguez	D-10	Milwaukee
May 28	Leotis Martin, 202	Thad Spencer, 193	KO-9	London
June 7	Nino Benvenuti, 161	Yoshiaki Alasaka, 170	KO-2	Rome
June 11	Emile Griffith	Andy Hellman	D-12	Oakland, Calif.
*June 24	Joe Frazier, 203	Manuel Ramos, 208	KO-2	New York
June 25	Al Jones	Matt Blow	D-10	Miami Beach, Fla.
June 25	Cleveland Williams	Les Borden	KO-1	Houston
June 25	Terry Lee, 171	Ronnie Wilson, 165	D-10	San Diego
*June 29	Teo Cruz, 134	Carlos Ortiz, 135	D-15	Santo Domingo
*July 2	Lionel Rose	Takao Sakurai	D-15	Tokyo
July 3	Art Davis, 156	Jerry Weakland	KO-2	Las Vegas
July 5	Nino Benvenuti, 164	Jimmy Ramos, 163	KO-4	Turin, Italy
July 5	Curtis Cokes	Joseph Sishi	KO-5	Durban, So. Africa
July 6	Sonny Liston, 219	Henry Clark, 215	KO-7	San Francisco
July 17	Ismael Laguna, 136	Victor Melendez, 136	D-10	New York
July 23	Den Morton, 204	Wayne Kindred, 196	KO-6	Los Angeles
July 24	Alvin Lewis, 215	Eduardo Corlett, 195	KO-2	Detroit
July 24	Jose Legra, 125	Howard Winstone, 125	KO-5	Porthcawl, Wales
July 25	Buster Mathis, 226	Jim Beattie, 244	KO-7	Bloomington, Minn.
Aug. 1	Bob Harrison, 166	Lloyd Bozeman, 174	D-10	Portland, Maine
Aug. 6	Cleveland Williams, 211	Jean-Claude Roy, 186	D-10	Houston
Aug. 6	Emile Griffith, 157	Joe Harris, 160	D-12	Philadelphia
Aug. 12	Jack Bodell, 204	Mel Turnbow, 241	KO-6	Blackpool, Eng.
Aug. 13	Al Jones	Jim Howard	KO-6	Miami Beach, Fla.
Aug. 17	Stan Hayward, 152	Johnny Brooks, 153	D-10	New Orleans
Aug. 20	Ismael Laguna, 136	Lloyd Marshall, 132	KO-9	New York
Aug. 20	Benny Briscoe, 161	Jose Gonzalez, 161	D-10	New York
Aug. 20	Antonio Amaya, 136	Frankie Narvaez, 136	D-10	New York
Aug. 28	Lionel Rose, 120	Jose Medel, 120	D-10	Los Angeles
Sept. 4	Fighting Harada	Noluo Chiba, 177	KO-7	Sano, Japan
Sept. 9	Bob Foster, 173	Roger Rouse, 177	KO-5	Washington
Sept. 11	Frank De Paula, 175	Jimmy McDermott, 171	KO-1	New York
Sept. 13	Johnny Famechon, 124	Billy McCrandle, 122	KO-12	Melbourne
*Sept. 14	Jimmy Ellis	Floyd Patterson	D-15	Stockholm, Sweden
Sept. 17	Nino Benvenuti, 163	Art Hernandez, 164	D-10	Toronto
Sept. 17	George Chuvalo, 207	Vic Brown, 193	KO-3	Toronto
Sept. 26	Buster Mathis, 223	James Woody, 203	KO-6	New York, N. Y.
Sept. 26	George Chuvalo, 208	Manuel Ramos	KO-5	New York, N. Y.
*Sept. 27	Sho Sajiyo, 125	Paul Rojas, 126	D-15	Los Angeles
*Sept. 27	Teo Cruz, 135	Mando Ramus	D-15	Los Angeles
Oct. 9	Joe Shaw	Pete Toro	D-10	New York, N. Y.
Oct. 14	Sonny Liston, 221	Sonny Moore, 295	KO-3	Phoenix, Ariz.

*Indicates championship bout.

History of Heavyweight Championship Bouts

1889—July 8—John L. Sullivan beat Jake Kilrain, 75 rounds, Richburg, Miss. (Last championship bare knuckles bout.)

*1892—Sept. 7—James J. Corbett defeated John L. Sullivan, 21 rounds, New Orleans. (Used big gloves for first time.)

1894—Jan. 25—James J. Corbett ko'd Charley Mitchell, 3 rounds, Jacksonville, Fla.

*1897—March 17—Bob Fitzsimmons defeated James J. Corbett, 14 rounds, Carson City, Nev.

*1899—June 9—James J. Jeffries beat Bob Fitzsimmons, 11 rounds, Coney Island, N. Y.

1899—Nov. 3—James J. Jeffries beat Tom Sharkey, 25 rounds, Coney Island, N. Y.

1900—May 11—James J. Jeffries knocked out James J. Corbett, 23 rounds, Coney Island, N. Y.

1901—Nov. 15—James J. Jeffries, ko'd Gus Ruhlin, 5 rounds, San Francisco.

1902—July 25—James J. Jeffries knocked out Bob Fitzsimmons, 8 rounds, San Francisco, Cal.

1903—Aug. 14—James J. Jeffries knocked out James J. Corbett, 10 rounds, San Francisco, Cal.

1904—Aug. 26—James J. Jeffries knocked out Jack Munroe, 2 rounds, San Francisco, Cal.

*1905—James J. Jeffries retired, July 3—Marvin Hart knocked out Jack Root, 12 rounds, Reno. Jeffries refereed and presented the title to the victor. Jack O'Brien also claimed the title.

*1906—Feb. 23—Tommy Burns defeated Marvin Hart, 20 rounds, Los Angeles, Cal.

1906—Nov. 28—Philadelphia Jack O'Brien and Tommy Burns, 20 rounds, draw, Los Angeles.

1907—May 8—Tommy Burns defeated Jack O'Brien, 20 rounds, Los Angeles, Cal.

1907—July 4—Tommy Burns knocked out Bill Squires, 1 round, Colma, Cal.

1907—Dec. 2—Tommy Burns knocked out Gunner Moir, 10 rounds, London.

1908—Feb. 10—Tommy Burns knocked out Jack Palmer, 4 rounds, London.

1908—March 17—Tommy Burns knocked out Jem Roche, 1 round, Dublin.

1908—April 18—Tommy Burns knocked out Jewey Smith, 5 rounds, Paris.

1908—June 13—Tommy Burns knocked out Bill Squires, 8 rounds, Paris.

1908—Aug. 24—Tommy Burns knocked out Bill Squires, 13 rounds, Sydney, New South Wales.

1908—Sept. 2—Tommy Burns knocked out Bill Lang, 2 rounds, Melbourne, Australia.

*1908—Dec. 26—Jack Johnson stopped Tommy Burns, 14 rounds, Sydney, Australia. Police halted contest.

1909—May 18—Jack Johnson and Jack O'Brien, 6 rounds, draw, Philadelphia.

1909—June 30—Jack Johnson and Tony Ross, 6 rounds, draw, Pittsburgh, Pa.

1909—Sept. 8—Jack Johnson and Al Kaufman, 10 rounds, no decision, San Francisco, Cal.

1909—Oct. 16—Jack Johnson knocked out Stanley Ketchell, 12 rounds, Colma, Cal.

1910—July 4—Jack Johnson knocked out Jim Jeffries, 15 rounds, Reno, Nev. (Jeffries came back from retirement.)

1912—July 4—Jack Johnson won on points from Jim Flynn, 9 rounds, Las Vegas, N. M. (contest stopped by police).

1913—Nov. 28—Jack Johnson knocked out Andre Spaul, 2 rounds, Paris.

1913—Dec. 9—Jack Johnson and Jim Johnson, 10 rounds, draw, Paris. (Bout called a draw when Jack Johnson declared he had broken his arm.)

1914—June 27—Jack Johnson won from Frank Moran, 20 rounds, Paris.

*1915—April 5—Jess Willard knocked out Jack Johnson, 26 rounds, Havana, Cuba.

1916—March 25—Jess Willard and Frank Moran, 10 rounds (no decision), New York City.

*1919—July 4—Jack Dempsey knocked out Jess Willard, Toledo, O. (Willard failed to answer bell for fourth round.)

1920—Sept. 6—Jack Dempsey knocked out Billy Miske, 3 rounds, Benton Harbor, Mich.

1920—Dec. 14—Jack Dempsey knocked out Bill Brennan, 12 rounds, New York City.

1921—July 2—Jack Dempsey knocked out Georges Carpentier, 4 rounds, Boyle's Thirty Acres, Jersey City, N. J. (Carpentier had held the so called white heavyweight title since July 16, 1914, in a series established in 1913, after Jack Johnson's exile in Europe late in 1912).

1923—July 4—Jack Dempsey won on points from Tom Gibbons, 15 rounds, Shelby, Mont.

1923—Sept. 14—Jack Dempsey knocked out Luis Firpo, 2 rounds, New York City.

*1926—Sept. 23—Gene Tunney beat Jack Dempsey, 10 rounds, decision, Philadelphia.

1927—Sept. 22—Gene Tunney beat Jack Dempsey, 10 rounds, decision, Chicago.

1928—July 26—Gene Tunney knocked out Tom Heeney, 11 rounds, Yankee Stadium, New York; soon afterward he announced his retirement.

*1930—June 12—Max Schmeling of Germany defeated Jack Sharkey in fourth round when Sharkey fouled Schmeling in a bout which was generally considered to have resulted in the election of a successor to Gene Tunney, New York.

1931—July 3—Max Schmeling knocked out Young Stribling, 15 rounds in Cleveland.

*1932—June 21—Jack Sharkey defeated Max Schmeling, 15 rounds, decision, New York City.

*1933—June 29—Primo Carnera knocked out Jack Sharkey, six rounds, New York City.

1933—Oct. 22—Carnera defeated Paulino Uzcudun, 15 rounds, in Rome.

1934—March 1—Primo Carnera defeated Tommy Loughran in 15 rounds in Miami.

*1934—June 14—Max Baer knocked out Primo Carnera, eleven rounds, New York City.

*1935—June 13—James J. Braddock defeated Max Baer, 15 rounds, New York City.

*1937—June 22—Joe Louis knocked out James J. Braddock, 8 rounds, Chicago.

1937—Aug. 30—Joe Louis defeated Tommy Farr, 15 rounds, decision, New York City.

1938—Feb. 23—Joe Louis knocked out Nathan Mann, 3 rounds, New York City.

1938—April 1—Joe Louis knocked out Harry Thomas, 5 rounds, New York City.

1938—June 22—Joe Louis knocked out Max Schmeling, one round, New York City.

1939—January 25—Joe Louis knocked out John H. Lewis, 1 round, New York City.

1939—April 17—Joe Louis knocked out Jack Roper, 1 round, Los Angeles.

1939—June 23—Joe Louis knocked out Tony Galento, 4 rounds, New York City.

1939—September 20—Joe Louis knocked out Bob Pastor, 11 rounds, Detroit, Mich.

1940—February 9—Joe Louis defeated Arturo Godoy, 15 rounds, decision, New York City.

1940—March 29—Joe Louis knocked out Johnny Paycheck, 2 rounds, New York City.

1940—June 20—Joe Louis knocked out Arturo Godoy, 8 rounds, New York City.

1940—Dec. 16—Joe Louis knocked out Al McCoy, 6 rounds, Boston.

1941—Jan. 31—Joe Louis knocked out Red Burman, 5 rounds, New York City.

1941—Feb. 17—Joe Louis knocked out Gus Dorazio, 2 rounds, Philadelphia.

1941—March 21—Joe Louis knocked out Abe Simon, 13 rounds, Detroit, Mich.

1941—April 8—Joe Louis knocked out Tony Musto, 9 rounds, St. Louis, Mo.

1941—May 23—Joe Louis beat Buddy Baer, 7 rounds, Washington, D. C., on a disqualification.

1941—June 18—Joe Louis knocked out Billy Conn, 13 rounds, New York City.

1941—Sept. 29—Joe Louis knocked out Lou Nova, 6 rounds, New York City.

1942—Jan. 9—Joe Louis knocked out Buddy Baer, 1 round, New York City.

1942—March 27—Joe Louis knocked out Abe Simon, 6 rounds, New York City.

1946—June 19—Joe Louis knocked out Billy Conn, 8 rounds, New York City.

1946—Sept. 18—Joe Louis knocked out Tami Mauriello, 1 round, New York City.

1947—Dec. 5—Joe Louis defeated Joe Walcott in a 15-round bout by a split decision, New York City.

1948—June 25—Joe Louis knocked out Joe Walcott, 11 rounds, New York City.

*1949—June 22—Following Joe Louis' retirement Ezzard Charles defeated Joe Walcott by a unanimous decision, 15 rounds, Chicago, Ill. (N.B.A. recognition only).

1949—Aug. 10—Ezzard Charles knocked out Gus Lesnevich, seven rounds, New York City.

1949—Oct. 14—Ezzard Charles knocked out Pat Valentino, eight rounds, San Francisco (clinched American title).

1950—Aug. 15—Ezzard Charles knocked out Fredy Beshore, 14 rounds, Buffalo, N. Y.

1950—Sept. 27—Ezzard Charles defeated Joe Louis in latter's attempted comeback, 15 rounds, New York City (universal recognition).

1950—Dec. 5—Ezzard Charles knocked out Nick Barone, 11 rounds, Cincinnati, Ohio.

1951—Jan. 12—Ezzard Charles knocked out Lee Oma, 10 rounds, New York, N. Y.

1951—March 7—Ezzard Charles outpointed Joe Walcott, 15 rounds, Detroit, Mich.

1951—May 30—Ezzard Charles outpointed Joey Maxim, light heavyweight champion, 15 rounds, Chicago.

*1951—July 18—Joe Walcott knocked out Ezzard Charles, 7th round, Pittsburgh, Pa.

1952—June 5—Joe Walcott outpointed Ezzard Charles, 15 rounds, Philadelphia, Pa.

*1952—Sept. 23—Rocky Marciano knocked out Joe Walcott, 13th round, Philadelphia, Pa.

1953—May 15—Rocky Marciano knocked out Joe Walcott, first round, Chicago, Ill.

1953—Sept. 24—Rocky Marciano knocked out Roland LaStarza, 11th round, Polo Grounds, New York, N. Y.

1954—June 17—Rocky Marciano outpointed Ezzard Charles, 15 rounds, Yankee Stadium, New York, N. Y.

1954—Sept. 17—Rocky Marciano knocked out Ezzard Charles, 8th round, Yankee Stadium, New York, N. Y.

1955—May 16—Rocky Marciano knocked out Don Cockell, 9th round, Kezar Stadium, San Francisco, Calif.

1955—Sept. 21—Rocky Marciano knocked out Archie Moore, 9th round, Yankee Stadium, N. Y. Marciano retired undefeated, Apr. 27, 1956.

*1956—Nov. 30—Floyd Patterson, a contender, knocked out Archie Moore, 5th round, Chicago, Ill., gaining the championship.

1957—July 29—Floyd Patterson knocked out Hurricane Jackson, 10th round, Polo Grounds, New York, N. Y.

1957—Aug. 22—Floyd Patterson knocked out Pete Rademacher, 6th round, Seattle, Wash.

1958—Aug. 18—Floyd Patterson ko'd Roy Harris, 12th round, Los Angeles, Calif.

1959—May 1—Floyd Patterson knocked out Brian London, 11 rounds, Indianapolis, Ind.

*1959—June 26—Ingemar Johansson, Sweden, ko'd Floyd Patterson, 3rd round, Yankee Stadium, New York City.

*1960—June 20—Floyd Patterson knocked out Ingemar Johansson, 5th round, Polo Grounds, New York, N. Y. (First heavyweight in boxing history to regain title.)

1961—Mar. 13—Floyd Patterson knocked out Ingemar Johansson, 6th round, Convention Hall, Miami Beach, Fla.

1961—Dec. 4—Floyd Patterson knocked out Tom McNeely, 4th round, Toronto, Ont., Canada.

*1962—Sept. 25—Sonny Liston knocked out Floyd Patterson, first round, Comiskey Park, Chicago, Ill.

1963—July 22—Sonny Liston knocked out Floyd Patterson, first round, Las Vegas, Nevada.

*1964—Feb. 25—Cassius Clay knocked out Sonny Liston, 7th round, Miami Beach, Fla.

1965—May 26—Cassius Clay knocked out Sonny Liston, first round, Lewiston, Maine.

1965—Nov. 11—Cassius Clay knocked out Floyd Patterson, twelfth round, Las Vegas, Nev.

1966—Mar. 29—Cassius Clay outpointed George Chuvalo, 15 rounds, Toronto, Ont.

1966—May 21—Cassius Clay knocked out Henry Cooper, sixth round, London, Eng.

1966—Aug. 6—Cassius Clay knocked out Brian London, third round, London, Eng.

1966—Sept. 10—Cassius Clay knocked out Karl Mildenberg, twelfth round, Frankfurt, Germany.

1966—Nov. 14—Cassius Clay knocked out Cleveland Williams, third round, Houston, Tex.

1967—Feb. 6—Cassius Clay outpointed Ernie Terrell, 15 rounds, Houston, Tex.

1967—March 22—Cassius Clay knocked out Zora Foley, seventh round, New York.

*Title changed hands.

Edward J. Neil Trophy and Walker Award

The Edward J. Neil Memorial Trophy is awarded annually by the Boxing Writers' Assn. of N. Y. to the one who has done the most for boxing in the preceding year. The plaque is in memory of Edward J. Neil, an AP sportswriter killed in 1938 while covering the Spanish revolution. James J. Walker Memorial Award to an individual for long and meritorious service to boxing. Recent winners:

1958—Archie Moore, light heavyweight champion. Walker Award: Sam Taub, writer and announcer.

1959—Ingemar Johansson, heavyweight champion. Walker Award: Marv Jensen, boxing manager.

1960—Floyd Patterson, heavyweight champion. Walker Award: Ned Brown.

1961—Gene Fullmer, N.E.A. world middleweight champion. Walker Award: Dr. Alexander Schiff, New York State Athletic Commission.

1962—Dick Tiger, world middleweight champion. Walker Award: Dr. Mal Stevens.

1963—Emile Griffith, world welterweight champion. Walker Award: Harry Markson, boxing dir.

Madison Sq. Garden.

1964—Willie Pastrano, world light-heavyweight champion. Walker Award: Mickey Walker, former welterweight and middleweight champion.

1965—Cassius Clay, world heavyweight champion. Walker Award: Jack Cuddy, former boxing writer for U.P.I.

1966—Dick Tiger, world light-heavyweight champion. Walker Award: Nat Fleischer, editor Ring Magazine and The Ring Record Book and Boxing Encyclopedia.

1967—Carlos Ortiz, world lightweight champion. Walker Award: Joe Louis, former world heavyweight champion.

Sports Arenas

Name and location	Cap.*	Name and location	Cap.*
Ak-Sar-Ben Field, Omaha, Neb.	14,000	Mid-South Coliseum, Memphis.	12,000
Atlantic City Audit., Atlantic City, N. J.	40,000	Milwaukee Arena.	12,500
Baltimore Civic Center.	12,348	Montreal Forum.	14,097
Boston Garden.	13,909	New Orleans Municipal Audit.	9,100
Charlotte Coliseum.	13,500	Oakland-Alameda County Coliseum.	15,000
Chicago Stadium.	17,374	Oklahoma City State Fair Arena.	10,000
Cincinnati Gardens.	11,438	Olympia, Detroit.	13,208
Cleveland Arena.	10,000	Olympic Auditorium, Los Angeles.	10,500
Convention Hall, Philadelphia.	9,200	Onondaga Cty. War Mem., Syracuse, N. Y.	7,500
Cobo Arena, Detroit.	11,009	Penn. Palestra, Philadelphia.	9,200
Cow Palace, San Francisco.	17,000	Pittsburgh Civic Arena.	12,500
Dallas Memorial Auditorium.	11,000	Portland Memorial Coliseum.	10,500
Freedom Hall, Louisville, Ky.	20,000	Reynolds Coliseum, Raleigh, N. C.	12,400
International Amphitheatre, Chicago.	9,500	Rhode Island Audit., Providence.	7,150
Hobart Arena, Troy, Ohio.	6,000	St. Louis Arena.	14,039
Kiel Auditorium, St. Louis.	10,574	Sam Houston Coliseum, Houston.	13,000
Long Beach Arena, Calif.	11,168	San Diego Intl. Sports Arena.	14,000
Los Angeles Forum.	17,500	San Francisco Civic Audit.	7,500
Los Angeles Sports Arena.	15,333	Seattle Center Coliseum.	12,595
Louisville Convention Center.	7,000	Spectrum, Phil.	16,000
Madison Square Garden.	19,500	Uline Arena, Washington, D. C.	11,000
Maple Leaf Gardens, Toronto.	15,600	Veterans Memorial Audit., Des Moines, Ia.	15,000
Metropolitan Sports Center, Bloomington, Minn.	14,400	Veterans Memorial Coliseum, Phoenix, Ariz.	10,294
Miami Beach Convention Hall.	12,000	Washington Coliseum.	5,300
		Will Rogers Coliseum, Ft. Worth, Texas.	7,000

*Normal seating capacity.

Madison Square Garden Hall of Fame

The new Madison Square Garden Center, above Pennsylvania Station in New York City, includes a Hall of Fame which initially honors 88 performers and personalities who made important contributions in the 88 years of earlier Gardens (1879-1967). The Garden Hall of Famers, classified by category, follow:

BASKETBALL

Elgin Baylor
Clair Bee
Bill Bradley
Howard Cann
Wilt Chamberlain
Bob Cousy
Tom Gola
Nat Holman
Pat Kennedy
Bob Kurland
Joe Lapchick
Jerry Lucas
Hank Luisetti
Bob Pettit
Oscar Robertson
Bill Russell

BIKE RACE

Alfred Goulet
Reggie McNamara

BOWLING

Don Carter
Billy Golembiewski

BOXING

Henry Armstrong
Bill Corum

Jack Dempsey
James A. Farley
Mike Jacobs
Benny Leonard
Joe Louis
Rocky Marciano
William Muldoon
Ray Robinson
John L. Sullivan

CIRCUS, RODEO

Gene Autry
P. T. Barnum
Buffalo Bill Cody
Emmett Kelly
John Ringling North
John Ringling
Roy Rogers
Jim Shoulders
May Wirth

DOG SHOW

Anne Rogers Clark
Dr. Samuel Milbank
Percy Roberts

HOCKEY

Frank Boucher

King Clancy
Bill Cook
Gordie Howe
Bobby Hull
Ching Johnson
Howie Morenz
Lester Patrick
Maurice Richard
Eddie Shore

HORSE SHOW

John McE. Bowman
Loula Long Combs
Maj. Gen. Guy V. Henry
Wm. H. Vanderbilt

ICE SHOW

Sonja Henie
Ronnie Robertson
Roy Shiptad

TENNIS

Don Budge
Suzanne Lenglen
Bill Tilden

TRACK

Glenn Cunningham
Ron Delany

John McHugh
Loren Murchison
Paavo Nurmi
Joie Ray
Bob Richards
James E. Sullivan
Emil Von Elling
Pete Waters
Bernie Wefers

WRESTLING

Jack Curley
Frank Gotch
Strangler Lewis
Jim Londos

BUILDERS

Asa S. Bushnell
Irving Mitchell Felt
Daniel J. Ferris
Bernard F. Gimbel
Stanton Griffiths
Edward S. (Ned) Irish
John Reed Kilpatrick
Paul H. Pilgrim
George L. (Tex)
Rickard
Fred Schmetz

Curling Events in 1968

The Douglas Medal, Hastings on Hudson, N. Y. Jan. 4-7, N. Y. Caledonian C.C., Vern Hamby, skip. The Griffith Medal, Brae Burn C.C., Bud Chandler, skip. The Williamson Medal, Albany C.C., Peter Anderson, skip.

The Holland Bowl, Petersham, Mass. Jan. 11-14, Border C.C. #1, M. W. MacDonald, skip. The McGregor Trophy, Border C.C. #2, A. Joyal, skip. The Holt Trophy, Norfolk C.C., W. Hill, skip.

The Mitchell Gold Medal, Utica, N. Y. Jan. 11-14, Utica C.C. #6, Arthur Cobb, skip. The Allen Memorial Medal, Utica C.C. #2, Ed Boerger, skip. The Country Club Cup, Marmora C.C., V. Glover, skip. The Dewar Trophy, Utica C.C. #1, Joseph Brindisi, skip.

The Governor's Bowl, Albany, N. Y. Jan. 18-21, Plainfield C.C., R. A. Fuller, skip. The Patroon Plate, Albany C.C., Joseph Lisuzzo, skip. The Fort Orange Trophy, Schenectady C.C., Henry Parker, skip.

The Dykes Memorial Medal, Rochester, N. Y. Jan. 19-21, Schenectady C.C., C. Hequembourg, skip. The Brakline Trophy, Nashua C.C., W. Zeisel, skip. The Davies Bowl, Mahopac C.C., Wm. Switzer, skip.

The Ardsley Medal, Ardsley, N. Y., and Hastings on Hudson, N. Y. Feb. 1-4, N. Y. Caledonian C.C., Vern Hamby, skip. The Mahopac Medal, St. Andrew's Golf Club, Don McKay, skip. The N. Y. Caledonian Medal, Brae Burn C.C., Wheat Kittredge, skip.

The Nutmeg Stone, Darien, Conn. Feb. 8-11, Nutmeg C.C., Don McLeod, skip. The Bartlett Medal, N. Y. Caledonian C.C., Gerry Wade, skip.

The Ardsley Shield, Nashua C.C., W. Bickford, skip. The Consolation, Utica C.C., Monty Mead, skip.

U. S. Women's Curling Assn. National Championships, Duluth, Minn. Feb. 14-17, St. Paul Bonnie Spielers, Joanne Schwab, skip.

The Howard Stockton Cup, Brookline, Mass. Feb. 22-25, Brae Burn C.C., Bud Chandler, skip. The Clyde Park Cup, Montreal Thistle, Jim McAvity, skip. The Primrose Cup, The Country Club, Dick Hallowell, skip.

The Edisson Medal, Ardsley on Hudson, N. Y. Feb. 23-25, N. Y. Caledonian C.C., Vern Hamby, skip. The St. Andrew's Medal, Montreal Thistle C.C., J. Mewman, skip. The Nutmeg Jug, Schenectady C.C., Gordon Link, skip.

The Gordon Championship Rink Medal, Schenectady, N. Y. Feb. 29-Mar. 3, Buffalo C.C., W. Vance, skip. The Emmet Memorial Medal, Rochester C.C., W. J. Dulmage, skip. The Mohawk Trophy, Petersham C.C., Art Hamm, skip.

U. S. Men's Curling Association National Championships, Madison, Wis. Mar. 4-9, Wisconsin, Bud Somerville, skip.

The McDonald Brier Canadian Championships, Kelowna B.C., Mar. 4-8, Calgary C.C., Ron Northcott, skip.

The Gordon International Medal, Hastings on Hudson, Ardsley, N. Y., Darien, Conn. Mar. 15-16, Canada defeated United States by 34 stones.

The Silver Broom World's Championship, Pointe Claire, Mar. 20-24, won by Canada, Roy Northcott, skip.

16th North American Canoeing Championships

Philadelphia, Pa., Aug. 18, 1968

Canoe Singles—Chris Hook, Canada.

Canoe Doubles—Canada (Jim Reardon & Dean Oldershaw).

Kayak Singles—John Pickett, United States.

Kayak Doubles—United States (Bob Harris & Bill Bragg).

Point Score—Canada 53; United States 51.

Amateur Wrestling in 1968

NATIONAL AAU CHAMPIONSHIPS

Lincoln, Neb., Apr. 11-16

Freestyle

114.5 Lbs.—Arthur Chavez, San Francisco Olympic Club.

125.5 Lbs.—Rich Sofman, New York Athletic Club.

138.5 Lbs.—Masamitsu Ichiguchi, New York Athletic Club.

154 Lbs.—Bobby Douglas, Michigan Wrestling Club.

171.5 Lbs.—Mike Gallego, San Francisco Olympic Club.

191.5 Lbs.—Russ Camilleri, San Francisco Olympic Club.

213.5 Lbs.—Henk Schenk, U. S. Army.

Heavyweight—Larry Kristoff, Mayor Daley Youth Foundation.

Outstanding Wrestler—Russ Camilleri.

Outstanding Sportsman—Mike Young, Brigham Young.

Team Champions—San Francisco Olympic Club.

Greco-Roman

114.5 Lbs.—Arthur Chavez, San Francisco Olympic Club.

125.5 Lbs.—Ikeni Yamamoto, Japan.

138.5 Lbs.—Jim Hezewinkel, U. S. Army.

154 Lbs.—Fred Lett, Michigan Wrestling Club.

171.5 Lbs.—Larry Lyden, Minnesota OWA.

191.5 Lbs.—Wayne Baughman, U. S. Air Force.

213.5 Lbs.—Jess Lewis, Oregon State.

Heavyweight—Bob Johnson, Minnesota OWA.

Outstanding Wrestler—Jim Hezewinkel.

Outstanding Sportsman—Steve Garner, Marshfield, Oregon.

Team Champions—Minnesota Olympic Wrestling Assn.

Golf Records

AMERICAN (UNITED STATES) GOLF CHAMPIONS

Yr.	United States Open	National Amateur	Natl Women's Amateur	Yr.	United States Open	National Amateur	Natl Women's Amateur
1900	Harry Vardon.	W. J. Travis.	F. C. Griscom	1935	S. Parks, Jr.	W. L. Little, Jr.	Glenna C. Vare
1901	W. Anderson.	W. J. Travis.	G. Hecker	1936	Tony Manero.	Joha Fischer.	Famela Barton
1902	L. Auchterlonie	L. N. James.	G. Hecker	1937	R. Guldahl.	J. Goodman.	Mrs. E. L. Page
1903	W. Anderson.	W. J. Travis.	Bessie Anthony	1938	R. Guldahl.	W. Turnesa.	Patty Berg
1904	W. Anderson.	H. C. Egan.	G. M. Bishop	1939	B. Nelson.	M. Ward.	Betty Jameson
1905	W. Anderson.	H. C. Egan.	P. Mackay	1940	L. Little.	R. Chapman.	Betty Jameson
1906	Alex Smith.	E. M. Byers.	H. S. Curtis	1941	C. Wood.	M. Ward.	Mrs. F. Newell
1907	Alex Ross.	J. D. Travers.	M. Curtis	1942-45	(Not played)		
1908	Fred McLeod.	J. D. Travers.	K. C. Harley	1946	L. Mangrum.	T. Bishop.	Mrs. B. Zaharias
1909	G. Sargent.	R. A. Gardner.	D. L. Campbell	1947	L. Worsham.	R. Riegle.	Louise Suggs
1910	Alex Smith.	W. Fownes, Jr.	D. L. Campbell	1948	Ben Hogan.	W. Turnesa.	Grace Lengzyk
1911	J. McDermott.	H. H. Hilton.	M. Curtis	1949	C. Middlecoff.	S. Sam.	Mrs. D. Porter
1912	J. McDermott.	J. D. Travers.	M. Curtis	1950	Ben Hogan.	Sam Uzetta.	Beverly Hanson
1913	F. Oulmet.	J. D. Travers.	G. Ravenscroft	1951	Ben Hogan.	W. Maxwell.	Dorothy Kirby
1914	Walter Hagen.	F. Oulmet.	Mrs. H. A. Jackson	1952	Julius Boros.	Jack Westland	Mrs. J. Pung
1915	J. D. Travers.	R. Gardner.	Mrs. C. H. Vanderbeck	1953	Ben Hogan.	Gene Littler.	Mary Faulk
1916	C. Evans, Jr.	C. Evans, Jr.	Alexa Stirling	1954	Ed Furgol.	Arnold Palmer	B. Romack
1917-1918	(Not played)			1955	Jack Fleck.	Harvie Ward.	Pat Lesser
1919	Walter Hagen.	S. D. Herron.	Alexa Stirling	1956	C. Middlecoff.	Harvie Ward.	M. Stewart
1920	Edward Ray.	C. Evans, Jr.	Alexa Stirling	1957	Dick Mayer.	Lt. H. Robbins	J. Gunderson
1921	Jas. Barnes.	T. Gullford.	M. Hollins	1958	Tommy Bolt.	Charles Coe.	Anne Quast
1922	G. Sarazen.	J. Sweetser.	Glenna Collett	1959	Bill Casper, Jr.	Jack Nicklaus.	B. McIntire
1923	R. T. Jones, Jr.	R. H. Marston	E. Cummings	1960	Arnold Palmer	Deane Beman.	Jo Anne Gunderson
1924	C. Walker.	R. T. Jones, Jr.	Mrs. D. C. Hurd	1961	Gene Littler.	Jack Nicklaus.	Mrs. Anne Q. Decker
1925	W. Macfarlane.	R. T. Jones, Jr.	Glenna Collett	1962	Jack Nicklaus.	Labron Harris, Jr.	Jo Anne Gunderson
1926	R. T. Jones, Jr.	G. Von Elm.	Mrs. G. Stetson	1963	Julius Boros.	Deane Beman.	Anne Q. Welts
1927	T. Armour.	R. T. Jones, Jr.	Mrs. M. Horn	1964	Ken Venturi.	Wm. Campbell	Barbara McIntire
1928	J. Farrell.	R. T. Jones, Jr.	Glenna Collett	1965	Gary Player.	Robert Murphy, Jr.	Jean Ashley
1929	R. T. Jones, Jr.	H. R. Johnson, Jr.	Glenna Collett	1966	Billy Casper.	Gary Cowan.	Jo Anne Carner
1930	R. T. Jones, Jr.	R. T. Jones, Jr.	Glenna Collett	1967	Jack Nicklaus.	Bob Dickson.	Lou Dill
1931	Wm. Burke.	F. Oulmet.	Helen Hicks	1968	Lee Trevino	Bruce Fleisher	Jo Anne Carner
1932	Gene Sarazen.	C. R. Somerville	Virg. Van Wle				
1933	John Goodman	G. Dunlap, Jr.	Virg. Van Wle				
1934	O. Dutra.	W. L. Little, Jr.	Virg. Van Wle				

Masters Golf Tournament Champions

Augusta, Ga.

Year	Winner	Score	Year	Winner	Score	Year	Winner	Score
1934	Horton Smith.	284	1947	Jimmy Demaret.	281	1958	Arnold Palmer.	284
1935	Gene Sarazen.	281	1948	Claude Harmon.	279	1959	Art Wall, Jr.	284
1936	Horton Smith.	285	1949	Sam Snead.	282	1960	Arnold Palmer.	282
1937	Byron Nelson.	283	1950	Jimmy Demaret.	283	1961	Gary Player.	280
1938	Henry Picard.	285	1951	Ben Hogan.	280	1962	Arnold Palmer.	280
1939	Ralph Guldahl.	279	1952	Sam Snead.	286	1963	Jack Nicklaus.	286
1940	Jimmy Demaret.	280	1953	Ben Hogan.	274	1964	Arnold Palmer.	276
1941	Craig Wood.	280	1954	Sam Snead.	289	1965	Jack Nicklaus.	271
1942	Byron Nelson.	280	1955	Cary Middlecoff.	279	1966	Jack Nicklaus.	288
1943-1945	(Not played)		1956	Jack Burke.	289	1967	Gay Brewer, Jr.	280
1946	Herman Keiser.	282	1957	Doug Ford.	283	1968	Bob Goalby.	277

*Won Playoff

Professional Golfers' Association Championships

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1945	Byron Nelson	1951	Sam Snead	1957	Lionel Hebert	1963	Jack Nicklaus
1946	Ben Hogan	1952	James Turnesa	1958	Dw. Finsterwald	1964	Bob Nichols
1947	J. Ferrier (Aust.)	1953	Walter Burkemo	1959	Bob Rossburg	1965	Dave Marr
1948	Ben Hogan	1954	Melvin Harbert	1960	Jay Herbert	1966	Al Gelberger
1949	Sam Snead	1955	Doug Ford	1961	Jerry Barber	1967	Don January
1950	Chandler Harper	1956	Jack Burke	1962	Gary Player	1968	Julius Boros

U. S. Women's Open Golf Champions

Year	Winner	Year	Winner	Year	Winner
1948	Mrs. M. D. Zaharias	1955	Fay Crocker	1962	Muri Lindstrom
1949	Louise Suggs	1956	Mrs. E. Cornelius	1963	Mary Mills
1950	Mrs. M. D. Zaharias	1957	Betsy Rawls	1964	Mickey Wright
1951	Betsy Rawls	1958	Mickey Wright	1965	Carol Mann
1952	Louise Suggs	1959	Mickey Wright	1966	Sandra Spuzich
1953	Betsy Rawls	1960	Betsy Rawls	1967	Catherine Lacoste (a)
1954	Mrs. M. D. Zaharias	1961	Mickey Wright	1968	Sue Maxwell Berning

(a) Amateur

Professional Golfers' Association Hall of Fame

Established in 1940 to honor those who have made outstanding contributions to the game by their lifetime playing ability.

Anderson, Willie	Dutra, Olin	Little, W. Lawson	Sarazen, Gene
Armour, Tommy	Evans, Chick	Mangrum, Lloyd	Shute, Denny
Barnes, Jim	Farrell, Johnny	McDermott, John	Smith, Alex
Brady, Mike	Ghezzi, Vic	McLeod, Fred	Smith, Horton
Burke, Billy	Guldahl, Ralph	Neison, Byron	Smith, MacDonald
Cooper, Harry	Hagen, Walter	Oulmet, Francis	Snead, Sam
Cruikshank, Bobby	Harrison, E. J.	Picard, Henry	Travers, Jerry
Demaret, Jimmy	Hogan, Ben	Revolta, Johnny	Travis, Walter
Diegel, Leo	Hutchinson, Jock, Sr.	Ranjan, Paul	Wood, Craig
Dudley, Edward	Jones, Bob		

Open and Invitation Golf Tournaments in 1968

MEN					
Date	Event	Winner	Score	Prize	
Jan. 14	Bing Crosby Tournament, Pebble Beach, Calif.	Johnny Pott	*285	\$16,000	
Jan. 21	Kaiser International Open, Napa, Calif.	Kermit Zarley	273	25,000	
Jan. 28	Los Angeles Open	Billy Casper	274	20,000	
Feb. 4	Bob Hope Desert Classic, Palm Springs, Calif.	Arnold Palmer	*348	20,000	
Feb. 11	Andy Williams—San Diego Open	Tom Weiskopf	273	30,000	
Feb. 18	Phoenix Open	George Knudson	272	20,000	
Feb. 25	Tucson Open	George Knudson	273	20,000	
Mar. 10	Doral Open, Miami, Fla.	Gardner Dickinson	275	20,000	
Mar. 17	Florida Citrus Open, Orlando	Dan Sikes	274	20,000	
Mar. 25	Pensacola Open, Fla.	George Archer	268	14,000	
Mar. 31	Greater Jacksonville Open	Tony Jacklin	273	20,000	
Apr. 8	Greater Greensboro Open, N. C.	Billy Casper	267	27,500	
Apr. 14	Masters Golf Tournament, Augusta, Ga.	Don Goalby	277	20,000	
Apr. 21	Tournament of Champions, Las Vegas	Don January	276	30,000	
Apr. 21	Azalea Open, Wilmington, N. C.	Steve Reid	*271	5,000	
Apr. 28	Byron Nelson Golf Classic, Dallas, Tex.	Miller Barber	270	20,000	
May 5	Champions Golf Tournament, Houston	Roberto de Vicenzo	274	20,000	
May 12	Greater New Orleans Open	George Archer	271	20,000	
May 19	Colonial National Invitational Tournament, Ft. Worth	Billy Casper	275	25,000	
May 26	Memphis Open	Bob Lunn	268	20,000	
June 2	Atlanta Golf Classic	Bob Lunn	280	23,000	
June 9	Indianapolis Open	Billy Casper	280	20,000	
June 17	U. S. Open Golf Championship, Rochester, N. Y.	Lee Trevino	275	30,000	
June 23	Canadian Open, Toronto	Bob Charles	274	25,000	
June 30	Cleveland Open	Dave Stockton	276	22,000	
July 7	Buick Open, Grand Blanc, Mich.	Tom Weiskopf	280	25,000	
July 14	Greater Milwaukee Open	Dave Stockton	275	40,000	
July 21	Professional Golfers Assn. Championship, San Antonio	Julius Boros	281	25,000	
July 28	Minnesota Golf Classic	Dan Sikes	272	20,000	
Aug. 4	Western Open, Chicago	Jack Nicklaus	273	26,000	
Aug. 11	American Golf Classic, Akron	Jack Nicklaus	*280	25,000	
Aug. 18	Westchester Golf Classic, Harrison, N. Y.	Julius Boros	272	50,000	
Aug. 25	Philadelphia Golf Classic	Bob Murphy	*276	20,000	
Sept. 2	Thunderbird Classic, Clifton, N. J.	Bob Murphy	277	30,000	
Sept. 8	Greater Hartford Open, Conn.	Billy Casper	266	20,000	
Sept. 8	World Series of Golf, Akron	Gary Player	*143	50,000	
Sept. 15	Kemper Open, Sutton, Mass.	Arnold Palmer	276	30,000	
Oct. 5	Alcan Golf Tournament Southport, Eng.	Gay Brewer	283	55,000	
Oct. 20	Sahara Invitation Tournament, Las Vegas	Chi Chi Rodriguez	*274	20,000	

WOMEN

Mar. 17	Orange Blossom Open, St. Petersburg	Kathy Whitworth	213	\$1,875	
Mar. 31	Palm Beach County Open, Fla.	Mickey Wright	215	1,875	
Apr. 14	O'Sullivan Tournament, Winchester, Va.	Marilyn Smith	216	1,875	
Apr. 21	Lady Carling Open, Atlanta	Carol Mann	200	2,250	
Apr. 28	Raleigh Invitational	Carol Mann	214	2,250	
May 5	Shreveport Kiwanis Tournament, La.	Carol Mann	217	1,725	
May 12	Tall City Open, Midland, Tex.	Mickey Wright	204	2,625	
May 26	Dallas Civitan Open	Kathy Whitworth	209	2,775	
June 9	Bludgrass Invitational Tournament, Louisville	Carol Mann	210	2,100	
June 23	Ladies PGA Tournament, Sutton, Mass.	Sandy Post	*294	3,000	
June 30	Lady Carling Open, Baltimore	Kathy Whitworth	214	3,000	
July 7	United States Open, Reading, Pa.	Susie Maxwell Berning	289	5,000	
July 14	Pabst Open, Columbus, Ohio	Carol Mann	206	4,200	
July 21	Buckeye Savings Tournament, Cincinnati	Carol Mann	209	2,775	
Aug. 12	Concord Open, Klamath Lake, N. Y.	Shirley Englehorn	229	*4,275	
Aug. 18	Holiday Inn Invitational, St. Louis	Kathy Whitworth	206	2,260	
Sept. 1	Willow Park Open, Calgary, Alberta	Carol Mann	205	2,250	
Sept. 8	Pacific Golf Tournament, Eugene, Ore.	Sandra Haynie	213	1,875	
Sept. 15	Shirley Englehorn Invitational, Caldwell, Idaho	Carol Mann	208	1,725	
Sept. 22	Kings River Open, Kingsburg, Calif.	Kathy Whitworth	208	2,250	

*Won playoff of tie

BRITISH OPEN GOLF CHAMPIONS

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1905.	James Braid	1926.	R. T. Jones, Jr. (U. S.)	1940-45	(Not played)	1959.	Gary Player
1906.	James Braid	1927.	R. T. Jones, Jr. (U. S.)	1946.	S. Snead (U. S.)	1960.	Kel Nagle (Aust.)
1907.	Arnauud Massy	1928.	W. Hagen (U. S.)	1947.	F. Daly (Ireland)	1961.	Arnold Palmer
1908.	James Braid	1929.	W. Hagen (U. S.)	1948.	T. H. Cotton	1962.	Arnold Palmer
1909.	J. H. Taylor	1930.	R. T. Jones, Jr. (U. S.)	1949.	Bobby Locke (Africa)	1963.	Bob Charles (N.Z.)
1910.	James Braid	1931.	T. Armour (U. S.)	1950.	Bobby Locke (So. Africa)	1964.	Tony Lena (U. S.)
1911.	H. Vardon	1932.	G. Sarazen (U. S.)	1951.	Max Faulkner	1965.	Peter Thomson
1912.	Ed. Ray	1933.	D. Shute (U. S.)	1952.	Bobby Locke (Africa)	1966.	Jack Nicklaus (U. S.)
1913.	J. H. Taylor	1934.	T. H. Cotton	1953.	Ben Hogan (U. S.)	1967.	Roberto de Vicenzo (Arg.)
1914.	H. Vardon	1935.	A. Perry	1954.	P. Thomson (Aust.)	1968.	Gary Player (So. Africa)
1915-1919	(Not played)	1936.	Alf Padgham	1955.	Peter Thomson		
1920.	George Duncan	1937.	T. H. Cotton	1956.	Peter Thomson		
1921.	Jock Hutchison	1938.	Whitecomb R. A.	1957.	Bobby Locke		
1922.	Walter Hagen (U.S.)	1939.	D. Burton	1958.	Peter Thomson		
1923.	A. H. Havers						
1924.	W. Hagen (U. S.)						
1925.	J. Barnes (U. S.)						

BRITISH AMATEUR GOLF CHAMPIONS

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1908.	E. A. Lassen	1926.	J. Sweetser (U. S.)	1940-45	(Not played)	1956.	John Beharrell
1909.	R. Maxwell	1927.	Dr. W. Tweddell	1946.	J. Bruen	1957.	Reid Jack
1910.	John Ball	1928.	T. P. Perkins	1947.	W. Turnesa	1958.	Joseph Carr
1911.	H. H. Hilton	1929.	C. Tolley	1948.	F. Strahan (U. S.)	1959.	Desha Berman (U.S.)
1912.	John Ball	1930.	R. T. Jones, Jr. (U.S.)	1949.	Sam McCready	1960.	Joseph Carr
1913.	H. H. Hilton	1931.	E. Martin-Smith	1950.	Frank Stranahan (U. S.)	1961.	Michael Bonallack
1914.	J. L. C. Jenkins	1932.	J. De Forest	1951.	Dick Chapman (U. S.)	1962.	Richard Davies (U. S.)
1915-1919	(Not played)	1933.	M. Scott	1952.	H. Ward (U. S.)	1963.	Michael Lunt
1920.	Cyril J. Tolley	1934.	W. L. Little, Jr. (U.S.)	1953.	Joseph Carr	1964.	Gordon Clark
1921.	W. I. Hunter	1935.	W. L. Little, Jr. (U.S.)	1954.	Doug Bachli (Aust.)	1965.	Mike Bonallack
1922.	E. W. Holderness	1936.	H. Thompson	1955.	Lt. Joseph Conrad (U. S.)	1966.	Bobby Cole
1923.	R. Wethered	1937.	R. Sweeney (U.S.)			1967.	Bob Dickson (U.S.)
1924.	E. W. Holderness	1938.	C. Yates (U. S.)			1968.	Mike Bonallack
1925.	R. Harris	1939.	A. Kyle				

CANADIAN OPEN GOLF CHAMPIONS

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1940.	S. Sneed	1948.	C. Congdon	1955.	Arnold Palmer (U.S.)	1962.	Ted Kroll (U.S.)
1941.	S. Sneed	1949.	E.J. Harrison (U.S.)	1956.	Douglas Sanders (U.S.)	1963.	Doug Ford (U.S.)
1942.	C. Wood	1950.	Jim Ferrier (U.S.)	1957.	George Bayer (U.S.)	1964.	Kel Nagle (Aust.)
1943-44.	(Not played)	1951.	Jim Ferrier (U.S.)	1958.	Wes Ellis, Jr. (U.S.)	1965.	Gene Littler (U.S.)
1945.	Byron Nelson	1952.	J. Palmer (U.S.)	1959.	Doug Ford (U.S.)	1966.	D. Massengale (U.S.)
1946.	G. Fazio	1953.	Dave Douglas (U.S.)	1960.	Art Wall, Jr. (U.S.)	1967.	Billy Casper (U.S.)
1947.	R. Locke (S. Af.)	1954.	Pat Fletcher	1961.	Jacky Cupit (U.S.)	1968.	Bob Charles (N.Z.)

CANADIAN AMATEUR GOLF CHAMPIONS

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1939.	K. Black	1950.	W. Mawhinney	1957.	Nick Weslock	1963.	Nick Weslock
1940-45.	(Not played)	1951.	Walter McElroy	1958.	Bruce Castator	1964.	Nick Weslock
1946.	H. Nartell	1952.	L. Bouchey (U.S.)	1959.	John Johnston	1965.	George Henry
1947.	F. Stranahan (U.S.)	1953.	Don Cherry (U.S.)	1960.	Kelth Alexander	1966.	Nick Weslock
1948.	F. Stranahan (U.S.)	1954.	H. Ward, Jr. (U.S.)	1961.	Gary Cowan	1967.	Stuart Jones
1949.	R. Chapman (U.S.)	1955.	Moe Norman	1962.	Reg Taylor	1968.	Jim Doyle

International Curtis Cup Golf Match

UNITED STATES VS. GREAT BRITAIN—WOMEN'S AMATEUR (BIENNIAL)

Series Standing—United States 11, Great Britain 2, 2 ties

Year	Series Record	Year	Series Record
1948.	United States 6½; Great Britain 2½	1960.	United States 6½; Great Britain 2½
1950.	United States 7½; Great Britain 1½	1962.	United States 8; Great Britain 1
1952.	Great Britain 5; United States 4	1964.	United States 10½; Great Britain 7½
1954.	United States 6; Great Britain 3	1966.	United States 13; Great Britain 5
1956.	Great Britain 5; United States 4	1968.	United States 10½; Great Britain 7½
1958.	Great Britain 4½; United States 4½		

Ryder Cup Matches

UNITED STATES VS. GREAT BRITAIN—PROFESSIONAL (BIENNIAL)

Series Standing—United States 14, Great Britain 3

Year	Series Record	Year	Series Record
1951—	United States 9½; Great Britain 1½	1959—	United States 8½; Great Britain 3½
1953—	United States 6½; Great Britain 5½	1961—	United States 14½; Great Britain 9½
1955—	United States 8; Great Britain 4	1963—	United States 23; Great Britain 9
1957—	Great Britain 7; United States 4	1965—	United States 19½; Great Britain 12½
		1967—	United States 23½; Great Britain 8½

International Walker Cup Golf Match

UNITED STATES VS. GREAT BRITAIN—MEN'S AMATEUR (BIENNIAL)

Series Standing—United States 19, Great Britain 1, 1 tie

Year	Series record	Year	Series record
1947..	United States 8; Great Britain 4	1959..	United States 9; Great Britain 3
1949..	United States 10; Great Britain 2	1961..	United States 11; Great Britain 1
1951..	United States 6; Great Britain 3 (3 halved)	1963..	United States 9; Great Britain 3
1953..	United States 9; Great Britain 3	1965..	United States 11; Great Britain 11
1955..	United States 10; Great Britain 2	1967..	United States 13; Great Britain 7
1957..	United States 8; Great Britain 3		

Contract Bridge Championships in 1967-1968

Winners of Major Events at 3 National Tournaments

Fall 1967—Spring and Summer 1968

Source: American Contract Bridge League

Board-a-Match Teams—Edgar Kaplan, Alvin Roth, William Root, all New York, N. Y.; Arthur Robinson, Stratford, Pa.; Robert Jordan, Bala Cynwyd, Pa.; Norman Kay, Philadelphia, Pa.

Men's Teams—Ira Corn, William Eisenberg, Robert Goldman, Michael Lawrence, Robert Wolff, all Dallas, Texas; James Jacoby, Richardson, Texas.

Women's Teams—Bee Schenken, New York, N. Y.; Sallie Johnson, Westport, Conn.; Peggy Solomon, Philadelphia, Pa.; Mary Jane Farrell, Beverly Hills, Calif.

Mixed Teams—Oswald Jacoby, Dallas, Texas; Helen Sobel Smith, Detroit, Mich.; James Jacoby, Richardson, Texas; Minda Brachman, Dallas, Texas.

Spingold Knockout Teams—George Rapee, Edgar Kaplan, New York, N. Y.; Sidney Lazard, New Orleans, La.; Eric Murray, Sammy Kehela, both Toronto, Ont., Canada.

Vanderbilt Knockout Teams—Edgar Kaplan, Alvin Roth, William Root, all New York, N. Y.; Norman Kay, Philadelphia, Pa.; Arthur Robinson, Stratford, Pa.; Robert Jordan, Bala Cynwyd, Pa.

Blue Ribbon Pairs—Sammy Kehela, Wolf Lebovic, both Toronto, Ont., Canada.

Life Masters Men's Pairs—Peter Pender, San Francisco, Calif.; Harlow Lewis, Philadelphia, Pa.

Life Masters Women's Pairs—Mrs. Nancy Gruver, Ellicott City, Md.; Mrs. Sue Sachs, Baltimore, Md.

Life Masters Pairs—William Eisenberg, Robert Goldman, both Dallas, Texas.

Men's Pairs—Kyle Larsen, San Francisco, Calif.; Edmond Lazarus, Pikesville, Md.

Women's Pairs—Hermine Baron, Los Angeles, Calif.; Rhoda Walsh, Bel Air, Calif.

Mixed Pairs—Trudy Machlin, Silver Spring, Md.; Kit Woolsey, Washington, D. C.

Open Pairs—Dick Spero, New York, N. Y.; Ronald Blau, Baltimore, N. Y.

Senior and Advanced Senior Masters Pairs—John Landon, Rochester, N. Y.; Henry Greenberg, St. Paul, Minn.

1968 World Bridge Olympiad, Deauville, France—Italy (Walter Avarelli, Giorgio Belladonna, Massimo D'Alenio, Pietro Forquet, Benito Garozzo, Camillo Pabis Ticci; Angelo Tracanello, non-playing captain).

Senior National AAU Weightlifting Championships in 1968

York, Pa., June 8-9

Class	Winner	Total (lbs.)
Bantam (123½)	Fernando Baez, Puerto Rico	740
Featherweight (132½)	Walter Imahara, New Orleans AC	795
Lightweight (148½)	Steve Mansour, Detroit	820
Light-heavyweight (181½)	Joe Puleo, Detroit	1025
Middle-heavyweight (198½)	Phil Grappaldi, Bellville, N. J.	1055
242 lb. class	Joe Murry, New Orleans	1035
Heavyweight	Bob Bednarski, York Barbell Club	1260

Ski Championships in 1968

Source: Gloria C. Chadwick, Secy., United States Ski Association

UNITED STATES SKI ASSN. CHAMPIONSHIPS

NATIONAL ALPINE CHAMPIONSHIPS

Crystal Mountain, Wash., Mar. 8-10

Men's Downhill—Scott Henderson, Canada. Time—106.510.

Men's Slalom—Rick Chaffee, U. S. A. Time—97.190.

Men's Giant Slalom—Rick Chaffee, U. S. A. Time—140.780.

Women's Downhill—Ann Black, U. S. A. Time—114.040.

Women's Slalom—Judy Nagel, U. S. A. Time—97.680.

Women's Giant Slalom—Marilyn Cochran, U.S.A. Time—136.300.

ROCH CUP CHAMPIONSHIPS

Aspen, Colo., Mar. 15-17

Men's Downhill—Gerhard Nanning, Austrian. Time—119.49.

Men's Slalom—Bill Kidd, U. S. A. Time—126.18.

Men's Giant Slalom—Reinhard Tritcher, Austrian. Time—154.00.

Men's Combined—Bill Kidd, U. S. A. Total Pts.—14.27.

Women's Downhill—Nancy Greene, Canada. Time—133.29.

Women's Slalom—Nancy Greene, Canada. Time—88.48.

Women's Giant Slalom—Nancy Greene, Canada. Time—126.02.

Women's Combined—Nancy Greene, Canada.

NCAA CHAMPIONSHIPS

Steamboat Springs, Colo., Mar. 21-23

Downhill—Barney Pett, Ft. Lewis. Time—1:37.30.

Cross Country—Clark Matis, Colorado. Time—56.21.

Two Run Slalom—Dennis McCoy, Denver. Time—1:36.32.

Jumping—Peter Robes, Wyoming. 221.2 p ints.

Team Standing—Wyoming, 383.9 points; Denver, 376.2 points; Dartmouth, 369.5 points.

American Ski Jumping Records

Year	Skier	Site	Distance Feet
1910	Oscar Gunderson	Chippewa Falls, Wis.	138
1910	August Nordby	Ishpeming, Mich.	140
1911	Anders Haugen	Ironwood, Mich.	152
1913	Ragnar Omvædt	Ironwood, Mich.	169
1913	Lars Haugen	Steamboat Springs, Colo.	185
1916	Ragnar Omvædt	Steamboat Springs, Colo.	192
1917	Henry Hall	Steamboat Springs, Colo.	203
1919	Anders Haugen	Dillon, Colo.	213
1919	Lars Haugen	Steamboat Springs, Colo.	214
1932	Glen Armstrong	Salt Lake City, Utah	224
1932	Hans Beck	Lake Placid, N. Y.	235
1934	John Elvrum	Big Pine, Calif.	240
1937	Alf Engen	Salt Lake City, Utah	242
1939	Alf Engen	Iron Mountain, Mich.	251
1939	Robert Roecker	Iron Mountain, Mich.	257
1941	Alf Engen	Iron Mountain, Mich.	267
1941	Torger Tokle	Leavenworth, Wash.	273
1941	Torger Tokle	Hyak, Wash.	288
1942	Torger Tokle	Iron Mountain, Mich.	289
1949	Sverre Kongsgaard	Hyak, Wash.	290
1949	Joe Perrault	Iron Mountain, Mich.	293
1949	Matti Pietikainen	Iron Mountain, Mich.	294
1949	Joe Perrault	Iron Mountain, Mich.	297
1950	Gorden Wren	Steamboat Springs, Colo.	297
1950	Billy Olson	Iron Mountain, Mich.	297
1951	Ansten Samuelstuen	Steamboat Springs, Colo.	316
1960	James Brennan	Iron Mountain, Mich.	316
1962	John Balfanz	Westby, Wis.	317
1962	Pekka Tirkkonen	Iron Mountain, Mich.	317
1963	Eugene Kotlarek	Steamboat Springs, Colo.	318-322
1965	Toralf Engan	Leavenworth, Wash.	324
1965	John Balfanz	Iron Mountain, Mich.	325
1967	Bjorn Wirkola	Leavenworth, Wash.	335

Speed Ice-Skating Championships in 1968

UNITED STATES NATIONAL OUTDOOR CHAMPIONSHIPS

St. Paul, Minn., Jan. 27-28, 1968

Senior Men

1/4 Mile—Pete Cefalu, Wis. Time—0:23.2.

440 Yds.—Bobby Fenn, U. S. Army. Time—0:36.4.

880 Yds.—Pete Cefalu, Wis. Time—1:14.0.

3/4 Mile—Pete Cefalu, Wis. Time—2:08.2.

1 Mile—Bobby Fenn, U. S. Army. Time—2:49.1.

2 Miles—Pete Cefalu, Wis. Time—6:12.8.

5 Miles—Bobby Fenn, U. S. Army. Time—15:20.8.

Champion—Peter Cefalu, Wis., 20 Pts.

Senior W men

1/4 Mile—Mary Blair, Wis. Time—0:26.8.

440 Yds.—Helen Lutsch, Ill. Time—0:41.2.

880 Yds.—Helen Lutsch, Ill. Time—1:34.1.

3/4 Mile—Helen Lutsch, Ill. Time—2:25.2.

1 Mile—Helen Lutsch, Ill. Time—3:09.5.

Champion—Helen Lutsch, 20 Pts.

UNITED STATES NATIONAL INDOOR CHAMPIONSHIPS

St. Louis, Mo., Mar. 2-3, 1968

Senior Men

440 Yds.—Pete Cefalu, Wis. Time—0:39.4.

880 Yds.—John Keith, So. Calif. Time—1:18.6.

3/4 Mile—John Keith, So. Calif. Time—2:00.7.

1 Mile—Bill Lanigan, Mid Atlantic. Time—2:43.1.

2 Miles—Bill Lanigan, Time—5:50.3.

Champion—John Keith, So. Calif., 16 Pts.

Senior W men

440 Yds.—Diane Layton, Ill. Time—0:43.5.

880 Yds.—Sally Blatchford, Ill. Time—1:28.1.

3/4 Mile—Mary Blair, Wis. Time—2:19.7.

1 Mile—Sally Blatchford, Ill. Time—3:08.8.

Champion—Mary Blair, Wis., 11 Pts.

UNITED STATES OPEN INDOOR CHAMPIONSHIPS

Flushing, N. Y., Mar. 9, 1968

Senior Men

440 Yds.—Bill Lanigan, Mid Atlantic. Time—0:38.9.

880 Yds.—Bill Lanigan, Time—1:18.8.

3/4 Mile—Bill Lanigan, Time—2:00.5.

1 Mile—Bill Lanigan, Time—2:44.3.

2 Miles—Bill Lanigan, Time—5:45.8.

Champion—Bill Lanigan, 25 Pts.

Senior Women

440 Yds.—Sally Blatchford, Ill. Time—0:43.3.

880 Yds.—Cathy Crowe, Mo. Time—1:29.6.

3/4 Mile—Cathy Crowe, Time—2:17.0.

1 Mile—Sally Blatchford, Time—3:11.2.

Co-Champion—Sally Blatchford and Cathy Crowe, 13 Pts. each.

American Bowling Congress Championships, 1968

Cincinnati, Ohio

REGULAR DIVISION

Individual

1. Wayne Kowalski, Revere, Mass., 279, 241, 218—738.
2. Gary Lewis, Chicago, Ill., 279, 196, 259—734.
3. Jim Robinette, Alexandria, Va., 254, 247, 232—733.
- Runners-up—Ronnie Moore, Louisville, Ky.—718; Douglas Sigler Jr., Metairie, La.—714; Ron Babjar, Eugene, Ore.—710; Edward Hughes, Elmira, N. Y.—701; Larry Everhart, Lexington, N. C.—701; Don Smith, Dayton, Ohio—699; Frank Cutrie, Syracuse, N. Y.—697.

All-Events

1. Vince Mazzanti, Philadelphia, 732, 600, 639—1971.
2. Ronnie Moore, Louisville, Ky., 546, 688, 718—1952.
3. Gary Lewis, Chicago, Ill., 592, 620, 734—1946.
- Runners-up—Alfred Gatena, Dubuque, Iowa—1942; Randall L. Bare, Roanoke, Va.—1935; Dean Bundy, Ft. Dodge, Iowa—1925; Tony Ciocco, Kalamazoo, Mich.—1923; Mike Strannek, Milwaukee, Wis.—1921; Ray Redmer, Detroit, Mich.—1911; Roger Hutton, Joliet, Ill.—1910.

Doubles

1. Rich Stark, Glenwood Springs, Colo., 233, 232, 247—712; Walt Roy, Glenwood Springs, Colo., 175, 226, 212—613. Aggregate 1325.
2. Tie—Louis Abdo, Farmington, Mich., 194, 195, 192—581; Alexander Wasik, Farmington, Mich., 257, 235, 242—734. Aggregate 1315.
2. Tie—Jim Todd, Seattle, Wash., 269, 214, 206—689; Earl Anthony, Seattle, Wash., 186, 194, 246—626. Aggregate 1315.
- Runners-up—Ronnie Moore—Jim Ewald Jr., Louisville, Ky.—1304; Tim Crabtree—Jack Campbell, Louisville, Ky.—1301; Ted Bakatselos—Don Wray, Detroit, Mich.—1296; Ernie Kovach—Dennis Taylor, Cleveland, Ohio—1292; Wally Gay—Dave Brown, Buffalo, N. Y.—1291; Vince Larroque—Rube Scheidt, Alexandria, Va.—1289; Chuck Clay—John Koenig, Chicago, Ill.—1287; Clarence Fath—Stan Warman, Cincinnati, Ohio—1287.

Teams

1. Dave's Auto Supply, Philadelphia, Pa.—Dan Spada, 212, 198, 223—633; Harry Hartman, 194, 202, 234—630; Charles Faino, 238, 193, 186—617; Bud Stoudt, 193, 186, 221—600; Jack Winters, 187, 226, 191—604. Aggregate 3084.
2. Food Fair Stores, Philadelphia, Pa.—Peter Gabriel, 214, 179, 194—587; John Till, 188, 229, 178—595; Vince Mazzanti, 227, 178, 227—732; Don DiCicco, 170, 203, 213—586; Joe Ostroski, 191, 191, 182—564. Aggregate 3064.
3. Washtenaw Lanes, Ann Arbor, Mich.—Donald Biegel, 235, 182, 204—621; James Wilbanks, 203, 178, 220—601; James Deck, 202, 181, 192—575; Larry Durham, 222, 201, 201—624; William Fite, 224, 205, 193—622. Aggregate 3043.

CLASSIC DIVISION

Individual

1. Dave Davis, Phoenix, Ariz., 275, 235, 231—741.
2. Charles Pezzano, Paterson, N. J., 223, 235, 233—691.
3. Vince Luceri Sr., Trenton, N. J., 247, 215, 210—672.
- Runners-up—Joe Joseph, Lansing, Mich.—670; Therm Davis, Chicago, Ill.—699; Lou Frantz Sr., Louisville, Ky.—688; Jim Stefanich, Joliet, Ill.—667; Tom Harnisch, Buffalo, N. Y.—657; Jim Godman, Burbank, Calif.—657; John Barnhill, Inkster, Mich.—653.

All Events

1. Jim Stefanich, Joliet, Ill., 664, 652, 667—1983.
2. Jim Schroeder, Buffalo, N. Y., 626, 674, 644—1944.
3. Lou Frantz Sr., Louisville, Ky., 601, 668, 668—1937.
- Runners-up—Al Thompson, Cleveland, Ohio—1926; Jimmy Certain, Huntsville, Ala.—1925; Bob Strampe, Detroit, Mich.—1918; Joe Joseph, Lansing, Mich.—1913; Mike Totsky, Detroit, Mich.—1903; Tim Harahan, Encino, Calif.—1877; Therm Davis, Chicago, Ill.—1873.

Doubles

1. Bill Tucker, Los Angeles, Calif., 216, 300, 181—697; Don Johnson, Kokomo, Ind., 190, 223, 219—632. Aggregate 1329.
2. Bob Reams, Birmingham, Ala., 204, 203, 224—631; Carl Lundquist, Jackson, Miss., 206, 247, 213—668. Aggregate 1297.
3. Lou Frantz Sr., Louisville, Ky., 242, 246, 180—668; Bob Ramirez, Los Angeles, Calif., 173, 222, 233—628. Aggregate 1296.
- Runners-up—Jimmy Mack—Jim Stefanich, Joliet, Ill.—1294; Dave Soutar—Bob Strampe, Detroit, Mich.—1292; Dale Savoy—Al Thompson, Detroit, Mich.—1288; Ray Bluth, St. Louis—Jimmy Certain, Huntsville, Ala.—1283; Billy Welu, St. Louis—Andy Marzich, Los Angeles—1283; Al Kaelin—Lou Franz Jr., Louisville, Ky.—1280; Chuck Wagner—Fred Johnson, Chicago, Ill.—1279.

Teams

1. Bowl-Rite Supply, Joliet, Ill.—Donald McCune, 597, 646—1243; Jim Mack, 593, 644—1237; Therm Davis, 576, 703—1297; Tim Harahan, 629, 413—1042; Jim Stefanich, 664, 630—1294; Steve Buel, 190—190. Aggregate 6285.
2. Ebonite, Newton, Mass.—Don Carter, 634, 640—1274; Carmen Salvo, 644, 584—1228; Ray Bluth, 620, 643—1263; John Guenther, 623, 612—1235; Les Schissler, 550, 597—1147. Aggregate 6147.
3. Dreyer's Beer, Detroit, Mich.—Bill Schlicker, 689, 607—1296; Bill Srock, 626—526; Walt Fych, 598—598; Joe Joseph, 645, 585—1230; Jack Curry, 613, 555—1168; Jim Schroeder, 626, 596—1222.

Other Bowling Championships in 1968

27th Annual National All-Star Championship, Garden City, L. I., N. Y., May 18-25—Jim Stefanich, Joliet, Ill., average 219-30, prize \$15,000. Women, Dotty Fothergill, Attleboro, Mass., average 211, prize \$5,000.

National Intercollegiate Championships, Cincinnati, Ohio, Mar. 31. Doubles—Pat Holseth, U. of Minnesota and Jerry Steere, Florida State; Singles

—Jack Connaughton, LaCrosse (Wis.) State U. All Events—Jack Connaughton, LaCrosse (Wis.) State U.

Invitational Bowling Tournament of the Americas, Miami, Fla., July 23-28—Men: (singles) Benjamin Corona, Mexico; (doubles) Peter Hoyles & Charles Mile, Canada. Women: (singles) Janice Sue Reichley, U. S.; (doubles) Janice Sue Reichley & Jodie McCullough, U. S.

Masters Bowling Tournament Champions

Year	Winner	Runner-up	W. L.	Ave.
1957	Dick Hoover, Akron, Ohio	Bill Lillard, Chicago, Ill.	9 1	216-39
1958	Tom Hennessey, St. Louis, Mo.	Lou Frantz, Louisville, Ky.	7 0	209-15
1959	Ray Bluth, St. Louis, Mo.	Bill Golembiewski, Detroit, Mich.	7 0	214-26
1960	Bill Golembiewski, Detroit, Mich.	Steve Nagy, St. Louis, Mo.	7 0	206-13
1961	Don Carter, St. Louis, Mo.	Dick Hoover, St. Louis, Mo.	8 1	211-18
1962	Billy Golembiewski, Detroit, Mich.	Ron Winger, Los Angeles, Calif.	7 0	223-12
1963	Harry Smith, St. Louis, Mo.	Bobby Meadows, Dallas, Texas.	7 0	219-3
1964	Billy Welu, St. Louis, Mo.	Harry Smith, Baltimore, Md.	7 0	227
1965	Billy Welu, St. Louis, Mo.	Don Ellis, Houston, Tex.	9 1	202-12
1966	Bob Strampe, Detroit	Al Thompson, Cleveland	7 0	219-8
1967	Lou Scallia, Miami, Fla.	Bill Johnson, New Orleans	9 0	216-9
1968	Pete Tountas, Tucson, Ariz.	Buzz Fazio, Detroit, Mich.	7 1	229-15

MASTERS TOURNAMENT RECORDS

High Series	
Don Carter, St. Louis, Mo., 1962	1,084
Ray Bluth, St. Louis, Mo., 1962	1,051
Wayne Zahn, Atlanta, Ga., 1966	1,038
Tony Lindemann, Detroit, Mich., 1958	1,021
Don Johnson, Kokomo, Ind., 1967	1,019
Don Carter, St. Louis, Mo., 1963	1,017
Joe Joseph, Detroit, Mich., 1961	1,013
Dick Weber, St. Louis, Mo., 1962	1,006
Pete Tountas, Chicago, Ill., 1964	1,006
Don Carter, St. Louis, Mo., 1959	1,005

High Game	
Al Horn, Jr., Los Angeles, Calif., 1961	300
Don Johnson, St. Louis, Mo., 1962	300
Ray Bluth, St. Louis, Mo., 1962	300
Bob Hart, Erie, Pa., 1967	300
Steve Nagy, Cleveland, Ohio, 1952	299
J. D. Myres, Casper, Wyo., 1962	298
Bob Christensen, Phoenix, Ariz., 1962	298
Therm Gibson, Detroit, Mich., 1963	298
Jim Desmond, Fairbanks, Alaska, 1964	296
Jim Erlandson, Nampa, Idaho, 1955	290

American Bowling Congress Champions and Records

Yr.	Individual	All Events	Two-Man Team	Five-Man Team
1959	Ed Lubanski, Detroit, Mich. 764	Ed Lubanski, Detroit, Mich. 2,116	Gib Fischbach-Barney Vehige, St. Louis, Mo. . 1,372	Pfeffer Beer Detroit, Mich. 3,243
1960	Paul Kubiaga, Cleveland, Ohio. 726	Vince Lucel, Trenton, N. J. 1,985	Andy Marzich-Dick Jensen, Los Angeles, Calif. 1,369	A & A Asphalt, Detroit, Mich. 3,096
1961	Lyle Spooner, St. Cloud, Minn. 726	Luke Karen, Detroit, Mich. 1,960	Joseph Macaluso-Eugene Hering, Irvington, N. J. 1,342	Meyerland Builders, Houston, Texas. 3,134
1962	Andy Renaldy, Youngstown, Ohio 720	Billy Young, Tulsa, Okla. 2,015	John Gribbin-Gary Madison, Riverside, Calif. . 1,376	Strike 'n Spare, Chicago, Ill. 3,128
1963	Fred Dellelo, Oneonta, N. Y. 744	Bus Oswalt, Fort Wayne, Ind. 2,055	Fort Wayne, Ind. 1,337	Old Fitzgerald, Chicago. . 3,180
1964	Jim Stefanich, Chicago, Ill. 726	Les Zikes, Chicago, Ill. 2,001	Pat Russo-Tony Russo, Teaneck, N. J. 1,343	300 Bowl Pontiac, Mich. 3,117
1965	Ken Roeth, Dubuque, Iowa. 700	Tom Hathaway, Los Angeles, Calif. 1,922	Buzz Bosler-Dan Slak, Milwaukee, Wis. 1,300	C & C McDermitt, Pittsburgh, Pa. 3,074
1966	Don Chapman, Scranton, Pa. 761	John Wilcox, Jr., Williamsport, Pa. 2,004	Tony Lotacano, Bob Kwiecien, Detroit, Mich. 1,351	Plaza Lanes, Sault Ste. Marie, Ont., Canada. 3,066
1967	Frank Perry, Lorain, Ohio. 723	Gary Lewis, Chicago, Ill. 2,010	Mark Kuglitsch, Ron Wheeler, Milwaukee, Wisc. 1,357	Pinky's Bowl, Milw. 3,327
1968	Wayne Kowalski, Revere, Mass. 778	Vince Macaluso, Philadelphia. 1,971	Rich Stark, Walt Roy, Glenwood Springs, Colo. 1,325	Dave's Auto Supply, Philadelphia. . 3,084

OFFICIAL RECORDS OF ANNUAL ABC TOURNAMENTS

Type of record	Holder of record	Tourn. Yr.	Score
High team total.	Ace Mitchell Shur-Hooks, Akron, Ohio.	1966	3,357
High team game.	Falstaff Beer, San Antonio, Texas.	1958	1,226
High doubles score.	John Klare-Steve Nagy, Cleveland, Ohio.	1952	1,453
High doubles game.	John Gworek-Henry Kmldowski, Buffalo, N. Y.	1946	544
High singles total.	Lee Jougland, Detroit, Mich.	1951	775
High all events score.	'ack Winters, Philadelphia, Pa.	1962	2,147
High team all events.	Falstaff Beer, St. Louis, Mo.	1958	9,608
High life-time pin total.	Bill Doehrmann, Ft. Wayne, Indiana.	1908 to 1968	96,307

RECORD AVERAGES FOR CONSECUTIVE TOURNAMENTS

No. in row	Name of record holder	Span	Games	Average
Two.	Steve Nagy, Cleveland, Ohio.	1951-52	18	224.09
Three.	Steve Nagy, Cleveland, Ohio.	1951-53	27	221.02
Four.	Bob Strampe, Detroit, Mich.	1964-67	48	215.40
Five.	Bob Strampe, Detroit, Mich.	1964-68	57	215.28
Ten.	Bob Strampe, Detroit, Mich.	1959-68	108	208.27

ALL-TIME RECORDS FOR LEAGUE AND TOURNAMENT PLAY

Type of record	Holder of record	Year	Score	Style of competition
High team total.	Budwaiser Beer, St. Louis, Mo.	1958	3,858	League
High team game.	Hook Grip Five, Lodi, N. J.	1950	1,342	League
High doubles total.	Lou Celestino-Jim Troyano, Paterson, N.J.	1963	1,609	League
High doubles game.	Tom Dorn-Ron Spohn, Columbus, O.	1965	587	League
High individual total.	Albert Brandt, Lockport, N. Y.	1933	886	League
High all events score.	Frank Benkovic, Milwaukee, Wis.	1932	2,259	Tournament

BOWLERS WITH FIVE OR MORE SANCTIONED 300 GAMES

Elvin Mesger, Sullivan, Mo.	20	Jerry Wojl, Milwaukee, Wis.	7	Donald Bartz, Milwaukee.	5
George Billick, Old Forge, Pa.	17	Ray Schanen, Milwaukee.	7	Dean Briggs, Tulsa, Okla.	5
Dick Weber, St. Louis, Mo.	15	Salvatore Bivona, Paterson, N.J.	8	*Charley Daw, Milwaukee.	5
Al Faragalli, Wayne, N.J.	13	N.J.	6	Johnny Fehr, Indianapolis, Ind.	5
Walter Ward, Cleveland, O.	12	Bob Ramirez, Los Angeles.	6	Russell Fields, San Jose, Cal.	5
Don Carter, Tarzana, Calif.	12	Lou Campl, Dumont, N. J.	6	Andy Grilli, Milwaukee, Wis.	5
*Hank Marino, Milwaukee.	11	Ed Davis, Milford, N. J.	6	Don Hooper, Anaheim, Cal.	5
Frank Clause, Old Forge, Pa.	11	Don Dubro, St. Louis, Mo.	6	Paul Krumske, Chicago, Ill.	5
Ed Lubanski, Detroit, Mich.	11	*Bill Lynn, Cleveland, O.	6	Paul Kubiaga, Cleveland, O.	5
Ray Bluth, St. Louis, Mo.	10	Sam Garofalo, St. Louis, Mo.	6	Fred Lening, Yardley, Pa.	5
Pat Paterson, St. Louis, Mo.	10	Casey Jones, Plymouth, Wis.	6	Bill Lenzen, Chicago, Ill.	5
Boss Bosco, Akron, O.	9	Joe Joseph, Lansing, Mich.	6	Tony Lindemann, Detroit.	5
Al Savas, Milwaukee, Wis.	9	Pete Kozloski, Plains, Pa.	6	Vince Lucel, Trenton, N. J.	5
Lou Foxie, Paterson, N.J.	9	Steve Nagy, Cleveland, O.	6	Paul Marian, Chicago, Ill.	5
Dave Soutar, Detroit, Mich.	9	Frank Pollak, Pittsburgh, Pa.	6	Norm Meyers, Los Angeles.	5
Dennis Wright, Milwaukee.	9	Wayne Pinkalla, Milwaukee.	6	Larry Oakar, Cleveland, O.	5
Ray Eklund, Milwaukee, Wis.	8	Robert Pinkalla, Milwaukee.	6	Don Osep, Milwaukee, Wis.	5
Walter King, Detroit, Mich.	8	Harold Schaeffer, St. Louis.	6	Ken Rothermich, St. Louis.	5
Julie McMahon, Lodi, N. J.	8	Harry Smith, Redwood City, Calif.	6	Art Scheer, St. Louis, Mo.	5
Tom Hennessey, St. Louis, Mo.	8	Bob Strampe, Detroit, Mich.	6	Frank Sosprato, Cleveland, O.	5
Eddie Botten, Union City, N.J.	7	Jerry Tharp, St. Louis, Mo.	6	Jim Sturm, Cleveland, O.	5
Dick Hoover, Akron, O.	7	George Tomek, Plymouth, Pa.	6	Ed Winchester, Philadelphia.	5
Howard Holmes, Los Angeles.	7	Stephen Tomek, Plymouth, Pa.	6	Bill Bunetta, Fresno, Calif.	5
Ken McKenzie, Dallas, Texas.	7				

*Bowled two 300 games in official 3-game series.

GENERAL BOWLING FIGURES FOR UNITED STATES

	1967-68	1966-67	1965-66	1964-65	1963-64
Total alley beds.	147,526	151,731	156,219	159,079	158,996
Number bowling establishments.	9,707	10,070	10,457	10,752	10,839
Total, ABC teams.	1,203,479	1,217,454	1,248,423	1,264,650	1,268,048
Number of bowlers, all types.	29,000,000	29,000,000	29,000,000	29,000,000	28,000,000

Professional Bowlers Association Tournaments: 1968

Date	Event	Purse	Winner	Winner's share
Jan. 6	North Phoenix Jaycee Open	\$40,000	Dick Ritger	\$6,000
Jan. 13	Showboat Invitational, Las Vegas	55,000	Bill Allen	10,000
Jan. 20	San Jose Open, Calif.	50,000	Bill Allen	7,000
Jan. 27	Denver PBA Open	40,000	Dave Soutar	6,000
Feb. 24	Tampa Bay Sertoma PBA Open	40,000	Jim Stefanich	6,000
Mar. 2	Buckeye Open, Toledo, Ohio	50,000	Jim Stefanich	6,000
Mar. 9	Miller High Life Open, Milwaukee	60,000	Johnny Guenther	10,000
Mar. 16	Greater Buffalo PBA Open	45,000	Bob Strampe	6,000
Mar. 23	Ebonite Gold Cup Open, Mountainside, N. J.	60,000	Teata Semiz	8,000
Mar. 30	New Orleans Lions PBA Open	40,000	Dick Ritger	6,000
Apr. 6	Firestone Tournament of Champions, Akron	100,000	Dave Davis	25,000
Apr. 13	Mobile Sertoma PBA Open	40,000	Jim Stefanich	6,000
June 5	Portland Open	30,000	Billy Hardwick	3,000
June 22	Fresno Open	30,000	Jim Stefanich	3,000
June 30	Squirt Tucson Open	30,000	Jim Stefanich	3,000
July 7	El Paso Open	30,000	Tim Hershman	3,000
July 14	Fort Worth Open	30,000	Mike Durbin	3,000
July 21	Houston Sertoma Open	30,000	Don McCune	3,000
Aug. 11	Grand Haven Open, Mich.	30,000	Wayne Zahn	3,000
Aug. 18	Waukegan Open, Illinois	32,000	Bill Allen	3,000
Sept. 2	Rochester Open, N. Y.	36,000	Bob Strampe	3,000
Sept. 8	Portsmouth-Norfolk Open, Va.	32,000	Tim Hershman	3,000
Sept. 15	Altoona Jaycee Open, Pa.	30,000	Don Johnson	3,000
Sept. 22	Newark Kiwanis Open, N. J.	30,000	Jim Godman	3,000
Sept. 29	Mercury Open, Edison, N. J.	30,000	Bill Allen	3,000
		40,000	Wayne Zahn	3,000

PBA Leading Money Winners

Total winnings are from PBA, ABC Masters and BPAA All-Star tournaments only, and do not include numerous other tournaments nor earnings from special television shows and matches.

Year	Player	Total money	Year	Player	Total money
1959.	Dick Weber.	\$ 7,672	1964.	Bob Strampe.	\$33,592
1960.	Don Carter.	22,525	1965.	Dick Weber.	47,675
1961.	Dick Weber.	26,280	1966.	Wayne Zahn.	54,720
1962.	Don Carter.	49,972	1967.	Dave Davis.	54,165
1963.	Dick Weber.	46,333	1968.	Jim Stefanich (A).	64,790

(a) As of Sept. 16, 1968.

The \$100,000 Firestone Tournament of Champions

This is professional bowling's richest tournament and has been held each year since its inception in 1965, in Akron, Ohio, the home of the Professional Bowlers Association. First prize is \$25,000. The tournament is limited to champions of PBA events and recognized major tournaments.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1965...	Billy Hardwick	1966...	Wayne Zahn	1967...	Jim Stefanich	1968...	Dave Davis

Woman's International Bowling Congress Champions

All-England Champions				
Yr.	Individual	All Events	Two-Woman Teams	Five-Woman Teams
1965	Doris Rudell, Whittier, Calif. ... 659	Donna Zimmerman, Norwalk, Calif. ... 1,833	Betty Remick- Mary Ann White, Denver, Colo. ... 1,263	Belmont Bowl Pro Shop, Chicago, Ill. ... 2,929
1966	Gloria Bouvia, Port- land, Ore. 675	Kate Helbig, Mohnton, Pa. 1,835	Pat Spence-Martha Morgan, Hamp- ton, Va. 1,231	Gossard Girls, Chicago, Ill. 2,755
1967	Glorian Paeth, Pt. Huron, Mich. ... 652	Carol Miller, Milwaukee, Wisc. 1,862	Elaine Liburd-John- Oleske, Union City & Lyndhurst, N. J. 1,252	The Orphans, Los Angeles. 2,970
1968	Norma Parks, Raytown, Md. 691	Janice Reichley, Waco, Tex. 1,889	Pauline Stickler-Mary Lou Graham, ... 1,250	Hudepohl Beer, Cincinnati. 2,923

RECORDS OF 300 GAMES IN WIBC SANCTIONED PLAY

Season

1967-68—Lois Cook, Park Rapids, Minn.; Dee Duncage, Gardena, Calif.; Barbara Flis, Middleton, Wis.; Jeanette Hakawaka, San Francisco; Barbara Hite, Arnold, Mo.; Pauline Huffman, Lexington, Ky.; Sally Husin, Andalusia, Pa.; Linda Land, St. Petersburg, Fla.; Jeann Martin, Seattle; Elizabeth Pepper, Auburn, N. Y.; Lorelie Pippin, San Jose, Calif.; Marlene Rettig, Holgate, Ohio; Jeannine Ritchie, Raytown, Mo.; and Donna Webster, Seattle.

1966-67—Donna Crisler, Carbondale, Kan.; Doreen Daneri, Daly City, Calif.; Pat Dwyer, Medford, Ore.; Bonnie Flint, Placerville, Calif.; Nancy Forry, Ephrata, Pa.; Eva Frank, Norfolk, Neb.; Elois Gray, Harrisburg, Pa.; Mildred Martorella Rochester, N. Y.; Dorothy Kaleel, Houston, Tex.; Arlis Kuess, Big Bend, Wis.; Shirley Mansfield, San Antonio, Tex.; Shirley Miner, Covina, Calif.

1966-67—Donna Crisler, Carbondale, Kan.; Doreen Daneri, Daly City, Calif.; Pat Dwyer, Medford, Ore.; Bonnie Flint, Placerville, Calif.; Nancy Forry, Ephrata, Pa.; Eva Frank, Norfolk, Neb.; Elois Gray, Harrisburg, Pa.; Mildred Martorella Rochester, N. Y.; Dorothy Kaleel, Houston, Tex.; Arlis Kuess, Big Bend, Wis.; Shirley Mansfield, San Antonio, Tex.; Shirley Miner, Covina, Calif.

Shirley Music, Gardena, Calif.; Connie Pick, Bellflower, Calif.; Jane Shira, Bothell, Wash.; Nancy Sillmann, Fullerton, Pa.; Arlene Van Hekken, Holland, Mich.; Barbara White, Lockport, N. Y.; Dolores Witte, Brownsville, Tex.

1965-1966—Dioce Agnone, LaPrescena, Calif.; Virginia Celli, Jacksonville, Fla.; Betty Dart, Grand Forks AFB, N. Dak.; Joanne Doyle, Redwood City, Calif.; Mildred L. Gibson, Tulsa, Okla.; Winona Gums, N. Highlands, Calif.; Joan Holm, Chicago, Ill.; Janet Hoodenpyl, Orangevale, Calif.; Betty Knecht, Minneapolis, Minn.; Betty Milvaz, Tujunga, Calif.; Marty Parish, Corpus Christi, Tex.; Nan Poquette, E. Lansing, Mich.; Ruth Retz, San Harbor, Mich.; Margarette Uncles, Silver Spring, Md.; Sylvia Wagstaff, Zanesville, Ohio; Margaret M. Wilson, Lemay, Mo.

Checker Champions

Source: U. S. Checker Assn., New York, N. Y.

World Freestyle—Enrique Freeman, New York.

N. Y. Strait, Walter Holman, Gary, Indiana

U. S. Straight—Walter Hellman, Gary, Indiana.
Eastern U. S. Straight—Harold Fryer, Brooklyn.

Southern U. S. Straight—Ronald P. Johnson.

Jackson, Tenn. and K. D. Hanson, Fremont, Calif.
(co-champions).

Central U. S. Straight—Eugene Frazier, Parsons, Kansas.

Western U. S. Straight—Millard Hopper, Los Angeles.

National Duckpin Bowling Champions, 1968

Source: Natl. Duckpin Bowling Congress

Men's Singles—Andy Constantinople, New Haven, Conn., 489.
Women's Singles—Mary Ann Mitchell, Avon, Conn., 467.
Men's Doubles—George Haugh-Robert Cleary, Baltimore, Md., 919.
Women's Doubles—Doris Short-Jean Stewart, Baltimore, Md., 780.
Men's Teams—Valley Oilers, Portland, Conn., 2085.

Women's Teams—Johnny's New & Used Cars, Baltimore, Md., 1849.
Men's All Events—Lindset Hammonds, Washington, D. C., 1324.
Women's All Events—Mary Ann Mitchell, Avon, Conn., 1202.
Mixed Doubles—Beverly Conner-Randy Tull, Baltimore, Md., 859.

23rd Annual Rubberband Duckpin Bowling Championships

Heidelberg, Pa., Mar. 30-May 19, 1968

Men's Singles—Richard Pander, New Brighton, Pa., 632.
Women's Singles—Salina Connor, Jean Stewart, both of Baltimore, Md., (tie), 529.
Men's Doubles—Anthony Bullo-James Stoner, Pittsburgh, Pa., 1,179.
Women's Doubles—Ruth Kratz-Salina Connor, Baltimore, Md., 1,033.
Men's All Events—Robert Vosel, Bridgeville, Pa., 1,691.

Women's All Events—Beverly Connor, Baltimore, Md., 1,561.
Men's Team Event—Cappelli's No. 1, Bridgeville, Pa., 2,567.
Women's Team Event—Phil-Mar Major Girls, Baltimore, Md., 2,311.
Mixed Team Event (3 men & 3 women)—Mac-Nab, No. 1, McKeesport, Pa., 3,037.
Mixed Double Event (One Man & One Woman)—Audrey Palm 486-Norman Henning 624, McKeesport, Pa., 1,110.

Lawn Bowls Championships in 1968**NATIONAL OPEN TOURNAMENT, AMERICAN LAWN BOWLS ASS'N**

Milwaukee, Wis., July 13-17

Rettie Memorial Trophy—Milwaukee West LBC (Gerhardt, Hansen, Arnold Prachthausen, Donald Prachthausen).
Chicago Cup—Gary, Indiana LBC (McGaffney, Brown, Milligan, Withers).
Wisconsin Cup—Lakeside LBC, Chicago (Savage, Ibe, Stewart, Davis).
California Trophy (Doubles)—Detroit LBC (Sneddon, Stephen).
Lakeside Trophy (Doubles)—(Esch, Veitch).
Western New York Trophy (Doubles)—Detroit

LBC (Sneddon, Johnson).
National Open Singles Trophy—James Grainger, Toronto, Canada.
Metropolitan Trophy (Singles)—Alex Veitch, Oakland, Calif.
Pacific Northwest Trophy (Singles)—Ralph Welton, Milwaukee, Wis.
United States Championships, A.L.B.A. Buck Hill Falls, Pa., Sept. 3-7 (Singles)—George Dunn, Niagara Falls, N. Y. (Doubles)—James F. Candelet and Robert Smart, Smithfield Avenue LBC, Pawtucket, R. I.

Lacrosse Champions in 1968

27th Annual All Star Game—Hempstead, New York, June 15th, North 9, South 8.
National Intercollegiate Champion (Wingate Trophy)—Johns Hopkins University.
Midwestern Division (Cyrus C. Miller Trophy)—Johns Hopkins University.
Ivy League Champion—Cornell University.
South Atlantic Division (Strobhar Trophy)—Washington College.
Central Atlantic Division (Moore Trophy)—Penn State University.
New York Metropolitan Div. (Lydecker Trophy)—C. W. Post College.
Central New York Division (Cox Trophy)—Syracuse University.
Northern New York Division (Morrill Trophy)—Hartwick College.
Northeastern Division (Taylor Trophy)—Amherst College.

Colonial Division—Nichols College.
Midwest Division (Hixson Trophy)—Denison University.
Rocky Mountain Division—Air Force Academy.

1968 ALL AMERICA LACROSSE TEAM

Goal Milton E. Hilliard (Cornell)
 Goal Malcolm Ogilvie (Navy)
 Defense Carl Tamulevich (Navy)
 Defense Michael A. Clark (Johns Hopkins)
 Defense Peter Coy (Virginia)
 Midfield John McIntosh (Navy)
 Midfield Stephen Pfeiffer (Maryland)
 Midfield Charles Goodell, (Johns Hopkins)
 Attack Joseph W. Cowan (Johns Hopkins)
 Attack Downman McCarty (Johns Hopkins)
 Attack Peter Cramblot (Army)

ALL STAR LACROSSE SERIES RECORD

1951—North 12, South 11	1957—North 14, South 10	1963—South 14, North 11
1952—South 15, North 7	1958—South 26, North 6	1964—American 12, National 10
1953—South 12, North 9	1959—South 10, North 9	1965—North 15, South 10
1954—North 13, South 11	1960—South 13, North 12	1966—South 13, North 5
1955—South 12, North 11	1961—South 12, North 9	1967—North 7, South 5
1956—South 20, North 10	1962—South 14, North 4	1968—North 9, South 8

World Horseshoe Pitching Champions (Men)

Year	Champion	Home	W. L.	Ringer Pct.	Year	Champion	Home	W. L.	Ringer Pct.
1961	Harold Reno Sabina, Ohio		34	1 .838	1965	Elmer Hohl, Wellesley, Ont., Can.		32	3 .846
1962	Paul Focht Dayton, Ohio		32	3 .818	1966	Curt Day Frankfort, Ind.		26	2 .866
1963	John Monasmith Yakima, Wash.		32	3 .823	1967	Dan Kuchinski, Erie, Pa.		34	1 .844
1964	Harold Reno Sabina, Ohio		32	3 .841	1968	Elmer Hohl, Wellesley, Ont.		35	0 .885

National Ladies Champions

Year	Champion	R. Pct.
1961	Vicki (Chapelle) Winston, Lamonte, Mo....	.549
1962	Sue Gillespie, Portland, Ind.....	.653
1963	Vicki (Chapelle) Winston, Lamonte, Mo....	.586
1964	Sue Gillespie, Portland, Ind.....	.811
1965	Sue Gillespie, Portland, Ind.....	.759
1966	Vicki (Chapelle) Winston, Lamonte, Mo....	.725
1967	Vicki (Chapelle) Winston, Lamonte, Mo....	.736
1968	Lorraine Thomas, Lockport, N.Y.....	.746

World Junior Champions

Year	Champion	R. Pct.
1961	Gary Roberts, Lucasville, O.....	.500
1962	Gary Roberts, Lucasville, O.....	.624
1963	Gary Roberts, Lucasville, O.....	.628
1964	Gary Roberts, Lucasville, O.....	.679
1965	Ross Stevenson, Baden, Ont.....	.651
1966	Mark Seibold, Huntington, Ind.....	.756
1967	Farron Elsemann, Riverton, Wyo....	.736
1968	Farron Elsemann, Riverton, Wyo....	.785

World Track and Field Records

Source: International Amateur Athletic Federation; record approved to Oct. 1, 1968
 *Asterisk indicates pending record. A number of new records await confirmation

Men

RUNNING

Event	Record	Holder	Country	Date	Where made
100 yds.	9.1 s.	Bob Hayes.....	U. S. A.	June 21, 1963	St. Louis, Mo.
		James Hines.....	U. S. A.	May 13, 1967	Houston, Tex.
		Charlie Greene.....	U. S. A.	June 15, 1967	Provo, Utah
		Tommie Smith.....	U. S. A.	May 7, 1966	San Jose, Calif.
220 yds.	19.5 s.				
	(Straight course)				
220 yds.	20.0 s.	Tommie Smith.....	U. S. A.	May 11, 1966	Sacramento, Calif.
	(Turn)				
440 yds.	44.8 s.	Tommie Smith.....	U. S. A.	May 20, 1967	San Jose, Calif.
880 yds.	1 m., 45.1 s.	Peter Snell.....	New Zealand.	Feb. 3, 1962	Christchurch, N.Z.
1 mile.	3 m., 51.1 s.	Jim Ryun.....	U. S. A.	June 23, 1967	Bakersfield, Calif.
2 miles.	8 m., 19.8 s.	Ron Clarke.....	Australia.....	Aug. 27, 1967	Sweden
	*8 m., 19.6 s.	Ron Clarke.....	Australia.....	Aug. 24, 1968	London, Eng.
3 miles.	12 m., 52.4 s.	Ron Clarke.....	Australia.....	July 10, 1965	London, Eng.
6 miles.	26 m., 47.0 s.	Ron Clarke.....	Australia.....	July 14, 1965	Oslo, Norway
10 miles.	47 m., 12.8 s.	Ron Clarke.....	Australia.....	Mar. 3, 1965	Mentone, Aust.
15 miles.	1 h., 12 m., 48.2 s.	Ron Hill.....	Gt. Britain.....	July 21, 1965	Bolton, Eng.
1 hour.	12 mi., 1.066 yds.	Ron Clarke.....	Australia.....	Oct. 27, 1965	Victoria, Aust.

RUNNING—METRIC DISTANCES

100 meters.	10.0 s.	Armin Hary.....	Germany.....	June 21, 1960	Zurich, Switzerland
		Harry Jerome.....	Canada.....	July 15, 1960	Saskatchewan, Canada
		Horacio Esteves.....	Venezuela.....	Aug. 15, 1964	Caracas, Venez.
		Bob Hayes.....	U. S. A.	Oct. 15, 1964	Tokyo, Japan
	*9.9 s.	Jim Hines.....	U. S. A.	May 27, 1967	Modesto, Calif.
	*9.9 s.	Charlie Greene.....	U. S. A.	June 20, 1968	Sacramento, Calif.
		Tommie Smith.....	U. S. A.	May 7, 1966	San Jose, Calif.
200 meters.	19.5 s.				
	(Straight course)				
200 meters.	20.0 s.	Tommie Smith.....	U. S. A.	May 11, 1966	Sacramento, Calif.
	(Turn)				
	*19.7 s.	John Carlos.....	U. S. A.	Sept. 12, 1968	S. Lake Tahoe, Cal.
400 meters.	44.5 s.	Tommie Smith.....	U. S. A.	May 20, 1967	San Jose, Calif.
	*44 s.	Lee Evans.....	U. S. A.	Sept. 14, 1968	S. Lake Tahoe, Cal.
800 meters.	1 m., 44.3 s.	Peter Snell.....	New Zealand.....	Feb. 3, 1962	Christchurch, N.Z.
1,000 meters.	2 m., 16.2 s.	Petergen May.....	E. Germany.....	July 20, 1965	Erfurt, Germany
1,500 meters.		Kemper.....	W. Germany.....	Sept. 21, 1966	Hanover, Ger.
	3 m., 33.1 s.	Jim Ryun.....	U. S. A.	July 8, 1967	Los Angeles, Cal.
2,000 meters.	*4 m., 56.2 s.	Michel Jazy.....	France.....	Oct. 12, 1966	Paris, France
3,000 meters.	7 m., 39.6 s.	Kipchoke Kelno.....	Kenya.....	Aug. 27, 1965	Halstingborg
5,000 meters.	13 m., 24.2 s.	Kipchoke Kelno.....	Kenya.....	Nov. 30, 1965	Auckland, N. Z.
10,000 meters.	27 m., 39.4 s.	Ron Clarke.....	Australia.....	July 14, 1965	Oslo, Norway
15,000 meters.	44 m., 54.6 s.	Emil Zatopek.....	Czechoslovakia	Sept. 29, 1951	Stara Boleslav, Czechoslovakia
20,000 meters.	59 m., 22.8 s.	Ron Clarke.....	Australia.....	Oct. 27, 1965	Victoria, Aust.
25,000 meters.	1 h., 15 m., 22.6 s.	Ron Hill.....	Gt. Britain.....	July 21, 1965	Bolton, Eng.
30,000 meters.	1 h., 32 m., 34.6 s.	T. F. K. Johnston.....	Gt. Britain.....	Oct. 16, 1965	Thames, Eng.
3,000 meter stpl.	8 m., 26.4 s.	Gaston Roelants.....	Belgium.....	Aug. 7, 1965	Brussels, Belgium

HURDLES (10 hurdles)

120 yards.	13.2 s.	Martin Lauer.....	Germany.....	July 7, 1959	Zurich, Switz.
		Lee Calhoun.....	U. S. A.	Aug. 21, 1960	Berne, Switz.
		Earl McCullouch.....	U. S. A.	July 16, 1967	Minneapolis, Minn.
220 yards.	21.9 s.	Don Styron.....	U. S. A.	Apr. 2, 1960	Baton Rouge, La.
440 yards.	49.3 s.	G. C. Potgieter.....	South Africa.....	Apr. 16, 1960	Bloemfontein, S. A.
110 meters.	13.2 s.	Martin Lauer.....	Germany.....	July 7, 1959	Zurich, Switz.
		Lee Calhoun.....	U. S. A.	Aug. 21, 1960	Berne, Switz.
		Earl McCullouch.....	U. S. A.	July 16, 1967	Minneapolis, Minn.
200 meters.	21.9 s.	Don Styron.....	U. S. A.	Apr. 2, 1960	Baton Rouge, La.
200 meters.	22.5 s.	Martin Lauer.....	Germany.....	July 7, 1959	Zurich, Switz.
	(Turn)	Glenn Davis.....	U. S. A.	Aug. 20, 1960	Berne, Switz.
400 meters.	49.1 s.	Rex Cawley.....	U. S. A.	Sept. 13, 1964	Los Angeles, Calif.

RELAY RACES

Event	Record	Holder	Country	Date	Where made
440 yds. (4x110)	38.6 s.	Univ. of Southern Calif. (McCullouch, Kuller, Simpson, Miller)	U. S. A.	June 17, 1967..	Provo, Utah
880 yds. (4x220)	1 m., 22.1 s.	San Jose State Coll. (Shackelford, Talmadge, Evans, Smith)	U. S. A.	May 13, 1967..	Fresno, Calif.
1 mile (4x440)	3 m., 04.5 s.	Arizona State Un. (M. Barrick, H. Carr, R. Freeman, U. Williams)	U. S. A.	Apr. 27, 1963..	Walnut, Calif.
		Southern Univ. Track Club (R. Johnson, A. Gates, E. Mason, T. Lewis)	U. S. A.	May 29, 1965..	Modesto, Calif.
2 miles (4x880)	7 m., 17.4 s.	U. of Southern Calif. (J. Link, D. Best, D. Buck, D. Carr)	U. S. A.	May 13, 1966..	Los Angeles, Calif.
4 miles (4x1) (mile) ...	16 m., 09.0 s.	Univ. of Oregon (A. San Romani, Jr., V. Reeve, K. Forman, D. Burleson)	U. S. A.	May 12, 1962..	Fresno, Calif.

RELAY RACES—METRIC DISTANCES

400 mtrs. (4x100).....	38.6 s.....	Univ. of So. Calif.... (McCullough, Kuller, Simpson, Miller)	U. S. A.....	June 17, 1967..	Provo, Utah
800 mtrs. (4x200).....	1 m., 22.1 s.....	San Jose State Coll.... (Shackelford, Tal- madge, Evans, Smith)	U. S. A.....	May, 13 1967..	Fresno, Calif.
1,600 mtrs. (4x400)...	3 m., 00.7 s.....	Nat'l team..... (O. Cassell, M. Larrabee, U. Williams, H. Carr)	U. S. A.....	Oct. 21, 1964..	Tokyo, Japan
	*2 m., 59.6 s.....	Natl. team..... (Frey, Evans, Smith, Lewis)	U. S. A.....	July 24, 1966..	Los Angeles
3,200 mtrs. (4x800)...	7 m., 15.8 s.....	Natl. team..... (A. Baatilleux, A. Langenus, E. Leva, R. Moens)	Belgium.....	Aug. 8, 1956..	Brussels, Belgium
6,000 mtrs. (4x1,500)...	14 m., 49.0 s.....	French Nat'l team.... (Vervoort, Nicolas, Jazy, Wadoux)	France.....	June 25, 1965..	Paris, France

FIELD EVENTS

High jump.....	7 ft., 5½ in.....	Valery Brumel.....	USSR.....	July 21, 1963..	Moscow, Russia
Long jump.....	27 ft., 4¼ in.....	Ralph Boston.....	U. S. A.....	May 29, 1965..	Modesto, Calif.
Triple jump.....	55 ft., 10¼ in.....	Josef Schmidt.....	Poland.....	Aug. 5, 1960..	Olshzyn, Poland
Pole vault.....	17 ft., 7¼ in.....	Paul Wilson.....	U. S. A.....	June 23, 1967..	Bakersfield, Calif.
	*17 ft. 9 in.....	Bob Seagren.....	U. S. A.....	Sept. 12, 1968..	So. Lake Tahoe, Calif.
16 lb. shot put.....	71 ft., 5½ in.....	Randy Matson.....	U. S. A.....	Apr. 22, 1967..	College Sta., Texas
Discus throw.....	213 ft., 11¾ in.....	Ludvik Danek.....	Czecho.....	Oct. 12, 1965..	Czecho.
	*218 ft. 4 in.....	Jay Silvester.....	U. S. A.....	May 25, 1968..	Modesto, Calif.
Javelin throw.....	300 ft., 11 in.....	Terje Pedersen.....	Norway.....	Sept. 2, 1964..	Oslo, Norway
	*301 ft. 9¼ in.....	Janis Lusis.....	USSR.....	June 23, 1968..	Saarijarvi, Finland
16 lb. hammer throw..	241 ft., 11 in.....	G. Zslvotsky.....	Hungary.....	Sept. 4, 1965..	Hungary
Decathlon.....	8,319 pts.....	Kurt Bendlin.....	W. Germany..	May 13-14, 1967	Heidelberg, Germany

WALKING

20 miles.....	2 h., 31 m., 33.0 s...	A. Vedjakov.....	USSR.....	Aug. 23, 1958	Moscow, USSR
30 miles.....	4 h., 02 m., 33 s.....	Christian Hohne.....	E. Germany..	May 16, 1965	Potsdam

WALKING—METRIC DISTANCES

20,000 meters.....	1 h., 27 m., 05.0 s...	V. Golubnichiv.....	USSR.....	Sept. 23, 1958	Simferopol, USSR
30,000 meters.....	2 h., 17 m., 16.8 s...	A. Egorov.....	USSR.....	July 15, 1959	Leningrad, USSR
50,000 meters.....	4 h., 10 m., 51.8 s...	Christian Hohne.....	E. Germany..	May 16, 1965	Potsdam
2 hours.....	16 miles, 743 yds.	A. Egorov.....	USSR.....	July 15, 1959	Leningrad

Women

RUNNING

100 yards.....	10.3 s.....	Marlene Mathews.....	Australia....	Mar. 10, 1958	Sydney
		Wyomia Tyus.....	U. S. A.....	July 17, 1965.	Kingston, Jam.
220 yards.....	22.9 s.....	Mary Burvill.....	Australia....	Feb. 22, 1964.	Perth, Australia
440 yards.....	52.4 s.....	Judy Amore.....	Australia....	Feb. 2, 1965.	Perth, Australia
880 yards.....	2 m., 02.0 s...	D. Willis.....	Australia....	Mar. 3, 1962.	Perth, Australia
60 meters.....	7.2 s.....	Betty Cuthbert.....	Australia....	Feb. 27, 1960.	Sydney, Australia
		I. Bochkareva.....	USSR.....	Aug. 28, 1961.	Moscow
100 meters.....	11.1 s.....	Irena Kirszenstein.....	Poland.....	July 9, 1965.	Prague
		Eva Klobukovska.....	Poland.....	July 9, 1965.	
		Wyomia Tyus.....	U. S. A.....	July 31, 1965.	Kiev, USSR
		Barbara Ferrell.....	U. S. A.....	Feb. 7, 1967.	Santa Bar- bara, Cal.
		L. Samotyesova.....	USSR.....	Aug. 15, 1968.	Moscow
200 meters.....	22.7 s.....	Margaret Bailes.....	U. S. A.....	Aug. 18, 1968.	Aurora, Colo.
		Irena Kirszenstein.....	Poland.....	Aug. 8, 1965.	Warsaw, Poland
400 meters.....	51.9 s.....	Shin Guen Dan.....	North Korea..	Oct. 23, 1962.	Pyongyang, No. Korea
800 meters.....	2 m., 1.1 s...	Ann Packer.....	Gr. Britain..	Oct. 20, 1964.	Tokyo, Japan
	*2 m., 0.5 s...	Vera Nikolic.....	Yugoslavia....	July 20, 1968.	London, Eng.

HURDLES

80 meters.....	10.3 s.....	Irena Press.....	USSR.....	Oct. 24, 1965..	USSR
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FIELD EVENTS

High jump.....	6 ft., 3 in.....	I. Balas.....	Rumania....	July 15, 1961..	Sofia, Bulz.
Long jump.....	22 ft., 2¼ in.....	Mary Rand.....	Gr. Britain..	Oct. 14, 1964..	Tokyo, Japan
Shot put.....	61 ft.....	Tamara Press.....	USSR.....	Sept. 19, 1965..	Kassel, Germany
Discus throw.....	195 ft., 10¼ in.....	Tamara Press.....	USSR.....	Aug. 11, 1965..	Moscow
Javelin.....	204 ft., 8¼ in.....	Elena Gorchakova.....	USSR.....	Oct. 16, 1964..	Tokyo, Japan
Pentathlon.....	5,246 pts.....	Irena Press.....	USSR.....	Oct. 16-17, 1964..	Japan

RELAY RACES

440 yards (4x110).....	45.2 s.....	Nat'l team (M. Cobb, M. Rand, D. Arden, D. Hyman)	Gr. Britain...	Aug. 5, 1963..	London, England
400 mtrs. (4x100).....	43.6 s.....	Nat'l team (T. Ciepla, I. Kirszenstein, H. Goreska, E. Klobukowska)	Poland.....	Oct. 21, 1964..	Tokyo, Japan
800 mtrs. (4x200).....	1 m., 35.1 s...	Nat'l team (R. Lacey, V. Laslovskaya, G. Popova, M. Itkina)	USSR.....	July 14, 1963..	Moscow, USSR
880 yds. (4x220).....	1 m., 36.0 s...	Nat'l team (H. Sadau, G. Birkenmeyer, B. Mayer, C. Studnick)	E. Germany..	July 26, 1958..	Leipzig, Germany
1½ miles (3x880).....	6 m., 25.2 s...	Nat'l team (Sterling, Lowe Piercy)	Gr. Britain...	July 30, 1967..	Budapest
2,400 mtrs. (3x800)...	6 m., 20 s...	Nat'l team (Sterling, Lowe Piercy)	Gr. Britain...	Aug. 28, 1967..	London

National Interscholastic Track and Field Records

Source: National Federation of State High School Athletic Associations

Records approved to Nov., 1968

Event	Record	Holder	School	Site and year
100 yds.....	0:09.3.....	William Gaines.....	Clearview Regional H. S., Mullica Hill, O.	Deptford, Ohio, 1967
220 yds.....	0:20.2.....	Forrest O. Beatty.....	Herbert Hoover H. S., Glendale, Calif.	Chaffey, Calif., 1961
440 yds.....	0:46.1.....	Ullis C. Williams.....	Compton (Calif.) Senior H. S.	Ontario, Calif., 1961
880 yds.....	1:48.8.....	Richard J. Joyce.....	Sierra H. S., Whittier, Calif.	Bakersfield, Calif., 1965
1 mile.....	3:58.3.....	James Ryun.....	Wichita East H. S., Wichita, Kan.	Wichita, Kan., 1965
2 mile.....	8:48.3.....	Rick Evan Riley.....	Ferris H. S., Spokane, Wash.	Pullman, Wash., 1966
120 yd. high hds.	0:13.5.....	Richmond M. Flowers, Jr.	Sidney Lanier H. S., Montgomery, Ala.	Mobile, Ala., 1965
180 yd. low hurdles	0:18.1.....	William Tipton.....	Central H. S., Pontiac, Mich.	Saginaw, Mich., 1967
		Donald Castronovo.....	Oceanside H. S., Oceanside, N. Y.	Ithaca, N. Y., 1964
		Steve Caminiti.....	Crespi Carmelite H. S., Encino, Calif.	Encino, Calif., 1964
		Earl McCullough.....	Polyscience H. S., Long Beach, Calif.	Norwalk, Calif., 1964
High jump.....	7 ft. 1¼ in....	Otis Hadley.....	Union H. S., Wasco, Calif.	Bakersfield, Calif., 1968
Long jump.....	25 ft. 7 in....	Jerry Proctor.....	John Muir H. S., Pasadena, Calif.	Ontario, Calif., 1967
Pole vault (Indoor)	16 ft. ¾ in....	Paul Wilson.....	Warren H. S., Downey, Calif.	Los Angeles, Calif., 1965
Pole vault (out.)	16 ft. 6¾ in....	Paul Wilson.....	Warren H. S., Downey, Calif.	Westminster, Calif., 1965
Triple jump.....	49 ft. 3¼ in....	Warren L. Rockwell, Jr.	Wheatley H. S., Old Westbury, N. Y.	Great Neck, N. Y., 1964
Shot put (12 lbs.)	72 ft. 3¼ in....	Sam Walker.....	W. W. Samuel H. S., Dallas, Tex.	Corpus Christi, Tex., 1968
Discus.....	199 ft. 10½ in.	Leon Miller.....	Hilliard H. S., Hilliard, Ohio	Worthington, Ohio, 1967
Javelin.....	252 ft. 8 in....	Mark Murro.....	Essex Catholic H. S., Newark, N. J.	Dover, N. J., 1967
440 yd. relay.....	0:41.1.....	Anderson, Beasley, Jackson, Williams, Hill	Kirkpatrick H. S., Ft. Worth, Tex.	Austin, Tex., 1968
880 yd. relay.....	1:25.4.....	Jackson, James, Reed, Hill	White Plains (N. Y.) H. S.	Jamaica, N. Y., 1966
1 mile relay.....	3:11.8.....	Bouche, Bradley, Bowman, Grant.....	Memorial H. S., Houston, Texas	Baytown, Texas, 1967
2 mile relay.....	7:41.9.....	Menta, Jakosa, Bowman, Grant.....	Proviso West H. S., Hillside, Ill.	Glen Ellyn, Ill., 1965
Sprint medley relay (1 mile)	3:23.3.....	Korson, Brake, Prince, Morton	Memorial H. S., Houston, Texas	Houston, Texas, 1967

James E. Sullivan Memorial Trophy Winners

The James E. Sullivan Memorial Trophy, inaugurated in 1930, is awarded annually by the AAU to the athlete who "by his or her performance, example and influence as an amateur, has done the most during the year to advance the cause of sportsmanship."

Year	Name	Sport	Points	Year	Name	Sport	Points
1942..	Cornelius Warmerdam..	Track...	1,101	1955..	Harrison Dillard.....	Track...	1,375
1943..	Gilbert Dodds.....	Track...	860	1956..	Patricia K. McCormick..	Diving...	1,889
1944..	Ann Curtis.....	Swimming	894	1957..	Bobby Joe Morrow.....	Track...	1,583
1945..	Felix A. Blanchard.....	Football...	923	1958..	Glenn Davis.....	Track...	1,868
1946..	Arnold Tucker.....	Football...	597	1959..	Perry O'Brien.....	Track...	1,318
1947..	John B. Kelly, Jr.....	Rowing.....	663	1960..	Rafel Johnson.....	Decathlon..	1,611
1948..	Robert B. Mathias.....	Track...	1,491	1961..	Wilma Rudolph Ward..	Track...	1,627
1949..	Richard T. Buiton.....	Skating...	947	1962..	James T. Beatty.....	Track...	2,459
1950..	Fred Witt.....	Track...	1,197	1963..	John T. Pennell.....	Track...	1,115
1951..	Rev. Robt. E. Richards..	Track...	1,263	1964..	Don Schollander.....	Swimming..	2,161
1952..	Horace Ashenfelter.....	Track...	1,112	1965..	Bill Bradley.....	Basketball..	852
1953..	Dr. Sammy Lee.....	Diving...	1,676	1966..	Jim Ryun.....	Track...	3,838
1954..	Mal Whitfield.....	Track...	1,689	1967..	Randy Matson.....	Track...	787

American Track and Field Records

Source: Amateur Athletic Union. Records are those set by an American citizen anywhere in the world. Indoor records are for tracks not more than 220 yards per lap unless otherwise noted. A number of new records await confirmation. Italics indicate record pending.

OUTDOOR				
Distance	Time	Holder	Where made	Date
100 yards.....	9.1 s.	Bob Hayes.....	St. Louis, Mo.....	June 21, 1963
		Charlie Green.....	Provo, Utah.....	June 17, 1967
		Jim Hines.....	Houston, Tex.....	May 13, 1967
220 yards.....	19.5 s.	Tommie Smith.....	San Jose, Calif.....	May 7, 1966
220 yards (turn)	20.0 s.	Tommie Smith.....	Sacramento, Calif.....	May 11, 1966
300 yards.....	30.2 s.	C. W. Paddock.....	Redlands, Calif.....	Apr. 23, 1921
		Cliff Bourland.....	Los Angeles, Calif.....	Apr. 17, 1943
440 yards.....	44.8 s.	Tommie Smith.....	San Jose, Calif.....	May 20, 1967
600 yards.....	1 m., 08.5 s.	Willie Atterbury.....	Columbus, Ohio.....	Apr. 20, 1957
880 yards.....	1 m., 44.9 s.	Jim Ryun.....	Terre Haute, Ind.....	June 10, 1966
1,000 yards.....	2:06.8 s.	Wade Bell.....	Eugene, Ore.....	July 5, 1967
1,320 yards.....	2 m., 54.8 s.	Jim Grelle.....	Woodland Hills, Calif.....	Aug. 29, 1964
1 mile.....	3 m., 51.1 s.	Jim Ryun.....	Bakersfield, Calif.....	June 23, 1967
2 miles.....	8 m., 25.2 s.	Jim Ryun.....	Los Angeles, Calif.....	May 13, 1966
	8 m., 22.2 s.	George Young.....	San Diego, Calif.....	June 1, 1968
3 miles.....	12 m., 53.0 s.	Gerry Lindgren.....	Seattle, Wash.....	May 14, 1966
4 miles.....	18 m., 27.4 s.	Peter McArdle.....	Yonkers, N. Y.....	May 3, 1964
5 miles.....	23 m., 13.4 s.	Peter McArdle.....	Yonkers, N. Y.....	May 3, 1964
6 miles.....	27 m., 11.6 s.	Billy Mills.....	San Diego, Calif.....	June 27, 1965
		Gerry Lindgren.....	San Diego, Calif.....	June 27, 1965
7 miles.....	33 m., 45.8 s.	George Brown.....	St. Paul, Minn.....	Sept. 18, 1966
8 miles.....	38 m., 43.4 s.	George Brown.....	St. Paul, Minn.....	Sept. 18, 1966
9 miles.....	43 m., 43.8 s.	George Brown.....	St. Paul, Minn.....	Sept. 18, 1966
10 miles.....	48 m., 28.0 s.	Buddy Edelen.....	Hurlingham Park, Eng.....	April 18, 1963
15 miles.....	1 h., 18 m., 10.8 s.	Ron Daws.....	St. Paul, Minn.....	Sept. 18, 1965
20 miles.....	1 h., 46 m., 13.0 s.	Lou Castagnola.....	Arlington, Va.....	Jan. 22, 1967
1 hour.....	12 mi., 232 yds.	Mike Kimball.....	Alameda, Calif.....	Aug. 5, 1967
2 hours.....	21 mi., 1,738 yds.	Lou Castagnola.....	Arlington, Va.....	Jan. 22, 1967

METRIC DISTANCES—OUTDOOR

100 meters.....	10.0 s.	Bob Hayes.....	Tokyo, Japan.....	Oct. 15, 1964
	10.0 s.	Jim Hines.....	Modesto, Calif.....	May 27, 1967
	9.9 s.	Jim Hines.....	Sacramento, Calif.....	June 20, 1968
	9.9 s.	Charlie Greene.....	Sacramento, Calif.....	June 20, 1968
200 meters.....	19.5 s.	Tommie Smith.....	San Jose, Calif.....	May 7, 1966
200 meters (straightaway)	20.0 s.	Tommie Smith.....	Sacramento, Calif.....	May 11, 1966
200 meters.....	19.7 s.	John Carlos.....	So. Lake Tahoe, Calif.....	Sept. 14, 1968
300 meters.....	33.0 s.	Andrew Stanfield.....	Orebro, Sweden.....	Aug. 18, 1949
400 meters.....	44.5 s.	Tommie Smith.....	San Jose, Calif.....	May 20, 1967
(two turns)	44.0 s.	Lee Evans.....	So. Lake Tahoe, Calif.....	Sept. 14, 1968
500 meters.....	1 m., 01 s.	Mal Whitfield.....	Antwerp, Belgium.....	July 25, 1949
600 meters.....	1 m., 17.0 s.	Jack Yerman.....	Buffalo, N. Y.....	Aug. 23, 1959
800 meters.....	1 m., 44.9 s.	Jim Ryun.....	Terre Haute, Ind.....	June 10, 1966
1,000 meters.....	2 m., 19.3 s.	Tom Courtney.....	Goteborg, Sweden.....	July 4, 1954
1,500 meters.....	3 m., 33.1 s.	Jim Grelle.....	Los Angeles, Calif.....	July 8, 1966
2,000 meters.....	5 m., 07.4 s.	Jim Grelle.....	Sidney, Aust.....	Mar. 18, 1966
3,000 meters.....	7 m., 54.2 s.	Jim Beatty.....	Avanches, France.....	Aug. 15, 1962
5,000 meters.....	13 m., 38.0 s.	Bob Schul.....	Compton, Calif.....	June 5, 1964
		Gerry Lindgren.....	Los Angeles, Calif.....	June 4, 1966
6,000 meters.....	17 m., 49.6 s.	Van Nelson.....	St. Paul, Minn.....	Sept. 18, 1966
7,000 meters.....	21 m., 08.8 s.	Bob Scharf.....	Wash., D. C.....	May 30, 1966
8,000 meters.....	23 m., 54.4 s.	George Brown.....	St. Paul, Minn.....	Sept. 18, 1966
9,000 meters.....	27 m., 13.6 s.	Robert Scharf.....	Washington, D. C.....	May 30, 1966
10,000 meters.....	28 m., 17.6 s.	Billy Mills.....	Augsburg, Germany.....	Aug. 12, 1965
15,000 meters.....	45 m., 16.8 s.	L. Ed. Eng.....	London, Eng.....	Apr. 13, 1963
20,000 meters.....	1 hr., 2 m., 25.6 s.	Ben Moore.....	Eugene, Ore.....	Mar. 18, 1966
25,000 meters.....	1 hr., 22 m., 14.2 s.	Ron Daws.....	St. Paul, Minn.....	Sept. 18, 1965
30,000 meters.....	1 hr., 45 m., 28.4 s.	Richard Haines.....	Arlington, Va.....	Jan. 20, 1963

INDOOR

60 yards.....	5.9 s.	Bob Hayes.....	New York, N. Y.....	Feb. 22, 1964
		Sam Perry.....	New York, N. Y.....	Jan. 28, 1965
		Darrel Newman.....	San Francisco, Calif.....	Feb. 26, 1965
		Charles Greene.....	Los Angeles, Calif.....	Jan. 22, 1966
		Bill Gaines.....	Albuquerque, N. M.....	Mar. 4, 1966
		Jim Hines.....	Albuquerque, N. M.....	Jan. 28, 1967
100 yards.....	9.5 s.	David Sime.....	Washington, D. C.....	Jan. 21, 1956
220 yards.....	22.2 s.	Theo. P. Ellison.....	Brooklyn, N. Y.....	Mar. 1, 1935
300 yards.....	30.5 s.	James Lingel.....	Buffalo, N. Y.....	Feb. 11, 1963
440 yards.....	46.2 s.	Tommie Smith.....	Louisville, Ky.....	Feb. 18, 1967
	47.0 s.	Larry James.....	Detroit, Mich.....	Mar. 15, 1968
600 yards.....	1 m., 9.0 s.	Martin McGrady.....	Louisville, Ky.....	Feb. 12, 1966
880 yards.....	1 m., 48.9 s.	Dave Patrick.....	Detroit, Mich.....	Mar. 10, 1967
1,000 yards.....	2 m., 7.9 s.	Ernie Cunliffe.....	Boston, Mass.....	Jan. 28, 1961
1,320 yards.....	3 m., 01.2 s.	Joseph M. Deady.....	New York, N. Y.....	Jan. 7, 1956
1 mile.....	3 m., 56.4 s.	Tom O'Hara.....	Chicago, Ill.....	Mar. 6, 1964
2 miles.....	8 m., 30.8 s.	James F. Beatty.....	Chicago, Ill.....	Mar. 9, 1963
3 miles.....	13 m., 16.2 s.	Tracy Smith.....	Oakland, Calif.....	Mar. 5, 1967
	13 m., 15 s.	Tracy Smith.....	Toronto, Ont.....	Mar. 1, 1967
4 miles.....	19 m., 39.8 s.	G. V. Bonhag.....	New York, N. Y.....	Feb. 5, 1910
5 miles.....	24 m., 59.4 s.	G. V. Bonhag.....	New York, N. Y.....	Mar. 16, 1909
6 miles.....	30 m., 42 s.	G. V. Bonhag.....	New York, N. Y.....	Mar. 20, 1909
7 miles.....	35 m., 50.6 s.	G. V. Bonhag.....	New York, N. Y.....	Mar. 20, 1909
10 miles.....	54 m., 21.2 s.	L. Tewanima.....	New York, N. Y.....	Mar. 27, 1909
25 miles.....	2 h., 44 m., 50 s.	M. Maloney.....	New York, N. Y.....	Jan. 8, 1909

METRIC DISTANCES—INDOOR

60 meters.....	6.6 s.	Jesse Owens.....	New York, N. Y.....	Feb. 23, 1935
		Ben Johnson.....	New York, N. Y.....	Feb. 23, 1933
		Ben Johnson.....	New York, N. Y.....	Feb. 23, 1935
		Herbert Thompson.....	New York, N. Y.....	Feb. 25, 1939
100 meters.....	10.7 s.	Robt. Rodenkirehen.....	Brooklyn, N. Y.....	Jan. 8, 1938
200 meters.....	22.2 s.	Theo. P. Ellison.....	Brooklyn, N. Y.....	Mar. 1, 1935
400 meters.....	46.2 s.	Tommie Smith.....	Louisville, Ky.....	Feb. 18, 1967
500 meters.....	1 m., 02.9 s.	Mal Whitfield.....	New York, N. Y.....	Feb. 28, 1953
600 meters.....	1 m., 20.3 s.	James B. Herbert.....	New York, N. Y.....	Feb. 26, 1938

METRIC DISTANCES—INDOOR continued

800 meters	1 m., 47.4 s.	Ted Nelson.	Berlin, Germany	Apr. 9, 1965
1,000 meters	2 m., 26.4 s.	Lloyd Halin	New York, N. Y.	Mar. 26, 1927
1,500 meters	3 m., 43.6 s.	Tom O'Hara	New York, N. Y.	Feb. 27, 1964
2,000 meters	5 m., 16.8 s.	Jim Beatty	Chicago, Ill.	Mar. 9, 1963
3,000 meters	7 m., 56.6 s.	Billy Mills	Berlin, Germany	Apr. 7, 1965
4,000 meters	11 m., 27.4 s.	Horace Aschenfelder	New York, N. Y.	Feb. 20, 1935
5,000 meters	14 m., 30.9 s.	Donald Lash	New York, N. Y.	Feb. 25, 1939

RACE WALKING—OUTDOOR

1 mile	6 m., 29.6 s.	F. P. Murray	New York, N. Y.	Oct. 27, 1883
2 miles	13 m., 29.2 s.	Rudolf Halaiza	Walnut, Calif.	Apr. 16, 1966
3 miles	21:03.8 s.	Ronald O. Laird	Santa Monica, Calif.	July 1, 1967
4 miles	28 m., 34.0 s.	Ronald Zinn	Chicago, Ill.	Oct. 31, 1964
5 miles	36 m., 4.2 s.	Ronald Zinn	Chicago, Ill.	Oct. 31, 1964
9 miles	1 h., 5 m., 45.6 s.	Ronald O. Laird	Walnut, Calif.	May 16, 1964
10 miles	1 hr., 13 m., 17.6 s.	Ronald O. Laird	Walnut, Calif.	May 16, 1964
15 miles	1 h., 57 m., 36.0 s.	Ronald O. Laird	San Diego, Calif.	Feb. 20, 1966
20 miles	2 h., 40 m., 12.0 s.	Ronald O. Laird	Chicago, Ill.	Oct. 27, 1963
25 miles	2 h., 39 m., 36.8 s.	Ronald O. Laird	San Diego, Calif.	Feb. 25, 1966
1 hour	8 m., 420 yds.	Ronald O. Laird	Walnut, Calif.	May 16, 1964
2 hours	15 mi., 125 ft., 6 in.	Ronald O. Laird	Chicago, Ill.	Oct. 27, 1963

RELAY RACING

(Long track—More than 220 yards per lap.
 *Denotes indoor record.)

400 meters (4x100)—39.0s., United States National Team (Drayton, Ashworth, Stebbins, Hayes), Tokyo, Oct. 21, 1964. U. S. National Team (McCulough, Dright, Copeland, Hines), Los Angeles, Calif., July 8, 1967.

440 yards (4x110)—(2 turns)—39.6s., Southern Univ. (Nair, Harris, Johnson, Anderson), Modesto, Calif., May 28, 1966. 39s Santa Clara Valley Youth Village (Gaines, Clayton, Williams, Smith), Los Angeles, June 7, 1968.

800 meters (4x200)—1m. 22.1s., San Jose State (Talmadge, Shalkford, Evans, Smith), Fresno, Calif., May 13, 1967.

880 yards (4x220)—1m. 22.1s., San Jose State Coll., Fresno, Calif., May 13, 1967. *1m. 31.6s. (7 turns), Henry Snyder H. S., Jersey City, N. J. (Harry Smith, Howard Smith, Branch, Cox), New York, N. Y., Feb. 1, 1958.

1600 meters medley relay (100, 200, 300, 400)—1m. 50s., United States Team (Whitfield, Dixon, Ault, Stanfield), Basle, Switzerland, Aug. 20, 1949.

1660 yards sprint medley (440, 100, 220, 300)—*1m. 51.3s., No. Carolina Coll. (McCray, Tate, Johnson, Roberts), New York, N. Y., Feb. 23, 1964.

1600 meters (4x400)—2m. 59.6 s., United States Team (Frey, Evans, Smith, Lewis), Los Angeles, Calif., July 24, 1966.

1 mile (4x440)—3m. 3.5s., San Jose State, Fresno, Calif., May 13, 1967. *3m. 10.2s., Southern Univ. (Mason, Gates, Johnson, Ford), Louisville, Ky., 1967.

Two miles (4x880)—7m. 17.4s., Univ. of So. Calif. (Link, Bess, Buck, Carr), Los Angeles, Calif., May 13, 1966. *7m. 25.6s., 49er T. C. (Von Ruden, Davis, McCalla, Taylor), Albuquerque, N. M., Jan. 28, 1967. *7m. 23.8 Villanova (Hamilton, Messenger, Murphy, Patrick), Louisville, Feb. 18, 1968.

4 miles (4x1 mile)—*17m. 21.7s., Univ. of Pennsylvania (Venke, Coan, McNiff, Dean), Buffalo, N. Y., Mar. 11, 1933.

6,000-meter relay—15m. 26.2s., United States Team (Ryun, Dellinger, Young, Schul), Osaka, Japan, Oct. 25, 1964.

2,900 meters medley (400, 200, 800, 1,500)—6m. 53.9s., U. S. Army Team (H. Bright, G. Brown, H. Cryer, W. Druetzler), Buffalo, N. Y., June 28, 1953. *7m. 8.3s., New York A. C. (Stribling, O'Sullivan, Venke, Graves), New York, N. Y., Feb. 25, 1939.

Medley (440, 220, 880, mile)—7m. 18.4 s., Univ. of Chicago T. C. (Caffey, Johnson, Wheeler, Coleman), Buffalo, N. Y., Aug. 18, 1957. *7m. 25.3s., New York University (Francis, Fangbner, Gares, MacMitchell), New York City, Feb. 22, 1941.

2½ miles distance medley (880, 440, 1320, 1 mile)—9m. 33.8s., Kansas Univ. (Grindal, Peck, Yergovich, Ryun), Des Moines, Iowa, Apr. 29, 1967.

HURDLE RACING

60 yards: High hurdles—*6.8s., Hayes Jones, Baltimore, Md., Feb. 29, 1964. *6.5s., George Byers, Kansas City, Mo., Mar. 4, 1968.

65 meters: High hurdles—*8.3s., Allan Tolmich, New York City, Feb. 22, 1941.

70 yards: High hurdles—*8.0s., Hayes Jones, Detroit, at Louisville, Ky., Feb. 17, 1962.

120 yards: High hurdles—13.2s., Lee Calhoun, Berne, Switzerland, Aug. 21, 1960. Earl McCulough, Minneapolis, Minn., July 16, 1967.

110 meters: High hurdles—13.2s., Lee Calhoun, Berne, Switzerland, Aug. 21, 1960. Earl McCulough, Minneapolis, July 16, 1967. *15.8s., Sol Furth, Brooklyn, N. Y., Jan. 16, 1932.

200 meters: Low hurdles—21.9s., Donald A. Styron, Baton Rouge, La., Apr. 2, 1960. Around

turn—22.5s., Glenn Davis, Berne, Switzerland, Aug. 20, 1960.

220 yards: Low hurdles—21.9s., Donald A. Styron, Baton Rouge, La., Apr. 2, 1960. Around turn—22.7s., Charles Tidwell, Berkeley, Calif., June 13, 1958.

400 meters: Intermediate hurdles—49.1s., Rex Cawley, Los Angeles, Calif., Sept. 13, 1964.

440 yards: Intermediate hurdles—49.6s., Rex Cawley, Albuquerque, N. M., June 15, 1963.

STEEPLECHASE

3,000 meters—8m. 32.4s., Pat Traynor, Dusseldorf, Ger., Aug. 17, 1967.

2 miles—9m. 49.6s., Charles Jones, Dayton, Ohio, June 22, 1957. *9m. 35.4s., Joseph P. McCluskey, New York, N. Y., Feb. 22, 1941.

JUMPING

Standing high jump—5 ft. 5½ in., Leo Goehring, Travers Island, N. Y., June 14, 1913. *5 ft. 6 in., Harold M. Osborn, St. Louis, Mo., April 4, 1936.

Running high jump—7 ft. 3½ in., John Thomas, Stanford, Calif., July 1, 1960. *7 ft. 3 in., John Thomas, Boston, Mass., Jan. 28, 1961. *John Rambo, San Francisco, Calif., Jan. 7, 1967.

Standing broad jump—11 ft. 4½ in., Ray C. Ewry, St. Louis, Aug. 29, 1904.

Long jump—27 ft. 4½ in., Ralph Boston, Modesto, Calif., May 29, 1965. *26 ft. 1½ in., Robert Beamon, Oakland, Calif., Mar. 4, 1967. *27 ft. 2½ in., Bob Beamon, Detroit, Mar. 15, 1968.

Triple jump—34 ft. 11 in., Art Walker, Los Angeles, Calif., July 23, 1966. *34 ft. 9½ in., Art Walker, Albuquerque, N. M., Mar. 5, 1966.

POLE VAULT

17 ft. 7¾ in., Paul Wilson, Bakersfield, Calif., June 23, 1967. 17 ft. 9 in., Bob Seagren, So. Lake Tahoe, Calif., Sept. 12, 1968. *17 ft. 3 in., Bob Seagren, Cleveland, Ohio, Feb. 18, 1967. 17 ft. 4½ in., Bob Seagren, New York, N. Y., Jan. 25, 1968.

16-LB. HAMMER THROW

Weight (including handle), 16 lbs., entire length 4 feet thrown from 7-foot circle—235 ft. 11 in., Ed Burke, Bakersfield, Calif., June 22, 1967.

PUTTING 16-LB. SHOT

71 ft. 5½ in., Randy Matson, College Station, Tex., Apr. 22, 1967. *67 ft. 10 in., Neal Steinhauer, Portland, Ore., Jan. 28, 1967.

DISCUS THROW

Weight, 4 lbs. 6½ oz. From 8 ft. 2½ in. circle—210 ft. 6 in., Jay Silvester, Long Beach, Calif., June 5, 1965. 218 ft. 4 in., Jay Silvester, Modesto, Calif., May 25, 1968.

JAVELIN THROW

284 ft., John Tusaus, Los Angeles, Calif., May 13, 1966.

THROWING WEIGHTS

56-lb. weight for distance, thrown with both hands from a 7-ft. circle without follow—48 ft. ¾ in., George Frenn, Pasadena, Calif., June 4, 1967.

56-lb. weight for height—16 ft. 11¼ in., P. Donovan, San Francisco, Calif., Feb. 20, 1914.

35-lb. weight for distance—68 ft. 7½ in., George Frenn, Berkeley, Calif., Mar. 4, 1967. Harold Connolly, New York, N. Y., Feb. 20, 1960.

ALL-ROUND TRACK AND FIELD RECORD
 8,265 points, Tom Pagani, Baltimore, Md., Aug. 5, 1962.

DECATHLON

8,230 pts., Russ Hodges, Los Angeles, Calif., July 23-24, 1966.

PENTATHLON

3,765 points, Bill Toomey, Westbrook, Me., July 8, 1964.

61st Annual Wanamaker Millrose Games

Madison Square Garden, New York, N.Y., Jan. 25, 1968

60 Yds.—Lennox Miller, USC. Time—0:06.2.
 500 Yds.—Larry James, Villanova. Time—0:56.1.
 600 Yds.—Marty McGrady, Santa Clara. Time—1:11.1.
 880 Yds.—Ralph Doubell, Australia. Time—1:55.2.
 1,000 Yds.—Byron Dyce, NYU. Time—2:10.1.
 Wanamaker Mile—Preston Davis, U.S. Army. Time—4:03.9.

Three Miles—George Young, Casa Grande, Ariz. Time—13:31.8.
 60 Yd. High Hurdles—Leon Coleman, So. Calif. Striders. Time—0:07.2.
 Women's 880 Yds.—Madeline Manning, Tenn. State. Time—2:13.8.
 Pole Vault—Bob Seagren, USC. 17 ft. 4 1/4 in.
 High Jump—John Thomas, Boston AA. 6 ft. 10 in.

79th Annual Boston Athletic Association Games

Boston, Mass. Jan. 27, 1968

50 Yds.—Lennox Miller, USC. Time—0:05.3.
 440 Yds.—Vince Mathews, J.C. Smith. Time—0:48.8.
 600 Yds.—Tom Farrell, U.S. Army. Time—1:11.1.
 1,000 Yds.—Ralph Doubell, Australia. Time—2:08.0.
 One Mile—Sam Bair, Kent State. Time—4:01.9.
 Two Miles—George Young, Casa Grande, Ariz. Time—8:44.8.
 45 Yd. High Hurdles—Erv Hall, Villanova. Time—0:05.5.

One Mile Walk—Steve Hayden, Long Island AC. Time—6:49.4.
 One Mile Relay—Villanova (Davis, Nichter, James, Prince). Time—3:17.8.
 Pole Vault—Bob Seagren, USC. 17 ft. 3/4 in.
 High Jump—John Thomas, Boston AA. 6 ft. 10 in.
 Shot Put—Dick Benka, Harvard. 54 ft. 1 1/2 in.
 Long Jump—John Pistel, Amherst. 23 ft. 4 in.
 35-lb. Weight Throw—Bob Narcessian, Rhode Island. 59 ft. 8 1/4 in.

49th Annual Knights of Columbus Indoor Track Meet

Madison Square Garden, Feb. 2, 1968

60 Yds.—Bill Gaines, Santa Clara. Time—0:06.2.
 500 Yds.—Jim Kemp, U.S. Army. Time—0:56.2.
 600 Yds.—Martin McGrady, Santa Clara. Time—1:10.8.
 880 Yds.—Ralph Doubell, Australia. Time—1:51.5.
 1,000 Yds.—Bob Zieminski, Georgetown DC. Time—2:11.0.

One Mile—Sam Bair, Kent State. Time—4:03.8.
 Two Miles—Bill Clark, Quantico Marines. Time—8:53.6.
 60 Yd. High Hurdles—Erv Hall, Villanova. Time—0:07.1.
 Pole Vault—Bob Seagren, USC. 16 ft. 6 3/4 in.
 High Jump—John Hartfield, Houston Striders. 7 ft.

9th Los Angeles Times Indoor Track & Field Meet

Los Angeles, Calif., Feb. 10, 1968

60 Yds.—Charles Greene, Cornhuskers TC. Time—0:06.0.
 440 Yards.—Lee Evans, San Jose State. Time—0:47.8.
 500 Yds.—Jim Kemp, U.S. Army. Time—0:57.5.
 600 Yds.—Martin McGrady, Santa Clara. Time—1:10.9.
 1,000 Yds.—Ralph Doubell, Australia. Time—2:08.2.
 One Mile—Tim Danielson, San Diego. Time—4:06.1.
 Two Miles—George Young, Casa Grande, Ariz. Time—8:31.8.
 60 Yd. High Hurdles—Earl McCullough, USC. Time—0:06.9.
 One Mile Relay—U.S. Army (Webster, Jones, Tobler, Kemp). Time—3:16.1.
 Two Mile Relay—U.S. Army (Burleson, Daugherty, Delaney, Mitchell). Time—7:40.4.

One Mile Walk—Ron Laird, NYAC. Time—6:26.3.
 Pole Vault—John Vaughn, UCLA. 17 ft. 1 1/2 in.
 High Jump—Valentine Gavrilov, USSR. 7 ft. 2 in.
 Long Jump—Tonu Lepik, USSR. 25 ft. 8 1/2 in.
 Shot Put—George Woods, Pacific Coast Club. 65 ft. 2 1/2 in.

Women's Events

60 Yds.—Barbara Ferrell, L.A. Mercurettes. Time—0:06.7.
 440 Yds.—Kathy Hammond, Will's Spikettes. Time—0:56.0.
 880 Yds.—Madeline Manning, Tenn. State. Time—2:10.9.
 60 Yd High Hurdles—Cherrie Sherrard, Laurel TC. Time—0:07.7.
 High Jump—Eleanor Montgomery, Tenn. State. 5 ft. 10 in.
 Long Jump—Tatyana Talishova, USSR. 20 ft. 2 1/2 in.

New York Athletic Club Track Meet

Madison Square Garden, Feb. 16, 1968

60 Yds.—Lennox Miller, Univ. of So. Calif. Time—0:06.1.
 500 Yds.—Hardee McAlhaney, Tenn. Time—0:57.3.
 600 Yds.—Bill Ellis, Catholic Univ. Time—1:11.2.
 880 Yds.—Preston Davis, U. S. Army. Time—1:54.8.
 Baxter Mile—Sam Bair, Kent State. Time—4:05.6.
 Two Miles—George Young, Casa Grande, Ariz. Time—8:38.8.

60 Yd. High Hurdles—Richmond Flowers, Tenn. Time—0:07.1.
 One Mile Walk—Ron Laird, NYAC. Time—6:22.2.
 Pole Vault—Bob Seagren, Univ. of So. Calif. 16 ft. 6 in.
 Long Jump—Bob Beamon, Univ. of Texas. 26 ft. 3 1/2 in.
 High Jump—Richard Fosbury, Oregon St. 7 ft.
 Women's Broad Jump—Joan Henry, Montreal. 18 ft. 10 in.
 Women's High Jump—Frazetta Parham, Los Angeles. 5 ft. 6 in.

NAIA National Track & Field Championships

Albuquerque, New Mexico, May 31-June 1, 1968

100 Meters—Oliver Ford, Southern (La.). Time—0:10.1.
 200 Meters—Andrew Hopkins, Stephen F. Austin (Tex.). Time—0:20.9.
 400 Meters—Hal Francis, Arkansas AM&N. Time—0:45.6.
 800 Meters—Earl Goldman, Arkansas AM&N. Time—1:48.6.
 1500 Meters—John Mason, Fort Hays State (Kan.). Time—3:46.5.
 5000 Meters—David Ellis, Eastern Michigan. Time—14:25.2.
 10,000 Meters—Van Nelson, St. Cloud State (Minn.). Time—30:58.2.
 110 Meter High Hurdles—Gerald Cerulla, Eastern Michigan. Time—0:13.7.
 400 Meter Hurdles—Jeff Bennett, Oklahoma Christian. Time—0:51.3.
 3000 Meter Steeplechase—Pat McMahon, Oklahoma Baptist. Time—9:26.7.
 440 Yard Relay—Stephen F. Austin (Hopkins, Malone, Cramer, Moore). Time—0:40.1.

Mile Relay—Prairie View A&M (Newhouse, Dotson, Johnson, Boggess). Time—3:06.5.
 Discus—Phillip Gary, Kentucky State. 161 ft. 2 in.
 Hammer—August Zilincar, Monmouth (N. J.). 196 ft. 7 in.
 High Jump—Nick Martinez, Northern Arizona. 6 ft. 10 in.
 Javelin—Dave VanderGriend, Western Washington State. 238 ft. 4 in.
 Long Jump—Jerry Proctor, Redlands (Calif.). 26 ft. 1 1/2 in.
 Pole Vault—Larry Ashley, Northeast Louisiana State. 160 ft. 1 1/4 in.
 Shot Put—James Bagby, Prairie View A&M. 57 ft. 7 in.
 Triple Jump—Henry Granger, Pittsburgh State (Kan.). 49 ft. 1/2 in.
 Team Points—Prairie View A&M (Tex.), 47; Arkansas AM&N, 45 1/6; Eastern Michigan, 42; Southern (La.) 38 1/6; Emporia State (Kan.) 32.

80th Annual AAU Indoor Track and Field Championships

Oakland, Calif., Feb. 23-24, 1968

Men's Division

60 Yds.—Bill Gaines, Santa Clara. Time—0:06.0.
 600 Yds.—Martin McGrady, Santa Clara. Time—1:09.2.
 1,000 Yds.—Tom Von Ruden, U. S. Army. Time—2:10.7.
 One Mile—Preston Davis, U. S. Army. Time—4:06.0.
 Three Miles—George Young, Unatt. Time—13:17.7.
 60 Yd. Hurdles—Earl McCullough, So. Calif. Time—0:06.9.
 One Mile Walk—Ron Laird, NYAC. Time—6:16.9.
 One Mile Relay—U. S. Army (Webster, Jones, Tobler, Kemp). Time—3:17.1.
 Triple Jump—Charles Craig, Pacific Coast Club. 54 ft. 13½ in.
 Pole Vault—Dennis Phillips, Oregon State. 17 ft. ¾ in.
 Long Jump—Bob Beamon, Univ. of Texas. El Paso. 26 ft. 11½ in.
 High Jump—Valentin Gavrilov, USSR. 7 ft. 1 in.
 Shot Put—George Woods, Pacific CC. 66 ft. 3¼ in.
 35-lb. Weight Throw—Ed Burke, Striders. 65 ft. 3½ in.
 Team Standings—Pacific Coast Club, 30; So. Calif. Striders, 27; Santa Clara Valley Youth Village, 20; New York AC, 13; Southern Calif., 11.

Women's Division

60 Yds.—Barbara Ferrell, L. A. Mercurettes. Time—0:06.7.
 220 Yds.—Vilma Charleton, Crown Cities TC. Time—0:25.1.
 440 Yds.—Lois Drinkwater, Valley of the Sun. Time—0:56.5.
 One Mile—Doris Brown, Falcon TC. Time—4:53.1.
 880 Yds.—Madeline Manning, Tenn. State. Time—2:11.8.
 60 Yds. Hurdles—Pat VanWolvelaere, Angles TC. Time—0:07.4.
 Spring Relay—Tennessee State (Tyus, Daniel, Dennis, Render). Time—1:10.8.
 Spring Medley Relay—Los Angeles Mercurettes (Scott, Wilson, DeBuck, Ferrell). Time—1:45.1.
 Shot Put—Maren Seldier, Shore AC. 48 ft. 9 in.
 Basketball Throw—Barbara Friedrich, Shore AC. 135 ft.
 Long Jump—Tatiana Talisheva, USSR. 20 ft. 4½ in.
 High Jump—Eleanor Montgomery, Tenn. State. 5 ft. 10½ in.
 Team Standings—Tennessee State, 24; Los Angeles Mercurettes, 19; Crown Cities TC, 16; Valley of the Sun, 10; Falcon TC, 9.

6th Annual Telegram-Maple Leaf Indoor Games

Toronto, Ontario, March 2, 1968

Men's Division

50 yd. Hurdles—Willie Davenport, Southern University. Time—0:05.9.
 50 Yds.—Charles Green, Nebraska. Time—0:05.2.
 600 Yds.—Frank Tomeo, New York. Time—1:10.5.
 1,000 Yds.—Bill Crothers, Toronto. Time—2:10.9.
 Canadian Mile—Jim Irons, Toronto. Time—4:18.6.
 Invitational Mile—Dave Bailey, Toronto. Time—4:05.2.
 High Jump—Otis Burrell, University of Nevada. 7 ft.
 Pole Vault—Dennis Phillips, Oregon State University. 16 ft. 6 in.
 Shot Put—Jay Silvester, Utah. 64 ft. 5 in.
 One-Mile Relay—Toronto East York (Brereton,

McMann, Brooks, Powell). Time—3:25.9.
 Two-Mile Relay—University of Toronto (Field, Davis, Bailey, Richards). Time—7:59.3.
 Three-Mile Run—Tracy Smith, U. S. Army. Time—13:15.2.

Women's Division

50 Yd. Hurdles—Mamie Rollins, Chicago. Time—0:06.5.
 50 Yds.—Wyomia Tyus, Tennessee State University. Time—0:05.8.
 300 Yds.—Wyomia Tyus, Tennessee State University. Time—0:35.9.
 880 Yds.—Doris Brown, Seattle. Time—2:11.4.
 High Jump—Pat Winslow, Iowa State University. 5 ft. 6 in.

59th Annual Drake Relays

Des Moines, Iowa, April 26-27, 1968

100 Yds.—Clyde Glosson, Trinity. Time—0:09.5.
 120 Yd. High Hurdles—Mike Butler, Wisconsin. Time—0:13.8.
 440 Yds.—Charles Benson, Southern Illinois. Time—1:46.7.
 440 Yd. Hurdles—Jesse Ball, Prairie View. Time—0:51.7.
 College-University Mile—Al Van Troba, Abeline Christian. Time—4:04.3.
 Invitational Mile—Sam Bair, Kent State. Time—4:06.2.
 Two Miles—Ed Norris, Kent State. Time—8:52.2.
 Three Miles—Van Nelson, St. Cloud State. Time—13:17.4.
 Six Miles—Van Nelson. Time—23:22.1.
 High Jump—Stan Curry, Baylor. 6 ft. 9 in.
 Shot Put—James Bagby, Prairie View. 58 ft. 3 in.
 Pole Vault—Martin Rollins, Texas A. & M. 15 ft. 6 in.
 Javelin—Bill Skinner, Tennessee. 239 ft. 2 in.
 Triple Jump—Lennox Burgher, Nebraska. 52 ft. 11 in.
 Long Jump—Hal Oswalt, Oklahoma State. 24 ft. 7¼ in.

Discus Throw—John Morton, Florida. 178 ft. 3 in.
 Invitational Discus Throw—Parry O'Brien. 180 ft. 2 in.

University Relays

440 Yds.—Oklahoma (W. Long, Smith, Brown, G. Long). Time—0:40.5.
 880 Yds.—Ohio Univ. (Smith, Fuller, Hosler, Taylor). Time—1:23.7.
 One Mile—Texas (McKaniel, Matina, Canada, Morton). Time—3:05.2.
 Two Miles—Kansas (Grindal, Ferrell, McClain, Ryun). Time—7:21.8.
 Four Miles—Drake (Compson, Hoffert, Hunt, Evans). Time—16:39.7.
 Sprint Medley—Kansas State (Collins, Heer, Holbrook, Swenson). Time—3:19.5.
 Distance Medley—Kansas (Grindal, Olsson, McClain, Ryun). Time—9:41.9.
 480 Yd. Shuttle High Hurdles—Kansas (Byers, Gaines, Adams, Stevens). Time—0:56.7.

4th Annual NCAA Indoor Track and Field Championships

Detroit, Mich., March 15-16, 1968. Sponsored by The Detroit News

60 Yds.—Jim Green, Kentucky. Time—0:06.0.
 440 Yds.—Larry James, Villanova. Time—0:47.0.
 600 Yds.—Tom Albright, Colgate. Time—1:10.6.
 880 Yds.—Dave Patrick, Villanova. Time—1:52.0.
 1,000 Yds.—Ray Arrington, Wisconsin. Time—2:09.3.
 One Mile—Jim Ryun, Kansas. Time—4:06.8.
 Two Miles—Jim Ryun, Kansas. Time—8:38.9.
 60 Yd. High Hurdles—Richmond Flowers, Tennessee. Time—0:07.0.
 One Mile Relay—Villanova (Nichter, Davis, Prince, James). Time—3:14.4.

Two Mile Relay—Harvard (Burns, Shaw, Baker, McKelvey). Time—7:26.8.
 Medley Relay—Villanova (Messenger, Whitehead, Donnelly, Murphy). Time—9:49.5.
 Long Jump—Bob Beamon, Texas-El Paso. 27 ft. 2¼ in.
 Shot Put—John Vanreenen, Washington State. 62 ft. 1 in.
 35 lb. Weight Throw—Bob Narcessian, Rhode Island. 65 ft. 5¾ in.
 Pole Vault—Paul Wilson, USC. 16 ft. 8 in.
 Team Champion—Villanova, 35½ pts.; Southern Calif., 25 pts.; Oklahoma, 17 pts.

47th NCAA Outdoor Championships

Berkeley, Calif., June 13-15, 1968

100 Meters—Lennox Miller, Southern Calif. Time—0:10.1.
 200 Meters—Emmett Taylor, Ohio Univ. Time—0:20.8.
 400 Meters—Lee Evans, San Jose State. Time—0:45.0.
 800 Meters—Byron Dyce, NYU. Time—1:47.3.
 1,500 Meters—Dave Patrick, Villanova. Time—3:39.9.
 5,000 Meters—Gerry Lindgren, Washington State. Time—13:57.2.
 10,000 Meters—Gerry Lindgren. Time—29.41.
 110 Meter High Hurdles—Earl McCullouch, So. Calif. Time—0:13.4.
 400 Meter Hurdles—Dave Hemery, Boston Univ. Time—0:49.8.
 3,000 Meter Steeplechase—Kerry Pearce, Texas-

El Paso. Time—8:50.8.
 440 Yard Relay—Southern Calif. Time—0:39.5.
 One Mile Relay—Villanova. Time—3:08.6.
 High Jump—Dick Fosbury, Oregon State. 7 ft. 2 3/4 in.
 Pole Vault—Jon Vaughn, UCLA. 17 ft. 1 1/2 in.
 Long Jump—Pertti Pousi, Brigham Young Univ. 26 ft. 3 3/4 in.
 Triple Jump—Lennox Burgher, Nebraska. 53 ft. 1 1/4 in.
 Shot Put—Steve Marcus, UCLA. 61 ft. 7 3/4 in.
 Discus—John Van Reenen, Wash. St. 194 ft. 10 in.
 Hammer Throw—Bob Narcessian, Rhode Island. 202 ft. 1 in.
 Javelin—Carl O'Donnell, Washington State. 258 ft. 11 in.
 Team—Southern California, 58 pts.

80th Annual AAU Outdoor Track and Field Championships

Sacramento, Calif., June 20-21, 1968

100 Meters—Charlie Greene, Huskers AA. Time—0:10.0.
 200 Meters—Tommie Smith, Santa Clara. Time—0:20.3.
 400 Meters—Lee Evans, Santa Clara Valley Youth Village. Time—0:45.0.
 800 Meters—Wade Bell, Oregon TC. Time—1:45.4.
 1,500 Meters—John Mason, Ft. Hays State. Time—3:43.1.
 5,000 Meters—Bob Day, So. Calif. Striders. Time—13:50.4.
 10,000 Meters—Tracy Smith, U. S. Army. Time—28:47.
 110 Meter Hurdles—Earl McCullouch. Time—0:13.5.
 400 Meter Hurdles—Ron Whitney, So. Calif. Striders. Time—0:49.6.
 3,000 Meter Walk—Don DeNoon. Time—12:37.9.

3,000 Meter Steeplechase—George Young. Time—8:30.5.
 Discus Throw—Jay Silvester. 203 ft. 9 in.
 Triple Jump—Art Walker, So. Calif. Striders. 53 ft. 9 1/4 in.
 Javelin—Frank Covelii, Pacific Coast Club. 269 ft. 6 in.
 High Jump—Ed Hanks, Brigham Young. 6 ft. 11 in.
 Hammer Throw—Ed Burke, So. Calif. Striders. 217 ft. 2 in.
 Shot Put—Randy Matson, Houston Striders. 67 ft. 5 in.
 Pole Vault—Dick Railsback, So. Calif. Striders. 17 ft. 1 1/4 in.
 Long Jump—Bob Beamon, Houston Striders. 27 ft. 4 in.
 Highest Point Score—So. Calif. Striders.

Decathlon and Pentathlon National Champions**DECATHLON**

100 meters, long jump, shot put, high jump, 400 meters, 110 meter high-hurdles, discus, pole vault, javelin and 1500 meters.

Year	Champion	Affiliation	Points
1962	C. K. Yang.....	U. C. L. A.; Rep. of China.....	8249
1963	Steve Pauly.....	Oregon State University.....	7852
1964	C. K. Yang.....	Pasadena A. A.; Rep. of China.....	8641
*1965	Bill Toomey.....	Pasadena A. A.....	7764
1966	Bill Toomey.....	Pasadena A. A.....	8234
1967	Bill Toomey.....	Southern California Striders.....	7880
1968	Bill Toomey.....	Southern Calif. Striders.....	8037

*New scoring system adopted.

PENTATHLON

Long jump, discus, javelin, 200 meters and 1,500 meters.

1962	Paul Herman.....	Westmont College, Santa Barbara, Calif.....	3389
1963	Bill Toomey.....	Santa Clara Valley Youth Village.....	3365
1964	Bill Toomey.....	Stanford Univ.....	3687
1965	Jim Miller.....	Colorado.....	3091
1966	Jeff Bannister.....	Gorham, Maine.....	3512
1967	Lynn Baker.....	Univ. of Colorado.....	3448
1968	Joe Hilbe.....	Chico Track Club.....	3456

72nd Annual Boston Marathon

Boston, Mass., April 19, 1968

Ambrose Burfoot of Wesleyan Univ. covered the traditional marathon distance of 26 miles 385 yards in 2 hours 22 minutes 17 seconds to win the 1968 Boston Marathon. Finishing second was Lt. Bill Clark of the Marine Corps. It was the first 1, 2 American finish in 23 years. The event drew a record field of 890 starters. The leading finishers follow:

1—Ambrose J. Burfoot, Wesleyan.....	2:22:17	10—August Muhrcrke, Milrose A. A.....	2:34:15
2—Lieut. Bill Clark, U. S. Marines.....	2:22:49	11—Edward Winrow, New York A. C.....	2:35:12
3—Alfred Penaloza, Mexico.....	2:25:06	12—Bruce C. Lebudde, Georgia St.....	2:35:47
4—Fablo Garrido, Mexico.....	2:25:07	13—Ronald C. Wallingford, Canada.....	2:37:03
5—Ron Daws, Twin Cities T. C.....	2:29:17	14—Arthur W. Coolidge, Boston A. A.....	2:37:42
6—Robert D. Dienes, Occidental.....	2:30:13	15—John J. Kelley, Boston A. A.....	2:37:43
7—Jose Garcia Gaspar, Mexico.....	2:30:29	16—James A. Daiey Jr., No. Medford.....	2:38:05
8—Mikko Ala-Lempilampi, Finland.....	2:31:35	17—Raymond T. Hall, Conn. C. A. A.....	2:38:09
9—D. McFadzean, Scotland.....	2:32:27	18—Morris Aarbo, Edmonton, Alberta.....	2:39:02

National Spearfishing Champions

Men	Women
1960—Long Beach Neptunes	1960—Mermaids
1961—Long Beach Neptunes	1961—Connecticut Council
1962—Florida Skin Divers Association	1962—Southeast Council
1963—Florida Skin Divers Association	1963—Oregon Council
1964—Greater Los Angeles Council	1964—Washington Council
1965—Central California Council	1965—Oregon Council
1966—Greater Los Angeles Council	1966—Florida Skin Divers Association
1967—Washington Council	1967—Los Angeles Council
1968—Central California Council	1968—Washington Council

National Football League

Final 1967 Standings

Eastern Conference

Century Division					
	W	L	T	PF	PA
Cleveland	9	5	0	334	297
New York	7	7	0	369	379
St. Louis	6	7	1	333	356
Pittsburgh	4	9	1	281	320

Capitol Division					
	W	L	T	PF	PA
Dallas	9	5	0	342	268
Philadelphia	5	7	1	351	409
Washington	5	6	3	347	353
New Orleans	3	11	0	233	379

*Won division title by outscoring Baltimore in their two meetings.

Western Conference

Central Division					
	W	L	T	PF	PA
Green Bay	9	4	1	332	299
Chicago	7	6	1	239	218
Detroit	5	7	2	260	259
Minnesota	3	8	3	233	294

Coastal Division					
	W	L	T	PF	PA
Los Angeles*	11	1	2	398	196
Baltimore	11	1	2	394	198
San Francisco	7	7	0	273	337
Atlanta	1	12	1	175	422

American Football League

Final 1967 Standings

Eastern Division					
	W	L	T	PF	PA
Houston	9	4	1	258	199
New York	8	5	1	371	329
Buffalo	4	10	0	237	285
Miami	4	10	0	219	407
Boston	3	10	1	280	389

Western Division					
	W	L	T	PF	PA
Oakland	13	1	0	468	233
Kansas City	9	5	0	408	254
San Diego	8	5	1	360	352
Denver	3	11	0	256	409

Jim Thorpe Trophy Winners

The Jim Thorpe Trophy winner is picked by a Newspaper Enterprise Assn. poll of all NFL players. It goes to the most valuable NFL player and is the oldest and highest professional football award.

Year	Player and Team
1955	Harlon Hill, Chicago Bears
1956	Frank Gifford, N. Y. Giants
1957	John Unitas, Baltimore Colts
1958	Jim Brown, Cleveland Browns
1959	Charley Conerly, N. Y. Giants
1960	Norm Van Brocklin, Philadelphia Eagles
1961	Y. A. Tittle, N. Y. Giants

Year	Player and Team
1962	Jim Taylor, Green Bay Packers
1963	(tie) Jim Brown, Cleveland Browns and Y. A. Tittle, N. Y. Giants
1964	Lenny Moore, Baltimore Colts
1965	Jim Brown, Cleveland Browns
1966	Bart Starr, Green Bay Packers
1967	John Unitas, Baltimore Colts

Green Bay Wins Super Bowl Game

The second professional football game between the champions of the National and American Leagues resulted in a 33-14 victory by the National League Champion Green Bay Packers over the Oakland Raiders on Jan. 14, 1968. The game was played at the Orange Bowl in Miami before 75,546 spectators plus an estimated 50,000,000 television viewers. For their victory each Packer received \$15,000, with \$7,500 going to each losing Raider, in addition to the money the players received for winning their respective league championships.

SCORING

Green Bay Packers	3	13	10	7-33
Oakland Raiders	0	7	0	7-14
G.B.—FG, Chandler, 39.				
G.B.—FG, Chandler, 20.				
G.B.—Dowler, 62, pass from Starr (Chandler, kick).				
Oak—Miller, 23, pass from Lamonica (Blanda, kick).				
G.B.—FG, Chandler, 43.				
G.B.—Anderson, 2, run (Chandler, kick).				
G.B.—FG, Chandler, 31.				
G.B.—Adderley, 60, return of interception (Chandler, kick).				
Oak—Miller, 23, pass from Lamonica (Blanda, kick).				

GAME STATISTICS

	Packers	Raiders
First downs	19	16
Rushing yardage	163	105
Passing yardage	162	186
Return yardage	144	139
Passes	13-24	15-34
Interceptions by	1	0
Punts	6-39	6-44
Fumbles lost	0	2
Yards penalized	12	31

INDIVIDUAL STATISTICS

Rushes—G.B.: Wilson, 17 for 65 yards; Anderson, 14 for 48; William, 8 for 36; Starr, 1 for 14; Mercein, 1 for 0. Oak.: Dixon, 12 for 52; Todd, 2 for 37; Banaszak, 8 for 16.
 Passing—G.B.: Starr, 13 of 24 for 202 yards. Oak.: Lamonica, 15 of 34 for 208.
 Receptions—G.B.: Dale, 4 for 43 yards; Fleming,

4 for 35; Anderson, 2 for 18; Dowler, 2 for 71; McGee, 1 for 35. Oak.: Miller, 5 for 84; Biletnikoff, 2 for 10; Banaszak, 4 for 69; Cannon, 2 for 25; Dixon, 1 for 3; Wells, 1 for 17.

PLAYERS

GREEN BAY PACKERS

Ends—Dowler, Dale, Fleming, Davis, Aldridge, Long, McGee, Capo, B. Brown.
 Tackles—Skoronski, Gregg, Kostelnik, Jordan, Weatherwax.
 Guards—Gillingham, Kramer, Thurston.
 Centers—Hyland, Bowman.
 Linebackers—Robinson, Nitschke, Caffey, Crutcher, Flanagan.
 Quarterbacks—Starr, Bratkowski.
 Offensive Backs—Anderson, Wilson, Williams, Mercein.
 Defensive Backs—Adderley, Jeter, T. Brown, Wood, Rowser, Hart.
 Kicker—Chandler.

OAKLAND RAIDERS

Ends—Miller, Biletnikoff, Cannon, Lassiter, Davidson, Wells, Kocourek, Herock, Oaks.
 Tackles—Svihus, Schuh, Birdwell, Keating, Kruse, Archer, Sligh.
 Guards—Upshaw, Hawkins, Harvey.
 Center—J. Otto.
 Linebackers—Laskey, Connors, G. Otto, Williamson, Budness, Benson.
 Quarterback—Lamonica.
 Offensive Backs—Banaszak, Dixon, Todd, Hagberg.
 Defensive Backs—McCloughan, W. Brown, Grayson, Powers, Williams, Bird.
 Kickers—Blanda, Elscheld.

Super Bowl

Year	Winner	Loser	Site
1967	Green Bay Packers, 35	Kansas City Chiefs, 10	Memorial Coliseum, Los Angeles
1968	Green Bay Packers, 33	Oakland Raiders, 14	Orange Bowl, Miami

NATIONAL FOOTBALL LEAGUE

Year	Winners (W-L-T) (East)	Winners (W-L-T) (West)	Playoff
1933	New York Giants (11-3-0).....	Chicago Bears (10-2-1).....	Chicago Bears 23, New York 21
1934	New York Giants (8-5-0).....	Chicago Bears (13-0-0).....	New York 30, Chicago Bears 13
1935	New York Giants (9-3-0).....	Detroit Lions (7-3-2).....	Detroit 26, New York 7
1936	Boston Redskins (7-5-0).....	Green Bay Packers (10-1-1).....	Green Bay 21, Boston 6
1937	Washington Redskins (8-3-0).....	Chicago Bears (9-1-1).....	Wash. 28, Chicago Bears 21
1938	New York Giants (8-2-1).....	Green Bay Packers (8-3-0).....	New York 23, Green Bay 17
1939	New York Giants (9-1-1).....	Green Bay Packers (9-2-0).....	Green Bay 27, New York 0
1940	Washington Redskins (9-2-0).....	Chicago Bears (8-3-0).....	Chicago Bears 73, Wash. 0
1941	New York Giants (8-3-0).....	Chicago Bears (10-1-1) (A).....	Chicago Bears 37, New York 19
1942	Wash. Redskins (10-1-1).....	Chicago Bears (11-0-0).....	Wash. 14, Chicago Bears 6
1943	Wash. Redskins (6-3-1) (A).....	Chicago Bears (8-1-1).....	Chicago Bears 41, Wash. 21
1944	New York Giants (8-1-1).....	Green Bay Packers (8-2-0).....	Green Bay 14, New York 7
1945	Wash. Redskins (8-2-0).....	Cleveland Rams (9-1-0).....	Cleveland 15, Washington 14
1946	New York Giants (7-3-1).....	Chicago Bears (8-2-1).....	Chicago Bears 24, New York 14
1947	Philadelphia Eagles (8-4-0) (A).....	Chicago Cardinals (9-3-0).....	Chicago Cardinals 23, Phila. 21
1948	Philadelphia Eagles (9-2-1).....	Chicago Cardinals (11-1-0).....	Phila. 7, Chicago Cardinals 0
1949	Philadelphia Eagles (11-1-0).....	Los Angeles Rams (8-2-2).....	Philadelphia 14, Los Angeles 0
1950	Cleveland Browns (10-2-0) (A).....	Los Angeles Rams (9-3-0) (A).....	Cleveland 30, Los Angeles 28
1951	Cleveland Browns (11-1-0).....	Los Angeles Rams (8-4-0).....	Los Angeles 24, Cleveland 17
1952	Cleveland Browns (8-4-0).....	Detroit Lions (9-3-0) (A).....	Detroit 17, Cleveland 7
1953	Cleveland Browns (11-1-0).....	Detroit Lions (10-2-0).....	Detroit 17, Cleveland 16
1954	Cleveland Browns (9-3-0).....	Detroit Lions (9-2-1).....	Cleveland 56, Detroit 10
1955	Cleveland Browns (9-2-1).....	Los Angeles Rams (8-3-1).....	Cleveland 38, Los Angeles 14
1956	New York Giants (8-3-1).....	Chicago Bears (9-2-1).....	New York 47, Chicago Bears 7
1957	Cleveland Browns (9-2-1).....	Detroit Lions (9-3-0) (A).....	Detroit 59, Cleveland 14
1958	New York Giants (9-3-0) (A).....	Baltimore Colts (9-3-0).....	Baltimore 23, New York 17 (B)
1959	New York Giants (10-2-0).....	Baltimore Colts (9-3-0).....	Baltimore 31, New York 16
1960	Philadelphia Eagles (10-2-0).....	Green Bay Packers (8-4-0).....	Philadelphia 17, Green Bay 13
1961	New York Giants (10-3-1).....	Green Bay Packers (11-3-0).....	Green Bay 37, New York 0
1962	New York Giants (12-2-0).....	Green Bay Packers (13-1-0).....	Green Bay 16, New York 7
1963	New York Giants (11-3-0).....	Chicago Bears (11-1-2).....	Chicago 14, New York 10
1964	Cleveland Browns (10-3-1).....	Baltimore Colts (12-2-0).....	Cleveland 27, Baltimore 0
1965	Cleveland Browns (11-3-0).....	Green Bay Packers (10-3-1) (A).....	Green Bay 23, Cleveland 12
1966	Dallas Cowboys (10-3-1).....	Green Bay Packers (12-2-0).....	Green Bay 84, Dallas 27

(A) Won divisional playoff. (B) Won at 8:15 sudden death overtime period.

Year	Conference	Division	Winners (W-L-T)	Playoffs
1967.....	East.....	Century.....	Cleveland (9-5-0).....	Dallas 52, Cleveland 14
	West.....	Capitol.....	Dallas (9-5-0).....	
		Central.....	Green Bay (9-4-1).....	Green Bay 28, L.A. 7
		Coastal.....	Los Angeles (11-1-2) (A).....	Green Bay 21, Dallas 17

(A) Won division title by outscoring Baltimore in their two meetings.

PASSING LEADERS				PASS-RECEIVING LEADERS			
Year	Player	Atts.	Com. YG.	Year	Player	Ct.	YG.
1933	Harry Newman, N. Y.	132	53 963	1933	John Kelley, Bklyn.	21	219
1934	Arnie Herber, G. B.	115	42 799	1934	Joe Carter, Phila.	18	237
1935	Ed Danowski, N. Y.	113	57 795	1935	Tod Goodwin, N. Y.	26	432
1936	Arnie Herber, G. B.	173	77 1239	1936	Don Hutson, G. B.	34	526
1937	Sammy Baugh, Wash.	171	81 1127	1937	Don Hutson, G. B.	41	552
1938	Ed Danowski, N. Y.	129	70 848	1938	Gaynell Tinsley, Cards.	41	516
1939	Parker Hall, Cleve.	208	106 1227	1939	Don Hutson, G. B.	34	846
1940	Sammy Baugh, Wash.	177	111 1367	1940	Don Looney, Phila.	58	707
1941	Cecil Isbell, G. B.	206	117 1479	1941	Don Hutson, G. B.	58	738
1942	Cecil Isbell, G. B.	268	146 2021	1942	Don Hutson, G. B.	74	1211
1943	Sammy Baugh, Wash.	239	133 1754	1943	Don Hutson, G. B.	47	776
1944	Frank Filchock, Wash.	147	84 1139	1944	Don Hutson, G. B.	58	866
1945	Sammy Baugh, Wash.	182	128 1669	1945	Don Hutson, G. B.	47	834
1946	Bob Waterfield, L. A.	251	127 1747	1946	Jim Benton, L. A.	63	981
1947	Sammy Baugh, Wash.	354	210 2938	1947	Jim Keane, Bears.	64	910
1948	Tommy Thompson, Phila.	246	141 1965	1948	Tom Fears, L. A.	51	698
1949	Sammy Baugh, Wash.	255	145 1903	1949	Tom Fears, L. A.	77	1013
1950	Norm Van Brocklin, L. A.	233	127 2061	1950	Tom Fears, L. A.	84	1116
1951	Bob Waterfield, L. A.	176	88 1556	1951	Elroy Hirsch, L. A.	66	1495
1952	Norm Van Brocklin, L. A.	205	113 1732	1952	Sam Spivey, Cleve.	62	911
1953	Otto Graham, Cleve.	258	167 2726	1953	Pete Phios, Phila.	63	1049
1954	Norm Van Brocklin, L. A.	260	139 2637	1954	Pete Phios, Phila.	60	872
1955	Otto Graham, Cleve.	185	98 1721	1954	Billy Wilson, S. F.	60	830
1956	Ed Brown, Bears.	168	96 1667	1955	Pete Phios, Phila.	62	864
1957	Tom O'Connell, Cleve.	110	63 1229	1956	Billy Wilson, S. F.	60	889
1958	Eddie LeBaron, Wash.	145	79 1365	1957	Billy Wilson, S. F.	52	757
1959	Charley Conerly, N. Y.	194	113 1706	1958	Ray Berry, Balt.	56	794
1960	Milt Plum, Cleve.	250	151 2267	1958	Pete Rozzuff, Phila.	56	766
1961	Milt Plum, Cleve.	302	177 2416	1959	Ray Berry, Balt.	66	859
1962	Bart Starr, G. B.	285	178 2438	1960	Ray Berry, Balt.	74	1288
1963	Y. A. Tittle, N. Y.	367	221 3145	1961	Jim Phillips, L. A.	72	1092
1964	Bart Starr, G. B.	272	163 2144	1962	Bobby Mitchell, Wash.	72	1384
1965	Rudv Bukich, Chi.	312	176 2641	1963	Bobby Conrad, Cards.	73	967
1966	Bart Starr, G. B.	251	156 2257	1964	Johnny Morris, Bears.	83	1200
1967	Sonny Jurgensen, Wash.	508	288 3747	1965	Dave Parks, S. F.	80	1344
				1966	Charlie Taylor, Wash.	72	1119
				1967	Charlie Taylor, Wash.	70	990

SCORING LEADERS

Year	Player	Pts.	Year	Player	Pts.
1933	Strong, N. Y., Presnell, Ports.	64	1950	Doak Walker, Det.	128
1934	Jack Manders, Bears (Chi.)	79	1951	Elroy Hirsch, L. A.	102
1935	Earl Clark, Det.	55	1952	Gordie Soltau, San Fran.	94
1936	Earl Clark, Det.	73	1953	Gordie Soltau, San Fran.	114
1937	Jack Manders, Bears.	69	1954	Bobby Walston, Phila.	114
1938	Clark Hinkle, G. B.	58	1955	Doak Walker, Det.	96
1939	Andy Farkas, Wash.	68	1956	Bobby Layne, Det.	99
1940	Don Hutson, G. B.	57	1957	Sam Baker, Wash.	77
1941	Don Hutson, G. B.	95	1958	Jimmy Brown, Cleve.	108
1942	Don Hutson, G. B.	138	1959	Paul Hornung, G. B.	94
1943	Don Hutson, G. B.	117	1960	Paul Hornung, G. B.	176
1944	Don Hutson, G. B.	85	1961	Paul Hornung, G. B.	146
1945	Steve Van Buren, Phila.	110	1962	Jim Taylor, G. B.	114
1946	Ted Fritsch, G. B.	100	1963	Don Chandler, N. Y.	106
1947	Pat Harder, Cards (Chi.)	102	1964	Lenny Moore, Balt.	120
1948	Pat Harder, Cards (Chi.)	110	1965	Gale Sayers, Chi.	132
1949	Pat Harder, Cards (Chi.)	102	1966	Bruce Gossett, L. A.	113
	Gene Roberts, N. Y.	102	1967	Jim Bakken, S. L.	117

RUSHING LEADERS

Year	Player	YG.	Atts.	Year	Player	YG.	Atts.
1933	Cliff Battles, Bos.	737	146	1951	Eddie Price, N. Y.	971	271
1934	Beattie Feathers, Bears (Chi.)	1004	101	1952	Dan Towler, L. A.	894	156
1935	Doug Russell, Cards (Chi.)	499	140	1953	Joe Perry, San Fran.	1018	192
1936	Tuffy Leemans, N. Y.	830	206	1954	Joe Perry, San Fran.	1049	173
1937	Cliff Battles, Wash.	874	216	1955	Alan Ameche, Balt.	961	213
1938	Whizzer White, Pitts.	567	152	1956	Rick Casares, Bears (Chi.)	1126	234
1939	Bill Osmanski, Bears (Chi.)	699	121	1957	Jimmy Brown, Clevel.	942	202
1940	Whizzer White, Det.	514	146	1958	Jimmy Brown, Clevel.	1527	257
1941	Pug Manders, Bklyn.	486	111	1959	Jimmy Brown, Clevel.	1329	290
1942	Bill Dudley, Pitts.	696	162	1960	Jimmy Brown, Clevel.	1257	215
1943	Bill Paschal, N. Y.	572	147	1961	Jimmy Brown, Clevel.	1408	305
1944	Bill Paschal, N. Y.	737	196	1962	Jim Taylor, G. B.	1474	272
1945	Steve Van Buren, Phil.	832	143	1963	Jimmy Brown, Clevel.	1863	291
1946	Bill Dudley, Pitts.	604	146	1964	Jimmy Brown, Clevel.	1446	280
1947	Steve Van Buren, Phila.	1008	217	1965	Jimmy Brown, Clevel.	1544	289
1948	Steve Van Buren, Phila.	845	201	1966	Gale Sayers, Chi.	1231	229
1949	Steve Van Buren, Phila.	1146	263	1967	Leroy Kelly, Clevel.	1205	235
1950	Marion Motley, Clevel.	810	140				

AMERICAN FOOTBALL LEAGUE

Year	Eastern Division	Western Division	Playoff
1960	Houston Oilers (10-4-0)	L. A. Chargers (10-4-0)	Houston 24, Los Angeles 16
1961	Houston Oilers (10-3-1)	San Diego Chargers (12-2-0)	Houston 10, San Diego 3
1962	Houston Oilers (11-3-0)	Dallas Texans (11-3-0)	Dallas 20, Houston 17 (b)
1963	Boston Patriots (8-6-1) (a)	San Diego Chargers (11-3-0)	San Diego 51, Boston 10
1964	Buffalo Bills (12-0-0)	San Diego Chargers (8-5-1)	Buffalo 20, San Diego 7
1965	Buffalo Bills (10-3-1)	San Diego Chargers (9-2-3)	Buffalo 23, San Diego 0
1966	Buffalo Bills (9-4-1)	Kansas City Chiefs (11-2-1)	Kansas City 31, Buffalo 7
1967	Houston Oilers (9-4-1)	Oakland Raiders (13-1-0)	Oakland 40, Houston 7

(a) Won divisional playoff. (b) Won at 2:45 of second overtime period.

League Leaders

SCORING LEADERS				RUSHING LEADERS			
Year	Player	Pts.		Year	Player	YG	Atts.
1960	Gene Mingo, Denver	123		1960	Abner Haynes, Dallas	875	156
1961	Gino Cappelletti, Boston	147		1961	Billy Cannon, Houston	948	200
1962	Gene Mingo, Denver	137		1962	Cookie Gilchrist, Buffalo	1096	214
1963	Gino Cappelletti, Boston	113		1963	Clem Daniels, Oakland	1098	214
1964	Gino Cappelletti, Boston	155		1964	Cookie Gilchrist, Buffalo	981	230
1965	Gino Cappelletti, Boston	132		1965	Paul Lowe, San Diego	1121	222
1966	Gino Cappelletti, Boston	119		1966	Jim Nance, Boston	1458	299
1967	George Blanda, Oakland	116		1967	Jim Nance, Boston	1216	269

PASSING LEADERS

Year	Player	Atts.	Com.	YG
1960	Jack Kemp, L. A.	406	211	3018
1961	George Blanda, Hous.	362	187	3330
1962	Len Dawson, Dallas	310	189	2749
1963	Tobin Rote, San Diego	287	170	2510
1964	Len Dawson, K. C.	354	199	2879
1965	Jack Hadl, San Diego	348	174	2798
1966	Len Dawson, Kansas City	284	159	2527
1967	Daryle Lamonia, Oakland	425	220	3228

PASS-RECEIVING LEADERS

Year	Player	Ct.	YG
1960	Llonel Taylor, Denver	92	1235
1961	Llonel Taylor, Denver	100	1176
1962	Llonel Taylor, Denver	77	908
1963	Llonel Taylor, Denver	78	1101
1964	Charlie Hennigan, Houston	101	1561
1965	Llonel Taylor, Denver	85	1131
1966	Lance Alworth, San Diego	73	1383
1967	George Sauer, N.Y.	75	1189

Professional Football Attendance

AMERICAN LEAGUE

	1967	1966	1965
Boston	162,481	190,138	143,098
Buffalo	280,461	299,127	306,875
Denver	231,801	192,769	219,812
Houston	185,129	177,896	230,857
Kansas City	315,006	259,071	150,169
Miami	197,710	182,428	
New York	437,036	415,768	384,144
Oakland	276,488	253,508	136,427
San Diego	297,312	189,664	202,402
Total	2,383,424	2,160,369	1,782,584

NATIONAL LEAGUE

	1967	1966	1965
Atlanta	384,891	395,679	
Baltimore	418,143	418,143	416,361
Chicago	320,550	327,587	321,283
Cleveland	544,807	544,250	557,283
Dallas	460,476	473,373	388,912
Detroit	368,413	358,181	362,769
Green Bay	352,586	349,442	348,334
Los Angeles	419,997	348,432	282,333
Minnesota	304,901	315,837	321,119
New Orleans	528,242		
New York	440,043	439,905	439,813
Philadelphia	424,868	407,196	400,564
Pittsburgh	271,522	249,331	228,954
St. Louis	316,923	317,166	213,862
San Francisco	253,286	249,892	275,284
Washington	353,149	348,094	349,503
Total	6,162,827	5,542,508	4,906,374

PRO FOOTBALL'S HALL OF FAME

Canton, Ohio

Cliff Battles	Otto Graham	Bobby Layne	Dan Reeves
Sammy Baugh	Red Grange	Sid Luckman	Art Rooney
Chuck Bednarik	Joe Guyon	Link Lyman	Ken Strong
Bert Bell	George Halas	Tim Mara	Joe Stydahar
Charles Bidwell	Ed Healey	George Marshall	Jim Thorpe
Paul Brown	Mel Hein	John McAfee	George Trafton
Joe Carr	Pete Henry	John (Blood) McNally	Charlie Trippi
Guy Chamberlin	Arnold Herber	Mike Michalske	Emlen Tunnell
Dutch Clark	Clarke Hinkle	Wayne Millner	Clyde (Bulldog) Turner
Jim Conzelman	Eloy Hirsch	Marion Motley	Steve Van Buren
Art Donovan	Clay Hubbard	Bronco Nagurski	Bob Waterfield
Paddy Driscoll	Don Hutson	Ernie Nevers	Alex Wojciechowicz
Bill Dudley	Walt Kiesling	Steve Owen	
Dr. Daniel Fortmann	Curly Lambeau	Hugh (Shorty) Ray	

Professional Football Player Draft

The following are the first round picks of the second combined National Football League-American Football League player draft.

- 1—**Minnesota**—Ron Yary, offensive tackle, Southern California.
- 2—**Cincinnati**—Bob Johnson, center, Tennessee.
- 3—**Atlanta**—Claude Humphrey, defensive tackle, Tennessee A&I.
- 4—**San Diego**—Russ Washington, offensive tackle, Missouri.
- 5—**Green Bay**—Fred Carr, linebacker, University of Texas at El Paso.
- 6—**Boston**—Dennis Byrd, defensive tackle, North Carolina State.
- 7—**New Orleans**—Kevin Hardy, defensive end-tackle, Notre Dame.
- 8—**Miami**—Larry Csonka, fullback, Syracuse.
- 9—**Buffalo**—Haven Moses, flanker, San Diego State.
- 10—**Pittsburgh**—Mike Taylor, defensive tackle, Southern California.
- 11—**Detroit**—Greg Landry, quarterback, Massachusetts.
- 12—**Washington**—Jim Smith, defensive back, Oregon.
- 13—**St. Louis**—MacArthur Lane, halfback, Utah State.
- 14—**Philadelphia**—Tim Rossovich, defensive end, Southern California.
- 15—**San Francisco**—Forrest Blue, center, Auburn.
- 16—**Chicago**—Mike Hull, fullback, Southern California.
- 17—**New York (AFL)**—Lee White, fullback, Weber State.
- 18—**San Diego**—Jim Hill, defensive back, Tennessee A&I.
- 19—**Kansas City**—Maurice (Mo.) Moorman, offensive tackle, Texas A&M.
- 20—**Dallas**—Dennis Homan, flanker, Alabama.
- 21—**Cleveland**—Marvin Upshaw, defensive end, Trinity (Tex.).
- 22—**Kansas City**—George Daney, offensive guard, Texas-El Paso.
- 23—**Baltimore**—John Williams, offensive tackle, Minnesota.
- 24—**Detroit**—Earl McCullough, split end, Southern California.
- 25—**Oakland**—Eldridge Dickey, quarterback, Tennessee A&I.
- 26—**Green Bay**—Bill Lueck, offensive guard, Arizona.
- 27—**Miami**—Doug Crusan, offensive tackle, Indiana.

Canadian Football League (Grey Cup)

Winners of Eastern and Western divisions meet in championship game for Grey Cup (donated by Governor-General Earl Grey in 1909). Canadian football features three downs, 110-yard field, each team dressing 32 players of which 12 can be on field at one time. Each team allowed 14 U. S. imports, who usually dominate the sport.

- | | |
|--|--|
| 1948—Calgary Stampeders 12, Ottawa Rough Riders 7 | 1959—Winnipeg Blue Bombers 21, Hamilton Tiger-Cats 7 |
| 1949—Montreal Alouettes 28, Calgary Stampeders 15 | 1960—Ottawa Rough Riders 16, Edmonton Eskimos 6 |
| 1950—Toronto Argonauts 13, Winnipeg Blue Bombers 0 | 1961—Winnipeg Blue Bombers 21, Hamilton Tiger-Cats 14 |
| 1951—Ottawa Rough Riders 21, Saskatchewan Roughriders 14 | 1962—Winnipeg Blue Bombers 28, Hamilton Tiger-Cats 27 |
| 1952—Toronto Argonauts 21, Edmonton Eskimos 11 | 1963—Hamilton Tiger-Cats 21, British Columbia Lions 10 |
| 1953—Hamilton Tiger-Cats 12, Winnipeg Blue Bombers 6 | 1964—British Columbia Lions 34, Hamilton Tiger-Cats 24 |
| 1954—Edmonton Eskimos 26, Montreal Alouettes 25 | 1965—Hamilton Tiger-Cats 22, Winnipeg Blue Bombers 16 |
| 1955—Edmonton Eskimos 34, Montreal Alouettes 19 | 1966—Saskatchewan Roughriders 29, Ottawa Rough Riders 14 |
| 1956—Edmonton Eskimos 50, Montreal Alouettes 27 | 1967—Hamilton Tiger-Cats 24, Saskatchewan Roughriders 1 |
| 1957—Hamilton Tiger-Cats 32, Winnipeg Blue Bombers 7 | |
| 1958—Winnipeg Blue Bombers 35, Hamilton Tiger-Cats 28 | |

Continental Football League

The Continental League Championship game was played Dec. 10, 1967, at Anaheim, Calif. The score was Orlando (Fla.) Panthers 38, Orange County (Calif.) Ramblers 14. Don Jonas threw 5 touchdown passes for Orlando.

Stadiums

For stadiums that house a major league baseball team see Index. For college stadiums see page 866.

Name and location	Cap.*	Name and location	Cap.*
American Legion Memorial, Charlotte, N. C.	22,315	Long Beach (Calif.) Veterans Memorial	15,000
Babco Stadium, San Diego, Calif.	34,500	Los Angeles Memorial Coliseum	92,000
Bears Stadium, Denver, Colo.	34,643	Mississippi Memorial Stadium, Jackson	46,000
Bowman Grey Stad., Winston-Salem, N. C.	16,841	Orange Bowl, Miami, Fla.	70,369
Buffalo War Memorial Stadium	44,500	Ottawa Stadium, Ottawa, Canada	27,872
Columbus (Ga.) Memorial Stadium	35,000	Portland Civic Stadium	29,010
Cotton Bowl, Dallas, Tex.	75,504	Richmond (Va.) City Stadium	22,009
Empire Stadium, Vancouver	32,759	Roanoke (Va.) Victory Stadium	30,000
Gator Bowl, Jacksonville, Fla.	70,000	Rose Bowl, Pasadena, Calif.	100,570
John F. Kennedy Stadium, Phil.	105,000	Rubber Bowl, Akron, Ohio	35,007
Kansas City Municipal Stadium	40,106	San Diego Stadium	50,000
Kentucky Exposition Stadium, Louisville	21,000	Sicks Seattle Stadium	10,500
Kezar Stadium, San Francisco	60,000	Soldier Field, Chicago	77,110
Ladd Memorial Stadium, Mobile, Ala.	40,605	Sugar Bowl, New Orleans, La.	80,982
Lambeau Field, Green Bay, Wisc.	50,180	Tampa Stadium, Tampa, Fla.	45,005
Legion Stadium, Birmingham, Ala.	68,821	Wood Memorial Stad., Sioux Falls, S. D.	10,000

*Normal permanent seating capacity.

31st Annual Soap Box Derby

Branch Lew, 11, of Muncie, Ind., won the 31st All-American Soap Box Derby at Akron, Ohio Aug. 24, 1968, besting a field of 243 contestants from 46 states and from Canada, Venezuela, the Philippines, Okinawa and West Germany for the \$7,500 college scholarship. Ronald Alber, 14, of the Bay Area (Fremont), Calif. was awarded a \$5,000 scholarship for second, and Dennis Jett Puckett, 11, of DeKalb County (Decatur), Ga., received a \$4,000 scholarship for third place. A total of \$30,000 in scholarships was awarded to the first 9 place finishers by Chevrolet, national derby sponsor. Each of the 243 contestants received a \$500 United States Savings Bond for victory in his hometown race.

College Football Stadiums

Name and location	Cap.*	Name and location	Cap.*
Alabama Univ.-of (Denny) University, Ala.	56,000	Missouri, U. of. (Memorial), Columbia, Mo.	55,000
Angelo St. Coll. (San Angelo Stad.), Tex.	17,133	Nebraska, Un. of. (Memorial), Lincoln.....	63,444
Arizona State Univ. (Sun Devil).....	42,350	New Mexico St. U., (Memorial Stad.),	
Arizona, Univ. of. Tucson (Varsity).....	40,000	Univ. Park.....	20,000
Arkansas, Univ. of. (Razorback Stad.)		New Mexico, Un. of. Albuquerque.....	30,000
Fayetteville.....	45,000	North Carolina St. U., (Carter Stad.),	
Auburn Univ., (Cliff Hare Stad.), Auburn,		Raleigh.....	41,000
Ala.....	45,000	North Carolina, U. of. (Kenan), Chapel Hill	46,000
Baylor Univ., Waco, Texas.....	49,000	No. Texas St. Univ. (Fouts Field), Denton	26,000
Boston Coll. (Alumni Stad.), Boston, Mass.	26,000	Northern Ill. Univ. Stad., DeKalb.....	20,000
Boston Univ., (Nickerson Field), Boston.....	15,500	Northwestern Univ., (Dyche), Evanston, Ill.	55,000
Bowling Green State Univ. (Perry Field) O.	23,000	Notre Dame Stad., South Bend, Ind.....	59,000
Brigham Young Univ. Stad., Utah.....	30,000	Ohio State Univ., (Ohio Stad.), Columbus.....	83,000
Brown Stad., Providence, R.....	17,851	Ohio U., (Don Peden), Athens.....	17,500
Bucknell (Memorial Stad.), Lewisburg, Pa.	18,000	Oklahoma State U., (Lewis Stad.), Stillwater.....	40,000
Butler U., (Butler Bowl), Indianapolis, Ind.	18,000	Oklahoma, U. of. (Owen Field), Norman.....	61,826
Calif., U. of. (Memorial Stad.), Berkeley.....	76,780	Old Dominion Coll., (Foreman), Norfolk, Va.	30,000
Central St. (Wantland Stad.), Edmond, Okla.	20,000	Oreg. St. Univ., (Parker Stad.), Corvallis.....	40,750
Cincinnati U. of. (Nippert), Ohio.....	28,000	Oreg., U. of. (Autzen Stad.), Eugene.....	41,000
Citadel (Hagood Stad.), Charleston, S. C.....	22,500	Pacific, Univ. of. (the Pacific Mem.),	
Clemson Univ. (Memorial Stad.), S. C.....	43,451	Stockton, Calif.....	35,000
Coe (Kingsdon) Cedar Rapids, Iowa.....	15,000	Penn. St. Univ., (Beaver Stad.), Pa.....	46,284
Colgate Univ. (Andy Kerr Stad.)		Penn., Un. of. (Franklin Field), Phila.....	60,546
Hamilton, N. Y.....	16,528	Pittsburgh, Univ. of. (Pitt. Stad.), Pa.....	60,000
Colorado St. Univ. Stad., Ft. Collins.....	30,000	Princeton Univ. (Palmer), Princeton, N. J.....	45,725
Colorado, U. of. (Folsom) Boulder, Colo.	50,516	Purdue Univ., (Ross-Add), Lafayette, Ind.....	62,000
Columbia Univ., (Baker Field), N. Y., N. Y.	21,000	Rice Stad., Houston, Texas.....	70,000
Conn., Univ. of. (Memorial Stad.), Storrs.....	15,500	Rutgers Stad., New Brunswick, N. J.....	24,000
Cornell Univ. (Schellkopf Field), Ithaca, N. Y.	34,000	San Diego St. Coll., (Aztec Bowl).....	14,500
Dartmouth Coll., (Memorial Field),		San Jose St. Coll., (Spartan Stad.).....	17,900
Hanover, N. H.....	13,900	So. Cal., U. of. (Carolina), Columbia.....	42,338
Dayton, Univ. of. (Baujan Field)	13,888	So. Mississippi U. of. (Faulkner Field),	
Delaware, Univ. of. (Delaware Stad.).....	13,500	Hattiesburg.....	16,000
Detroit Univ. of. (Titan Stad.), Mich.....	20,000	So. Univ. A&M Stad., Baton Rouge, La.....	18,000
Drake Stad., Des Moines, Iowa.....	18,000	Stanford Stad., Stanford, Calif.....	89,000
Duke Univ., (Wade Stad.), Durham, N.C.	57,000	Syracuse (N. Y.) Univ., (Archbold).....	40,696
E. Carolina (Ficklen Stad.), Greenville.....	21,000	Tampa, Univ. of. (Tampa Stad.), Fla.....	50,000
E. Texas St. (Memorial Stad.).....	13,000	Temple Stad., Phila.....	20,500
Eastern Kentucky (Hanger Field), Richmond	18,200	Tenn. A&I St. Univ. (Hale), Nashville.....	16,000
Evansville, Univ. of. (Reitz Bowl), Ind.....	13,000	Tenn., Un. of. (Neyland), Knoxville.....	61,000
Florida State, (Campbell), Tallahassee.....	42,000	Texas A. & M. U., (Kyle Field), Coll. Sta.....	48,080
Florida, U. of. (Florida Field), Gainesville.....	60,000	Texas Christian U., (Carter Stad.), Ft. Worth	47,000
Fresno St. Coll. (Ratliffe Stad.), Calif.....	13,000	Texas So. Un., (Jeppesen Stad.), Houston.....	20,000
Georgia Inst. of Tech., (Grant Field) Atlanta	60,000	Texas Tech. Coll., (Jones Stad.), Lubbock.....	42,500
Georgia, U. of. (Sanford), Athens.....	60,000	Texas, Un. of. (Memorial), Austin.....	66,000
Grambling Coll., (Tiger Stad.), La.....	15,000	Texas, Univ. of. (Sun Bowl), El Paso.....	30,000
Harvard Univ., Boston, Mass.....	37,289	Toledo, Univ. of. (Glass Bowl), Ohio.....	16,500
Hawaii, Univ. of. (Honolulu Stad.).....	25,000	Trinity U., (Alamo Stad.), San Antonio, Tex.	25,000
Holy Cross (Fitton Field), Worcester, Mass.....	22,000	Tulane Stad., (Sugar Bowl), New Orleans, La.	80,985
Idaho, U. of. (Neale), Moscow, Idaho.....	13,888	Tulsa, Univ. of. (Skelly), Tulsa, Okla.....	40,000
Illinois, Un. of. (Memorial).....	71,227	U.S. Air Force Acad., (Falcon Stad.), Colo.	40,828
Illinois St. Univ. (Hancock Field), Normal.....	15,000	U.S. Military Academy (Michie),	
Indiana St. (Municipal), Terre Haute.....	25,000	West Point, N. Y.....	32,000
Indiana Univ. (Mem. Stad.), Bloomington.....	48,000	U.S. Naval Academy, Annapolis, Md.....	29,000
Iowa St. U., (Clyde Williams Field), Ames.....	33,000	Utah State U. (Romney Stad.), Logan.....	20,000
Iowa, Univ. of. (Iowa Stad.), Iowa City.....	59,400	Utah, Un. of. (Ute Stad.), Salt Lake City.....	28,800
Kan. St. Univ., Manhattan.....	35,000	Vanderbilt U., (Dudley Field), Nashville.....	34,000
Kansas, Un. of. (Memorial), Lawrence.....	51,500	Va. Poly Inst., (Lane), Blacksburg.....	35,000
Kent St. U., (Memorial Stad.), Ohio.....	20,000	Virginia, Un. of. (Scott), Charlottesville, Va.	30,000
Kentucky, U. of. (McLean), Lexington.....	38,000	Wake Forest Univ., Winston-Salem, N.C.....	30,000
Lafayette Coll., (Fisher Stad.), Easton, Pa.	17,000	Wash. St. U., (Rogers Field), Pullman.....	23,000
Lamar St. Coll. of Tech., (Cardinal Stad.)		Washington Stad., U. of. Seattle.....	55,500
Beaumont, Tex.....	17,300	Weber St. Coll. Stad., Ogden, Utah.....	18,000
Lehigh Univ., (Taylor), Bethlehem, Pa.....	17,307	West Texas State Univ., (Buffalo), Canyon.....	20,000
La. Poly. Inst., (Tech. Stad.), Ruston.....	27,500	W. Va. U., (Mountaineer Fld.), Morgantown.....	35,000
La. State Univ. (Tiger), Baton Rouge.....	67,800	Western Kentucky Univ., (Smith Stad.).....	20,000
Marquette Stad., Milwaukee, Wis.....	20,000	Western Mich. U., (Waldo Stad.).....	
Maryland, U. of. (Byrd) College Park.....	33,000	Kalamazoo.....	20,500
Memphis St. U., (Memorial Stad.).....	50,150	Wichita St. U., (Veterans Field).....	16,500
Miami Univ., (Miami Field).....	14,900	William & Mary, Coll. of. (Cary), Williams-	
Michigan State Univ., (Spartan Stadium).....	76,000	burg, Va.....	15,000
Michigan, Univ. of. (Mich. Stad.)		Wisconsin, Univ. of. (Camp Randall).....	76,483
Ann Arbor.....	101,001	Wyoming, U. of. (War Memorial), Laramie.....	18,671
Minnesota, Un. of. (Memorial), Minn.....	63,430	Xavier Stad., Cincinnati.....	15,000
Miss. St. Univ., (Scott Field).....	34,000	Yale Bowl, New Haven, Conn.....	70,874
Miss., Un. of. (Hemingway), University.....	34,500		

*Normal seating capacity.

Heisman Trophy Winners

(Outstanding College Football Player)

1936 Larry Kelley, Yale, E	1952 Billy Vessels, Oklahoma, HB
1937 Clinton Frank, Yale, QB	1953 John Lattner, Notre Dame, HB
1938 David O'Brien, Texas Christian, QB	1954 Alan Ameche, Wisconsin, FB
1939 Nile Kinnick, Iowa, QB	1955 Howard Cassady, Ohio State, HB
1940 Tom Harmon, Michigan, HB	1956 Paul Hornung, Notre Dame, QB
1941 Bruce Smith, Minnesota, HB	1957 John Crow, Texas A & M, HB
1942 Frank Sinkwich, Georgia, HB	1958 Pete Dawkins, Army, HB
1943 Angelo Bertelli, Notre Dame, QB	1959 Billy Cannon, Louisiana State, HB
1944 Leslie Horvath, Ohio State, QB	1960 Joe Bellino, Navy, HB
1945 Felix Blanchard, Army, FB	1961 Ernest Davis, Syracuse, HB
1946 Glenn Davis, Army, HB	1962 Terry Baker, Oregon State, QB
1947 John Lujack, Notre Dame, QB	1963 Roger Staubach, Navy, QB
1948 Doak Walker, Southern Methodist, HB	1964 John Huarte, Notre Dame, QB
1949 Leon Hart, Notre Dame, E	1965 Mike Garrett, Southern California, HB
1950 Vic Janowicz, Ohio State, HB	1966 Steve Spurrier, Florida, QB
1951 Richard Kazmaier, Princeton, HB	1967 Gary Beban, UCLA, QB

Atlantic Coast League

The Atlantic Coast League Championship game was played Nov. 25, 1967, at Mount Vernon, N. Y. The score was Virginia Sailors 20, Westchester Bulls 14.

College Football Hall of Fame

RUTGERS UNIVERSITY, NEW BRUNSWICK, N. J.

PLAYERS

Name—Sch—Pos—Last Yr Pl'd

A. Agase, Purdue/Ill., G, '46
 F. Albert, Stanford, QB, '41
 C. Aldrich, Tex. Christ., C, '38
 J. Alexander, Syracuse, G, '20
 C. E. Bacon, Wesleyan, QB, '12
 S. Barnes, Calif., E, '21
 C. Barrett, Cornell, QB, '15
 B. Baston, Minn., E, '16
 G. Battles, W. Va., Wes., HB, '31
 S. Baugh, Tex. Christ., HB, '36
 J. Bausch, Kansas, HB, '30
 J. Berwanger, Chicago, QB, '35
 F. Blanchard, Army, FB, '46
 L. Bomar, Vanderbilt, E-HB, '24
 A. Booth, Yale, HB, '31
 F. Borries, Navy, HB, '34
 B. Boynton, Wms., QB, '20
 G. Brown, Yale, G, '00
 J. Brown, Jr., Navy, G-T, '13
 J. M. Brown, Ala., HB, '25
 C. Cagle, SW La./Army, HB, '29
 D. Campbell, Harvard, E, '01
 J. Cannon, Notre Dame, G, '29
 E. Carideo, Notre Dame, QB, '30
 C. Carney, Illinois, E, '21
 H. Carpenter, Va. Poly, HB, '05
 C. Carroll, Washington, HB, '28
 E. Casey, Harvard, HB, '19
 G. Chamberlain, Nebr., E-HB, '15
 P. Christman, Mo., HB, '40
 E. Clark, Colo. Col., QB, '29
 C. Conerly, Mississippi, QB, '47
 G. Connor, Holy Cross/Notre Dame, T, '47
 W. Corbus, Stanford, G, '33
 H. Cowan, Princeton, T, '89
 T. Coy, Yale, FB, '09
 J. Crowley, Notre Dame, HB, '24
 S. Cutler, Navy, T, '34
 C. Dalrymple, Tulane, E, '31
 C. Daly, Harvard/Army, QB, '02
 G. Davis, Army, HB, '46
 P. DesJardien, Chicago, C, '14
 J. DeWitt, Princeton, G, '03
 B. Dodd, Tenn., QB, '30
 N. Dougherty, Tenn., G, '09
 M. Drury, So. Calif., QB, '27
 E. Dudley, Va., HB, '41
 W. Eckersall, Chicago, QB, '06
 E. Evans, Kansas, HB, '47
 E. Feathers, Tenn., HB, '33
 W. Fesler, Ohio State, E, '30
 H. Fish, Harvard, T, '09
 A. Flowers, Davidson/Ga. Tech., HB, '20
 C. Frank, Yale, HB, '37
 B. Friedman, Mich., QB, '26
 E. Garbisch, Army, C, '24
 C. Gelbert, Penn., E-HB, '96
 W. Gilbert, Auburn, C, '36
 G. Gipp, Notre Dame, FB, '20
 M. Goldberg, Pitts., HB, '38
 O. Graham, Northw'n, HB, '43
 H. Grange, Ill., HB, '25
 R. Grayson, Stanford, FB, '35
 M. Gulick, Toledo & Hobart, QB, '29
 E. Hale, Miss. Col., HB, '21
 T. Hamilton, Navy, B, '25
 H. Hardwick, Harv'd, E-HB, '14
 T. Hare, Penn., G, '00
 C. Harley, Ohio State, FB, '19

Name—Sch—Pos—Last Yr Pl'd

T. Harmon, Mich., HB, '40
 H. Harpster, Car. Tech., QB, '28
 E. Hart, Princeton, FB-T, '11
 H. Hazel, Rutgers, FB, '24
 W. Heffelfinger, Yale, G, '91
 M. Hein, Wash. St., C, '30
 W. Henry, Wash. & Jeff., T, '19
 R. Hewig, California, C, '37
 W. Heston, Mich., HB, '04
 H. Hickman, Tenn., G, '31
 D. Hill, Duke, C, '38
 F. Hinkley, Yale, '94
 C. Hinkle, Vanderbilt, C, '37
 J. Hitchcock, Auburn, HB, '32
 J. Hogan, Yale, T, '04
 J. Holland, Cornell, E, '38
 W. Hollenback, Penn., HB, '08
 C. Hubbard, Geneva/Centenary, E, '26
 J. Hubbard, Amherst, HB, '06
 A. Hubert, Alabama, FB, '25
 W. Humble, Rice, G, '46
 J. Hunt, Tex. A&M, HB-QB, '27
 D. Hutson, Ala., E, '34
 C. Isbell, Purdue, B, '37
 H. Joesting, Minn., FB, '27
 F. Juhan, Univ. of the South, C, '10
 C. Justice, No. Car., HB, '49
 K. Kavanaugh, La. State, E, '39
 E. Kaw, Cornell, HB, '22
 D. Kazmaier, Princeton, HB, '51
 J. Keck, Princeton, T, '21
 H. Ketcham, Yale, C-G, '13
 J. Kilpatrick, Yale, E, '10
 J. Kimbrough, Tex.A&M, FB, '40
 F. Klnard, Miss., T, '37
 P. King, Princeton, QB, '93
 N. Kinnick, Iowa, HB, '39
 H. Kipke, Mich., HB, '23
 E. Layden, Notre Dame, FB, '24
 B. Layne, Texas, FB-HB-QB, '47
 L. Lea, Princeton, E, '95
 J. Leech, Va. Military, HB, '20
 G. Locke, Iowa, FB, '22
 S. Luckman, Columbia, QB, '38
 J. Lujack, Notre Dame, QB, '47
 F. Lund, Minn., HB, '34
 G. McAfee, Duke, HB, '39
 E. McCormick, Prince, FB, '07
 J. McEver, Tenn., HB, '31
 K. McEwan, Minn./Army, C, '16
 J. McFadden, Clemson, HB, '39
 B. McClung, Yale, HB, '91
 J. McGovern, Minn., QB, '10
 G. McLaren, Pitts., FB, '18
 A. McMillin, Centre, QB, '21
 R. McWhorter, Ga., HB, '13
 E. Mahan, Harvard, FB, '15
 W. Mallory, Yale, FB, '23
 J. Mauthe, Penn. St., HB, '12
 L. Mercer, Penn., FB, '12
 A. Mickal, LSU, HB, '35
 E. Miller, Notre Dame, T, '24
 J. Mills, Penn., T-FB, '97
 C. Montgomery, Col., QB, '33
 H. Muller, Calif., E, '22
 B. Nagurski, Minn., T-FB, '29
 E. Nevers, Stanford, FB, '25
 M. Newell, Harvard, T, '93
 A. Oberlander, D'm'th, HB, '25
 P. O'Brien, Tex. Christ., HB, '38
 P. O'Dea, Wisconsin, FB, '99

Name—Sch—Pos—Last Yr Pl'd

E. Oliphant, Purdue/Army, HB, '17
 B. Oosterbaan, Mich., E, '27
 C. Parker, Duke, HB, '36
 V. Pazzetti, Wesleyan/Lehigh, QB, '12
 R. Peck, Pitts., C, '16
 S. Pennock, Harvard, G, '14
 G. Penn, Cornell, QB, '23
 H. Phillips, U. of the So., G, '04
 J. Pingel, Mich. State, HB, '38
 P. Pinos, Indiana, E-FB, '45
 E. Pinckert, So. Calif., HB, '31
 F. Pollard, Brown, HB, '16
 H. Pund, Ga. Tech., C, '28
 C. Reeds, Okla., FB, '13
 R. Reynolds, Stanford, T, '35
 G. Rinehart, Lafayette, G, '97
 I. Rodgers, W. Va., FB, '19
 A. Rosenberg, So. Cal., G, '34
 K. Rote, So. Meth., HB, '50
 J. Rount, Tex. A&M, G, '37
 G. Sauer, Nebraska, FB, '33
 W. Schoonover, Arkansas, E, '29
 D. Schreiner, Wis., E, '42
 A. Schulz, Michigan, C, '08
 F. Schwab, Lafayette, G, '22
 P. Schwieger, Wash., T, '31
 T. Shevlin, Yale, E, '05
 C. Simons, Tulane, HB, '34
 F. Sington, Alabama, T, '30
 F. Sinkwich, Georgia, HB, '42
 F. Slater, Iowa, T, '21
 H. Smith, So. Calif., G, '39
 N. Snow, Michigan, HB, '01
 C. Spears, Dartmouth, G, '15
 W. Spears, Vanderbilt, QB, '27
 E. Sprackling, Brown, QB, '11
 A. Staggs, Yale, E, '89
 H. Stein, Pittsburgh, C, '21
 K. Strong, N.Y.U., FB, '28
 H. Stuhldreher, N.D., QB, '24
 R. Sufbridge, Tennessee, G, '40
 J. Thorpe, Carlisle, HB, '12
 B. Ticknor, Harvard, C, '30
 G. Tinsley, La. State, E, '36
 E. Tipton, Duke, B, '38
 C. Trippi, Ga., HB, '46
 E. Tryon, Colgate, HB, '25
 C. Turner, Hardin-Sim., C, '39
 N. Van Brocklin, Oregon, QB, '48
 D. Walker, So. Meth., HB, '49
 A. Walsh, Notre Dame, C, '24
 K. Washington, UCLA, HB, '39
 H. Weekes, Columbia, HB, '02
 E. Weir, Nebraska, T, '25
 J. Weller, Princeton, G, '35
 B. West, Colgate, T, '19
 C. Wharton, Penn., G, '96
 B. White Colored, HB, '38
 D. Whitmore, Ala./Navy, T, '44
 E. Widesth, Minnesota, T, '36
 R. Wildung, Minnesota, T, '42
 J. Williams, Rice, E, '49
 G. Wilson, Washington, HB, '25
 A. Wistert, Mich., T, '42
 F. Wistert, Michigan, T, '33
 A. Wojciechowicz, Ford, C, '36
 A. Wyant, Buck/Chi., G, '94
 C. Young, Wash. & Lee, HB, '16
 C. Young, Ill., HB, '46

COACHES

William A. Alexander
 Ike Armstrong
 Madison Bell
 Hugo Bezdek
 Dana Bible
 Bernard W. Bierman
 Earl H. Blaik
 Charles W. Caldwell, Jr.
 Walter Camp
 Frank W. Cavanaugh
 Herbert Crisler
 Gilmour Dobie
 Michael J. Donahue
 Charles (Gus) Dorals
 Donald B. Faurot
 Edward H. Felt
 Richard C. Harlow
 Percy F. Haughton
 John W. Heisman

Robert A. Higgins
 Howard H. Jones
 L. MacC. (Biff) Jones
 Thomas (Tad) Jones
 Andrew Kerr
 George E. Little
 Lou Little
 Daniel McGugin
 DeOrmand (Tuss) McLaughry
 L. R. (Dutch) Meyer
 Bernie H. Moore
 Ray Morrison
 Clarence Munn
 Earl (Greasy) Neale
 Robert R. Neyland
 Frank (Buck) O'Neil
 Bennie Owen
 E. N. Robinson

Knute K. Rockne
 E. L. (Dick) Romney
 William W. Roper
 Clark D. Shaughnessy
 Andrew L. Smith
 Carl Snavely
 Amos Alonzo Stagg
 John (Jock) Sutherland
 Frank W. Thomas
 W. Wallace Wade
 Lynn (Pappy) Waldorf
 Glenn S. (Pop) Warner
 E. E. (Tad) Wieman
 John W. Wilce
 Henry L. Williams
 George W. Woodruff
 Fielding H. Yost
 Robert Zuppke

Records of Post-Season Football Games

Figures in parentheses after games denote attendance.

ROSE BOWL

Pasadena, Calif.

Jan. 1	
1949—Michigan 49, Southern California 0 (93,000)	
1949—Northwestern 20, California 14 (93,000)	
1950—Ohio State 17, California 14 (100,963)	
1951—Michigan 14, California 6 (98,939)	
1952—Illinois 40, Stanford 7 (96,825)	
1953—Southern California 7, Wisconsin 0 (100,000)	
1954—Michigan State 28, U.C.L.A. 20 (100,000)	
1955—Ohio State 20, So. California 7 (89,191)	
1956—Michigan State 17, U.C.L.A. 14 (100,809)	
1957—Iowa 35, Oregon State 19 (97,126)	
1958—Ohio State 10, Oregon 7 (100,000)	
1959—Iowa 38, California 12 (98,297)	
1960—Washington 44, Wisconsin 8 (100,809)	
1961—Washington 17, Minnesota 7 (97,314)	
1962—Minnesota 21, U.C.L.A. 3 (98,214)	
1963—So. California 42, Wisconsin 37 (98,698)	
1964—Illinois 17, Washington 7 (96,957)	
1965—Michigan 34, Oregon State 7 (100,423)	
1966—U.C.L.A. 14, Michigan State 12 (100,087)	
1967—Purdue 14, Southern Calif. 13 (101,455)	
1968—So. Calif. 14, Indiana 3 (102,946)	

SUGAR BOWL

New Orleans, La.

Jan. 1	
1954—Georgia Tech 42, West Virginia 19 (75,000)	
1955—Navy 21, Mississippi 0 (82,000)	
1956—Georgia Tech 7, Pittsburgh 0 (80,175)	
1957—Baylor 13, Tennessee 7 (81,000)	
1958—Mississippi 39, Texas 7 (82,000)	
1959—Louisiana State 7, Clemson 0 (82,000)	
1960—Mississippi 21, Louisiana State 0 (83,000)	
1961—Mississippi 14, Rice 6 (82,851)	
1962—Alabama 10, Arkansas 3 (82,910)	
1963—Mississippi 14, Arkansas 13 (82,900)	
1964—Alabama 12, Mississippi 7 (80,785)	
1965—Louisiana State 13, Syracuse 10 (85,000)	
1966—Missouri 20, Florida 18 (67,421)	
1967—Alabama 34, Nebraska 7 (82,000)	
1968—Louisiana State 20, Wyoming 13 (78,963)	

ORANGE BOWL

Miami, Fla.

Jan. 1	
1954—Oklahoma 7, Maryland 0 (68-718)	
1955—Duke 34, Nebraska 7 (68,750)	
1956—Oklahoma 20, Maryland 6 (76,561)	
1957—Colorado 27, Clemson 21 (72,552)	
1958—Oklahoma 48, Duke 21 (76,318)	
1959—Oklahoma 21, Syracuse 6 (75,281)	
1960—Georgia 14, Missouri 0 (75,280)	
1961—Missouri 21, Navy 14 (71,218)	
1962—Louisiana State 25, Colorado 7 (62,381)	
1963—Alabama 17, Oklahoma 0 (73,280)	
1964—Nebraska 13, Auburn 7 (72,647)	
1965—Texas 21, Alabama 17 (72,647)	
1966—Alabama 39, Nebraska 28 (74,214)	
1967—Florida 27, Georgia Tech 12 (72,426)	
1968—Oklahoma 26, Tennessee 24 (77,993)	

SUN BOWL

El Paso, Tex.

Jan. 1	
1954—Texas Western 37, Miss. Southern 14 (9,500)	
1955—Texas Western 47, Florida State 20 (14,000)	
1956—Wyoming 21, Texas Tech. 14 (14,500)	
1957—George Washington 13, Texas Western 0 (13,500)	
1958—Louisville 34, Drake 20 (12,000)	
1959—Wyoming 14, Hardin-Simmons 6 (13,000)	
1959, Dec. 31—N. M. St. 28, No. Texas St. 8	
1960, Dec. 31—N. M. St. 20, Utah St. 14 (16,000)	
1961—Dec. 30—Villanova 17, Wichita 9 (15,000)	

OTHER GAMES OF POST-1967 FOOTBALL SEASON

Orange Blossom Classic, Miami, Fla., Dec. 2—Grambling 28, Florida A & M 25. Camellia Bowl, Sacramento, Calif., Dec. 9—San Diego State 27, San Francisco State 6. NAIA Bowl, Morgantown, W. Va., Dec. 9—Fairmont State 28, Eastern Washington State 21. Liberty Bowl, Memphis, Tenn., Dec. 16—North Carolina State 14, Georgia 7. Tangerine Bowl, Orlando, Fla., Dec. 16—Tennessee (Martin Branch) 25, West Chester (Pa.) 8. Pecan Bowl, Abilene, Tex., Dec. 16—Texas (Arlington) 13, North Dakota State 0. Bluebonnet Bowl, Houston, Tex., Dec. 23—Colorado 31, Miami (Fla.) 21. All Star Shrine Game, Miami, Fla., Dec. 25—North 24, South 0. Senior Bowl, Mobile, Ala., Jan. 6—South 34, North 21. Hula Bowl, Honolulu, Hawaii, Jan. 6—North 50, South 6.

College Football Coach of the Year

(Football Writers Assn.)

Year	Coach	School	Year	Coach	School
1966...	Earl Blaik	Army	1957...	Wayne Woodrow Hayes	Ohio State
1947...	H. O. (Fritz) Crier	Michigan	1958...	Paul F. Dietzel	L.S.U.
1948...	Bennie G. Oosterbaan	Michigan	1959...	Floyd B. Schwartzwalder	Syracuse
1949...	Charles B. (Bud) Wilkinson	Univ. of Okla.	1960...	None picked	
1950...	Charles Caldwell	Princeton	1961...	Paul Bryant	Alabama
1951...	Charles (Chuck) Taylor	Stanford	1962...	John McKay	U. S. C.
1952...	Clarence L. (Biggie) Munn	Mich. State	1963...	Darrell Royal	Texas
1953...	James M. Tatum	Maryland	1964...	Ara Parseghian	Notre Dame
1954...	Henry R. (Red) Sanders	U.C.L.A.	1965...	Tommy Prothro	U. C. L. A.
1955...	Hugh Duffy Daugherty	Mich. State	1966...	Tom Cahill	Army
1956...	Bowden Wyatt	Tennessee	1967...	John Pont	Indiana

1962, Dec. 31—W. Texas St. 15, Ohio U. 14 (16,000)
1963, Dec. 31—Oregon 21, So. Methodist 14 (26,500)
1964, Dec. 28—Georgia 7, Texas Tech 0 (28,000)
1965, Dec. 31—Texas Western 13, Texas Christian 12 (27,450)
1966, Dec. 24—Wyoming 28, Florida St. 20 (24,381)
1967, Dec. 30—Texas (El Paso) 14, Mississippi 7 (34,685)

COTTON BOWL

Dallas, Texas

Jan. 1	Dallas, Texas
1955—Georgia Tech 14, Arkansas 6 (75,504)	
1956—Mississippi 14, Texas Christian 13 (76,504)	
1957—Texas Christian 28, Syracuse 27 (68,000)	
1958—Navy 20, Rice 7 (75,504)	
1959—Air Force Acad. 0, Texas Christian 0 (75,504)	
1960—Syracuse 23, Texas 14 (75,504)	
1961—Duke 7, Arkansas 6 (74,000)	
1962—Texas 12, Mississippi 7 (75,504)	
1963—Louisiana State 13, Texas 0 (75,504)	
1964—Texas 28, Navy 6 (75,504)	
1965—Arkansas 10, Nebraska 7 (75,504)	
1966—Louisiana St. 14, Arkansas 7 (76,200)	
1966, Dec. 31—Georgia 24, S.M.U. 9 (75,000)	
1968—Texas A & M 20, Alabama 16 (75,000)	

BLUE AND GRAY (NORTH-SOUTH)

(Dec.) Montgomery, Ala.

1957—South 21, North 20
1958—North 16, South 0 (21,000)
1959—North 20, South 8 (20,000)
1960—North 35, South 7 (12,000)
1961—South 9, North 7 (18,000)
1962—North 10, South 6 (20,000)
1963—South 21, North 14 (20,000)
1964—North 10, South 6 (16,000)
1965—South 23, North 19 (18,000)
1966—North 14, South 9 (18,000)
1967—North 22, South 16 (23,350)

SHRINE ALL-STAR GAME

(EAST-WEST)

San Francisco

1957, West 27, East 13
1958, Dec. 27—East 26, West 14 (60,000)
1960, Jan. 2—West 21, East 14 (60,000)
1960, Dec. 31—East 7, West 0 (59,000)
1961, Dec. 30—West 21, East 8 (59,000)
1962, Dec. 29—East 25, West 19 (59,000)
1963, Dec. 28—East 6, West 6 (60,128)
1965, Jan. 2—West 11, East 7 (60,000)
1965, Dec. 31—West 22, East 7 (56,121)
1966, Dec. 31—East 45, West 22 (52,741)
1967, Dec. 30—East 16, West 14 (49,000)

GATOR BOWL

Jacksonville, Fla.

1954, Jan. 1—Texas Tech 35, Auburn 13
1954, Dec. 31—Auburn 33, Baylor 13
1955, Dec. 31—Vanderbilt 25, Auburn 13
1956, Dec. 29—Georgia Tech 21, Pittsburgh 14
1957, Dec. 28—Tennessee 3, Texas A & M 0
1958, Dec. 27—Mississippi 7, Florida 3
1960, Jan. 2—Arkansas 14, Georgia Tech 7
1960, Dec. 31—Florida 13, Baylor 12
1961, Dec. 30—Penn State 30, Georgia Tech 13
1962, Dec. 29—Florida 17, Penn State 7
1963, Dec. 28—North Carolina 35, Air Force Academy 0 (50,018)
1965, Jan. 2—Fla. State 36, Okla. 19 (50,406)
1965, Dec. 31—Ga. Tech 31, Texas Tech 21 (60,127)
1966, Dec. 31—Tennessee 18, Syracuse 12 (60,312)
1967, Dec. 30—Penn State 17, Florida State 17 (68,019)

College Football Scores in 1968

SCORES, NICKNAMES AND COLORS OF LEADING AMERICAN COLLEGES

*Results not available for inclusion in this edition

AKRON Red Cats <i>Red and White</i> 0—Allegheny 16 11—Grove City 14 24—Wash. & Jeff. 20 13—John Carroll 23 6—Bethany 24 0—Thiel 40 9—Carneg-Mellon 28 7—Case Tech 2	AMHERST Lord Jeffs <i>Purple and White</i> 14—Springfield 28 34—Amer Int'l 7 30—Bowdoin 3 26—Rochester 0 58—Wesleyan 13 42—Tufts 6 31—Trinity 3 24—Williams 17	BALL STATE Cardinals <i>Cardinal and White</i> 20—Northern Ill. 40 8—Bowling Green 62 26—Valparaiso 11 0—Evansville 3 7—Eastern Mich. 43 7—DePauw 12 24—Butler 21 14—Indiana St. 20 46—St. Joseph's 6	BRIDGEPORT Purple Knights <i>Purple and White</i> 8—Trenton St. 7 19—Northeastern 42 7—Cent. Conn. St. 14 6—So. Conn. 18 20—Montclair St. 3 16—Hofstra 30 13—Ithaca 16 16—Glassboro St. 6 31—Amer. Int'l 28
AIR FORCE Falcons <i>Silver and Blue</i> 20—Florida 23 10—Wyoming 3 13—Stanford 24 26—Navy 20 31—Colo. St. Univ. 0 27—Pittsburgh 14 28—No. Carolina 15 10—Arizona 8 28—Tulsa 8 58—Colorado 35	ARIZONA Wildcats <i>Red and Blue</i> 21—Iowa St. 12 19—New Mexico 8 25—Tex., El Paso 0 19—Brigham Young 3 13—Indiana 16 28—Wash. St. 14 14—Air Force 10 16—Utah 15 14—Wyoming 7 *Nov. 30—Arizona St.	BATES Garnet <i>Green and Gold</i> 18—Middlebury 0 32—Norwich 0 19—Trinity (Conn.) 48 20—Worcester Tech. 30 19—Amer. Int'l 50 52—Acadia 0 14—Bowdoin 41 21—Colby 12 43—Bridgewater St. 7	BRIGHAM YOUNG Cougars <i>Royal Blue and White</i> 17—W. Michigan 7 20—Iowa St. 28 17—Wyoming 20 3—Arizona 19 25—Texas, El Paso 31 21—Utah 30 8—Utah St. 34 12—Arizona St. 47 35—New Mexico 6 *Nov. 30—San Jose St.
AKRON Zips <i>Blue and Gold</i> 32—Butler 7 41—Indiana State 13 9—Tampa 24 7—Eastern Mich. 16 27—Bradley 13 31—Eastern Kentucky 20 46—Illinois State 0 59—Baldwin-Wallace 19 14—W. Kentucky 14 42—Yountstown 13	ARIZONA STATE Sun Devils <i>Maroon and Gold</i> 55—Wisconsin 7 31—Texas, El Paso 19 13—Wyoming 27 41—Washington State 14 9—Oregon St. 28 33—New Mexico 28 69—Utah 21 47—Brigham Young 12 68—San Jose St. 0 *Nov. 30—Arizona	BAYLOR Bears <i>Green and Gold</i> 36—Indiana 40 10—Michigan St. 28 16—L. S. U. 48 19—Arkansas 35 10—Texas A.&M. 9 14—T. C. U. 47 26—Texas 47 42—Texas Tech. 28 17—S. M. U. 33 *Nov. 30—Rice	BROWN Bruins <i>Seal Brown and White</i> 10—Rhode Island 9 13—Pennsylvania 17 13—Yale 35 0—Dartmouth 48 27—Colgate 19 7—Princeton 50 0—Cornell 31 7—Harvard 31 20—Columbia 46
ALABAMA Crimson Tide <i>Crimson and White</i> 14—Va. Tech. 7 17—Southern Miss. 14 8—Mississippi 10 9—Vanderbilt 7 9—Tennessee 10 21—Clemson 17 20—Miss. St. 13 16—L.S.U. 7 16—Miami (Fla.) 6 *Nov. 30—Auburn	ARKANSAS Razorbacks <i>Cardinal and White</i> 32—Okla. St. 15 56—Tulsa 13 17—Texas Christian 19 29—Texas 39 7—No. Texas St. 15 25—Texas A.&M. 22 46—Rice 21 35—S. M. U. 29 42—Texas Tech 7	BOSTON COLLEGE Eagles <i>Maroon and Gold</i> 49—Navy 15 31—Buffalo 12 28—Villanova 15 14—Tulane 28 0—Penn St. 29 25—Army 58 45—V. M. I. 13 21—Massachusetts 6 *Nov. 30—Holy Cross	BUCKNELL Bisons <i>Orange and Blue</i> 22—Davidson 13 20—Penn 27 0—Harvard 59 29—Temple 26 7—Gettysburg 12 13—Lafayette 10 42—Maine 21 34—Colgate 38 31—Lehigh 27 12—Delaware 38
ALBRIGHT Lions <i>Red and White</i> 9—Lycoming 0 14—Juniata 7 7—Springfield 30 21—Gettysburg 20 10—Dela. Valley 6 28—Drexel Tech. 0 12—Moravian 9 7—Lebanon Valley 0 26—Upsala 0	ARMY Cadets <i>Black, Gold and Grey</i> 36—The Citadel 14 13—Vanderbilt 17 3—Missouri 7 10—California 7 24—Rutgers 0 57—Duke 25 24—Penn St. 28 58—Boston Coll. 25 26—Pittsburgh 0 *Nov. 30—Navy	BOSTON UNIV. Terriers <i>Scarlet and White</i> 0—Colgate 28 6—Maine 3 7—Temple 0 21—Massachusetts 7 7—Holy Cross 7 33—Conn. 23 20—Rhode Island 3 13—Delaware 41 10—Buffalo 13	BUFFALO Bulls <i>Royal Blue and White</i> 10—Iowa St. 28 21—Kent St. 13 23—Massachusetts 0 12—Boston Coll. 31 29—Delaware 17 7—Villanova 28 10—Holy Cross 9 50—Temple 40 20—North'n Ill. 7 13—Boston Univ. 10
ALFRED Saxons <i>Purple and Gold</i> 17—Brookport St. 0 0—C. W. Post 34 16—St. Lawrence 0 7—Hobart 14 0—Rochester 33 28—Cortland St. 45 7—Union 21	AUBURN Tigers <i>Orange and Blue</i> 28—S. M. U. 37 26—Miss. St. 0 26—Kentucky 7 21—Clemson 10 20—Georgia Tech. 21 31—Miami (Fla.) 6 24—Florida 13 28—Tenn. 14 3—Georgia 17 *Nov. 30—Alabama	BOWDOIN Polar Bears <i>White</i> 10—Worcester Tech. 14 14—Wesleyan 27 3—Amherst 33 7—Williams 14 17—Colby 0 41—Bates 14 6—Tufts 7	BUTLER Bulldogs <i>Blue and White</i> 7—Akron 32 0—Western Ky. 35 12—Indiana St. 28 49—St. Joseph's 14 7—Valparaiso 10 7—Evansville 44 21—Ball State 24 7—De Pauw 30 26—Wabash 8
ALLEGHENY Gators <i>Blue and Gold</i> 16—Adelbert 0 29—Bethany 24 14—John Carroll 13 18—C'rneegie-Mell'n 48 40—Wash. & Jeff. 20 60—Case Tech 18 55—Thiel 32 42—Rochester 19	BALDWIN-WALLACE Yellow Jackets <i>Brown and Gold</i> 14—Findlay 8 48—UW Milwaukee 0 26—Youngstown 6 68—Oberlin 19 49—Otterbein 0 14—Wittenberg 7 26—Ohio Wesleyan 59 19—Akron 59 28—Ohio Northern 0	BOWLING GREEN Falcons <i>Orange and Brown</i> 62—Ball St. 8 20—Dayton 14 17—W. Michigan 10 0—Toledo 0 30—Kent St. 31 7—Miami (O.) 31 54—Marshall 28 27—Ohio Univ. 28 6—No. Illinois 7 44—Xavier 14	CALIFORNIA Golden Bears <i>Blue and Gold</i> 21—Michigan 7 10—Colorado 0 46—San Jose St. 0 7—Army 10 39—U.C.L.A. 15 43—Syracuse 0 7—Washington 7 17—So. Calif. 35 36—Oregon 8 0—Stanford 20 *Nov. 30—Hawaii

CARLETON Carls		COE Kobawks		DARTMOUTH Indians		DREXEL TECH Dragons	
Maize and Blue		Crimson and Gold		Oak Green		Blue and Gold	
14—Monmouth	20	6—Lawrence	42	21—New Hamp.	0	21—Lehigh	59
8—Lawrence	7	6—Beloit	7	17—Holy Cross	29	7—Tufts	28
7—Coe	6	6—Carleton	17	17—Princeton	34	23—Juniata	20
13—Beloit	35	19—St. Olaf	0	48—Brown	0	20—R. P. I.	10
7—St. Olaf	38	33—Cornell Coll.	10	7—Harvard	22	0—Lafayette	27
6—Cornell Col.	35	13—Ripon	17	27—Yale	47	0—Albright	28
9—Ripon	35	43—Knox	14	31—Columbia	19	35—PMC Colleges	13
20—Knox	12	34—Grinnell	28	27—Cornell	6	42—Western Md.	14
CARNEGIE-MELLON Tartans		COLBY Mules		DAVIDSON Wildcats		DUKE Blue Devils	
Carnegie Plaid		Blue and Grey		Red and Black		Royal Blue and White	
23—Thiel	42	9—Norwich	32	13—Bucknell	22	14—So. Carolina	7
28—Oberlin	28	0—R. P. I.	6	14—Richmond	24	10—Michigan	31
6—Grove City	10	9—Northeastern	38	14—Virginia	18	30—Maryland	28
48—Allegheny	18	7—Springfield	48	30—Connecticut	41	20—Virginia	50
7—F. & M.	6	6—Trinity	17	28—Furman	7	22—Clemson	39
38—Johns Hopkins	53	0—Bowdoin	17	21—The Citadel	28	25—Army	57
28—Adelbert	9	0—Maine Maritime	0	17—V.M.I.	28	46—Ga. Tech.	30
26—Wash. & Jeff.	0	12—Bates	21	24—Wofford	9	15—No. Caro. S.	17
CASE INST. OF TECH Roughriders		COLGATE Red Raiders		DAYTON Flyers		EAST CAROLINA Pirates	
Brown and White		Maroon		Red and Blue		Purple and Gold	
14—Bethany	69	28—Boston U.	0	24—Kent St.	10	37—Parsons	7
7—John Carroll	29	0—Cornell	17	6—St. Joseph's	0	0—William & Mary	14
14—Thiel	47	14—Yale	49	14—Bowling Green	20	7—Louisiana Tech	35
8—Wash. & Jeff.	31	14—Holy Cross	6	26—Louisville	14	0—So. Miss.	65
6—Wilmington	27	14—Princeton	7	28—Illinois	18	7—Richmond	31
18—Allegheny	60	19—Brown	27	12—Ohio Univ.	42	24—Furman	13
2—Adelbert	7	27—Lehigh	11	25—Xavier	27	21—Tampa	28
CHATTANOOGA Moccasins		38—Bucknell	34	0—Miami (O.)	14	49—Marshall	20
Navy Blue and Gold		10—Lafayette	14	10—Toledo	3	23—The Citadel	14
41—Austin Peay	13	34—Rutgers	55	35—Temple	17	*Nov. 30—E. Tenn. St.	
32—Jacksonville	14	COLORADO Buffaloes		DELAWARE Blue Hens		FLORIDA Gators	
28—Mid. Tenn.	15	Silver and Gold		Blue and Gold		Orange and Blue	
35—Wofford	14	28—Oregon	7	35—Hofstra	0	23—Air Force	20
16—E. Tennessee	6	0—California	10	0—Villanova	16	9—Florida State	3
31—The Citadel	9	28—Iowa St.	18	28—Massachusetts	23	31—Mississippi St.	14
20—Tenn. Tech.	6	14—Missouri	18	21—Buffalo	29	24—Tulane	3
16—Mississippi	33	37—Kansas St.	14	28—W. Chester St.	0	7—No. Carolina	22
31—Furman	14	41—Oklahoma	27	0—Temple	27	14—Vanderbilt	14
40—Samford	7	14—Kansas	27	14—Rutgers	23	12—Auburn	2
CINCINNATI Bearcats		17—Oklahoma St.	84	37—Lehigh	13	0—Georgia	5
Red and Black		6—Nebraska	22	41—Boston Univ.	13	16—Kentucky	14
10—Texas Tech	10	35—Air Force	58	38—Bucknell	12	*Nov. 30—Miami (Fla.)	
17—Xavier	14	COLORADO STATE Rams		DENISON Big Red		FLORIDA STATE Seminoles	
33—Houston	71	Green and Gold		Red and White		Garnet and Gold	
31—Tampa	28	21—New Mex.	13	0—Calif. St. (Pa.)	36	24—Maryland	14
40—Wichita St.	27	0—Kansas St.	21	21—Washington (Mo.)	12	3—Florida	10
27—Tulsa	34	12—No. Tex. St.	17	28—Wabash	12	20—Texas A. & M.	14
34—No. Texas St.	55	13—Texas Tech	43	3—Mt. Union	0	20—Memphis State	10
37—Louisville	7	37—Wichita St.	15	0—Wooster	28	35—South Carolina	28
48—Ohio Univ.	60	0—Air Force	31	23—Oberlin	6	22—Virginia Tech	40
23—Miami (Ohio)	21	0—Pacific	31	6—Wennington	13	27—Miss. State	14
CITADEL Bulldogs		14—Wyoming	46	6—Wittenberg	43	48—No. Carolina State	7
Blue and White		17—W. Texas St.	22	7—Muhlenberg	48	42—Wake Forest	24
14—Army	34	19—Texas (El Paso)	23	8—Ohio Wesleyan	44	*Nov. 29—Houston	
28—Lehigh	12	COLUMBIA Lions		DEPAUW Tigers		FRANKLIN & MARSHALL Diplomats	
31—Furman	21	Columbia Blue & White		Old Gold		Blue and White	
16—Richmond	21	14—Lafayette	36	10—Wheaton	6	17—Jrusinus	6
13—V.M.I.	8	16—Princeton	44	20—St. Joseph's	6	27—Johns Hopkins	6
9—Chattanooga	31	14—Harvard	21	3—Valparaiso	7	12—Swarthmore	7
28—Davidson	21	7—Yale	29	22—Evansville	21	24—Dickinson	3
0—West Virginia	17	17—Rutgers	28	12—Ball State	17	6—Carn. Mellon	7
24—Wm. & Mary	21	34—Cornell	25	17—Centre	10	19—Lebanon Valley	17
14—East Carolina	23	19—Dartmouth	31	30—Butler	7	31—Haverford	0
CLEMSON Tigers		7—Pennsylvania	13	17—Indiana State	41	13—Muhlenberg	18
Purple and Orange		46—Brown	20	DICKINSON Red Devils		FRESNO STATE Bulldogs	
20—Wake Forest	20	CONNECTICUT Huskies		Red and White		Cardinal and Blue	
13—Georgia	31	Flag Blue and White		6—Leb. Valley	49	23—Idaho State	38
21—Georgia Tech.	24	21—Vermont	0	11—Swarthmore	21	21—San Jose State	25
10—Auburn	21	14—Yale	31	37—Haverford	13	35—San Fern. State	12
29—Duke	22	10—N. Hampshire	17	7—F. & M.	24	17—Cal Poly (SLO)	0
14—Alabama	21	18—Davidson	30	0—Muhlenberg	48	42—L. A. State	20
24—No. Caro. St.	19	29—Maine	0	0—Wilkes	28	12—San Diego State	42
16—Maryland	0	27—Massachusetts	20	14—Jrusinus	47	34—Long Beach St.	28
24—North Carolina	14	23—Boston U.	33	6—Johns Hopkins	47	37—Montana State	16
3—South Carolina	7	15—Rutgers	27	DRAKE Bulldogs		FURMAN Paladins	
COAST GUARD Cadets		35—Rhode Island	6	White and Blue		Purple and White	
Blue and White		24—Holy Cross	27	30—Northern Ariz.	14	12—Miss. Coll.	21
0—Springfield	29	CORNELL Big Red		0—Wichita State	23	13—Presbyterian	9
14—Amer. Int'l.	27	Carnelian and White		31—Quantico	33	7—Wofford	13
22—Norwich	26	17—Colgate	0	26—Wichita State	23	12—The Citadel	31
26—Wesleyan	23	17—Rutgers	16	19—Northern Iowa	21	0—Richmond	34
7—Southwestern	33	8—Pennsylvania	10	32—U. Neb. Omaha	14	7—Davidson	28
0—Worcester Tech	36	10—Harvard	19	6—Southern Ill.	21	13—E. Carolina	24
21—Trinity	47	13—Yale	25	0—South Dakota	49	12—Samford	17
14—Rochester	42	25—Columbia	34	28—So. Dak. State	20	14—Chattanooga	31
35—R. P. I.	20	31—Brown	0	38—Louisville	37	*Nov. 28—Wofford	
*Nov. 30—PMC Colleges		6—Dartmouth	27				
		13—Princeton	41				

GENEVA Golden Tornadoes Gold and White		HAVERFORD Fords Scarlet and Black		INDIANA Fightin' Hoosiers Cream and Crimson		KANSAS Jayhawks Crimson and Blue	
7—Frostburg State	7	6—Muhlenberg	32	40—Baylor	36	47—Illinois	7
7—Clarion State	42	13—Dickinson	37	20—Kansas	38	28—Indiana	20
7—Westminster	27	0—Johns Hopkins	42	28—Illinois	13	68—New Mexico	7
6—Juniata	33	6—Juniata	58	38—Iowa	34	23—Nebraska	13
0—Waynesburg	49	0—F. & M.	31	22—Michigan	27	49—Oklahoma State	14
0—Grove City	42	13—Ursinus	53	16—Arizona	13	46—Iowa State Univ.	25
7—Edinboro State	31	17—Swarthmore	6	21—Wisconsin	20	27—Colorado	14
12—Bridgewater St.	17			24—Michigan State	22	23—Oklahoma	27
				6—Minnesota	20	38—Kansas State	29
				35—Purdue	38	21—Missouri	19
GEORGIA Bulldogs Red and Black		HOBBART Statesmen Purple and Orange		IOWA Hawkeyes Gold and Black		KANSAS STATE Wildcats Purple and White	
17—Tennessee	17	6—Ursula	7	21—Oregon State	20	21—Colo. State U.	0
31—Clemson	13	6—St. Lawrence	42	17—T. C. U.	28	9—Penn State	25
21—South Carolina	20	12—Hamilton	10	28—Notre Dame	51	34—Virginia Tech	19
21—Mississippi	7	14—Alfred	7	34—Indiana	38	14—Iowa State	23
32—Vanderbilt	6	6—Union	14	41—Wisconsin	0	14—Colorado	37
35—Kentucky	14	27—Grove City	32	14—Purdue	44	20—Missouri	56
10—Houston	10	21—R. P. I.	7	35—Minnesota	28	20—Oklahoma	35
51—Florida	0	0—Muskingum	6	68—Northwestern	34	12—Nebraska	0
17—Auburn	3			37—Ohio State	33	24—Kansas	38
*Nov. 30—Georgia Tech				27—Illinois	13	21—Oklahoma State	14
GEORGIA TECH Yellow Jackets White and Old Gold		HOFSTRA Flying Dutchmen Blue and Gold		IOWA STATE Cyclones Cardinal and Gold		KENT STATE Golden Flashes Blue and Gold	
17—T. C. U.	7	26—Gettysburg	10	28—Buffalo	10	10—Dayton	24
7—Miami (Fla.)	10	0—Delaware	35	12—Arizona	21	13—Buffalo	21
24—Clemson	21	34—Albion	14	28—Brigham Young	20	7—Ohio Univ.	31
7—Tennessee	24	0—Lafayette	7	18—Colorado	28	0—Miami (O.)	24
21—Auburn	20	12—Temple	20	23—Kansas State	14	0—W. Michigan	14
23—Tulane	19	30—Bridgeport	16	7—Oklahoma	42	7—Bowling Green	30
30—Duke	46	9—Kings Point	13	25—Kansas	46	12—Toledo	28
15—Navy	35	7—Maine	42	13—Nebraska	42	9—Louisville	23
6—Notre Dame	34	26—Wagner	7	7—Missouri	24	36—Marshall	12
*Nov. 30—Georgia		*Nov. 28—C. W. Post		17—Oklahoma State	26	7—Xavier	23
GETTYSBURG Bullets Orange and Blue		HOLY CROSS Crusaders Royal Purple		ITHACA Bombers Blue and Gold		KENTUCKY Wildcats Blue and White	
10—Hofstra	26	20—Harvard	27	6—W. Chest. State	28	12—Missouri	6
8—Kings Point	26	29—Dartmouth	17	6—Cent. Conn. State	37	14—Mississippi	30
21—C. W. Post	22	6—Colgate	14	13—Cortland State	34	7—Auburn	26
22—Tufts	28	7—Boston U.	7	21—Susquehanna	36	35—Oregon State	34
20—Albright	21	9—Buffalo	10	19—Wilkes	28	3—L. S. U.	13
12—Bucknell	7	47—Massachusetts	13	14—C. W. Post	27	4—Georgia	35
13—Lehigh	34	14—Rutgers	41	15—Bridgeport	13	35—W. Virginia	16
0—Lafayette	37	27—Connecticut	24	17—Monticello State	13	0—Vanderbilt	6
1—Temple	30	*Nov. 30—Boston College				14—Florida	16
GRAMBLING Tigers Black and Gold		HOUSTON Cougars Scarlet and White		JACKSON STATE Tigers Blue and White		KINGS POINT Mariners Blue and Gold	
13—Alcorn A. & M.	28	54—Tulane	7	8—Prairie View	10	26—Gettysburg	8
7—Morgan State	9	20—Texas	20	6—Alcorn A. & M.	30	31—Adelphi	0
22—Prairie View	14	71—Cincinnati	33	14—Arkansas A.M. & N.	15	19—Union	13
23—Tennessee State	21	17—Oklahoma State	21	16—Southern Univ.	30	37—Army "B"	0
28—Mississippi Valley	13	29—Mississippi	7	33—Grambling	35	16—C. W. Post	7
35—Jackson State	33	10—Georgia	10	23—Wiley	7	24—Wagner	0
28—Texas Southern	18	27—Memphis State	3	0—Texas Southern	14	13—Hofstra	9
46—Ark. A.M. & N.	20	100—Tulsa	6	21—Bishop	15	0—Lafayette	7
33—Wiley	6	*Nov. 29—Florida State		32—Miss. Valley	7	43—Jersey City State	7
30—Southern U.	32						
*Nov. 30—Sugar Cup							
Classic							
GROVE CITY Wolverines Crimson and White		IDAHO Vandals Silver and Gold		JOHN CARROLL Blue Streaks Blue and Gold		LAFAYETTE Leopards Maroon and White	
20—Brockport	12	14—Montana State	17	30—Wash. & Jeff.	8	7—Rutgers	37
13—Adrian	8	7—Washington State	14	29—Case Tech	7	36—Columbia	14
14—Adelbert	11	35—Idaho State	15	13—Allegheny	14	7—Hofstra	0
10—Carnegie-Mellon	6	31—Pacific (Calif.)	14	0—Ashland	45	27—Washington & Lee	7
7—Thiel	13	56—Montana	45	13—Adelbert	13	27—Drexel Tech	0
42—Geneva	0	8—Oregon	23	22—Betheny (W. Va.)	13	10—Bucknell	13
32—Hobart	27	7—Washington	37	14—Findlay	12	7—Kings Point	0
10—Bethany	7	50—Weber State	42	6—Thiel	20	14—Colgate	10
		35—San Jose State	17			6—Lehigh	21
		3—Houston	77				
HAMILTON Continental Buff and Blue		IDAHO STATE Bengals Orange and Black		JOHNS HOPKINS Blue Jays Gold and Sable		LEBANON VALLEY Flying Dutchmen Blue and White	
6—Rochester	14	52—Portland State	30	30—Muhlenberg	28	49—Dickson	6
35—R. P. I.	32	38—Fresno State	23	6—F. & M.	20	28—Ursinus	6
10—Hobart	12	15—Idaho	35	35—Ursinus	20	39—Muhlenberg	29
18—Middlebury	14	14—Montana State	31	42—Haverford	0	7—Moravian	28
6—St. Lawrence	13	23—Montana	13	13—Rand-Macon	28	17—F. & M.	19
8—Wesleyan	10	16—Weber State	23	53—Carnegie-Mellon	38	0—Albright	7
12—Kenyon	17	20—Boise	27	24—Swarthmore	15	16—Wilkes	23
13—Union	22	22—So. Dakota State	41	47—Dickinson	6	21—PMC Colleges	6
		16—Neb. (Omaha)	13	46—West. Maryland	23		
HARVARD The Crimson Crimson		ILLINOIS Fighting Illini Orange and Blue		JUNIATA Indians Blue and Gold		LEHIGH Engineers Brown and White	
27—Holy Cross	20	7—Kansas	47	35—Westminster	27	59—Drexel Tech	21
59—Bucknell	0	0—Missouri	44	7—Albright	14	12—The Citadel	28
21—Columbia	14	14—Indiana	28	20—Drexel Tech	23	14—Wittenberg	37
0—Cornell	0	10—Minnesota	17	33—Geneva	6	26—Rutgers	29
22—Dartmouth	7	8—Notre Dame	58	25—Lycorning	6	0—Penn	34
28—Pennsylvania	6	24—Ohio State	31	58—Haverford	6	34—Gettysburg	13
9—Princeton	7	17—Purdue	35	40—Susquehanna	0	11—Colgate	27
31—Brown	7	0—Michigan	36	35—St. Lawrence	0	13—Delaware	37
29—Yale	29	14—Northwestern	0	27—Moravian	20	27—Bucknell	31
		13—Iowa	37			21—Lafayette	6

N. TEXAS STATE

<i>Eagles</i>	
<i>Green and White</i>	
47—New Mexico State	20
17—Colo. State Univ.	12
12—Memphis State	30
17—No. Michigan	3
20—Tulsa	17
15—Arkansas	17
55—Cincinnati	34
34—Texas (El Paso)	31
36—Louisville	14
44—Wichita State	6

NORTHWESTERN

<i>Wildcats</i>	
<i>Purple and White</i>	
7—Miami (Fla.)	28
7—So. California	24
6—Purdue	43
7—Notre Dame	27
21—Ohio State	45
13—Wisconsin	10
0—Michigan	35
34—Iowa	68
0—Illinois	14
14—Michigan State	31

NORWICH

<i>Cadets</i>	
<i>Maroon and Gold</i>	
32—Colby	9
0—Bates	32
26—Coast Guard	22
13—Me. Maritime	9
10—St. Lawrence	0
7—Vermont	20
24—Middlebury	24
35—Worcester Tech	12

NOTRE DAME

<i>Fighting Irish</i>	
<i>Gold and Blue</i>	
45—Oklahoma	21
22—Purdue	37
51—Iowa	28
27—Northwestern	7
58—Illinois	8
17—Michigan State	21
45—Navy	14
56—Pittsburgh	7
34—Georgia Tech	6
*Nov. 30—So. California	

OBERLIN

<i>Yeomen</i>	
<i>Crimson and Gold</i>	
20—Hiram	17
28—Carnegie-Mellon	28
0—Baldwin-Wall	68
42—Lake Forest	22
6—Denison	23
16—Kenyon	34
0—Ohio Wesleyan	64
21—Wooster	23

OHIO STATE

<i>Buckeyes</i>	
<i>Scarlet and Grey</i>	
35—S. M. U.	14
21—Oregon	6
13—Purdue	0
45—Northwestern	21
31—Illinois	24
25—Michigan State	20
43—Wisconsin	8
33—Iowa	27
50—Michigan	14

OHIO UNIV.

<i>Bobcats</i>	
<i>Green and White</i>	
48—Marshall	8
31—Kent State	7
40—Toledo	31
41—William & Mary	0
24—Miami (O.)	7
42—Dayton	12
34—W. Michigan	27
28—Bowling Green	27
60—Cincinnati	48
28—No. Illinois	13

OHIO WESLEYAN

<i>Battling Bishops</i>	
<i>Red and Black</i>	
14—Albion	7
35—Heidelberg	7
43—Wooster	7
19—Muskingum	3
39—Wabash	0
20—Baldwin-Wallace	26
64—Oberlin	11
24—Mt. Union	11
44—Denison	8

OKLAHOMA

<i>Sooners</i>	
<i>Crimson and White</i>	
21—N'tre Dame	45
28—No. Caro. State	14
20—Texas	26
42—Iowa State	7
27—Colorado	41
35—Kansas State	20
27—Kansas	23
28—Missouri	14
47—Nebraska	0
*Nov. 30—Oklahoma St.	

OKLAHOMA STATE

<i>Cowboys</i>	
<i>Orange and Black</i>	
15—Arkansas	32
3—Texas	31
21—Houston	17
14—Kansas	49
20—Nebraska	21
7—Missouri	42
34—Colorado	17
26—Iowa State U.	17
14—Kansas State	21
*Nov. 30—Oklahoma	

OREGON

<i>Ducks</i>	
<i>Green and Yellow</i>	
7—Colorado	28
12—Stanford	28
6—Ohio State	21
3—Washington	0
23—Idaho	8
14—Utah	6
13—So. California	20
27—Washington State	13
8—California	36
19—Oregon State	41

OREGON STATE

<i>Beavers</i>	
<i>Orange and Black</i>	
20—Utah	21
24—Iowa	21
35—Washington	21
34—Kentucky	35
28—Arizona State	9
16—Washington State	8
29—Stanford	7
45—UCLA	21
13—So. California	17
41—Oregon	19

PACIFIC

<i>Tigers</i>	
<i>Orange and Black</i>	
21—Miami (O.)	20
7—W. Texas State	23
14—Idaho	31
30—Santa Clara	22
18—Utah State	7
31—Colo. State U.	0
28—San Jose State	0
27—Calif.	
(Santa Barb.)	21
0—Stanford	24
3—Fresno State	10

PENNSYLVANIA

<i>Quakers</i>	
<i>Red and Blue</i>	
27—Bucknell	10
17—Brown	13
10—Cornell	10
34—Lehigh	8
19—Princeton	14
6—Harvard	28
13—Yale	30
13—Columbia	7
26—Dartmouth	21

PENN STATE

<i>Nittany Lions</i>	
<i>Blue and White</i>	
31—Navy	6
25—Kansas State	9
31—West Virginia	20
21—C. C. L. A.	6
29—Boston College	0
28—Army	24
22—Miami (Fla.)	7
57—Maryland	13
55—Pittsburgh	9
*Dec. 7—Syracuse	

PMC COLLEGES

<i>Cadets</i>	
<i>Red, White, Yellow</i>	
0—W. Maryland	30
6—Upsala	21
7—Moravian	2
7—Trinity	45
13—Drexel Tech	35
0—Wilkes	34
22—Swarthmore	9
6—Lebanon Valley	21
*Nov. 30—Coast Guard	

PITTSBURGH

<i>Panthers</i>	
<i>Blue and Gold</i>	
7—U. C. L. A.	63
14—W. Virginia	38
14—Wm. & Mary	38
17—Syracuse	50
16—Navy	17
14—Air Force	27
0—Miami (Fla.)	48
7—Notre Dame	56
0—Army	26
9—Penn St.	65

PORTLAND STATE

<i>Vikings</i>	
<i>Green and White</i>	
30—Idaho State	52
6—Montana State	17
0—Montana	58
14—Fresno State	30
12—Weber State	28
19—Eastern Wash.	13
27—Western Wash.	20
20—San Fernando St.	52
47—Simon Fraser	16
13—Southern Oregon	6

PRINCETON

<i>Tigers</i>	
<i>Orange and Black</i>	
14—Rutgers	20
44—Columbia	16
34—Dartmouth	14
7—Colgate	14
14—Penn	19
50—Brown	7
7—Harvard	9
17—Yale	42
41—Cornell	13

PURDUE

<i>Boiler Makers</i>	
<i>Old Gold and Black</i>	
44—Virginia	22
37—Notre Dame	6
43—Northwestern	6
0—Ohio St.	13
28—Wake Forest	27
44—Iowa	14
35—Illinois	17
13—Minnesota	27
5—Michigan State	0
38—Indiana	35

RPI

<i>Fightin' Engineers</i>	
<i>Red and White</i>	
14—St. Lawrence	10
6—Colby	0
32—Hamilton	35
10—Drexel Tech	20
14—Union	25
0—Middlebury	35
21—Worcester Tech	23
7—Hobart	21
20—Coast Guard	34

RHODE ISLAND

<i>Blacks</i>	
<i>Blue and White</i>	
0—Temple	28
9—Brown	10
33—So. Conn. St.	8
52—Vermont	10
14—Massachusetts	9
14—Maine	21
6—N. Hampshire	27
3—Boston Univ.	20
6—Connecticut	35

RICE

<i>Owls</i>	
<i>Blue and Grey</i>	
35—Washington	35
7—L. S. U.	21
0—Tennessee	52
24—S. M. U.	32
14—Texas	38
15—Texas Tech	38
14—Arkansas	46
14—Texas & M.	24
14—Texas Christian	24
*Nov. 30—Baylor	

RICHMOND

<i>Spiders</i>	
<i>Red and Blue</i>	
14—Toledo	31
0—W. Virginia	17
24—Davidson	14
21—The Citadel	16
34—Furman	0
31—E. Carolina	7
35—V. M. I.	0
18—Virginia Tech.	31
33—So. Miss.	7
31—Wm. & Mary	6

ROCHESTER

<i>Yellowjackets</i>	
<i>Yellow and Blue</i>	
14—Hamilton	6
6—Williams	7
7—Union	21
0—Amherst	26
33—Alfred	0
27—St. Lawrence	7
42—Cast Guard	14
19—Allegheny	42

RUTGERS

<i>Scarlet Knights</i>	
<i>Scarlet</i>	
37—Lafayette	7
20—Princeton	14
16—Cornell	14
29—Lehigh	26
0—Army	24
28—Columbia	17
23—Delaware	14
27—Connecticut	14
41—Holy Cross	14
55—Colgate	34

SACRAMENTO STATE

<i>Hornets</i>	
<i>Green and Gold</i>	
13—Calif. Poly	7
26—C. P. Pomona	13
13—Humboldt St.	20
24—UC Davis	7
13—San Fran. St.	14
17—Nevada	14
14—Chico St.	0
16—Hayward St.	14
76—San Francisco	0
26—Calif. Western	14

ST. LAWRENCE

<i>Larries</i>	
<i>Scarlet and Brown</i>	
10—R. P. I.	14
6—Union	7
42—Hobart	6
0—Alfred	16
0—Norwich	10
13—Hamilton	6
7—Rochester	37
7—Juniata	35

SAN DIEGO STATE

<i>Aztecs</i>	
<i>Scarlet and Black</i>	
23—U. Tex. Arlington	18
40—Northern Ill.	21
34—Montana State	22
0—Tex. Southern	23
37—A. State	14
42—San Jose State	6
42—Fresno State	12
69—Southern Miss.	7
13—Tennessee State	13
*Nov. 30—Utah State	

UNIV. SAN FRAN.

<i>Horns</i>	
<i>Green and Gold</i>	
0—Oregon Tech	0
7—Nevada Southern	23
13—Nevada	48
10—Redlands	20
10—St. Mary's	13
0—Loyola	38
0—Hayward St.	33
26—UC Riverside	42
0—Sacramento St.	76

SAN JOSE STATE

<i>Spartans</i>	
<i>Gold and White</i>	
20—Stanford	68
25—Fresno St.	21
0—California	46
55—New Mexico	24
6—San Diego St.	48
0—Pacific (Calif.)	28
17—Idaho	35
0—Washington St.	35
0—Arizona St.	66
*Nov. 30—Brigham Young	

SOUTH CAROLINA

<i>Fighting Gamecocks</i>	
<i>Gamecock and Black</i>	
7—Duke	14
32—No. Carolina	27
20—Georgia	21
12—No. Caro. St.	36
19—Maryland	21
28—Florida St.	35
49—Virginia	28
34—Wake Forest	21
6—Virginia Tech	17
7—Clemson	3

SOUTH DAKOTA*Coyotes*

<i>Vermillion and White</i>	
28—Mankato St.	14
21—Montana	0
17—North Dakota ..	15
13—No. Dakota St. ..	35
35—Morningside ..	13
13—Northern Iowa ..	7
49—Drake	28
33—Augustana	14
35—Colorado St.	14

SO. DAKOTA STATE*Jackrabbits*

<i>Yellow and Blue</i>	
12—Weber State	27
3—No. Dakota State ..	21
42—Morningside ..	13
0—Northern Iowa ..	38
16—North Dakota ..	21
32—South Dakota ..	55
23—Youngstown	20
47—Augustana	27
4—Idaho State	22
20—Drake	28

SO. CALIFORNIA*Trojans*

<i>Cardinal and Gold</i>	
29—Minnesota	20
24—Northwestern ..	7
28—Miami (Fla.) ..	3
27—Stanford	24
14—Washington	7
20—Oregon	10
35—California	17
17—Oregon St.	13
28—UCLA	16
*Nov. 30—Notre Dame	

SO. CONN. STATE*Pioneers*

<i>Blue and White</i>	
0—E. Michigan	40
0—Trenton St.	0
8—Rhode Island ..	33
18—Bridgeport	6
9—Glassboro St. ..	0
36—Montclair St. ..	10
20—C. W. Post	21
22—American Intl. ..	40
7—Cent. Conn. St. ..	6

SOUTHERN ILLINOIS*Salukis*

<i>Maroon and White</i>	
10—Louisville	33
3—Tulsa	30
24—Lamar Tech	7
18—Dayton	17
21—Drake	0
15—Youngstown ..	18
23—Northern Mich. ..	20
20—Tampa	23
68—Southwest Mo. ..	6

SMU Mustangs

<i>Red and Blue</i>	
37—Auburn	28
14—Ohio St.	35
35—No. Carol. St. ..	14
21—T. C. U.	14
32—Rice	24
39—Texas Tech	18
7—Texas	38
36—Texas A. & M. ..	23
29—Arkansas	35
33—Baylor	17

SOUTHERN MISS.*Southerners*

<i>Black and Gold</i>	
27—SE Louisiana ..	15
14—Alabama	17
65—E. Carolina ..	0
47—Miss. St.	14
13—Mississippi	21
7—Memphis State ..	29
20—Louisiana Tech. ..	27
7—San Diego St.	68
7—Richmond	33
21—Tampa	7

SOUTHERN UNIV.*Jaguars*

<i>Blue and Gold</i>	
3—Texas Southern ..	6
26—Prairie View ..	0
27—Miss. Valley ..	0
14—Arkansas A&M ..	24
30—Jackson State ..	16
14—Alcorn A&M	26
0—Tenn. State	16
22—Wiley	9
24—Florida A&M	33
32—Grambling	34

SPRINGFIELD*Chiefs*

<i>Maroon and White</i>	
29—Coast Guard	0
23—Amherst	14
30—Albright	7
48—Colby	0
7—Northeastern ..	10
14—Amer. Intl.	0
28—Wagner	9
10—New Hampshire ..	17
42—Tufts	3

STANFORD*Indians*

<i>Cardinal</i>	
68—San Jose St.	20
28—Oregon	12
24—Air Force	23
24—So. Calif.	27
21—Wash. St.	21
17—U. C. L. A.	20
7—Oregon St.	29
35—Washington	20
24—Pacific	0
20—California	0

SUSQUEHANNA*Crusaders*

<i>Orange and Maroon</i>	
27—Otterbein	26
6—Western Md.	32
13—Bloomsburg	13
6—Ithaca	21
9—Upsala	16
17—Lycoming	13
0—Juniata	40
6—Wagner	16
7—Delaware Valley ..	14

SWARTHMORE*Little Quakers*

<i>Garnet</i>	
0—Wooster	37
21—Dickinson	11
3—F. & M.	12
0—Ursinus	28
6—Muhlenberg	55
15—Johns Hopkins ..	34
9—PMC Colleges	22
6—Haverford	17

SYRACUSE*Orangemen*

<i>Orange</i>	
10—Michigan St.	14
32—Maryland	14
20—U. C. L. A.	7
50—Pittsburgh	17
0—California	43
47—Holy Cross	0
31—Wm. & Mary	0
44—West Virginia ..	6
6—West Virginia ..	23
*Dec. 7—Penn State	

TAMPA*Spartans*

<i>Red, Gold, Black</i>	
18—UC Santa Barbara	7
24—Akron	9
17—Tulane	14
28—Cincinnati	31
21—Eastern Mich. ..	0
24—Mississippi St. ..	17
22—Northern Mich. ..	19
28—East Carolina ..	21
23—Southern Ill.	20
7—Southern Miss.	21

TEMPLE*Owls*

<i>Cherry and White</i>	
28—Rhode Island ..	0
26—Wayne St.	6
0—Boston Univ.	7
26—Bucknell	29
20—Hofstra	12
27—Delaware	50
40—Buffalo	13
30—Gettysburg	11
26—Northeastern ..	41
17—Dayton	35

TENNESSEE*Volunteers*

<i>Orange and White</i>	
17—Georgia	17
24—Memphis St.	17
0—Rice	0
24—Georgia Tech.	7
16—Alabama	9
42—U. C. L. A.	18
14—Auburn	28
31—Mississippi	28
24—Kentucky	7
*Nov. 30—Vanderbilt	

TENNESSEE STATE*Tigers*

<i>Blue and White</i>	
40—Kentucky State ..	7
21—Parsons	12
11—Texas Southern ..	10
22—Grambling	3
13—Florida A&M	32
16—Southern Univ. ..	0
58—Morris Brown ..	6
13—San Diego State ..	13

TEXAS*Longhorns*

<i>Orange and White</i>	
20—Houston	20
22—Texas Tech	31
31—Oklahoma St.	3
26—Oklahoma	20
39—Arkansas	29
38—Rice	14
38—S. M. U.	7
47—Baylor	26
47—Texas Christian ..	21
*Nov. 28—Texas A&M	

TEXAS A&M*Aggies*

<i>Maroon and White</i>	
12—L. S. U.	13
35—Tulane	3
14—Florida St.	3
16—Texas Tech	20
27—T. C. U.	10
9—Baylor	7
22—Arkansas	25
23—SMU	36
24—Rice	14
*Nov. 28—Texas	

TEXAS CHRISTIAN*Horned Frogs*

<i>Purple and White</i>	
7—Georgia Tech.	17
28—Iowa	17
7—Arkansas	17
14—S. M. U.	21
7—Texas A&M	27
7—L. S. U.	10
47—Baylor	14
14—Texas Tech	31
21—Texas	47
24—Rice	14

U. TEXAS—EL PASO*Miners*

<i>Orange and White</i>	
14—Calif. (S. B.)	14
44—New Mexico	15
19—Arizona St.	31
0—Arizona	25
21—Long Beach St. ..	22
30—New Mexico St. ..	14
31—Brigham Young ..	25
31—Bo. Texas State ..	34
19—Wyoming	26
23—Colo. St. Univ.	19

TEXAS TECH*Red Raiders*

<i>Scarlet and Black</i>	
10—Cincinnati	10
31—Texas	22
43—Colo. St. Univ. ..	13
21—Texas A. & M.	16
28—Miss. State	28
18—S. M. U.	39
38—Rice	15
31—Texas Christian ..	14
28—Baylor	42
7—Arkansas	42

THIEL*Titmats*

<i>Old Gold and Blue</i>	
42—Carn.-Mellon	28
34—Wash. & Jeff.	6
47—Case Tech.	14
13—Grove City	7
14—Bethany	23
40—Adelbert	0
32—Allegheny	35
12—John Carroll	6

TOLEDO*Rockets*

<i>Blue and Gold</i>	
31—Richmond	14
45—Villanova	21
35—Marshall	12
31—Ohio U.	40
0—Bowling Green ..	0
30—W. Michigan	6
28—Kent State	12
17—Miami (Ohio)	21
10—Xavier (Ohio)	20
3—Dayton	10

TRINITY (CONN.)*Bantams*

<i>Blue and Gold</i>	
14—Williams	31
48—Bates	19
7—Tufts	7
35—Colby	8
45—PMC Coll.	7
47—Coast Guard	21
3—Amherst	31
19—Wesleyan	17

TUFTS*Jumbos*

<i>Brown and Blue</i>	
28—Drexel Tech	7
28—Gettysburg	22
3—Trinity	7
17—Wagner	10
30—Williams	28
6—Amherst	42
7—Bowdoin	6
3—Springfield	42

TULANE*Green Wave*

<i>Olive Green & Sky Blue</i>	
7—Houston	54
3—Texas A. & M.	35
14—Tampa	17
3—Florida	24
28—Boston Coll.	14
19—Ga. Tech.	33
7—Vanderbilt	21
25—Tulsa	15
47—Virginia	63
10—L. S. U.	34

TULSA*Golden Hurricane*

<i>Blue, Crimson, Gold</i>	
13—Arkansas	56
30—So. Illinois	3
7—Louisville	16
17—No. Texas State ..	20
34—Cincinnati	27
6—Memphis State	32
15—Tulane	25
8—Air Force	28
6—Houston	100
*Nov. 28—Wichita State	

UNION*Dutchmen*

<i>Garnet</i>	
7—St. Lawrence	6
13—Kings Point	19
21—Rochester	7
24—R.P.I.	14
14—Hobart	6
17—Williams	7
21—Alfred	7
22—Hamilton	13

UCLA*Bruins*

<i>Navy Blue and Gold</i>	
63—Pittsburgh	7
31—Washington State ..	21
7—Syracuse	20
6—Penn State	21
15—California	39
20—Stanford	17
18—Tennessee	42
21—Oregon State	45
0—Washington	6
16—So. California ..	28

UPSALA*Vikings*

<i>Blue and Grey</i>	
7—Hobart	6
8—Wagner	34
21—PMC Coll.	6
16—Susquehanna	9
7—Wilkes	9
39—Lycoming	8
9—Moravian	27
0—Albright	28

URSINUS*Bears*

<i>Red, Old Gold, Black</i>	
0—Frank & Marsh.	17
6—Leb. Valley	28
0—J. Hopkins	35
6—Muhlenberg	45
28—Swarthmore	0
5—Delaware Valley ..	14
47—Dickinson	24
35—Haverford	13

UTAH	
Redskins, Utes	
Crimson and White	
0—Nebraska	31
21—Oregon State	24
17—Washington State	14
30—New Mexico	7
9—Wyoming	20
6—Oregon	14
30—Brigham Young	21
3—Arizona State	59
15—Arizona	16
13—Utah State	28

UTAH STATE	
Aggies	
Navy Blue and White	
28—New Mexico State	12
3—Wyoming	48
38—Wichita State	0
50—Montana	3
20—Wisconsin	0
7—Pacific	18
20—W. Texas State	10
34—Brigham Young	8
28—Utah	13
*Nov. 30 San Diego State	

VANDERBILT	
Commodores	
Black and Gold	
25—V. M. I.	12
17—Army	13
7—No. Carolina	8
7—Alabama	31
6—Georgia	32
14—Florida	14
21—Tulane	7
6—Kentucky	0
53—Davidson	20
*Nov. 30—Tennessee	

VERMONT	
Catamounts	
Green and Gold	
0—Connecticut	21
9—Wilkes	31
0—Maine	28
10—Rhode Island	52
12—New Hampshire	10
20—Norwich	20
0—Massachusetts	49
49—Middlebury	18
10—C. W. Post	25

VILLANOVA	
Wildcats	
Blue and White	
21—Toledo	45
16—Delaware	0
19—V. M. I.	13
15—Boston College	28
28—Buffalo	7
21—Xavier	10
12—Wm. & Mary	33
27—Quantico	13
20—West Virginia	30
63—W. Chester State	3

VIRGINIA	
Cavaliers	
Orange and Blue	
6—Purdue	44
47—V. M. I.	0
41—Davidson	14
50—Duke	20
0—No. Carolina St.	19
24—Navy	0
28—So. Carolina	49
41—No. Carolina	6
63—Tulane	47
28—Maryland	23

VMI	
Keydets	
Red, White & Yellow	
12—Vanderbilt	25
0—Virginia	49
15—Villanova	17
7—W. Virginia	14
8—The Citadel	13
10—Wm. & Mary	20
0—Richmond	35
21—Davidson	17
13—Boston College	45
23—Virginia Tech.	45

VIRGINIA TECH	
Gobblers	
Orange and Maroon	
7—Alabama	14
12—Wm. & Mary	0
19—Kansas State	34
7—Wake Forest	6
8—Miami (Fla.)	13
27—W. Virginia	12
42—Florida State	22
31—Richmond	12
17—So. Carolina	6
*Nov. 28—V. M. I.	

WAGNER	
Seahawks	
Green and White	
0—Looming	10
34—Upsala	8
20—Moravian	6
10—Tufts	17
0—Kings Point	24
7—Springfield	28
16—Susquehanna	6
26—Hofstra	7
7—Wittenberg	45

WAKE FOREST	
Demon Deacons	
Old Gold and Black	
6—No. Carolina St.	10
20—Clemson	20
19—Minnesota	24
6—Virginia Tech.	7
27—Purdue	25
48—No. Carolina	14
38—Maryland	14
21—So. Carolina	34
3—Duke	18
24—Florida State	42

WASH. & JEFF.	
Presidents	
Red and Black	
8—John Carroll	30
6—Thiel	34
20—Adelbert	24
31—Case Tech	8
0—Allegheny	40
6—Wayne State	14
27—Bethany	56
6—Carnegie-Mellon	26

WASHINGTON & LEE	
Generals	
Royal Blue and White	
—Gulford	0
21—Rand-Macon	45
0—Centre	10
7—Lafayette	27
0—Hamp-Sydney	0
27—Bridgewater	13
16—Seaward	7
1—Southwest, Tenn.	38
14—Wash. (Mo.)	3

WASHINGTON STATE	
Cougars	
Crimson and Grey	
14—Idaho	7
21—U. C. L. A.	31
14—Utah	17
14—Arizona State	41
21—Stanford	21
8—Oregon State	16
14—Arizona	27
13—Oregon	0
46—San Jose St.	0
24—Washington	0

WASHINGTON	
Huskies	
Purple and Gold	
35—Rice	35
21—Wisconsin	17
21—Oregon State	35
0—Oregon	3
7—So. California	14
37—Idaho	7
7—California	7
20—Stanford	35
6—UCLA	0
0—Washington St.	24

WAYNE STATE	
Tartars	
Forest Green & Old Gold	
23—Michigan Tech	13
6—Temple	26
13—U. Ill. Chicago	0
8—Ferris State	16
7—Augustana (S.D.)	34
61—Wash. (Mo.)	29
14—Wash. & Jeff.	6
19—Eastern Ill.	60
6—Central Mich.	35

WAYNESBURG	
Yellow Jackets	
Orange and Black	
14—Fairmont State	41
28—Slippery Rock	7
19—Ohio Northern	0
27—California State	26
7—Ashland	16
9—Kenya	0
55—W. Va. Wes'n	13
39—Westminster	6
69—Lock Haven	0

WESLEYAN	
Cardinals	
Cardinal Red and Black	
42—Middlebury	40
27—Bowdoin	14
23—Coast Guard	26
29—Worcester Tech	6
13—Amherst	58
10—Hamilton	8
26—Williams	24
17—Trinity	19

WESTERN MARYLAND	
Terrors	
Green & Gold	
36—Susquehanna	6
30—PMC	0
37—Looming	29
30—Shepherd	20
29—Hamp-Sydney	3
14—Rand-Macon	41
25—Delaware Valley	34
14—Drexel	42
23—Johns Hopkins	46

W. MICHIGAN	
Broncos	
Brown and Gold	
20—Arkansas State	0
7—Brigham Young	17
0—Miami (Ohio)	28
10—Bowling Green	17
14—Kent State	0
6—Toledo	30
0—Marshall	12
27—Ohio U.	34
36—W. Tex. St.	53

WESTMINSTER	
Titans	
Blue and White	
34—Slippery Rock	12
27—Juniata	35
21—Heidelberg	7
27—Geneva	7
0—Bethany	7
20—Mt. Union	6
28—Glenville	13
7—Waynesburg	39

W. TEXAS STATE	
Buffaloes	
Maroon and White	
45—Lamar Tech	7
26—Wichita State	0
23—Pacific (Calif.)	7
41—Montana State	20
21—Memphis State	42
41—Texas (Arl.)	0
10—Utah State	14
23—New Mexico	16
53—W. Michigan	36
22—Colorado State	17

W. VIRGINIA	
Mountaineers	
Old Gold and Blue	
17—Richmond	0
38—Pittsburgh	14
20—Penn State	31
14—V. M. I.	7
20—William & Mary	0
12—Virginia Tech	27
16—Kentucky	35
17—The Citadel	0
30—Villanova	20
23—Syracuse	6

WICHITA STATE	
Shockers	
Yellow and Black	
0—W. Texas State	26
0—Utah State	38
23—Drake	26
15—Colo. St. Univ.	37
27—Cincinnati	40
14—Louisville	21
21—New Mexico St.	47
18—Memphis St.	40
6—No. Texas St.	44
*Nov. 28—Tulsa	

WILKES	
Colonels	
Blue and Gold	
31—Vermont	9
40—Moravian	0
31—Delaware Valley	3
28—Ithaca	19
9—Ursinus	7
28—Dickinson	0
34—PMC Colleges	0
23—Lebanon Valley	16

WILLIAM & MARY	
Indians	
Green, Gold and Silver	
14—E. Carolina	0
0—Virginia Tech	12
3—Pittsburgh	14
0—Ohio Univ.	41
0—West Virginia	20
20—V. M. I.	10
33—Villanova	12
6—Syracuse	31
21—The Citadel	24
6—Richmond	31

WILLIAMS	
Ephemen	
Purple and Gold	
31—Trinity	14
7—Rochester	6
48—Middlebury	14
14—Bowdoin	7
28—Tufts	30
7—Union	17
24—Wesleyan	26
17—Amherst	24

WISCONSIN	
Badgers	
Cardinal and White	
7—Arizona State	55
17—Washington	21
0—Michigan State	39
0—Utah State	20
0—Iowa	41
10—Northwestern	13
0—Utah State	20
8—Ohio St.	43
9—Michigan	34
15—Minnesota	23

WORCESTER TECH	
Engineers	
Maroon and Grey	
14—Bowdoin	10
25—Middlebury	20
30—Bates	20
6—Wesleyan	29
36—Coast Guard	0
23—R. P. I.	21
12—Norwich	35

WYOMING	
Cowboys	
Brown and Gold	
10—Nebraska	13
48—Utah State	3
1—Air Force	10
27—Arizona State	13
20—Brigham Young	17
20—Utah	9
35—New Mexico	6
46—Colorado State	14
26—Texas, El Paso	19
7—Arizona	14

XAVIER	
Musketiers	
Blue and White	
7—Miami (Ohio)	28
28—Quantico	12
14—Cincinnati	17
30—Marshall	20
24—No. Illinois	20
10—Villanova	21
27—Dayton	25
20—Toledo	10
23—Kent St.	7
14—Bowling Green	44

YALE	
Bulldogs	
Yale Blue	
31—Connecticut	14
49—Colgate	14
35—Brown	13
29—Columbia	7
25—Cornell	13
47—Dartmouth	27
37—Penn	13
22—Princeton	17
29—Harvard	29

YOUNGSTOWN STATE	
Penguins	
Red and White	
18—Gusta. Adolphus	14
20—Central Michigan	24
6—Baldwin-Wallace	26
38—Pensacola Navy	58
25—Morehead State	35
20—South Dakota St.	23
0—Southern Illinois	15
14—Eastern Kentucky	14
13—Akron	42

NAIA National Championships

Source: National Assn. of Intercollegiate Athletics

Date 1968	Event	Site	Champion
June 4-8	Tennis	Kansas City, Mo.	Redlands (Calif.)
June 4-7	Golf	Bemidji, Minn.	Indiana Univ. (Pa.)
June 3-7	Baseball	St. Joseph, Mo.	William Jewell (Mo.)
June 1	Outdoor Track	Albuquerque, N. M.	Prairie View A&M (Tex.)
Apr. 26-27	Bowling	Kansas City, Mo.	La Crosse State (Wisc.)
Mar. 21-23	Gymnastics	Hays, Kansas	Northwestern La. State
Mar. 14-16	Swimming	St. Cloud, Minn.	Eastern Michigan
Mar. 11-16	Basketball	Kansas City, Mo.	Central State (Ohio)
Mar. 8-9	Ice Hockey	St. Paul, Minn.	Bemidji State (Minn.)
Mar. 7-9	Wrestling	Alamosa, Colo.	Adams State (Colo.)
Jan. 19-20	Indoor Track	Kansas City, Mo.	Prairie View A&M (Tex.)
1967			
Dec. 9	Football	Morgantown, West Virginia	Fairmont State (W. Va.)
Nov. 25	Cross Country	Omaha, Nebr.	Eastern Michigan
Nov. 24-25	Soccer	Quincy, Ill.	Quincy (Ill.)

Evolution of the World Record for the One Mile Run

The table below shows how the world record for the one-mile run has been lowered in the past 103 years.

Time	Individual	Year	Time	Individual	Year
4:56	Charles Lawes, Britain	1864	4:07.6	Jack Lovelock, New Zealand	1933
4:36.5	Richard Webster, Britain	1865	4:06.8	Glenn Cunningham, U. S.	1934
4:29	William Chinnery, Britain	1868	4:06.4	Sydney Wooderson, Britain	1937
4:28.8	W. C. Gibbs, Britain	1868	4:06.2	Gunder Haegg, Sweden	1942
4:26	Walter Slade, Britain	1874	4:06.2	Arne Andersson, Sweden	1942
4:24.5	Walter Slade, Britain	1875	4:04.6	Gunder Haegg, Sweden	1942
4:23.2	Walter George, Britain	1880	4:02.6	Arne Andersson, Sweden	1943
4:21.4	Walter George, Britain	1882	4:01.6	Arne Andersson, Sweden	1944
4:19.4	Walter George, Britain	1882	4:01.4	Gunder Haegg, Sweden	1945
4:18.4	Walter George, Britain	1884	3:59.4	Roger Bannister, Britain	1954
4:18.2	Fred Bacon, Scotland	1894	3:58	John Landy, Australia	1954
4:17	Fred Bacon, Scotland	1895	3:57.2	Derek Ibbotson, Britain	1957
4:15.6	Thomas Conneff, U. S.	1895	3:54.5	Herb Elliott, Australia	1958
4:15.4	John Paul Jones, U. S.	1911	3:54.4	Peter Snell, New Zealand	1962
4:14.6	John Paul Jones, U. S.	1913	3:54.1	Peter Snell, New Zealand	1964
4:12.6	Norman Taber, U. S.	1915	3:53.6	Michel Jazy, France	1965
4:10.4	Pavvo Nurmi, Finland	1923	3:51.3	Jim Ryun, U. S.	1966
4:09.2	Jules Ladoumeque, France	1931	3:51.1	Jim Ryun, U. S.	1967

Rifle and Pistol Championships in 1968

Source: National Rifle Association of America

National Pistol Championship—Maj. Franklin C. Green, San Antonio, Texas, 2635-111X.

National Trophy Individual Pistol Match—S/Sgt. Arnold Vitarbo, New York City, N. Y., 293-12X.

National Smallbore Rifle Prone Championship—Army Capt. Donald Adams, Halifax, Va., 6395-508X.

National Women's Smallbore Rifle Prone Championship—Marianne Jensen, Saginaw, Mich., 6386-499X.

National Smallbore Rifle Prone Junior Title—Sue Lausten, Livonia, Mich., 6376-442X.

National Smallbore Rifle Position Champion-

ship—Army Maj. Lones Wigger, Carter, Montana, 1560-84X.

National Smallbore Rifle Position Women's Title—Army Capt. Margaret Thompson, Topeka, Kansas, 1539-67X.

National Smallbore Rifle Position Junior Title—William P. Schweitzer, Lancaster, Penn., 1533-66X.

National Service Rifle Championship—Lt. David A. Luke, U. S. Marine Corps, 1555-41X.

National High Power Rifle Championship—Middleton Tompkins, Long Beach, Calif., 1568-55X.

National High Power Women's Rifle Championship—Margaret Thompson, Topeka, Kansas, 1515-31X.

Quarter Horse Racing

The richest horse race in the world, the all American Futurity is run each Labor Day at Ruidoso Downs, Ruidoso, New Mexico. It is open to 2-year-old Quarter Horses. The distance of the event is 400 yards, and the weight is 119 pounds.

Year	Winner	Weight	Time	Value to Winner	Jockey	Owner
1959	Galobar	116	20.5	\$64,843	C. Lambert	Hugh Huntley
1960	Tonto Bars Hank	119	20.2	65,122	C. Perner	Milo and C. G. Whitcomb
1961	Pokey Bar	119	20.1	101,212	K. Chapman	Hugh Huntley
1962	Hustling Man	119	20.3	96,425	C. Detiege	J. B. Ferguson
1963	Goetta	116	20.40	127,500	C. Smith	Hugh Huntley
1964	Decketta	119	20.30	134,030	B. Morris	W. W. Wilson
1965	Savannah Jr.	120	20.30	192,730	J. Wallace	J. R. and R. E. Cates
1966	Go Dick Go	119	20.27	198,300	B. Smith	Joe V. Leitner
1967	Laico Bird	119	20.11	228,300	B. Harmon	F. H. Jones, Jr.
1968	Three Oh's	119	20.06	160,372	J. Nicodemus	Donald G. Strole

AAU Gymnastics Championships in 1968

Long Beach, Calif.

Men's Events

All-Around—Makoto Sakamoto, Univ. of Southern Calif.

Floor Exercise—Toby Towson, Michigan State.

Rings—Steve Cohen, Philadelphia.

Parallel Bars—Makoto Sakamoto.

Side Horse—John Russo, Wis.

Long Horse—Makoto Sakamoto.

Horizontal Bar—Makoto Sakamoto.

Trampoline—Dave Jacobs, Michigan Univ.

Tumbling—Doug Roger, Pasadena, Calif.

Women's Events

All-Around—Linda Metheny, Tusculo, Ill.

Vault—Joyce Tanac, Seattle.

Free Exercise—Linda Metheny.

Balance Beam—Linda Metheny.

Uneven Bars—Doris Brause, New Haven, Conn.

Tumbling—Judy Wills, Southern Illinois Univ.

Trampoline—Judy Wills.

Dog Show

Six main classes of dogs are presently recognized: Sporting dogs—Pointers, Retrievers, Setters, Spaniels, Weimaraners; the Hound group; Working dogs, including boxers, collies, Doberman pinschers, Shepherds, mastiffs; the Terrier group; the Toy group, including Chihuahuas, Toy Spaniels, Papillons, Pekingese, Pomeranians, Yorkshires; Non-sporting group—Boston Terriers, bulldogs, Chow Chows, Dalmatians, Keeshonden, Poodles, etc. In all, 115 different breeds are recognized and shown in the United States.

Poodles remained the No. 1 breed in the United States for the eighth straight year according to 1967 pure-bred registration figures released in 1968 by the American Kennel Club. A record 885,800 individual dogs were registered, an increase of 10.1% over the previous year.

WESTMINSTER KENNEL CLUB

Madison Square Garden, New York, N. Y.

Year	Best-in-show	Breed	Owner
1956...	Ch. Wilber White Swan.....	Toy poodle.....	Mrs. Bertha Smith
1957...	Ch. Shirkhan of Grandeur.....	Afghan hound.....	Sunny Shay & Dorothy Chenade
1958...	Ch. Puttercove Promise.....	Standard poodle.....	Mr. & Mrs. George Putnam
1959...	Ch. Fontclair Festoon.....	Miniature poodle.....	Clarence Dillon
1960...	Ch. Chik T'Sun of Caversham.....	Pekingese.....	Mr. and Mrs. C. C. Venable
1961...	Ch. Cappelquin Little Sister.....	Toy poodle.....	Florence Michelson
1962...	Ch. Elfinbrook Simon.....	West Highland terrier.....	Florence and Barbara Worcester
1963...	Ch. Wakefield's Black Knight.....	English springer spaniel.....	Mrs. W. J. S. Borie
1964...	Ch. Courtenay Fleetfoot.....	Whippet.....	Mrs. Margaret P. Newcombe
1965...	Ch. Carmichael's Fanfare.....	Scottish terrier.....	Mr. and Mrs. Charles C. Stalter
1966...	Ch. Zelay Mooremaides Magic.....	Wire Fox terrier.....	Marion G. Bunker
1967...	Ch. Bardene Bingo.....	Scottish terrier.....	E. H. Stuart
1968...	Ch. Stingray of Derryabah.....	Lakeland terrier.....	Mr. and Mrs. James A. Farrell, Jr.

Tour de France Bicycle Race

Jan Janssen of the Netherlands won the 1968 Tour de France bicycle race by only a 38-second margin in the 2,937.5-mile event which covered 25 days, ending July 21. The victor's over-all time was 133 hrs., 49 min., 42 sec. Herman Van Springel of Belgium finished second.

18th Chess Olympiad

The Soviet Union won the Hamilton Russell trophy at the 18th Chess Olympiad in Lugano, Switzerland, on Nov. 7, 1968. Yugoslavia finished second, followed by Bulgaria, United States and West Germany. The International Team Tournament championship was the 9th straight victory for the Russians.

Polo Records

UNITED STATES POLO RECORDS

National Open Tournament

1958 Dallas Circle F 7, Solocup 5	1962 Milwaukee 8, Santa Barbara 7
1959 Dallas Circle F 8, Aurora (Buffalo) 7	1963 Oak Brook 10, Tulsa 7
1960 Oak Brook CCC 8, Royal Palm 5	1964 Oak Brook 8, Tulsa 5
1961 Milwaukee 13, Beaver Ridge Farm (Detroit, Mich.) 9	1965 Santa Barbara-Oak Brook 7, Milwaukee 2
1962 Santa Barbara 8, Royal Palm 7	1966 Sunny Climes 9, Oak Brook 7
1963 Tulsa 7, Oakland (Calif.) Crescents 6	1967 Milwaukee 11, Keswick-Blue Ridge 7
1964 Oak Brook 10, Solo Cup Crescents 9	1968 Oak Brook 12, Keswick Sunny Climes 9
1965 Oak Brook 11, Bunn Tyco Chicago 5	
1966 Tulsa 10, Fountain Grove 5	
1967 Bunntyco-Oakbrook 8, Milwaukee 2	
1968 Midland 9, Milwaukee 0	

National 20-Goal Tournament

1958 Meadow Brook 9, Aiken 7
1959 Dallas Circle F 11, Meadow Brook 5
1960 Royal Palm 6, Circle F 4
1961 Royal Palm 9, Milwaukee 4

Intercollegiate Championship

1958 Cornell 22, Yale 4
1959 Cornell 14, Virginia 5
1960 Yale 11, Cornell 6
1961 Cornell 10, Yale 4
1962 Cornell 14, Yale 5
1963 Cornell 11, Yale 4
1964 Yale 12, Cornell 9
1965 Yale 12, Cornell 3
1966 Cornell 12, Yale 10
1967 Yale 12, Cornell 11
1968 Yale 17, Cornell 13

OTHER POLO TOURNAMENTS IN 1968

- National 16-Goal Tournament—Milwaukee 11, Midland 8.
- National Inter-Circuit Tournament—Midland 7, Keswick Sunny Climes 3.
- National 12-Goal Tournament—Midland 7, Keswick Sunny Climes 3.

National AAU Handball Championships

Billy Yambrick, St. Paul, Minn., won the 1968 AAU 4 wall handball singles championship in a competition held in New York City. Rudy and Oscar Obert from the New York AC were the doubles champions. Bob Brady and Bob McGuire, San Francisco, Calif., won the masters doubles.

Bobsled Championships in 1968

Lake Placid, N. Y., Jan. 28-Mar. 3, 1968

Two-Man North American Championships—Malone Bobsled Club (Charles McDonald and John Handy). Time—5:05.92.	Two-Man National AAU Championships—U. S. Air Force Bobsled Team (Gary Sheffield, Howard Siler). Time—4:40.71.
Four-Man North American Championships—U. S. Air Force Bobsled Team (Lester Fenner, Al Lowe, Allan Hachigian, John DeZalla). Time—4:40.22.	Four-Man National AAU Championships—U. S. Air Force Bobsled Team (Fenner, DeZalla, Lowe, Hachigian). Time—4:33.26.

Grey Cup Symbolizes Canadian Pro Football Championship

The Grey Cup, donated by Governor-General Earl Grey in 1909, is symbolic of the championship of the Canadian Football League. Each year the winners of the league's Western and Eastern divisions meet to contest for the coveted cup in one of Canada's top professional sports events.

1968 Olympic Games

Mexico City, Oct. 12-27, 1968

Competing in the games of the 19th modern Olympiad, held in Mexico City Oct. 12-27, 1968, were 7,226 athletes from 119 nations. Although it had been feared that the high altitude of Mexico City would have an adverse effect on the athletes, the performances were generally superior and the breaking of world and Olympic records became almost commonplace. The United States won the unofficial team title by taking 107 medals; the Soviet Union won 91. The medal totals by nations and results of major events follow:

	Gold	Silver	Bronze	Total
United States	45	28	34	107
Soviet Union	29	31	31	91
Hungary	10	10	12	32
East Germany	9	9	7	25
Japan	11	7	7	25
West Germany	5	10	10	25
Poland	5	2	11	18
Australia	5	7	5	17
Italy	3	4	9	16
Rumania	4	6	5	15
France	7	3	5	15
Czechoslovakia	7	2	4	13
Britain	5	5	3	13
Bulgaria	2	4	3	9
Kenya	3	4	2	9
Mexico	3	3	3	9
Denmark	1	4	3	8
Yugoslavia	3	3	2	8
Netherlands	3	3	1	7
Iran	2	1	2	5
Switzerland	0	5	4	9
Canada	1	3	1	5
Austria	0	2	2	4

	Gold	Silver	Bronze	Total
Cuba	0	4	0	4
Finland	1	2	1	4
Mongolia	0	1	3	4
Sweden	2	1	1	4
Brazil	0	1	2	3
New Zealand	1	0	2	3
Argentina	0	0	2	2
Belgium	0	1	1	2
Norway	1	1	0	2
Ethiopia	1	1	0	2
South Korea	0	1	1	2
Tunisia	1	0	1	2
Turkey	2	0	0	2
Uganda	0	1	1	2
Cameroon	0	1	0	1
Greece	0	0	1	1
India	0	0	1	1
Jamaica	0	1	0	1
Pakistan	1	0	0	1
Taiwan	0	0	1	1
Venezuela	1	0	0	1

Silver medal in team pursuit cycling is pending.

TRACK AND FIELD—MEN

100 Meters—1, Jim Hines, United States; 2, Lennox Miller, Jamaica; 3, Charlie Greene, United States. Time—0:09.9 (world record).

200 Meters—1, Tommie Smith, United States; 2, Peter Norman, Australia; 3, John Carlos, United States. Time—0:19.8 (world record).

400 Meters—1, Lee Evans, United States; 2, Larry James, United States; 3, Ron Freeman, United States. Time—0:43.8 (world record).

800 Meters—1, Ralph Doubell, Australia; 2, Wilson Kiprugut, Kenya; 3, Tom Farrell, United States. Time—1:44.3 (ties world record).

1,500 Meters—1, Kipchoge Keino, Kenya; 2, Jim Ryun, United States; 3, Bobo Tummier, W. Germany. Time—3:34.9 (Olympic record).

5,000 Meters—1, Mohammed Gammoudi, Tunisia; 2, Kipchoge Keino, Kenya; 3, Naftali Temu, Kenya. Time—14:05.0.

10,000 meters—1, Naftali Temu, Kenya; 2, Mamo Wolde, Ethiopia; 3, Mohammed Gammoudi, Tunisia. Time—29:27.4.

3,000 Meter Steeplechase—1, Amos Biwatt, Kenya; 2, Benjamin Kogo, Kenya; 3, George Young, United States. Time—8:51.0.

Marathon—1, Mamo Wolde, Ethiopia; 2, Kenji Kimihara, Japan; 3, Mike Ryan, New Zealand. Time—2:20:26.4.

20-Km. Walk—Vladimir Golubnichiy, USSR; 2, Jose Pedraza, Mexico; 3, Nicolai Smago, USSR. Time—1:35:58.4.

50-Km. Walk—1, Christoph Hohne, E. Germany; 2, Antal Kiss, Hungary; 3, Larry Young, United States. Time—4:20:13.6.

110 Meter Hurdles—1, Willie Davenport, United States; 2, Ervin Hall, United States; 3, Eddy Ottoz, Italy. Time—0:13.3 (Olympic record).

400 Meter Hurdles—1, Dave Hemery, Great Britain; 2, Gerhard Hennige, W. Germany; 3, John Sherwood, Great Britain. Time—0:48.1 (world record).

400 Meter Relay—1, United States (Greene, Pender, R. Smith, Hines); 2, Cuba; 3, France. Time—0:38.2 (world record).

1,600 Meter Relay—1, United States (Matthews, Freeman, James, Evans); 2, Kenya; 3, W. Germany. Time—2:56.1 (world record).

High Jump—1, Dick Fosbury, United States; 2, Ed Caruthers, United States; 3, Valentin Gavrilov, USSR. 7 ft. 4½ in. (Olympic record).

Long Jump—1, Bob Beamon, United States; 2, Klaus Beer, E. Germany; 3, Ralph Boston, United States. 29 ft. 2½ in. (world record).

Pole Vault—1, Bob Seagren, United States; 2, Claus Schiprowski, W. Germany; 3, Wolfgang Nordwig, E. Germany. 17 ft. 8½ in. (world record).

Hammer Throw—1, Gyula Zsivotsky, Hungary; 2, Rimuald Klim, USSR; 3, Lazar Lovasz, Hungary. 240 ft. 8 in. (Olympic record).

Discus—1, Al Oerter, United States; 2, Luther Milde, E. Germany; 3, Ludvik Danek, Czech. 212 ft. 6½ in. (Olympic record).

Triple Jump—1, Victor Saneev, USSR; 2, Nelson Prudencio, Brazil; 3, Giuseppe Gentile, Italy. 57 ft. ¾ in. (world record).

Shot Put—1, Randy Matson, United States; 2,

George Woods, United States; 3, Eduard Guschin, USSR. 67 ft. 4¾ in. (Olympic record).

Javelin—1, Yannis Lussis, USSR; 2, Jorma Kinnunen, Finland; 3, Gergely Kulcsar, Hungary. 295 ft. 7¼ in. (Olympic record).

Decathlon—1, Bill Toomey, United States; 2, Hans Walde, W. Germany; 3, Kurt Bendlin, W. Germany. 8,193 Pts.

TRACK AND FIELD—WOMEN

100 Meters—Wycmia Tyus, United States; 2, Barbara Ferrell, United States; 3, Irena Szwinska, Poland. Time—0:11.0 (world record).

200 Meters—1, Irena Szwinska, Poland; 2, Raeline Boyle, Australia; 3, Jennifer Lamy, Australia. Time—0:22.5 (world record).

400 Meters—1, Colette Besson, France; 2, Lillian Board, Great Britain; 3, Natalia Pechenkina, USSR. Time—0:52.0 (ties Olympic record).

800 Meters—1, Madeline Manning, United States; 2, Iona Silai, Romania; 3, Maria Gommers, Netherlands. Time—2:00.9.

80 Meter Hurdles—1, Maureen Caird, Australia; 2, Pam Kilborn, Australia; 3, Chi Cheng, Taiwan. Time—0:10.3 (ties world record).

400 Meter Relay—1, United States (Ferrell, Balles, Netter, Tyus); 2, Cuba; 3, USSR. Time—0:42.8 (world record).

High Jump—1, Miloslava Kezkova, Czech; 2, Antonina Okorokova, USSR; 3, Valentina Kozyr, USSR. 5 ft. 11¾ in.

Long Jump—1, Viorica Viscopoleanu, Romania; 2, Sheila Sherwood, Great Britain; 3, Tatiana Talysheva, USSR. 22 ft. 4½ in. (world record).

Shot Put—1, Margarita Gummel, E. Germany; 2, Marita Lange, E. Germany; 3, Nadezhda Chizhova, USSR. 64 ft. 4 in. (world record).

Discus—1, Lia Manolitu, Romania; 2, Kiesel Westerman, W. Germany; 3, Kleiber Konstek, Hungary. 191 ft. 2½ in. (Olympic record).

Javelin—1, Angela Nemeth, Hungary; 2, Mihaela Penes, Romania; 3, Eva Jenko, Austria. 198 ft. ¾ in.

Pentathlon—1, Ingrid Becker, W. Germany; 2, Liese Prokop, Austria; 3, Anna Toth Kovacs, Hungary. 5,098 Pts.

SWIMMING—MEN

100 Meter Freestyle—1, Mike Wenden, Australia; 2, Ken Walsh, United States; 3, Mark Spitz, United States. Time—0:52.2 (world record).

200 Meter Freestyle—1, Mike Wenden, Australia; 2, Don Schollander, United States; 3, John Nelson, United States. Time—1:55.2 (Olympic record).

400 Meter Freestyle—1, Mike Burton, United States; 2, Ralph Hutton, Canada; 3, Alain Mosconi, France. Time—4:09.0 (Olympic record).

1,500 Meter Freestyle—1, Mike Burton, United States; 2, J. Kinsella, United States; 3, G. Brough, Australia. Time—16:38.9 (Olympic record).

100 Meter Breaststroke—1, Don McKenzie, United States; 2, Cladimir Kosinsky, USSR; 3, Fankin, USSR. Time—1:07.7 (Olympic record).

200 Meter Breaststroke—1, Felipe Munoz, Mexico; 2, Cladimir Kosinsky, USSR; 3, Brian Job, United States. Time—2:28.7.

100 Meter Butterfly—1, Doug Russell, United

Beamon's Record-Breaking Jump Is Sensation of Olympics

Of the many record-breaking performances in the 1968 Olympics at Mexico City the most phenomenal, in the eyes of most experts, was the long jump of 29 ft. 2½ inches by Bob Beamon. Beamon's leap, made on his first attempt in the finals, shattered the world record of 27 ft. 4¾ inches. Klaus Beer of East Germany took second with 26 ft. 10½ inches and world record holder Ralph Boston of the U. S. finished third with 26 ft. 9¼ inches. All 3 bettered the Olympic record of 26 ft. 7¼ inches held by Boston.

The fact that Beamon's prodigious leap exceeded

the world record by nearly two feet seemed incredible in view of the history of the long jump mark. Jesse Owens' world record of 26 ft. 8¾ inches had stood for 25 years when Boston broke it in 1960. The USSR's Igor Ter-Ovanesyan topped that in 1962, Boston set the record at 27 ft. 4¾ inches in 1965, and Ter-Ovanesyan equalled that unofficially in 1967. But Boston and Ter-Ovanesyan had increased the world mark by only 8½ inches in 8 years of effort until Beamon came along. Beamon, 22, from Jamaica, Queens, in New York City, attends the University of Texas at El Paso.

SWIMMING—MEN Cont'd

States; 2, Mark Spitz, United States; 3, Ross Wales, United States. Time—0:55.9 (Olympic record).

200 Meter Butterfly—1, Carl Robbie, United States; 2, Martyn Woodroffe, Great Britain; 3, John Ferris, United States. Time—2:08.7.

100 Meter Backstroke—1, Roland Matthes, E. Germany; 2, Charles Hickox, United States; 3, Ron Mills, United States. Time—0:58.7 (Olympic record).

200 Meter Backstroke—1, Roland Matthes, E. Germany; 2, Mitchell Ivey, United States; 3, Jack Horsley, United States. Time—2:09.6 (Olympic record).

200 Meter Individual Medley—1, Charles Hickox, United States; 2, Greg Buckingham, United States; 3, John Ferris, United States. Time—2:12.0 (Olympic record).

400 Meter Individual Medley—1, Charles Hickox, United States; 2, Gary Hall, United States; 3, Michael Holthaus, W. Germany. Time—4:48.4.

400 Meter Freestyle Relay—United States (Spitz, Zorn, Reyrech, Walsh); 2, USSR; 3, Australia. Time—3:31.7 (world record).

800 Meter Freestyle Relay—1, United States (Nelson, Reryck, Spitz, Schollander); 2, Australia; 3, USSR. Time—7:52.3.

400 Meter Medley Relay—1, United States (Hickox, Russell, McKenna, Walsh); 2, East Germany; 3, USSR. Time—3:54.9 (world record).

Springboard Diving—1, Bernard Wrightson, United States; 2, Klaus DiBlasi, Italy; 3, James Henry, United States. 70.15 points.

Platform Diving—1, DiBlasi, Italy; 2, Gaxiola, Mexico; 3, Young, United States.

SWIMMING—WOMEN

100 Meter Freestyle—1, Jan Henne, United States; 2, Sue Pedersen, United States; 3, Linda Gustavson, United States. Time—1:00.0.

200 Meter Freestyle—Debbie Meyer, United States; 2, Jan Henne, United States; 3, Jane Barkman, United States. Time—2:10.5 (Olympic record).

400 Meter Freestyle—1, Debbie Meyer, United States; 2, Linda Gustavson, United States; 3, Karen Moras, Australia. Time—4:31.8 (Olympic record).

800 Meter Freestyle—1, Debbie Meyer, United States; 2, Pam Kruse, United States; 3, Maria Ramirez, Mexico. Time—9:24.0 (Olympic record).

100 Meter Breaststroke—1, Djurdjica Bledov, Yugoslavia; 2, Galina Prozumenshikova, USSR; 3, Sharon Wichman. Time—1:15.8 (Olympic record).

200 Meter Breaststroke—1, Sharon Wichman, United States; 2, Djurdjica Bledov, Yugoslavia; 3, Galina Prozumenshikova, USSR. Time—2:44.4 (Olympic record).

100 Meter Butterfly—1, Lynette McClements, Australia; 2, Ellie Daniel, United States; 3, Susie Shields, United States. Time—1:05.5.

200 Meter Butterfly—1, Ada Kok, Netherlands; 2, Helga Lindner, E. Germany; 3, Ellie Daniel, United States. Time—2:24.7 (Olympic record).

100 Meter Backstroke—1, Kaye Hall, United States; 2, Elaine Tanner, Canada; 3, Jane Swagerty, United States. Time—1:06.2 (world record).

200 Meter Backstroke—1, Pokey Watson, United States; 2, Elaine Tanner, Canada; 3, Kaye Hall, United States. Time—2:24.8 (Olympic record).

200 Meter Individual Medley—1, Claudia Kolb, United States; Susan Pedersen, United States; Jan Henne, United States. Time—2:24.7 (Olympic record).

400 Meter Individual Medley—1, Claudia Kolb, United States; 2, Lynn Vidali, United States; 3, Sabine Steinbach, E. Germany. Time—5:08.5 (Olympic record).

400 Meter Freestyle Relay—United States (Barkman, Gustavson, Pedersen, Henne); 2, East Germany; 3, Canada. Time—4:02.5 (Olympic record).

400 Meter Medley Relay—1, United States (Hall, Daniel, Ball, Pedersen); 2, Australia; 3, W. Germany. Time—4:28.3 (world record).

Spring Board Diving—1, Sue Gossick, United States; 2, Tamara Pogozheva, USSR; 3, Keala O'Sullivan, United States. 150.77 points.

Platform Dive—1, Duchkova, Czech.; 2, Lobanova, USSR; 3, Peterson, United States.

BASKETBALL

Final Standings—1, United States; 2, Yugoslavia; 3, USSR.

BOXING

Bantamweight—Valery Sokolov, USSR. Light Flyweight—Francisco Rodriguez, Venezuela.

Flyweight—Ricardo Delgado, Mexico. Featherweight—Antonio Roldan, Mexico.

Lightweight—Ronnie Harris, United States. Light Welterweight—Jerzy Kulel, Poland.

Welterweight—Manfred Wolke, East Germany. Light Middleweight—Boris Lagutin, USSR.

Middleweight—Christopher Finnegan, Britain. Light Heavyweight—Dan Fodniak, USSR.

Heavyweight—George Foreman, United States.

CANOEING

Kayak Singles—Mihaly Hesz, Hungary. Time—4:02.63.

Kayak Pairs—USSR (Shaparenko, Morozov). Time—3:37.54.

Kayak Fours—Norway (Amundsen, Soby, Berger, Johansen).

Canadian Singles—Tibor Tatai, Hungary. Time—4:36.14.

Canadian Doubles—Romania (Pataichim, Covailov). Time—4:07.18.

Women's Kayak Singles—Ludmila Pinaeva, USSR. Time—2:11.09.

Women's Kayak Doubles—West Germany (Zimmerman, Esser). Time—1:56.44.

CYCLING

Road Race (121¼ Miles)—Plefranco Vianelli, Italy.

100 Km. Road Race—Netherlands.

4 Man Team Sprint—Denmark.

Tandem Sprint—France.

1,000 Meter Time Trial—Pierre Trentin, France.

Scratch Sprint—Daniel Morelon, France.

4,000 Meter Individual Pursuit—Daniel Rebillard, France.

EQUESTRIAN

Jumping—William Steinkraus, United States.

Three-day Event—Jean Jacques Guyon, France.

Dressage—Ivan Kizimov, USSR.

Dressage Team—W. Germany.

Team Three-day Event—Great Britain.

Grand Prix Team Jumping—Canada.

FENCING

Fall—Ion Drimba, Romania.

Saber—Jerzy Pawlowski, Poland.

Epee—Gyozo Kulcsar, Hungary.

Women's Foil—Elene Novikova, USSR.

Team Foil—France.

Team Saber—USSR.

Team Epee—Hungary.

Women's Team Foil—USSR.

FIELD HOCKEY

Final Standings—1, Pakistan; 2, Australia; 3, India.

GYMNASTICS—MEN

All-Around—Sawato Kato, Japan.

Floor Exercise—Sawato Kato, Japan.

Pommel Horse—Miroslav Cerar, Yugoslavia.

Rings—Akinori Nakayama, Japan.

Long Horse—Mikhail Voronin, USSR.

Parallel Bars—Akinori Nakayama, Japan.

Horizontal Bar—(tie) Mikhail Voronin, USSR; and Akinori Nakayama, Japan.

Team—Japan.

GYMNASTICS—WOMEN

All-Around—Vera Caslavskaya, Czech.

Long Horse Vault—Vera Caslavskaya, Czech.

Uneven Parallel Bars—Vera Caslavskaya, Czech.

Balance Beam—Natalia Kuchinskaya, USSR.

Floor Exercise—(tie) Vera Caslavskaya, Czech; and Larissa Petrik, USSR.

Team—USSR.

MODERN PENTATHLON

Individual—Bjoern Ferm, Sweden.

Team—Hungary.

ROWING

Coxed Fours—New Zealand.
Coxless Pairs—East Germany.
Eights—West Germany.
Single Sculls—Jan Wienese, Netherlands.
Double Sculls—USSR.
Coxed Pair—Italy.
Coxless Fours—East Germany.

SHOOTING

Small Bore Rifle (Prone)—Jan Kurka, Czech.
Free Pistol—Grigory Kosykh, USSR.
Trapshooting—Robert Braithwaite, Great Britain.
Skeetshooting—Evgeny Petrov, USSR.
Small Bore Rifle (3 P. sitions)—Bernard Klinger, West Germany.
Free Rifle—Gary Anderson, United States.
Rapid Fire Pistol—Josef Zapedzki, Poland.

SOCCER

Final Standings—1, Hungary; 2, Bulgaria; 3, Japan.

VOLLEYBALL

Men's Final Standings—1, USSR; 2, Japan; 3, Czech.
Women's Final Standings—1, USSR; 2, Japan; 3, Poland.

WATER POLO

Final Standings—1, Yugoslavia; 2, USSR; 3, Hungary.

WEIGHTLIFTING

Bantamweight—Mohammed Nassiri, Iran, 809½.
Featherweight—Yosinobu Miyake, Japan, 865.
Lightweight—Waldemar Baszanowski, Poland, 964½.

Middleweight—Victor Kurentsov, USSR, 1,046¾.
Light Heavyweight—Boris Seltitsky, USSR, 1,068¾.
Middle Heavyweight—Kearlo Kangasniemi, Finland, 1,140½.
Heavyweight—Leonid Zhabotinsky, USSR, 1,262.

WRESTLING

Free-Style

Flyweight—Shigeo Nakata, Japan.
Bantamweight—Yojiro Uetake, Japan.
Featherweight—Masaaki Kanedo, Japan.
Lightweight—Abdollah Movahed, Iran.
Welterweight—Mahmud Atalay, Turkey.
Middleweight—Boris Gurevich, USSR.
Light Heavyweight—Ahmet Ayuk, Turkey.
Heavyweight—Aleksandr Medved, USSR.

Greco-Roman

Bantamweight—Jaros Varga, Hungary.
Flyweight—Peter Kirov, Bulgaria.
Featherweight—Roman Rurua, USSR.
Lightweight—Muneji Munemura, Japan.
Welterweight—Rudolph Vesper, East Germany.
Middleweight—Lothar Metz, East Germany.
Light Heavyweight—Boyan Radev, Bulgaria.
Heavyweight—Istvan Kozma, Hungary.

YACHTING

5.5 Meter Class—Sweden.

Finn—USSR.

Dragon—United States.

Star—United States.

Flying Dutchman—Great Britain.

Olympic Games Champions 1896—1968

TRACK AND FIELD—MEN

60-Meters Run	
1900 Alvin Kraenzlein, United States	7s
1904 Archie Hahn, United States	7s
100-Meters Run	
1896 Thomas Burke, United States	12s
1900 F. W. Jarvis, United States	10 4-5s
1904 Archie Hahn, United States	11s
1906 Archie Hahn, United States	11 1-5s
1908 Reginald Walker, South Africa	10 4-5s
1912 Ralph Craig, United States	10 4-5s
1920 Charles Paddock, U. S.	10 4-5s
1924 Harold Abrahams, Great Britain	10 6-6s
1928 Percy Williams, Canada	10 4-5s
1932 Eddie Tolan, United States	10 3-5s
1936 Jesse Owens, United States	10 3-5s
1948 Harrison Dillard, United States	10 3-5s
1952 Lindy Remigino, United States	10 4-5s
1956 Bobby Morrow, United States	10 5-5s
1960 Armin Hary, Germany	10 2-5s
1964 Bob Hayes, United States	10 0-5s
1968 Jim Hines, United States	9 9-5s
200-Meters Run	
1900 J. W. B. Tewksbury, United States	22 1-5s
1904 Archie Hahn, United States	21 3-5s
1908 Robert Kerr, Canada	22 2-5s
1912 Ralph Craig, United States	21 7-5s
1920 Allan Woodring, United States	22s
1924 Jackson Scholz, United States	21 6-5s
1928 Percy Williams, Canada	21 4-5s
1932 Eddie Tolan, United States	21 2-5s
1936 Jesse Owens, United States	20 7-5s
1948 Mel Patton, United States	20 7-5s
1952 Andrew Stanfield, United States	20 7-5s
1956 Bobby Morrow, United States	20 6-5s
1960 Livio Berruti, Italy	20 5-5s
1964 Henry Carr, United States	20 3-5s
1968 Tommie Smith, United States	19 8-5s
400-Meters Run	
1896 Thomas Burke, United States	54 1-5s
1900 Maxey Long, United States	49 2-5s
1904 Harry Hillman, United States	49 1-5s
1906 Paul Pilgrim, United States	53 1-5s
1908 Wyndham Halswelle, Great Britain, walkover	50s
1912 Charles Reidpath, United States	48 2-5s
1920 Bevil Rudd, South Africa	49 3-5s
1924 Eric Liddell, Great Britain	47 6-5s
1928 Ray Barbuti, United States	47 4-5s
1932 William Carr, United States	46 2-5s
1936 Archie Williams, United States	46 5-5s
1948 Arthur Wint, Jamaica, B.W.I.	46 2-5s
1952 George Rhoden, Jamaica, B.W.I.	45 9-5s
1956 Charles Jenkins, United States	46 7-5s
1960 Otis Davis, United States	44 9-5s
1964 Michael Larrabee, United States	45 1-5s
1968 Lee Evans, United States	43 8-5s
800-Meters Run	
1896 Edwin Flack, Great Britain	2m. 11s
1900 Alfred Tysoe, Great Britain	2m. 1 2-5s
1904 James Lightbody, United States	1m. 56s
1906 Paul Pilgrim, United States	2m. 1 1-5s
1908 Mel Sheppard, United States	1m. 52 4-5s
1912 James Meredith, United States	1m. 51 9-5s
1920 Albert Hill, Great Britain	1m. 53 2-5s
1924 Douglas Lowe, Great Britain	1m. 52 4-5s
1928 Douglas Lowe, Great Britain	1m. 51 4-5s
1932 Thomas Hampson, Great Britain	1m. 49 8-5s
1936 John Woodruff, United States	1m. 52 9-5s
1948 Mal Whitfield, United States	1m. 49 2-5s
1952 Mal Whitfield, United States	1m. 49 2-5s
1956 Thomas Courtney, United States	1m. 47 7-5s
1960 Peter Snell, New Zealand	1m. 46 3-5s
1964 Peter Snell, New Zealand	1m. 45 1-5s
1968 Ralph Doubell, Australia	1m. 44 3-5s
1,500-Meters Run	
1896 Edwin Flack, Great Britain	4m. 33 1-5s
1900 Charles Bennett, Great Britain	4m. 6s
1904 James Lightbody, United States	4m. 5 2-5s
1906 James Lightbody, United States	4m. 12s
1908 Mel Sheppard, United States	4m. 3 2-5s
1912 Arnold Jackson, Great Britain	4m. 36 8-5s
1920 Albert Hill, Great Britain	4m. 1 4-5s
1924 Paavo Nurmi, Finland	3m. 53 6-5s
1928 Harry Larva, Finland	3m. 53 1-5s
1932 Luigi Beccali, Italy	3m. 51 2-5s
1936 Jack Lovelock, New Zealand	3m. 47 8-5s
1948 Henri Eriksson, Sweden	3m. 49 8-5s
1952 Joseph Barthel, Luxembourg	3m. 45 2-5s
1956 Ron Delany, Ireland	3m. 41 2-5s
1960 Herb Elliott, Australia	3m. 35 6-5s
1964 Peter Snell, New Zealand	3m. 38 1-5s
1968 Kipchoge Keino, Kenya	3m. 34 9-5s
3,000-Meters Steeplechase	
1920 Percy Hodge, Great Britain	10m. 2 2-5s
1924 Willie Ritola, Finland	9m. 33 6-5s
1928 Toivo Loukola, Finland	9m. 21 4-5s
1932 Volnar Iso-Hollo, Finland	10m. 33 4-5s
(About 3450 mtrs. extra lap by error)	
1936 Volnar Iso-Hollo, Finland	9m. 3 8-5s
1948 Thore Sjostrand, Sweden	9m. 4 6-5s
1952 Horace Aschenfelder, United States	8m. 45 4-5s
1956 Chris Brasher, Great Britain	8m. 42 2-5s
1960 Zdzislaw Kryszkowiak, Poland	8m. 34 2-5s
1964 Gaston Roelants, Belgium	8m. 30 8-5s
1968 Asmo Blivot, Kenya	8m. 51s
5,000-Meters Run	
1912 Hannes Kolehmainen, Finland	14m. 36 6-5s
1920 Joseph Guillemot, France	14m. 55 3-5s
1924 Paavo Nurmi, Finland	14m. 31 2-5s
1928 Willie Ritola, Finland	14m. 38s
1932 Lauri Lehtinen, Finland	14m. 30s
1936 Gunnar Hooker, Finland	14m. 22 2-5s
1948 Gaston Reiff, Belgium	14m. 17 6-5s
1952 Emil Zatopek, Czechoslovakia	14m. 6 0-5s
1956 Vladimir Kuts, USSR	13m. 39 6-5s
1960 Murray Halberg, New Zealand	13m. 43 4-5s
1964 Bob Schul, United States	13m. 48 8-5s
1968 Mohamed Gammoudi, Tunisia	14m. 05 0-5s
Cross-Country	
1912 Hannes Kolehmainen, Finland	43m. 11 6-5s
5-Mile Run	
1906 H. Hawtrey, Great Britain	26m. 26 3-5s
1908 Emil Voigt, Great Britain	25m. 11 1-5s
10,000-Meters Run	
1912 Hannes Kolehmainen, Finland	31m. 20 8-5s
1920 Paavo Nurmi, Finland	31m. 45 8-5s
1924 Willie Ritola, Finland	30m. 23 2-5s

1928 Paavo Nurmi, Finland	30m. 18 4-5s
1932 Janusz Kusocinski, Poland	30m. 11.4s
1936 Ilmar Salminen, Finland	30m. 15.4s
1948 Emil Zatopek, Czechoslovakia	29m. 59.6s
1952 Emil Zatopek, Czechoslovakia	29m. 17.0s
1956 Vladimir Kuts, USSR	28m. 45.6s
1960 Pyotr Bolotnikov, USSR	28m. 32.2s
1964 Billy Mills, United States	28m. 24.4s
1968 Naftali Temu, Kenya	29m. 27.4s

Marathon

1896 Spyros Loues, Greece	2h. 55m. 20s
1900 Michel Teato, France	2h. 59m
1904 Thomas Hicks, United States	3h. 28m. 53s
1906 W. J. Sherring, Canada	2h. 51m. 23 3-5s
1908 John J. Hayes, United States	2h. 55m. 18.4s
1912 Kenneth McArthur, South Africa	2h. 36m. 54.8s

1920 Hannes Kolehmainen, Finland	2h. 32m. 35.4-5s
1924 Albin Stenroos, Finland	2h. 41m. 22.6s
1928 El Ouaï, France	2h. 32m. 57s
1932 Kian Zolala, Argentina	2h. 31m. 38s
1936 Kitei Son, Japan	2h. 29m. 19.2s
1948 Delfo Cabaera, Argentina	2h. 34m. 51.6s
1952 Emil Zatopek, Czechoslovakia	2h. 23m. 03.2s
1956 Alain Mimoun, France	2h. 25m.

1960 Abebe Bikila, Ethiopia	2h. 15m. 15.2s
1964 Abebe Bikila, Ethiopia	2h. 12m. 11.2s
1968 Mamo Wolde, Ethiopia	2h. 20m. 26.4s

10,000-Meters Cross-Country

1920 Paavo Nurmi, Finland	27m. 15s
1924 Paavo Nurmi, Finland	32m. 54.8s

1,500-Meters Walk

1906 George V Bonhag, United States	7m. 12 3-5s
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3,000-Meters Walk

1920 Ugo Frigerio, Italy	13m. 14 1-5s
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3,500-Meters Walk

1908 George Larnar, Great Britain	14m. 55s
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10,000-Meters Walk

1912 George Goulding, Canada	46m. 28.4s
1920 Ugo Frigerio, Italy	48m. 6 1-5s
1924 Ugo Frigerio, Italy	47m. 49s
1948 John Mikaelsson, Sweden	45m. 13.2s
1952 John Mikaelsson, Sweden	45m. 02.8s

20,000-Meters Walk

1956 Leonid Spirine, USSR	1h. 31m. 27.4s
1960 Vladimir Golubnichy, USSR	1h. 34m. 7.2s
1964 Kenneth Mathews, Great Britain	1h. 29m. 34.0s
1968 Vladimir Golubnichy, USSR	1h. 35m. 58.4s

50,000 Meters Walk

1932 Thos. W. Green, Great Britain	4h. 50m. 10s
1936 Harold Whitlock, Great Britain	4h. 30m. 41.4s
1948 John Lundgren, Sweden	4h. 41m. 52s
1952 Giuseppe Bordoni, Italy	4h. 28m. 07.8s
1956 Norman Read, New Zealand	4h. 30m. 42.8s
1960 Donald Thompson, Great Britain	4h. 25m. 30s
1964 Abdon Pamich, Italy	4h. 11m. 11.2s
1968 Christoph Hohne, E. Germany	4h. 20m. 13.6s

110-Meters Hurdles

1896 Thomas Curtis, United States	17 3-5s
1900 Alvin Kraenzlein, United States	15 2-5s
1904 Frederick Schulz, United States	16s
1906 F. G. Leavitt, United States	16 1-5s
1908 Forrest Smithson, United States	15s
1912 Frederick Kelly, United States	15 1-5s
1920 Earl Thomson, Canada	14 4-5s
1924 Daniel Kinsey, United States	15s
1928 Sydney Atkinson, South Africa	14.8s
1932 George Saling, United States	14.6s
1936 Forrest Towns, United States	14.2s
1948 William Porter, United States	13.9s
1952 Harrison Dillard, United States	13.7s
1956 Lee Calhoun, United States	13.5s
1960 Lee Calhoun, United States	13.8s
1964 Hayes Jones, United States	13.6s
1968 Willie Davenport, United States	13.3s

200-Meters Hurdles

1900 Alvin Kraenzlein, United States	25 2-5s
1904 Harry Hillman, United States	24 3-5s

400-Meters Hurdles

1900 J. W. B. Tewksbury, United States	57 3-5s
1904 Harry Hillman, United States	53s
1908 Charles Bacon, United States	55s
1920 Frank Loomis, United States	54s
1924 F. Morgan Taylor, United States	52.6s
1928 Lord Burghley, Great Britain	53 2-5s
1932 Robert Tisdall, Ireland	51.8s
1936 Glenn Hardin, United States	52.4s
1948 Roy Cochran, United States	51.1s
1952 Charles Moore, United States	50.8s
1956 Glenn Davis, United States	50.1s
1960 Glenn Davis, United States	49.3s
1964 Rex Cawley, United States	49.6s
1968 Dave Hemery, Great Britain	48.1s

Standing High Jump

1900 Ray Ewry, United States	5ft. 5in
1904 Ray Ewry, United States	4ft. 11in
1906 Ray Ewry, United States	5ft. 1 5-8in
1908 Ray Ewry, United States	5ft. 2in
1912 Piatt Adams, United States	5ft. 4 1-4in

Running High Jump

1896 Ellery Clark, United States	5ft. 11 1-4in
1900 Irving Baxter, United States	6ft. 2 4-8in
1904 Samuel Jones, United States	5ft. 11in
1906 Con Leahy, Ireland	5ft. 9 7-8in
1908 Harry Porter, United States	6ft. 3in
1912 Almer W. Richards, United States	6ft. 4in
1920 Richard Landon, United States	6ft. 4 3-8in
1924 Harold Osborn, United States	6ft. 6in
1928 Robert W. King, United States	6ft. 4 3-8in
1932 Duncan McNaughton, Canada	6ft. 5 5/8in
1936 Cornelius Johnson, United States	6ft. 7 15-16in
1948 John L. Winter, Australia	6ft. 6in
1952 Walter Davis, United States	6ft. 8 3/8in
1956 Charles Jones, United States	6ft. 11in
1960 Robert Shavakadze, USSR	7ft. 1in
1964 Valery Brumel, USSR	7ft. 1 7/8in
1968 Dick Fosbury, United States	7ft. 4 1/4in

Standing Broad Jump

1900 Ray Ewry, United States	10ft. 6 2-5in
1904 Ray Ewry, United States	11ft. 4 7-8in
1906 Ray Ewry, United States	10ft. 11in
1908 Ray Ewry, United States	10ft. 11 1-4in
1912 Constantin Tsiciliras, Greece	11ft. 3-4in

Long Jump

1896 Ellery Clark, United States	20ft. 9 3-4in
1900 Alvin Kraenzlein, United States	23ft. 6 7-8in
1906 Myer Frinstein, United States	24ft. 1in
1908 Myer Frinstein, United States	24ft. 7 1-2in
1906 Frank Irwin, United States	24ft. 6 1-2in
1912 Albert Guterson, United States	24ft. 11 1-4in
1920 Wm. Peterssen, Sweden	23ft. 5 1-2in
1924 DeHart Hubbard, United States	24ft. 5 1-8in
1928 Edward B. Hamm, United States	25ft. 4 3-4in
1932 Edward Gordon, United States	25ft. 3-4in
1936 Jesse Owens, United States	26ft. 5 5-16in
1948 William Steele, United States	25ft. 8in
1952 Jerome Biffe, United States	24ft. 10.03in
1956 George Bell, United States	25ft. 8 1/4in
1960 Ralph Boston, United States	26ft. 7 1/4in
1964 Lynn Davies, Great Britain	26ft. 5 1/4in
1968 Bob Beamon, United States	29ft. 2 1/2in

400-Meters Relay

1912 Great Britain	42.4s
1920 United States	42 1-5s
1924 United States	41s
1928 United States	41s
1932 United States	40s
1936 United States	39.8s
1948 United States	40.3s
1952 United States	40.1s
1956 United States	39.5s
1960 Germany (U. S. disqual.)	39.5s
1964 United States	39.0s
1968 United States	38.2s

1,600 Meters Relay

1908 United States	3m. 27 1-5s
1912 United States	3m. 16.6s
1920 Great Britain	3m. 22 1-5s
1924 United States	3m. 16s
1928 United States	3m. 14 1-5s
1932 United States	3m. 8.2s
1936 Great Britain	3m. 8s
1948 United States	3m. 10.4s
1952 Jamaica, B.W.I.	3m. 03.9s
1956 United States	3m. 04.8s
1960 United States	3m. 02.2s
1964 United States	3m. 00.7s
1968 United States	2m. 56.1s

Pole Vault

1896 William Hoyt, United States	10ft. 9 3/4in
1900 Irving Baxter, United States	10ft. 9 9-10in
1904 Charles Dvorak, United States	11ft. 6in
1906 Fernand Gouder, France	11ft. 6in
1908 A. C. Gilbert, United States	12ft. 2in
1912 Edward Cook Jr., United States	12ft. 2in
1912 Harry Babcock, United States	12ft. 11 1-2in
1920 Frank Foss, United States	13ft. 5in
1924 Lee Barnes, United States	12ft. 11 1-2in
1928 Glenn Graham, United States	13ft. 9 1-2in
1932 Sabin W. Carr, United States	14ft. 1 7-8in
1936 Earle Meadows, United States	14ft. 3 1-4in
1948 Guinn Smith, United States	14ft. 1 1/4in
1952 Robert Richards, United States	14ft. 11 1/4in
1956 Robert Richards, United States	14ft. 11 1/4in
1960 Don Bragg, United States	15ft. 5 1/4in
1964 Fred Hansen, United States	16ft. 8 1/4in
1968 Bob Seagren, United States	17ft. 8 1/4in

16-Lb. Hammer Throw

1900 John Flannagan, United States	167ft. 4 1/2in
1904 John Flannagan, United States	168ft. 1in
1908 John Flannagan, United States	170ft. 4 1-4in
1912 Matt McGrath, United States	179ft. 7 1-8in
1920 Pat Ryan, United States	173ft. 5 5-8in
1924 Fred Tootell, United States	174ft. 10 1-8in
1928 Patrick O'Callaghan, Ireland	168ft. 7 3-8in
1932 Patrick O'Callaghan, Ireland	176ft. 11 1-8in
1936 Karl Hein, Germany	185 ft. 4 3-16in
1948 Imre Nemeth, Hungary	183 ft. 11 1/4in
1952 Jozsef Csermak, Hungary	191 ft. 1 1/4in
1956 Harold Connolly, United States	207ft. 3 1/2in

1960 Vasily Rudenkov, USSR.....	220ft. 2in	1924 Clarence Houser, United States.....	49ft. 2 3-8in
1964 Romuald Klim, USSR.....	228ft. 9 1/2in	1928 John Kuck, United States.....	52ft. 3in
1968 Gyula Zsivotsky, Hungary.....	240ft. 8in	1932 Leo Sexton, United States.....	52ft. 6 3-16in
Discus Throw			
1896 Robt. Garrett, United States.....	95ft. 7 1-2in	1936 Hans Woeckel, Germany.....	53ft. 1 13-16in
1900 Rudolf Bauer, Hungary.....	118ft. 2 9-10in	1948 Wilbur Thompson, United States.....	56ft. 2in
1904 Martin Sheridan, United States.....	128ft. 10 1-2in	1952 Parry O'Brien, United States.....	57ft. 1 4-32in
1906 Martin Sheridan, United States.....	136ft. 1-3in	1956 Parry O'Brien, United States.....	60ft. 1 1/2in
1908 Martin Sheridan, United States.....	134ft. 2in	1960 William Nieder, United States.....	64ft. 6 1/2in
1912 Armas Taipale, Finland.....	148 4in	1964 Dallas Long, United States.....	66ft. 8 1/2in
Right and left hand—Armas Taipale			
Finland.....	271ft. 10 1-4in	1968 Randy Matson, United States.....	67ft. 4 1/2in
1920 Elmer Niklander, Finland.....	146ft. 7 1-4in	Discus Throw—Greek Style	
1924 Clarence Houser, United States.....	151ft. 5 1/2in	1906 Werner Jaevinen, Finland.....	115ft. 4in
1928 Clarence Houser, United States.....	155ft. 3in	1908 Martin Sheridan, United States.....	124ft. 8in
1932 John Anderson, United States.....	162ft. 4 7-8in	Javelin Throw	
1936 Ken Carpenter, United States.....	165ft. 7 3-8in	1906 Erik Lemming, Sweden.....	175ft. 6in
1948 Adolfo Consolati, Italy.....	173ft. 2in	1908 Erik Lemming, Sweden.....	178ft. 7 1-2in
1952 Sim Iness, United States.....	180ft. 6 8/32in	Held in middle—Erik Lemming,	
1956 Al Oerter, United States.....	187ft. 1 1/2in	Sweden.....	179ft. 10 1-2in
1960 Al Oerter, United States.....	194ft. 2in	1912 E. Lemming, Sweden.....	198ft. 11 1-4in
1964 Al Oerter, United States.....	200ft. 1 1/2in	Both hands, Julius Saaristo	
1968 Al Oerter, United States.....	212ft. 6 1/2in	Finland.....	358ft. 11 7-8in
Standing Hop, Step and Jump			
1900 Ray Ewry, United States.....	34ft. 8 1/2in	1920 Jonni Myrta, Finland.....	215ft. 9 3/4in
1904 Ray Ewry, United States.....	34ft. 7 1/4in	1924 Jonni Myrta, Finland.....	206ft. 6 3-4in
Triple Jump			
1896 James Connolly, United States.....	45ft.	1928 Eric Lundquist, Sweden.....	218ft. 6 1-8in
1900 Myer Prinstein, United States.....	47ft. 4 1-4in	1932 Matti Jarvinen, Finland.....	238ft. 1in
1904 Myer Prinstein, United States.....	47ft.	1936 Gerhard Stock, Germany.....	235ft. 8 5-16in
1906 P. G. O'Connor, Ireland.....	46ft. 2in	1948 Kaj T. Rautavaara, Finland.....	228ft. 10 1/2in
1908 Timothy Ahearne, Great Britain.....	48ft. 1 1/4in	1952 Cy Young, United States.....	242ft. 0 7/8in
1912 Gustaf Lindblom, Sweden.....	48ft. 5 1/2in	1956 Egil Danielsen, Norway.....	281ft. 2 1/4in
1920 Vilho Tuulos, Finland.....	47ft. 7in	1960 Viktor Tsubulenko, USSR.....	277ft. 8 1/2in
1924 Archie Winter, Australia.....	50ft. 1 1/4in	1964 Pauli Nevala, Finland.....	271ft. 2 1/2in
1928 Mikio Oda, Japan.....	49ft. 11in	1968 Yanis Lusis, USSR.....	295ft. 7 1/4in
1932 Chuhei Nambu, Japan.....	51ft. 7in	Modern Pentathlon	
1936 Naoto Tajima, Japan.....	52ft. 5 7-8in	1952 Lars Hall, Sweden.....	32 pts
1948 Arne Ahman, Sweden.....	50ft. 6 1/4in	1956 Lars Hall, Sweden.....	4,833 pts
1952 Adhemar da Silva, Brazil.....	53ft. 2 5/8in	1960 Ferenc Nemeth, Hungary.....	5,024 pts
1956 Adhemar da Silva, Brazil.....	53ft. 7 1/2in	1964 Ferenc Torok, Hungary.....	5,116 pts
1960 Jozef Schmidt, Poland.....	55ft. 1 3/4in	1968 Bjorn Ferm, Sweden.....	4,964 pts
1964 Jozef Schmidt, Poland.....	55ft. 3 1/2in	Decathlon (A)	
1968 Victor Saneev, USSR.....	57ft. 3 1/4in	1912 Hugo Wieslander, Sweden.....	7,724.49 pts
16-Lb. Shot Put			
1896 Robt. Garrett, United States.....	36ft. 2in	1920 Helge Loveland, Norway.....	6,804.35 pts
1900 Robt. Sheldon, United States.....	46ft. 3 1-8in	1924 Harold Osborn, United States.....	7,710.775 pts
1904 Ralph Rose, United States.....	48ft. 7in	1928 Paavo Yrjola, Finland.....	8,056.20 pts
1906 Martin Sheridan, United States.....	40ft. 4 4-5in	1932 James Bausch, United States.....	8,462.23 pts
1908 Ralph Rose, United States.....	46ft. 7 1-2in	1936 Glenn Morris, United States.....	7,900 pts
1912 Pat McDonald, United States.....	50ft. 4in	1948 Robert Mathias, United States.....	7,139 pts
Right and left hand—Ralph Rose,			
United States.....	90ft. 5 1-2in	1952 Robert Mathias, United States.....	7,887 pts
1920 Ville Forhola, Finland.....	48ft. 7 1-8in	1956 Milton Campbell, United States.....	7,937 pts
		1960 Raifer Johnson, United States.....	8,392 pts
		1964 Willi Holdorf, Germany.....	7,887 pts
		1968 Bill Toomey, United States.....	8,193 pts

(A) Former point system, 1936-1960

TRACK AND FIELD—WOMEN

100-Meter Run		WOMEN	
1928 Elizabeth Robinson, United States.....	12.2s	1932 Jean Shiley, United States.....	5ft. 5 1/2in
1932 Stella Walsh, Poland.....	11.9s	1936 Iolya Csak, Hungary.....	5ft. 3in
1936 Helen Stephens, United States.....	11.5s	1948 Alice Coachman, United States.....	5ft. 8 1/2in
1948 Francina Blankers-Koen, Netherlands.....	11.9s	1952 Esther Brand, South Africa.....	5ft. 5 1/2in
1952 Marjorie Jackson, Australia.....	11.5s	1956 Mildred L. McDaniel, United States.....	5ft. 9 1/2in
1956 Betty Cuthbert, Australia.....	11.5s	1960 Iolanda Balas, Romania.....	5ft. 1 1/2in
1960 Wilma Rudolph, United States.....	11.0s	1964 Iolanda Balas, Romania.....	6ft. 2 1/2in
1964 Wyomia Tyus, United States.....	11.4s	1968 Miloslava Rezkova, Czech.....	5ft. 11 1/2in
1968 Wyomia Tyus, United States.....	11.0s	Discus Throw	
200-Meter Run		1928 Helena Konopacka, Poland.....	129ft. 11 1/2in
1948 Francina Blankers-Koen, Netherlands.....	24.4s	1932 Lillian Copeland, United States.....	133ft. 2in
1952 Marjorie Jackson, Australia.....	23.7s	1936 Gisela Mauermayer, Germany.....	156ft. 3 3/16in
1956 Betty Cuthbert, Australia.....	23.4s	1948 Micheline Ostermeyer, France.....	137ft. 6 1/2in
1960 Wilma Rudolph, United States.....	23.0s	1952 Nina Romaschova, USSR.....	168ft. 8 1/2in
1964 Edith McGuire, United States.....	23.0s	1956 Olga Fikotova, Czechoslovakia.....	176ft. 1 1/2in
1968 Irene Szwinska, Poland.....	22.5s	1960 Nina Pomomareva, USSR.....	180ft. 8 1/2in
400-Meter Run		1964 Tamara Press, USSR.....	187ft. 10 1/2in
1964 Betty Cuthbert, Australia.....	52s	1968 Lia Manoliu, Romania.....	191ft. 2 1/2in
1968 Colette Besson, France.....	52s	Javelin Throw	
800-Meter Run		1932 Mildred Didrikson, United States.....	143ft. 4in
1928 Linda Radke, Germany.....	2m. 16.8s	1936 Tilly Fleischer, Germany.....	148ft. 2 1/2in
1936 Ljudmila Shevchova, USSR.....	2m. 4.3s	1948 Herma Bauma, Austria.....	149ft. 6in
1964 Ann Packer, Great Britain.....	2m. 1.1s	1952 Dana Zatopekova, Czechoslovakia.....	165ft. 7in
1968 Madeline Manning, United States.....	2m. 0.9s	1956 Inessa Janzeme, USSR.....	176ft. 8in
400-Meter Relay		1960 Elvira Ozolina, USSR.....	183ft. 8in
1928 Canada.....	48.4s	1964 Mihaela Penes, Romania.....	198ft. 7 1/2in
1932 United States.....	47.0s	1968 Angela Nemeth, Hungary.....	198ft. 3 1/2in
1936 United States.....	46.9s	Shot Put	
1948 Netherlands.....	47.5s	1948 Micheline Ostermeyer, France.....	45ft. 1 1/2in
1952 United States.....	45.9s	1952 Galina Zybyna, USSR.....	50ft. 1 1/2in
1956 Australia.....	44.5s	1956 T. Tishkevich, USSR.....	54ft. 5in
1960 United States.....	44.5s	1960 Tamara Press, USSR.....	56ft. 9 1/2in
1964 Poland.....	43.6s	1964 Tamara Press, USSR.....	59ft. 6 1/2in
1968 United States.....	42.8s	1968 Margarita Gummel, E. Germany.....	64ft. 4in
80-Meter Hurdles		Long Jump	
1932 Mildred Didrikson, United States.....	11.7s	1948 Olga Gyarmati, Hungary.....	18ft. 8 1/2in
1936 Trevisonda Villa, Italy.....	11.7s	1962 Yvette Williams, New Zealand.....	20ft. 5 1/2in
1948 Francina Blankers-Koen, Netherlands.....	11.2s	1956 E. Krzeskowska, Poland.....	20ft. 9 1/2in
1952 Shirley Strickland de la Hunty, Australia.....	10.9s	1960 Vjera Krepinia, USSR.....	20ft. 10 1/2in
1956 Shirley Strickland de la Hunty, Australia.....	10.7s	1964 Mary Rand, Great Britain.....	22ft. 2 1/2in
1960 Irina Press, USSR.....	10.8s	1968 V. Viscopoleanu, Romania.....	22ft. 4 1/2in
1964 Karin Balzer, Germany.....	10.5s	Pentathlon	
1968 Maureen Caird, Australia.....	10.3s	1964 Irina Press, USSR.....	5,246 pts.
High Jump		1968 Ingrid Becker, W. Germany.....	5,098 pts.
1928 Ethel Catherwood, Canada.....	5ft. 3in		

Olympic Games Records

The modern Olympic Games, first held in Athens, Greece, in 1896, were the result of efforts by Baron Pierre de Coubertin, a French educator, to promote interest in education and culture, also to foster better international understanding through the universal medium of youth's love of athletics.

His source of inspiration for the Olympic Games was the ancient Greek Olympic Games, most notable of the four Panhellenic celebrations. The games were combined patriotic, religious and athletic festivals held every four years. The first such recorded festival was that held in 776 B.C., the date from which the Greeks began to keep their calendar by "Olympiads," or four-year spans between the games.

The first Olympiad is said to have consisted merely of a 200-yard foot race near the small city of Olympia, but the games gained in scope and became demonstrations of national pride. Only Greek citizens—amateurs—were permitted to participate. Winners received laurel, wild olive and palm wreaths and were accorded many special privileges. Under the Roman emperors, the games deteriorated into professional carnivals and circuses. Emperor Theodosius banned them in 394 A.D.

Baron de Coubertin enlisted 9 nations to send athletes to the first modern Olympics in 1896; now more than 100 nations compete. Winter Olympic Games were started in 1924.

SITES AND UNOFFICIAL WINNERS OF GAMES

1896 Athens (U. S.)	1912 Stockholm (U. S.)	1936 Berlin (Germany)	1964 Tokyo (U. S.)
1900 Paris (U. S.)	1920 Antwerp (U. S.)	1948 London (U. S.)	1968 Mexico City (U. S.)
1904 St. Louis (U. S.)	1924 Paris (U. S.)	1952 Helsinki (U. S.)	
1906 Athens (U. S.)	1928 Amsterdam (U. S.)	1956 Melbourne (USSR)	1972 Munich (scheduled)
1908 London (U. S.)	1932 Los Angeles (U. S.)	1960 Rome (USSR)	

TRACK AND FIELD—MEN

Event	Record	Holder	Nation	Site, date
100-meter run	9.9 s.	Jim Hines	United States	Mexico City 1968
200-meter run	19.8 s.	Tommy Smith	United States	Mexico City 1968
400-meter run	43.8 s.	Lee Evans	United States	Mexico City 1968
800-meter run	1 m., 44.3 s.	Ralph Doubell	Australia	Mexico City 1968
1500-meter run	3 m., 34.9 s.	Kipchoge Keino	Kenya	Mexico City 1968
5000-meter run	13 m., 39.6 s.	Vladimir Kuts	USSR	Melbourne... 1956
10,000-meter run	28 m., 24.4 s.	Billy Mills	United States	Tokyo... 1964
Marathon	2 h., 12 m., 11.2 s.	Abebe Bikila	Ethiopia	Tokyo... 1964
50,000-meter walk	4 h., 11 m., 12.4 s.	Abdon Pinalich	Italy	Tokyo... 1964
110-meter hurdles	13.3 s.	Ville Davoport	United States	Mexico City 1968
400-meter hurdles	48.1 s.	Dave Hemery	Great Britain	Mexico City 1968
3,000-meter stpl.	8 m., 30.8 s.	Gaston Roelants	Belgium	Tokyo... 1964
High jump	7 ft., 4 1/4 in.	Dick Fosbury	United States	Mexico City 1968
Long jump	29 ft., 2 1/2 in.	Bob Beamon	United States	Mexico City 1968
Triple jump	57 ft., 3 1/4 in.	Victor Saneev	USSR	Mexico City 1968
Pole vault	17 ft., 8 1/2 in.	Bob Seagren	United States	Mexico City 1968
Discus	212 ft., 6 1/2 in.	Al Oerter	United States	Mexico City 1968
Javelin	295 ft., 7 1/2 in.	Yanis Lulis	USSR	Mexico City 1968
16-lb. shot put	67 ft., 4 1/4 in.	Randy Matson	United States	Mexico City 1968
16-lb. hammer	240 ft., 8 in.	Gyula Zsivotsky	Hungary	Mexico City 1968
Decathlon	8,193 Points	Bill Toomey	United States	Mexico City 1968

400-meter relay—38.2s.—United States (Greene, Pender, R. Smith, Hines), Mexico City, 1968.

1600-meter relay—2 m. 56.1 s.—United States (Matthews, Freeman, James, Evans), Mexico City, 1968.

TRACK AND FIELD—WOMEN

100-meter run	11.0 s.	Wyomia Tyus	United States	Mexico City 1968
200-meter run	22.5 s.	Irena Szewinska	Poland	Mexico City 1968
400-meter run	52.0 s.	Betty Cuthbert	Australia	Tokyo... 1964
800-meter run	2 m., 0.9 s.	Colette Besson	France	Mexico City 1968
1500-meter run	4 m., 0.9 s.	Madeline Manning	United States	Mexico City 1968
5000-meter run	16 m., 27.8 s.	Maureen Caird	Australia	Mexico City 1968
100-meter hurdles	10.3 s.	Iolanda Balas	Romania	Tokyo... 1964
High jump	6 ft., 2 1/2 in.	V. Viscopoleanu	Romania	Mexico City 1968
Long jump	22 ft., 4 1/2 in.	Lia Manoliu	Romania	Mexico City 1968
Discus	191 ft., 2 1/2 in.	Mihaila Penes	Romania	Tokyo... 1964
Javelin	198 ft., 7 1/2 in.	Margarita Gummel	E. Germany	Mexico City 1968
Shot put	64 ft., 4 in.	Irena Press	USSR	Tokyo... 1964
Pentathlon	5,246 Points			

400-meter relay—42.8s.—United States (Ferrell, Bailes, Netter, Tyus), Mexico City, 1968.

SWIMMING—MEN

100-meter freestyle	52.2 s.	Mike Wenden	Australia	Mexico City 1968
200-meter freestyle	1 m., 55.2 s.	Mike Wenden	Australia	Mexico City 1968
400-meter freestyle	4 m., 09.0 s.	Mike Burton	United States	Mexico City 1968
1,500-meter freestyle	16 m., 38.9 s.	Mike Burton	United States	Mexico City 1968
100-meter backstroke	58.7 s.	Roland Matthes	E. Germany	Mexico City 1968
200-meter backstroke	2 m., 09.6 s.	Roland Matthes	E. Germany	Mexico City 1968
100-m. breaststroke	1 m., 07.7 s.	Don McKenzie	United States	Mexico City 1968
200-m. breaststroke	2 m., 27.8 s.	Ian O'Brien	Australia	Tokyo... 1964
100-meter butterfly	55.9 s.	Doug Russell	United States	Mexico City 1968
200-meter butterfly	2 m., 6.6 s.	Kevin Berry	Australia	Tokyo... 1964
200-meter medley	2 m., 12 s.	Charles Hickcox	United States	Mexico City 1968
400-meter medley	4 m., 45.4 s.	Dick Roth	United States	Tokyo... 1964

400-meter freestyle relay, 3:31.7—United States (Spitz, Zorn, Reyrch, Walsh), 1968.

800-meter freestyle relay, 7:52.1—United States (Clark, Saari, Ilman, Schollander), 1964.

400-meter medley relay, 3:54.9—United States (Hickcox, Russell, McKenzie, Walsh), 1968.

SWIMMING—WOMEN

100-meter freestyle	59.5 s.	Dawn Fraser	Australia	Tokyo... 1964
200-meter freestyle	2 m., 10.5 s.	Debbie Meyer	United States	Mexico City 1968
400-meter freestyle	4 m., 31.8 s.	Debbie Meyer	United States	Mexico City 1968
800-meter freestyle	9 m., 24 s.	Debbie Meyer	United States	Mexico City 1968
100-meter backstroke	1 m., 06.2 s.	Kaye Hall	United States	Mexico City 1968
200-meter backstroke	2 m., 24.8 s.	Pekky Burton	United States	Mexico City 1968
100-m. breaststroke	1 m., 15.8 s.	Djordjica Bledov	Yugoslavia	Mexico City 1968
200-m. breaststroke	2 m., 44.4 s.	Sharon Wichman	United States	Mexico City 1968
100-meter butterfly	1 m., 4.7 s.	Sharon Stouder	United States	Tokyo... 1964
200-meter butterfly	2 m., 24.7 s.	Ada Kok	Netherlands	Mexico City 1968
200-meter medley	2 m., 24.7 s.	Claudia Kolb	United States	Mexico City 1968
400-meter medley	5 m., 08.5 s.	Claudia Kolb	United States	Mexico City 1968

400-meter freestyle relay—4:02.5—United States (Barkman, Gustavson, Pedersen, Henne), 1968.

400-meter medley relay—4:28.3—United States (Hall, Daniel, Ball, Pedersen), 1968.

ELECTION STATISTICS

Popular and Electoral Vote for President, 1968

Latest figures compiled by United Press International from official and unofficial returns.

States	Electoral vote			Popular vote				
	Nixon	Humphrey	Wallace	Nixon	Humphrey	Wallace	Other	Total
Ala.			10	146,923	196,579	691,425	4,002	1,038,929
Alaska	3			36,428	34,501	9,887		80,816
Ariz.	5			255,970	166,742	45,066	2,762	470,540
Ark.			6	186,547	183,317	236,504		606,368
Calif.	40			3,409,554	3,187,364	482,162	26,992	7,106,072
Colo.	6			409,262	336,272	60,691	1,274	807,499
Conn.		8		569,942	661,595	78,931		1,310,468
Del.	3			95,479	88,471	28,285		212,235
D. of C.		3		31,012	139,556			170,568
Fla.	14			886,804	676,794	624,207		2,187,805
Ga.			12	365,722	333,062	535,389		1,234,173
Hawaii		4		91,440	141,300	3,465		236,205
Idaho	4			164,029	88,835	36,058		288,922
Ill.	26			2,137,239	2,008,319	385,058		4,530,616
Ind.	13			1,057,784	806,259	243,030	6,124	2,113,197
Iowa	9			616,776	477,445	66,258	900	1,161,379
Kan.	7			468,172	299,890	87,453		855,515
Ky.	9			458,905	395,097	190,493		1,044,495
La.			10	259,715	317,929	537,045		1,114,689
Me.		4		164,560	212,950	6,232		382,742
Md.		10		514,357	584,891	179,945		1,279,193
Mass.		14		762,477	1,458,058	85,556		2,306,091
Mich.		21		1,330,749	1,567,310	320,344	3,981	3,222,384
Minn.		10		620,687	807,122	66,948	3,198	1,497,955
Miss.			7	88,214	149,419	414,402		652,035
Mo.	12			807,635	785,908	205,129		1,798,672
Mont.	4			130,119	109,218	18,548		257,885
Nebr.	5			303,968	163,531	42,604		510,103
Nev.	3			171,961	58,999	20,071		151,031
N. H.	4			154,903	130,589	11,173	525	297,190
N. J.	17			1,325,465	1,264,206	262,164	23,683	2,875,518
N. M.	4			168,473	129,451	25,602	1,966	325,492
N. Y.		43		2,980,420	3,356,999	349,205	24,963	6,711,587
N. C.	13			619,434	459,968	490,609		1,567,011
N. D.	4			138,667	94,319	14,244	198	247,428
Ohio	26			1,785,318	1,692,213	468,591		3,946,122
Okla.	8			449,697	301,658	191,731		943,086
Ore.	6			403,491	355,875	49,151		808,517
Pa.		29		1,991,784	2,203,946	368,275	11,377	4,575,382
R. I.		4		115,929	239,497	14,967	480	370,873
S. C.	8			260,558	196,889	211,754		669,201
S. D.	4			147,438	117,505	13,209		278,152
Tenn.	11			467,232	350,941	421,044	87	1,238,404
Texas		25		1,227,199	1,267,317	581,717		3,076,233
Utah	4			238,637	157,072	27,052	274	423,035
Vt.	3			85,128	70,449	4,953	550	161,080
Va.	12			595,607	443,873	322,203	1,432	1,363,115
Wash.		9		520,491	561,675	85,713	2,273	1,170,152
W. Va.		7		306,601	373,382	72,022		752,005
Wis.	12			809,997	748,804	127,835	2,934	1,689,570
Wyo.	3			70,093	44,893	11,059		126,045
Total U.S.	302	191	45	31,304,992	30,994,354	9,825,459	119,975	72,244,780

Major National Convention Cities since 1856

(Number in parentheses)

Atlantic City, N. J., (1)—Dem., 1964.	Kansas City, Mo., (2)—Rep., 1928; Dem., 1900.
Baltimore, Md., (3)—Rep., 1864; Dem., 1872, 1912.	Los Angeles, Calif., (1)—Dem., 1960.
Charleston, S. C., (1)—Dem., 1860.	Miami, Fla., (1)—Rep., 1968.
Chicago, Ill., (24)—Rep., 1860, 1868, 1880, 1884.	Minneapolis, Minn., (1)—Rep., 1892.
1888, 1904, 1908, 1912, 1916, 1920, 1932, 1944.	New York City, (2)—Dem., 1868, 1924.
1952, 1960. Dem., 1864, 1884, 1892, 1896, 1932.	Philadelphia, Pa., (7)—Rep., 1856, 1872, 1900.
1940, 1944, 1952, 1956, 1968.	1940, 1948; Dem., 1936, 1948.
Cincinnati, O., (3)—Rep., 1876; Dem., 1856, 1880.	St. Louis, Mo., (5)—Rep., 1896; Dem., 1876, 1888,
Cleveland, O., (2)—Rep., 1924, 1936.	1904, 1916.
Denver, Col., (1)—Dem., 1908.	San Francisco, Calif., (3)—Rep., 1956, 1964;
Houston, Tex., (1)—Dem., 1928.	Dem., 1920.

United States Senate Election Returns by States, 1968

Source: Compiled from United Press International official and unofficial returns as of Nov. 20, 1968

Asterisk (*) denotes incumbent

State	Senator Elected		Vote Cast	Losing Candidate	Vote Cast
Alabama	James B. Allen	(D)	638,774	Perry O. Hooper	(R) 202,227
Alaska	Mike Gravel	(D)	35,754	Elmer Rasmuson	(R) 29,469
Arizona	Barry Goldwater	(R)	264,659	Roy Elson	(D) 201,963
Arkansas	J. William Fulbright	(D)*	344,548	Charles T. Bernard	(R) 236,723
California ²	Alan Cranston	(D)	3,615,261	Max Rafferty	(R) 3,275,679
Colorado	Peter H. Dominick	(R)*	460,686	Steve McNichols	(D) 326,667
Connecticut	Abraham Ribicoff	(D)*	648,899	Edwin H. May, Jr.	(R) 545,755
Florida	Edward J. Gurney	(R)	1,131,449	LeRoy Collins	(D) 892,637
Georgia	Herman E. Talmadge	(D)*	880,650	Earl Patton	(R) 255,108
Hawaii	Daniel K. Inouye	(D)*	189,202	Wayne C. Thiessen	(R) 34,004
Idaho	Frank Church	(D)	162,848	George V. Hansen	(R) 108,449
Illinois	Everett M. Dirksen	(R)*	2,263,263	William G. Clark	(D) 1,990,022
Indiana	Birch Bayh	(D)*	1,061,456	William D. Ruckelshaus	(R) 983,430
Iowa	Harold E. Hughes	(D)	574,298	David Stanley	(R) 568,021
Kansas	Robert J. Dole	(R)	479,185	William I. Robinson	(D) 370,435
Kentucky	Marlow W. Cook	(R)	480,167	Katherine Peden	(D) 445,471
Louisiana ³	C. McC. Mathias	(R)	535,131	Daniel B. Brewster	(D)* 434,972
Missouri	Thomas F. Eagleton	(D)	850,960	Thomas B. Curtis	(R) 810,491
Nevada	Alan Bible	(D)*	81,925	M. Edward Fike	(R) 67,903
New Hampshire	Norris Cotton	(R)	170,163	John W. King	(D) 116,816
New York ⁴	Jacob K. Javits	(R)*	3,323,574	Paul O'Dwyer	(D) 2,144,476
North Carolina	Sam J. Ervin, Jr.	(D)*	842,635	Robert V. Somers	(R) 556,659
North Dakota	Milton R. Young	(R)*	154,966	Herschel Lashkowitz	(D) 90,699
Ohio	William B. Saxbe	(R)	1,918,330	John J. Gilligan	(D) 1,803,680
Oklahoma	Henry L. Bellmon	(R)	470,120	A. S. Mike Monroney	(D)* 419,658
Oregon	Robert W. Packwood	(R)	408,726	Wayne Morset	(D)* 405,144
Pennsylvania	Richard S. Schweiker	(R)	2,218,144	Joseph S. Clark	(D)* 2,048,349
South Carolina	Ernest F. Hollings	(D)*	397,407	Marshall J. Parker	(R) 245,879
South Dakota	George McGovern	(D)*	156,454	Archie Gubbrud	(R) 118,992
Utah	Wallace F. Bennett	(R)*	223,758	Milton L. Wellenman	(D) 192,457
Vermont	George D. Aiken	(R)*	157,154	Unopposed	
Washington	Warren G. Magnuson	(D)	722,915	Jack Metcalf	(R) 390,947
Wisconsin	Gaylord Nelson	(D)*	1,017,711	Jerris Leonard	(R) 632,939

¹Ernest Gruening, Independent 13,386. ²Paul Jacobs, Peace and Freedom, 91,254. ³George P. Mahoney, Independent, 147,787. ⁴James L. Buckley, Conservative, 1,109,087. †Morse demanded a recount.

Election Returns for Governors by States, 1968

Source: Compiled from United Press International official and unofficial returns as of Nov. 20, 1968

Asterisk (*) denotes incumbent

State	Governor Elected		Vote Cast	Losing Candidate	Vote Cast
Arizona	John R. Williams	(R)*	270,873	Sam Goddard	(D) 200,258
Arkansas	Winthrop Rockefeller	(R)*	317,107	Marion H. Crank	(D) 291,099
Delaware	Russell W. Peterson	(R)	104,216	Charles L. Terry Jr.	(D)* 101,907
Illinois	Richard B. Ogilvie	(R)	2,201,623	Samuel H. Shapiro	(D)* 2,071,102
Indiana	Edgar D. Whitcomb	(R)	1,082,276	Robert L. Rock	(D) 956,816
Iowa	Robert D. Ray	(R)	612,676	Paul Franzenburg	(D) 520,734
Kansas	Robert B. Docking	(D)*	438,566	Rick Harman	(R) 401,741
Missouri	Warren E. Hearnes	(D)*	1,014,581	Lawrence K. Roos	(R) 640,805
Montana	Forrest Anderson	(D)	118,995	Tim M. Babcock	(R)* 93,117
New Hampshire	Walter E. Peterson	(R)	149,902	Eddie E. Bussiere	(R) 135,378
New Mexico	David F. Cargo	(R)*	159,495	Fabian Chavez	(D) 156,893
North Carolina	Robert W. Scott	(D)	821,232	James C. Gardner	(R) 377,075
North Dakota	William L. Guy	(D)*	135,954	Robert P. McCarney	(R) 108,381
Rhode Island	Frank Licht	(D)	191,053	John H. Chafee	(R)* 178,557
South Dakota	Frank Farrar	(R)	158,762	Robert Chamberlin	(D) 116,994
Texas	Preston Smith	(D)	1,659,478	Paul Eggers	(R) 1,252,952
Utah	Calvin L. Rampton	(D)*	288,979	Carl W. Buehner	(R) 134,754
Vermont	Deane C. Davis	(R)	89,211	John J. Daley	(D) 71,908
Washington	Daniel J. Evans	(R)*	617,596	John J. O'Connell	(D) 516,224
West Virginia	Arch A. Moore	(R)	376,962	J. M. Sprouse	(D) 363,776
Wisconsin	Warren P. Knowles	(R)*	892,680	Bronson LaFollette	(D) 790,577

Party Nominees for President and Vice President

Asterisk (*) denotes winning ticket

Year	Democratic		Republican	
	President	Vice President	President	Vice President
1900	William J. Bryan	Adlai E. Stevenson	William McKinley*	Theodore Roosevelt
1904	Alton B. Parker	Henry G. Davis	Theodore Roosevelt*	Charles W. Fairbanks
1908	William J. Bryan	John W. Kern	William H. Taft*	James S. Sherman
1912	Woodrow Wilson*	Thomas R. Marshall	William H. Taft	James S. Sherman
1916	Woodrow Wilson*	Thomas R. Marshall	Charles E. Hughes	Charles W. Fairbanks
1920	James M. Cox	Franklin D. Roosevelt	Warren G. Harding*	Calvin Coolidge
1924	John W. Davis	Charles W. Bryan	Calvin Coolidge*	Charles G. Dawes
1928	Alfred E. Smith	Joseph T. Robinson	Herbert Hoover*	Charles Curtis
1932	Franklin D. Roosevelt*	John N. Garner	Herbert Hoover	Charles Curtis
1936	Franklin D. Roosevelt*	John N. Garner	Alfred M. Landon	Frank Knox
1940	Franklin D. Roosevelt*	Henry A. Wallace	Wendell L. Willkie	Charles McNary
1944	Franklin D. Roosevelt*	Harry S. Truman	Thomas E. Dewey	John W. Bricker
1948	Harry S. Truman*	Alben W. Barkley	Thomas E. Dewey	Earl Warren
1952	Adlai E. Stevenson	John J. Sparkman	Dwight D. Eisenhower*	Richard M. Nixon
1956	Adlai E. Stevenson	Ezra Keftau	Dwight D. Eisenhower*	Richard M. Nixon
1960	John F. Kennedy*	Lyndon B. Johnson	Richard M. Nixon	Henry Cabot Lodge
1964	Lyndon B. Johnson*	Hubert H. Humphrey	Barry M. Goldwater	William E. Miller
1968†	Hubert H. Humphrey	Edmund S. Muskie	Richard M. Nixon*	Spiro T. Agnew

†Died Oct. 30 and the Republican National Committee named Nicholas Murray Butler.

†1968 Third party candidates were George C. Wallace and Gen. Curtis E. LeMay.

Major Parties' Popular and Electoral Vote for President

(F) Federalist; (D) Democrat; (B) Republican; (DB) Democrat-Republican

(W) Whig; (P) People's; (Pr) Progressive; (SR) States' Rights

Asterisk (*)—See notes below for various years. Preliminary

Year	President Elected	Popular Vote	Electoral Vote	Losing Candidate	Popular Vote	Electoral Vote
1789	George Washington (F)	Unknown	69	No opposition.		
1792	George Washington (F)	Unknown	132	No opposition.		
1796	John Adams (F)	Unknown	71	Thomas Jefferson (DR)	Unknown	68
1800	Thomas Jefferson (DR)	Unknown	73	Aaron Burr (DR)	Unknown	73
	Elected by House of Representatives (due to tie vote)					
1804	Thomas Jefferson (DR)	Unknown	162	Charles Pinckney (F)	Unknown	14
1808	James Madison (DR)	Unknown	122	Charles Pinckney (F)	Unknown	47
1812	James Madison (DR)	Unknown	128	DeWitt Clinton (F)	Unknown	89
1816	James Monroe (DR)	Unknown	183	Rufus King (F)	Unknown	89
1820	James Monroe (DR)	Unknown	231	John Quincy Adams (DR)	Unknown	34
1824	John Quincy Adams (NR)	105,321	84	Andrew Jackson (D)	155,872	99
	Elected by House of Representatives (no candidate having polled a majority)					
1828	Andrew Jackson (D)	647,231	178	Henry Clay (DR)	465,887	37
1832	Andrew Jackson (D)	687,502	219	William H. Crawford (DR)	44,282	11
	First national convention for Presidential candidates					
1836	Martin Van Buren (D)	762,678	170	John Quincy Adams (NR)	509,097	83
1840*	William H. Harrison (W)	1,275,017	234	Henry Clay (DR)	530,189	49
1844	James K. Polk (D)	1,337,243	170	William H. Harrison (W)	548,007	73
1848*	Zachary Taylor (W)	1,360,101	163	Martin Van Buren (D)	1,128,702	60
	(Died July 9, 1850)					
1852	Franklin Pierce (D)	1,601,474	254	Henry Clay (W)	1,299,068	105
1856	James C. Buchanan (D)	1,927,995	174	Lewis Cass (D)	1,220,544	127
1860	Abraham Lincoln (R)	1,866,352	180	Winfield Scott (W)	1,386,578	42
1864*	Abraham Lincoln (R)	2,216,067	212	John C. Fremont (R)	1,391,555	114
	(Died April 15, 1865)					
1868	Ulysses S. Grant (R)	3,015,071	214	Stephen A. Douglas (D)	1,375,157	12
1872	Ulysses S. Grant (R)	3,597,070	286	John C. Breckinridge (D)	845,763	72
1876*	Rutherford B. Hayes (R)	4,033,950	185	John Bell (Con. Union)	589,581	39
1880*	James A. Garfield (R)	4,449,053	214	George McClellan (D)	1,808,725	21
	(Died Sept. 19, 1881)					
1884	Grover Cleveland (D)	4,911,017	219	James G. Blaine (R)	4,848,334	182
1888*	Benjamin Harrison (R)	5,444,337	233	Grover Cleveland (D)	5,540,050	168
1892	Grover Cleveland (D)	5,554,414	277	Benjamin Harrison (R)	5,190,802	145
1896	William McKinley (R)	7,035,638	271	James Weaver (P)	1,027,329	22
1900*	William McKinley (R)	7,219,530	292	William J. Bryan (D-P)	6,467,946	176
	(Died Sept. 14, 1901)					
1904	Theodore Roosevelt (R)	7,628,834	336	William J. Bryan (D)	5,084,491	140
1908	William H. Taft (R)	7,679,006	321	Theodore Roosevelt (Pr)	6,408,106	162
1912	Woodrow Wilson (D)	6,286,214	435	William H. Taft (R)	4,161,820	88
1916	Woodrow Wilson (D)	9,129,606	277	Charles E. Hughes (R)	8,538,221	254
1920*	Warren G. Harding (R)	16,152,200	404	James M. Cox (D)	9,147,353	127
	(Died Aug. 2, 1923)					
1924	Calvin Coolidge (R)	15,725,016	382	John W. Davis (D)	8,385,586	136
1928	Herbert Hoover (R)	21,392,190	444	Robert M. LaFollette (Pr)	4,822,856	13

1840—President Harrison died on April 4, 1841, and Vice President Tyler became President.
1848—President Taylor died in office on July 9, 1850, and Vice President Fillmore became President.

1848—President Taylor died in office on July 9, 1850, was succeeded by Vice President Fillmore.
1864—President Lincoln was shot April 14, 1865, at Ford's Theatre. Vice President Andrew Johnson

1864—President Lincoln was shot April 14, 1865 at Ford's Theatre, Washington, by actor J. Wilkes Booth, and died April 15, whereupon Vice President Andrew Johnson became President.

1876—Florida, Louisiana, Oregon and South Carolina election returns were disputed. A board of Commissioners, referred to as The Electoral Commission, was created by act of Congress (approved Jan. 29, 1877) for the purpose of deciding disputed cases in the 1876 presidential election. It was in session from Feb. 1 to March 2, 1877 and its decisions resulted in the seating of Hayes, the Republican candidate who received the disputed electoral votes. The members of the commission voted on party lines—8 Republicans and 7 Democrats. Congress, in joint session (March 2, 1877) declared Hayes Tilden. The Senate was Republican. The House, which was Democratic, resolved and declared as a separate body (March 3) that Tilden and Hendricks were elected on the face of the returns.

1880—President Garfield was shot July 2, 1881, at Washington, D.C. by James A. Garfield.

1880—President Garfield was shot July 2, 1881, at Washington, D. C., by Charles J. Guiteau of New York and died Sept. 19, whereupon Vice President Chester A. Arthur became President.

1888—On the result of the popular vote Cleveland had more votes than Harrison but the 233 electoral votes cast for Harrison against the 168 for Cleveland elected Harrison president.
1900—President McKinley was shot. Sept. 6, 1901, at the Panama Exposition in Buffalo, N. Y.

1900. President McKinley was shot, Sept. 6, 1901, at the Pan American Exposition, Buffalo, N. Y. He died on Sept. 14, and Vice President Theodore Roosevelt became President. The assassin, Leon Czolgosz, was executed Oct. 29, 1901.

1920—President Harding died at San Francisco, Calif., Aug. 2, 1923, and was succeeded by Vice President Calvin Coolidge.

1944—President Roosevelt died at Warm Springs, Ga., on April 12, 1945, whereupon Vice President Harry S. Truman became President.

1956—Democrats elected 74 electors but one from Alabama refused to vote for Stevenson, voted for Walter B. Jones.

1960—Sen. Harry F. Byrd (D.-Va.) received 15 electoral votes; 6 from unpledged Alabama Democrats, 8 from unpledged Mississippi Democrats, and 1 from defecting Oklahoma Republican elector.

PRESIDENTIAL ELECTION RETURNS BY STATES

Compiled by the World Almanac from official and unofficial returns collected by United Press International.

Alabama

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Democrat (†)	Goldwater (R)
Autauga...	1,404	534	4,614	485	2,969
Baldwin...	1,938	2,279	14,352	2,506	10,870
Barbour...	3,614	376	8,916	902	3,853
Bibb...	542	235	3,412	525	2,623
Blount...	296	1,820	5,682	2,397	4,442
Bullock...	1,707	180	1,689	1,121	1,516
Butler...	3,585	957	10,952	971	4,002
Calhoun...	4,192	2,752	17,691	6,170	10,635
Chambers...	2,552	1,076	6,854	2,529	4,630
Cherokee...	336	246	3,258	1,847	1,893
Chilton...	729	2,267	8,686	1,706	5,202
Clarke...	1,189	83	2,742	413	2,497
Clay...	1,284	479	1,164	926	4,460
Cleburne...	392	725	3,267	1,176	2,815
Coffee...	172	484	3,426	660	2,156
Colbert...	1,010	605	6,897	1,206	4,910
Conecuh...	1,377	1,862	11,060	5,562	5,267
Coosa...	750	144	3,732	615	2,782
Covington...	646	426	2,821	738	1,978
Crenshaw...	775	884	11,163	1,627	7,554
Cullman...	694	288	4,448	805	3,008
Dale...	568	4,646	10,935	5,078	7,152
De Kalb...	882	583	7,646	949	4,970
Dallas...	4,955	1,098	9,317	709	5,888
De Kalb...	361	1,947	2,896	4,910	6,746
Elmore...	1,780	808	9,016	1,217	6,363
Escambia...	902	520	7,571	1,911	5,623
Etowah...	3,716	4,836	20,989	8,853	12,894
Fayette...	681	848	4,787	1,279	3,203
Franklin...	635	2,437	5,707	3,097	4,025
Geneva...	273	194	5,209	1,070	4,502
Greene...	1,171	64	749	589	1,124
Hale...	1,444	223	2,346	552	1,898
Harris...	941	94	4,129	585	2,896
Houston...	1,504	874	14,557	13,95	10,353
Jackson...	936	1,084	7,845	3,100	2,730
Jefferson...	55,029	38,167	102,161	38,328	100,756
Lamar...	298	339	4,957	1,028	2,734
Lauderdale...	2,727	3,350	19,202	6,582	5,978
Lawrence...	1,009	577	5,992	1,802	1,809
Lee...	2,881	2,607	7,594	1,785	5,914
Limestone...	891	824	7,800	3,016	2,377
Lowndes...	1,095	244	1,881	309	1,548
Madison...	3,865	206	1,036	2,041	1,858
Marengo...	9,670	12,94	28,263	13,193	14,279
Marion...	2,711	483	3,338	793	3,677
Marshall...	353	1,426	6,387	1,669	3,966
Mobile...	988	2,683	12,637	4,405	5,712
Monroe...	21,070	9,660	58,438	20,351	49,493
Montgomery...	1,370	587	4,472	846	3,870
Morgan...	27,357	7,255	37,980	7,368	23,015
Perry...	1,917	2,941	16,719	5,360	7,013
Pickens...	2,264	264	2,490	519	2,046
Pike...	1,388	317	4,168	744	3,416
Randolph...	1,664	704	5,921	78	4,373
Russell...	616	704	4,744	1,845	3,127
St. Clair...	3,597	707	7,569	1,535	4,877
Shelby...	934	1,548	6,647	1,946	6,037
Sumter...	1,178	3,140	8,390	1,982	4,813
Talladega...	1,928	234	1,486	404	1,653
Tallapoosa...	2,478	1,463	10,807	3,700	8,946
Tuscaloosa...	1,255	1,139	8,180	1,720	5,530
Walker...	2,356	1,486	7,704	5,763	13,227
Washington...	1,508	2,062	11,192	6,107	8,582
Wilcox...	546	193	4,057	1,202	2,808
Winston...	1,129	799	1,733	1,187	789
Winston...	272	2,192	3,032	1,487	3,438

Totals... 191,687 138,064 643,518 209,848 479,085

†The Democratic electors were unplighted, thus no Johnson vote appears.

ALABAMA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 163,254; Harding, Rep., 74,690; Watkins, Proh., 757; Debs, Soc., 2,369.
1924 (Pres.), Davis, Dem., 112,968; Coolidge, Rep., 45,005; LaFollette, Prog., 8,084; Farris, Proh., 538.
1928 (Pres.), Smith, Dem., 127,797; Hoover, Rep., 120,725; Thomas, Soc., 460.
1932 (Pres.), Roosevelt, Dem., 207,910; Hoover, Rep., 34,675; Foster, Com., 406; Thomas, Soc., 2,030; Upshaw, Proh., 13.
1936 (Pres.), Roosevelt, Dem., 238,195; Landon, Rep., 35,358; Colvin, Proh., 719; Browder, Com., 679; Lemke, Union, 549; Thomas, Soc., 242.
1940 (Pres.), Roosevelt, Dem., 250,726; Willkie, Rep., 42,174; Babson, Proh., 698; Browder, Com., 509; Thomas, Soc., 100.
1944 (Pres.), Roosevelt, Dem., 198,918; Dewey, Rep., 44,540; Watson, Proh., 1,095; Thomas, Soc., 190.
1948 (Pres.), Thurmond, States' Rights, 171,443;

Alabama (cont'd)

Dewey, Rep., 40,930; Wallace, Prog., 1,522; Watson, Proh., 1,085.
 1952 (Pres.), Eisenhower, Rep., 149,231; Stevenson, Dem., 275,075; Hamblen, Proh., 1,814.
 1956 (Pres.), Stevenson, Dem., 280,844; Eisenhower, Rep., 195,694; Independent electors, 20,323.
 1960 (Pres.), Kennedy, Dem., 324,050; Nixon, Rep., 237,981; Fausus, States' Rights, 4,367; Decker, Proh., 2,106; King, Afro-Americans, 1,485; Scattering, 236.
 1964 (Pres.), Dem., 209,848; Goldwater, Rep., 479,085; Scattering, 105.
 1968 (Pres.), Nixon, Rep., 138,064; Humphrey, Dem., 191,687; Wallace, 3rd party, 643,518.

Alaska

Election District	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
No. 1.....	1,807	2,125	513	3,041	1,554
No. 2.....	829	934	113	1,378	651
No. 3.....	1,201	1,093	146	1,745	651
No. 4.....	2,729	2,487	358	3,762	1,545
No. 5.....	644	579	134	1,056	250
No. 6.....	635	877	280	990	495
No. 7.....	890	1,071	349	1,242	963
No. 8.....	12,953	13,583	3,843	13,537	9,051
No. 9.....	449	371	88	674	264
No. 10.....	1,686	1,666	887	1,627	1,000
No. 11.....	854	983	242	1,183	399
No. 12.....	263	296	54	731	124
No. 13.....	539	579	94	931	267
No. 14.....	922	670	123	1,501	214
No. 15.....	615	742	251	1,366	600
No. 16.....	4,561	5,699	1,656	6,410	4,340
No. 17.....	915	733	93	1,149	252
No. 18.....	898	778	102	1,371	420
No. 19.....	557	272	63	635	77
*.....	557	1,001	312		
Totals...	34,574	36,539	9,731	44,329	22,930

*Ballot cast for President only by voters ineligible to vote in local elections.

ALASKA VOTE SINCE 1960

1960 (Pres.), Kennedy, Dem., 29,809; Nixon, Rep., 30,953.
 1964 (Pres.), Johnson, Dem., 44,329; Goldwater, Rep., 22,930.
 1968 (Pres.), Nixon, Rep., 36,539; Humphrey, Dem., 34,574; Wallace, 3rd party, 9,731.

Arizona

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Apache.....	1,668	2,092	402	2,042	1,849
Cochise.....	6,597	7,619	2,392	9,045	7,644
Cocouino.....	3,414	6,772	1,049	5,270	5,756
Gila.....	4,331	3,610	1,222	6,821	3,713
Graham.....	1,726	2,327	859	2,783	2,655
Greenlee.....	2,434	1,026	276	3,147	1,132
Maricopa.....	82,532	151,515	24,432	122,042	143,114
Mohave.....	2,109	3,208	883	2,243	2,091
Navajo.....	2,926	4,590	1,442	4,770	4,870
Pima.....	39,786	49,479	7,221	54,120	46,995
Pinal.....	7,409	6,883	1,869	9,911	6,956
Santa Cruz.....	1,551	1,697	240	1,955	1,503
Yavapai.....	3,989	8,296	1,837	5,747	7,749
Yuma.....	5,770	6,856	1,941	7,857	6,548
Totals...	166,742	255,970	45,066	237,753	242,535

ARIZONA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 29,546; Harding, Rep., 37,016; Watkins, Proh., 4; Debs, Soc., 222; Christensen, Farm-Lab., 15.
 1924 (Pres.), Coolidge, Rep., 30,516; Davis, Dem., 26,235; LaFollette, Prog., 17,210.
 1928 (Pres.), Hoover, Rep., 52,533; Smith, Dem., 38,537; Foster, Com., 184.
 1932 (Pres.), Roosevelt, Dem., 79,264; Hoover, Rep., 36,104; Thomas, Soc., 2,030; Foster, Com., 406.
 1936 (Pres.), Roosevelt, Dem., 86,722; Landon, Rep., 33,433; Lemke, Union, 3,307; Colvin, Proh., 384; Thomas, Soc., 317.
 1940 (Pres.), Roosevelt, Dem., 95,267; Willkie, Rep., 54,030; Babson, Proh., 742.

Arizona (cont'd)

1944 (Pres.), Roosevelt, Dem., 80,926; Dewey, Rep., 56,287; Watson, Proh., 421.
 1948 (Pres.), Truman, Dem., 95,251; Dewey, Rep., 77,597; Wallace, Prog., 3,310; Watson, Proh., 786; Teichert, Soc. Lab., 121.
 1952 (Pres.), Eisenhower, Rep., 152,042; Stevenson, Dem., 108,528.
 1956 (Pres.), Eisenhower, Rep., 176,990; Stevenson, Dem., 112,880; Andrews, Ind., 303.
 1960 (Pres.), Kennedy, Dem., 176,781; Nixon, Rep., 221,241; Hass, Soc. Lab., 469.
 1964 (Pres.), Johnson, Dem., 237,735; Goldwater, Rep., 242,535; Hass, Soc. Labor, 482.
 1968 (Pres.), Nixon, Rep., 255,970; Humphrey, Dem., 166,742; Wallace, 3rd party, 45,066; scattered, 2,762.

Arkansas

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Arkansas	2,028	1,838	3,777	3,200	3,769
Ashley	1,920	1,655	4,363	2,801	3,742
Baxter	1,952	3,401	1,613	2,900	1,986
Benton	4,085	8,104	4,036	5,655	5,977
Boone	1,907	3,349	2,169	3,770	2,857
Bradley	1,457	802	2,546	2,229	1,852
Calhoun	688	287	1,215	1,409	889
Carroll	1,303	2,695	1,174	2,005	2,105
Chicot	2,595	865	2,187	2,916	1,972
Clark	2,713	1,643	2,785	4,127	1,884
Clay	1,202	2,410	1,657	3,280	1,999
Cleburne	407	1,361	1,675	2,645	1,221
Cleveland	407	312	1,751	1,121	1,026
Columbia	2,457	1,916	3,843	3,485	4,009
Conway	2,560	1,973	1,958	4,200	2,378
Craighead	3,738	5,047	6,742	8,334	5,163
Crawford	1,511	2,655	2,821	3,537	3,294
Crittenden	3,475	2,454	4,657	4,168	4,065
Cross	1,555	1,093	3,056	2,421	2,147
Dallas	1,253	629	1,725	1,779	1,625
Desha	1,918	954	2,497	3,294	1,930
Drew	1,324	1,040	2,307	1,980	2,109
Faulkner	3,756	2,791	4,375	6,116	3,259
Franklin	1,49	1,353	2,111	2,685	1,580
Fulton	985	1,138	1,052	1,704	846
Garland	5,663	7,674	6,955	1,591	9,952
Grant	852	627	2,194	1,678	1,308
Greene	2,197	2,856	3,021	14,742	2,273
Hempstead	2,322	1,783	3,136	3,355	2,421
Hot Spring	2,137	1,780	4,139	4,543	2,911
Howard	1,061	1,286	1,657	1,320	1,649
Independence	2,289	2,782	2,770	4,455	2,470
Izard	958	931	1,109	1,736	726
Jackson	2,051	1,356	3,525	4,651	2,141
Jefferson	8,843	4,758	9,826	12,872	9,968
Johnson	1,747	1,637	1,093	3,127	1,535
Lafayette	1,217	673	1,664	1,484	1,476
Lawrence	1,613	1,788	2,813	3,498	1,668
Lee	2,125	834	1,907	2,335	1,656
Lincoln	1,209	488	2,084	2,468	1,410
Little River	1,092	745	1,473	2,040	1,141
Logan	1,998	2,341	2,160	3,604	2,265
Lonoke	2,014	1,677	4,002	3,818	3,636
Madison	1,173	1,929	830	2,715	1,997
Marion	990	1,385	877	1,661	1,088
Miller	1,310	1,221	2,789	5,190	4,253
Mississippi	4,993	4,369	6,111	8,678	6,213
Monroe	1,778	804	2,406	2,958	1,968
Montgomery	649	867	992	2,358	1,906
Nevada	1,308	840	1,773	2,190	1,357
Newton	852	1,467	567	1,374	1,043
Ouachita	4,603	2,209	5,031	7,056	3,572
Perry	631	731	911	1,320	1,048
Phillips	5,039	2,151	4,279	5,818	3,963
Pike	655	1,104	1,541	1,531	1,241
Poinsett	1,672	2,140	4,074	5,635	3,031
Polk	1,325	2,059	1,812	2,575	2,022
Pope	2,578	3,319	2,769	4,972	2,651
Prairie	918	678	2,008	1,812	1,476
Pulaski	26,141	26,017	25,520	40,355	38,312
Randolph	1,365	1,237	1,610	2,190	1,312
St. Francis	3,248	1,608	4,184	3,651	3,377
Salline	3,091	2,659	5,469	5,605	3,628
Scott	1,000	1,162	1,238	1,838	1,121
Searcy	719	1,877	720	1,508	11,649
Sebastian	6,029	11,367	8,222	10,299	13,110
Sexton	1,208	1,280	1,557	2,123	1,249
Sharp	1,023	1,126	1,299	1,810	1,215
Stone	749	967	963	1,374	942
Union	4,421	4,919	7,853	6,948	8,472
Van Buren	1,149	1,325	1,224	2,054	1,270
Washington	6,131	10,697	5,135	10,166	6,856
White	3,179	3,888	5,054	6,565	5,023
Woodruff	1,270	625	1,734	2,307	1,366
Yell	1,513	1,819	1,949	3,407	1,527

Totals 183,317 186,547 236,504 314,197 243,264

ARKANSAS VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 107,408; Harding, Rep., 71,117; Debs, Soc., 5,111.
 1924 (Pres.), Davis, Dem., 84,795; Coolidge, Rep., 40,564; LaFollette, Prog., 13,173.
 1928 (Pres.), Smith, Dem., 119,196; Hoover, Rep., 77,751; Thomas, Soc., 429; Foster, Com., 317.
 1932 (Pres.), Roosevelt, Dem., 189,602; Hoover, Rep., 28,467; Thomas, Soc., 1,269; Harvey, Ind., 1,049; Foster, Com., 175.
 1936 (Pres.), Roosevelt, Dem., 146,765; Landon, Rep., 32,039; Thomas, Soc., 446; Browder, Com., 164; Lemke, Union, 4.
 1940 (Pres.), Roosevelt, Dem., 158,622; Willkie, Rep., 42,121; Babson, Proh., 793; Thomas, Soc., 305.
 1944 (Pres.), Roosevelt, Dem., 148,965; Dewey, Rep., 63,551; Thomas, Soc., 438.
 1948 (Pres.), Truman, Dem., 149,659; Dewey, Rep., 50,959; Thurmond, States' Rights, 40,068; Thomas, Soc., 1,037; Wallace, Prog., 751; Watson, Proh., 1.
 1952 (Pres.), Eisenhower, Rep., 177,155; Stevenson, Dem., 226,300; Hamblen, Proh., 886; MacArthur, Christian Nationalist, 458; Hass, Soc. Lab., 1.
 1956 (Pres.), Stevenson, Dem., 213,277; Eisenhower, Rep., 186,287; Andrews, Ind., 7,008.
 1960 (Pres.), Kennedy, Dem., 215,049; Nixon, Rep., 184,508; National States' Rights, 29,952.
 1964 (Pres.), Johnson, Dem., 314,197; Goldwater, Rep., 243,264; Kasper, Nat'l States Rights, 2,965.
 1968 (Pres.), Nixon, Rep., 186,547; Humphrey, Dem., 183,317; Wallace, 3rd party, 236,504.

California

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Alameda	218,305	152,376	28,262	253,833	142,998
Alpine	83	150	20	91	124
Anaheim	2,440	2,269	660	3,410	1,682
Butte	12,883	22,223	3,888	20,831	19,574
Calaveras	1,183	3,042	643	3,145	2,244
Colusa	1,858	2,361	344	2,790	1,811
Contra Costa	11,448	97,243	18,287	113,071	65,011
Del Norte	2,232	2,371	493	3,652	2,075
El Dorado	6,059	7,464	8,810	5,775	5,775
Fresno	65,153	59,901	11,241	89,375	46,792
Glenn	2,461	3,838	806	3,937	3,351
Humboldt	16,348	16,696	2,743	25,515	12,909
Imperial	7,182	9,985	1,945	11,143	10,430
Inyo	2,314	3,641	714	3,161	2,751
Kern	45,588	53,965	12,426	64,174	45,014
Kings	8,643	7,826	1,640	13,073	5,753
Lake	3,831	4,537	902	4,680	3,616
Lassen	2,930	2,553	712	4,072	2,124
Los Angeles	1,194	1,231	147,349	1,568	1,161
Madera	6,932	6,229	1,122	9,300	4,461
Marin	36,241	41,381	3,794	46,862	28,632
Mariposa	1,188	1,496	300	1,704	1,264
Mendocino	7,933	8,300	1,550	11,869	6,322
Merced	14,453	11,615	2,248	19,431	8,814
Modoc	1,264	1,727	359	1,972	1,386
Monterey	465	1,130	156	666	850
Napa	28,261	33,669	4,800	40,093	24,579
Nevada	14,704	14,245	3,467	19,580	11,567
Orange	146,982	310,247	1,067	6,397	4,899
Placer	14,034	12,411	32,776	176,539	224,196
Plumas	2,961	2,697	529	18,256	9,389
Riverside	61,122	83,393	12,426	80,528	61,165
Sacramento	117,997	96,526	16,106	149,668	77,871
San Benito	2,809	2,961	501	3,779	2,444
S. Bernardino	89,372	111,913	21,177	123,012	92,145
San Diego	166,105	258,545	32,967	211,088	214,445
S. Francisco	162,579	92,170	17,325	201,758	92,994
San Joaquin	41,559	46,785	8,827	59,210	36,546
San Luis	14,888	17,713	2,193	22,252	14,906
San Mateo	106,351	98,002	14,552	140,978	77,916
San Barbara	37,305	49,670	5,035	48,381	38,020
Santa Clara	173,066	163,082	18,721	202,249	117,320
Santa Cruz	20,490	25,362	3,464	26,714	18,836
Shasta	14,510	11,821	2,815	19,142	9,178
Sierra	559	548	85	828	413
Siskiyou	6,542	6,314	1,088	9,126	5,186
Solano	25,931	16,114	5,405	34,930	15,263
Stanislaus	32,817	37,673	5,771	44,354	27,677
Sutter	31,306	29,576	3,953	43,078	21,973
Tehama	4,624	8,665	1,218	6,787	7,241
Trinity	4,572	5,198	1,216	6,928	4,529
Tulare	1,433	4,426	432	2,175	1,252
Tuolumne	22,181	29,316	4,580	33,974	22,527
Ventura	39,983	8,233	57,805	40,264	7,976
Yolo	15,751	11,063	1,733	18,266	7,976
Yuba	4,461	5,371	1,296	6,766	4,964

Totals 3,186,270 3,407,851 481,665 4,171,877 2,879,108

California (cont'd)

CALIFORNIA VOTE SINCE 1920					
1920 (Pres.), Cox, Dem., 229,191; Harding, Rep., 624,992; Watkins, Proh., 26,204; Debs, Soc., 64,076.					
1924 (Pres.), Coolidge, Rep., 733,250; Davis, Dem., 105,514; LaFollette, Prog., 424,649; Faris, Proh., 18,365.					
1928 (Pres.), Hoover, Rep., Proh., 1,162,323; Smith, Dem., 614,365; Thomas, Soc., 19,595; Varney, Proh., 14,394 (incl. in Hoover vote); Foster, Com., 216 (incl. 194 for Gitlow).					
1932 (Pres.), Roosevelt, Dem., 1,324,157; Hoover, Rep., 847,902; Thomas, Soc., 63,299; Upshaw, Proh., 20,637; Harvey, Liberty, 9,827; Foster, Com., 1,043.					
1936 (Pres.), Roosevelt, Dem., 1,766,836; Landon, Rep., 836,431; Colvin, Proh., 12,917; Thomas, Soc., 1,325; Browder, Com., 10,877.					
1940 (Pres.), Roosevelt, Dem., 1,877,618; Wilkie, Rep., 1,351,419; Thomas, Prog., 16,506; Browder, Com., 13,586; Babson, Proh., 9,400.					
1944 (Pres.), Roosevelt, Dem., 1,988,564; Dewey, Rep., 1,512,965; Watson, Proh., 14,770; Thomas, Soc., 3,923; Teichert, Soc. Lab., 327.					
1948 (Pres.), Truman, Dem., 1,913,134; Dewey, Rep., 1,895,269; Wallace, Prog., 190,381; Watson, Proh., 16,926; Thomas, Soc., 3,459; Thurmond, States' Rights, 1,228; Teichert, Soc. Lab., 195; Dobbs, Soc. Workers, 133.					
1952 (Pres.), Eisenhower, Rep., 2,897,310; Stevenson, Dem., 2,197,548; Hallinan, Prog., 24,106; Hamblen, Proh., 15,653; MacArthur, (Tenny Ticket), 3,326; (Kellems Ticket) 178; Hass, Soc. Lab., 273; Hoopes, Soc. 206; Scattered, 3,249.					
1956 (Pres.), Eisenhower, Rep., 3,027,668; Stevenson, Dem., 2,420,136; Holtwick, Proh., 11,119; Andrews, Constitution, 6,087; Hass, Soc. Lab., 300; Hoopes, Soc., 123; Dobbs, Soc. Workers, 96; Smith, Christian Nat'l., 8; Scattered, 819.					
1960 (Pres.), Kennedy, Dem., 3,224,099; Nixon, Rep., 3,259,722; Decker, Proh., 21,706; Hass, Soc. Lab., 1,051.					
1964 (Pres.), Johnson, Dem., 4,171,877; Goldwater, Rep., 2,879,108; Hass, Soc. Labor, 489; DeBerry, Soc. Worker, 378; Munn, Proh., 305; Hensley, Universal, 19; Scattering, 5,410.					
1968 (Pres.), Nixon, Rep., 3,407,851; Humphrey, Dem., 3,186,270; Wallace, 3rd party, 481,665; scattered, 26,992.					

Colorado

County	1968					1964				
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Adams	25,333	24,121	5,329	35,498	15,652					
Alamosa	1,574	2,277	287	2,481	1,488					
Arapahoe	18,569	33,712	3,891	27,940	23,071					
Archuleta	409	486	83	632	370					
Baca	734	144	340	1,366	1,241					
Bent	1,122	1,234	276	1,737	937					
Boulder	17,392	27,578	2,495	22,737	17,373					
Chaffee	1,480	1,726	258	2,463	1,476					
Cheyenne	392	664	136	735	676					
Clear Creek	660	994	175	1,086	676					
Conejos	1,489	1,366	117	2,033	1,031					
Costilla	938	477	20	1,284	299					
Crowley	565	775	196	967	690					
Custer	204	423	77	406	358					
Delta	2,327	3,692	618	143,927	2,879					
Denver	106,081	92,013	11,404	3,480	73,238					
Dolores	217	392	131	496	322					
Douglas	857	1,909	327	1,442	1,336					
Eagle	927	1,048	160	1,299	644					
Elbert	484	1,043	185	857	924					
El Paso	21,226	32,067	6,805	27,844	23,822					
Fremont	2,960	4,247	823	5,181	3,875					
Garfield	2,271	3,157	591	3,196	2,282					
Gilpin	248	358	99	363	233					
Grand	433	1,167	217	902	814					
Gunnison	876	1,421	157	1,540	903					
Hinsdale	43	127	22	94	107					
Huerfano	1,934	1,133	150	2,734	895					
Jackson	177	474	51	384	354					
Jefferson	32,254	52,278	6,411	43,162	33,393					
Kiowa	423	689	112	701	579					
Kit Carson	1,026	1,977	232	1,906	1,316					
Lake	1,550	1,025	287	2,362	681					
LaPlata	2,526	4,269	673	4,442	3,550					
Larimer	9,148	18,435	1,810	12,776	11,636					
Las Animas	4,679	2,645	353	6,591	1,833					
Lincoln	809	1,407	247	1,327	1,104					
Logan	2,521	4,334	736	4,222	3,497					
Mesa	8,775	10,745	2,076	12,716	8,317					
Mineral	1,265	1,736	393	2,04	848					
Moffat	765	1,735	392	1,857	879					
Montezuma	1,349	2,461	545	2,686	2,035					
Montrose	2,397	3,556	753	4,009	2,678					
Morgan	2,306	4,598	584	4,271	3,228					
Otero	3,863	4,726	713	5,999	3,605					
Ouray	250	401	120	456	358					

Colorado (cont'd)

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Park	286	601	134	515	493
Phillips	723	1,237	211	1,243	1,012
Pitkin	1,135	728	137	958	540
Prowers	2,335	2,745	506	3,759	2,044
Pueblo	27,189	16,596	3,797	34,933	13,103
Rio Blanco	502	1,294	204	1,134	1,015
Rio Grande	1,562	2,442	174	2,161	1,699
Routt	1,080	1,591	291	1,853	1,095
Saguache	648	823	97	1,099	622
San Juan	134	165	59	278	129
San Miguel	316	422	60	636	332
Sedgwick	546	1,006	100	942	895
Summit	301	536	95	483	344
Teller	403	721	249	685	577
Washington	699	1,634	352	1,341	1,234
Weld	10,420	17,097	2,174	17,268	12,204
Yuma	1,175	2,529	330	2,145	2,007
Totals	335,715	408,146	60,447	476,024	296,767

COLORADO VOTE SINCE 1920					
1920 (Pres.), Cox, Dem., 104,936; Harding, Rep., 173,248; Watkins, Proh., 2,807; Debs, Soc., 8,046; Christensen, Farm-Lab., 3,016.					
1924 (Pres.), Coolidge, Rep., 195,171; Davis, Dem., 75,238; LaFollette, Prog., 57,368; Faris, Proh., 966; Foster, Workers, 562; Johns, Soc. Lab., 378.					
1928 (Pres.), Hoover, Rep., 253,872; Smith, Dem., 133,131; Thomas, Soc., 3,472; Foster, Com., 675; Farm-Lab., 1,092.					
1932 (Pres.), Roosevelt, Dem., 250,877; Hoover, Rep., 189,617; Thomas, Soc., 14,018; Upshaw, Proh., 1,928.					
1936 (Pres.), Roosevelt, Dem., 295,081; Landon, Rep., 181,267; Lemke, Union, 9,962; Thomas, Soc., 1,593; Browder, Com., 497; Aiken, Soc. Labor, 336.					
1940 (Pres.), Roosevelt, Dem., 265,554; Wilkie, Rep., 279,576; Thomas, Soc., 1,899; Babson, Proh., 597; Browder, Com., 378.					
1944 (Pres.), Roosevelt, Dem., 234,331; Dewey, Rep., 268,731; Thomas, Soc., 1,977.					
1948 (Pres.), Truman, Dem., 267,288; Dewey, Rep., 239,714; Wallace, Prog., 6,115; Thomas, Soc., 1,678; Dobbs, Soc. Workers, 228; Teichert, Soc. Lab., 214.					
1952 (Pres.), Eisenhower, Rep., 379,782; Stevenson, Dem., 245,504; MacArthur, Constitution, 2,181; Hallinan, Prog., 1,919; Hoopes, Soc., 365; Hass, Soc. Lab., 352.					
1956 (Pres.), Eisenhower, Rep., 394,479; Stevenson, Dem., 263,997; Hass, Soc. Lab., 3,308; Andrews, Ind., 759; Hoopes, Soc., 531.					
1960 (Pres.), Kennedy, Dem., 330,629; Nixon, Rep., 402,242; Hass, Soc. Lab., 2,803; Dobbs, Soc. Workers, 572.					
1964 (Pres.), Johnson, Dem., 476,024; Goldwater, Rep., 296,767; Hass, Soc. Labor, 302; DeBerry, Soc. Worker, 2,537; Munn, Proh., 1,356.					
1968 (Pres.), Nixon, Rep., 408,146; Humphrey, Dem., 335,715; Wallace, 3rd party, 60,447; scattered, 1,274.					

Connecticut

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Fairfield	139,364	173,108	21,477	194,782	125,576
Hartford	190,865	131,740	16,779	240,971	88,811
Litchfield	29,340	31,429	3,526	40,172	20,834
Middlesex	23,727	21,999	2,706	30,517	14,697
New Haven	159,653	130,501	23,985	218,743	97,656
New London	41,597	37,116	4,879	54,551	24,391
Tolland	18,007	16,666	1,918	22,195	9,951
Windham	19,098	14,162	1,380	25,238	9,080
Totals	621,561	556,721	76,650	826,269	390,996

CONNECTICUT VOTE SINCE 1920					
1920 (Pres.), Cox, Dem., 120,721; Harding, Rep., 229,238; Watkins, Proh., 1,771; Debs., Soc., 10,350; Christensen, Farm-Lab., 1,947.					
1924 (Pres.), Coolidge, Rep., 246,322; Davis, Dem., 110,184; LaFollette, Prog., 42,416; Johns, Soc. Lab., 1,373.					
1928 (Pres.), Hoover, Rep., 296,614; Smith, Dem., 252,040; Thomas, Soc., 3,019; Foster, Com., 730; Reynolds, Soc. Lab., 822.					
1932 (Pres.), Roosevelt, Dem., 281,632; Hoover, Rep., 288,420; Thomas, Soc., 22,767.					
1936 (Pres.), Roosevelt, Dem., 382,129; Landon, Rep., 278,685; Lemke, Union, 21,805; Thomas, Soc., 5,683; Browder, Com., 1,193.					
1940 (Pres.), Roosevelt, Dem., 417,621; Wilkie, Rep., 279,576; Thomas, Soc., 1,899; Babson, Proh., 597; Browder, Com., 378.					

Connecticut (cont'd)

Rep., 361,021; Browder, Comm., 1,091; Aiken, Soc. Lab., 971; Willkie, Union, 798.
1944 (Pres.), Roosevelt, Dem., 435,146; Dewey, Rep., 390,527; Thomas, Soc. Lab., 5,097; Teichert, Soc. Lab., 1,220.
1948 (Pres.), Truman, Dem., 423,297; Dewey, Rep., 437,754; Wallace, Prog., 13,713; Thomas, Soc., 6,964; Teichert, Soc. Lab., 1,184; Dobbs, Soc. Workers, 606.
1952 (Pres.), Eisenhower, Rep., 611,012; Stevenson, Dem., 481,649; Hoopes, Soc., 2,244; Hallinan, Peoples, 1,466; Hass, Soc. Lab., 535; Write-In, 5.
1956 (Pres.), Eisenhower, Rep., 711,837; Stevenson, Dem., 405,079; Scattered, 205.
1960 (Pres.), Kennedy, Dem., 657,055; Nixon, Rep., 565,813.
1964 (Pres.), Johnson, Dem., 826,269; Goldwater, Rep., 390,996; Scattered, 1,352,721; Humphrey, 1968 (Pres.), Nixon, Rep., 855,721; Humphrey, Dem., 621,561; Wallace, 3rd party, 76,650; scattered, 1,302.

Delaware

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
New Castle (Inc. Wilmington).....	67,395	68,630	17,050	91,752	54,767
Kent.....	9,972	10,818	4,712	12,981	9,006
Sussex.....	11,689	15,533	5,760	17,971	14,305
Totals	88,056	94,981	27,522	122,704	78,078

DELAWARE VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 39,911; Harding, Rep., 52,858; Watkins, Proh., 986; Debs, Soc., 988; Christensen, Farm-Lab., 93.
1924 (Pres.), Coolidge, Rep., 52,441; Davis, Dem., 33,445; LaFollette, Prog. & Soc., 4,979.
1928 (Pres.), Hoover, Rep., 68,860; Smith, Dem., 36,643.
1932 (Pres.), Hoover, Rep., 57,074; Roosevelt, Dem., 54,319; Thomas, Soc., 1,376; Foster, Comm., 133.
1936 (Pres.), Roosevelt, Dem., 69,702; Landon, Rep., 54,014; Lemke, Union, 442; Thomas, Soc., 179; Browder, Comm., 52.
1940 (Pres.), Roosevelt, Dem., 74,599; Willkie, Rep., 61,440; Babson, Proh., 220; Thomas, Soc., 115.
1944 (Pres.), Roosevelt, Dem., 68,166; Dewey, Rep., 56,747; Watson, Proh., 294; Thomas, Soc., 154.
1948 (Pres.), Truman, Dem., 67,813; Dewey, Rep., 69,688; Wallace, Prog., 1,050; Watson, Proh., 343; Thomas, Soc., 250; Teichert, Soc. Lab., 29.
1952 (Pres.), Eisenhower, Rep., 90,059; Stevenson, Dem., 83,315; Hass, Soc. Lab., 242; Hamblen, Proh., 234; Hallinan, Prog., 155; Hoopes, Soc., 20.
1956 (Pres.), Eisenhower, Rep., 98,057; Stevenson, Dem., 79,421; Holtwick, Proh., 400; Hass, Soc. Lab., 110.
1960 (Pres.), Kennedy, Dem., 99,590; Nixon, Rep., 96,373; Faubus, States' Rights, 354; Decker, Proh., 284; Hass, Soc. Lab., 82.
1964 (Pres.), Johnson, Dem., 122,704; Goldwater, Rep., 78,078; Hass, Soc. Lab., 113; Munn, Proh., 425.
1968 (Pres.), Nixon, Rep., 88,056; Humphrey, Dem., 94,981; Wallace, 3rd party, 27,522.

District of Columbia

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Dist. of C.....	139,566	31,012	.....	169,796	28,801
Totals	139,566	31,012	.....	169,796	28,801

DISTRICT OF COLUMBIA

1964 (Pres.), Johnson, Dem., 169,796; Goldwater, Rep., 28,801.
1968 (Pres.), Nixon, Rep., 31,012; Humphrey, Dem., 139,566.

Florida

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Alachua.....	10,060	9,670	8,696	13,483	11,151
Baker.....	487	294	1,962	1,137	1,121
Bay.....	4,020	5,121	15,161	7,846	12,849

Florida (cont'd)

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Bradford....	1,173	718	2,840	2,320	1,987
Brevard....	18,281	37,124	21,909	24,833	24,551
Broward....	56,613	106,122	31,992	68,406	85,264
Calhoun....	398	356	2,375	980	1,793
Charlotte....	3,647	6,056	2,270	4,831	4,163
Citrus....	1,775	2,767	2,606	2,521	2,329
Clay....	1,954	3,251	4,046	3,114	3,805
Collier....	2,230	5,362	2,952	2,877	3,585
Columbia....	1,750	1,553	4,046	3,249	4,141
Dade....	176,689	135,222	53,391	208,941	117,480
De Soto....	937	1,103	2,054	1,777	1,986
Dixie....	325	217	1,546	923	908
Duval....	54,834	51,585	60,559	79,365	81,116
Escambia....	16,281	15,089	37,000	23,371	32,414
Flagler....	601	360	817	940	718
Franklin....	699	529	1,909	1,366	1,419
Gadsden....	3,274	1,337	4,446	4,556	5,207
Gilchrist....	208	183	1,119	711	540
Glades....	230	261	600	441	541
Hamilton....	711	364	2,725	1,659	2,001
Hardee....	320	337	1,574	1,302	1,158
Hendry....	703	1,278	2,529	1,908	2,321
Hernando....	791	900	1,638	1,352	1,650
Highlands....	1,524	2,053	2,387	2,320	2,337
Hillsborough....	2,582	4,560	3,475	4,233	4,747
Holmes....	45,848	49,441	46,913	71,289	50,616
Indian River....	312	377	4,700	1,193	3,225
Indian River....	3,179	6,518	3,022	5,122	6,191
Jackson....	2,472	1,236	8,622	4,386	7,064
Jefferson....	1,066	459	1,567	1,504	1,684
Lafayette....	215	137	1,125	545	648
Lake....	4,599	11,763	8,442	7,773	12,897
Lee....	9,378	14,376	8,741	10,204	12,886
Leon....	10,440	9,288	12,878	10,927	15,181
Levy....	767	745	1,322	1,986	1,580
Liberty....	242	154	1,322	377	919
Madison....	1,378	654	2,703	2,121	2,222
Manatee....	8,286	18,247	8,214	13,074	17,147
Martin....	5,798	7,468	9,600	9,112	10,879
Martin....	2,580	5,179	2,471	3,621	4,292
Monroe....	5,534	5,094	4,271	8,936	4,842
Nassau....	1,598	1,301	3,634	2,781	3,134
Okaloosa....	3,059	5,525	12,237	7,890	9,961
Okeechobee....	542	862	1,604	1,016	1,316
Orange....	22,548	50,874	27,242	38,248	48,884
Osceola....	1,870	4,172	3,462	3,531	4,516
Palm Beach....	32,837	62,191	21,894	43,836	49,614
Pasco....	6,292	9,743	6,966	8,135	7,606
Pinellas....	68,209	109,235	38,814	98,381	87,414
Polk....	15,898	27,839	31,540	29,355	35,906
Putnam....	2,920	2,955	5,150	4,995	5,072
St. Johns....	2,748	3,880	4,682	4,357	7,450
St. Lucie....	5,232	7,281	4,410	7,748	7,204
Santa Rosa....	1,690	2,567	8,549	3,570	5,983
Sarasota....	10,127	30,160	7,041	13,937	21,917
Seminole....	6,132	9,100	7,275	9,125	10,078
Sumter....	1,277	910	2,259	1,631	3,002
Suwannee....	1,182	845	3,955	2,393	3,002
Taylor....	941	794	3,318	1,708	2,661
Union....	290	179	1,192	740	710
Volusia....	24,987	28,024	17,209	34,901	24,988
Wakulla....	440	247	1,668	753	1,270
Walton....	1,064	963	5,135	2,449	3,753
Washington....	722	528	3,682	1,500	2,725
Totals	676,794	886,804	624,207	948,540	905,941

FLORIDA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 90,515; Harding, Rep., 44,853; Watkins, Proh., 5,124; Debs, Soc., 5,189.
1924 (Pres.), Davis, Dem., 62,083; Coolidge, Rep., 30,633; LaFollette, Prog., 8,625; Farns, Proh., 5,498; Nations, Amer., 2,315.
1928 (Pres.), Hoover, Rep., 144,168; Smith, Dem., 101,764; Thomas, Soc., 4,036; Foster, Comm., 3,704.
1932 (Pres.), Roosevelt, Dem., 206,307; Hoover, Rep., 69,170; Thomas, Soc., 775.
1936 (Pres.), Roosevelt, Dem., 249,117; Landon, Rep., 78,248; Thomas, Soc., 775.
1940 (Pres.), Roosevelt, Dem., 359,334; Willkie, Rep., 126,158.
1944 (Pres.), Roosevelt, Dem., 339,377; Dewey, Rep., 143,215.
1948 (Pres.), Truman, Dem., 281,988; Dewey, Rep., 194,280; Thurmond, States' Rights, 89,755; Wallace, Prog., 11,620.
1952 (Pres.), Eisenhower, Rep., 544,036; Stevenson, Dem., 444,950; Scattered, 351.
1956 (Pres.), Eisenhower, Rep., 643,849; Stevenson, Dem., 480,371.
1960 (Pres.), Kennedy, Dem., 748,700; Nixon, Rep., 795,476.
1964 (Pres.), Johnson, Dem., 948,540; Goldwater, Rep., 905,941.
1968 (Pres.), Nixon, Rep., 886,804; Humphrey, Dem., 676,794; Wallace, 3rd party, 624,207.

Georgia

Georgia (cont'd)

1968

1964

County	1968			1964		County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)						
Appling	760	795	2,678	1,562	2,597	McIntosh	843	315	841	1,193	795
Atkinson	686	288	1,554	811	1,157	Meriwether	1,760	1,120	2,571	2,423	2,250
Bacon	279	586	1,935	1,179	2,136	Miller	171	249	1,862	274	1,658
Baker	548	99	1,067	600	914	Mitchell	1,255	731	3,647	1,197	3,265
Baldwin	2,109	2,318	2,678	2,740	3,430	Monroe	1,028	770	1,422	1,578	1,665
Banks	296	398	2,434	1,258	548	Montgomery	503	352	1,433	878	1,409
Barrow	1,070	1,372	2,731	2,277	2,316	Morgan	973	616	1,391	1,654	1,485
Bartow	2,149	2,041	4,052	4,635	2,813	Murray	818	1,278	1,750	2,426	1,064
Ben Hill	876	661	1,833	1,523	2,089	Muscogee	7,591	11,193	15,804	12,446	21,025
Berrien	451	566	2,810	2,658	4,073	Newton	1,996	1,660	3,017	3,620	2,678
Bibb	10,579	13,490	17,308	17,831	25,641	Oconee	414	713	1,405	1,073	1,241
Bleckley	396	756	2,458	978	2,578	Oglethorpe	483	383	1,737	864	1,126
Brantley	317	237	1,709	909	1,231	Paulding	1,023	977	3,054	2,513	1,926
Brooks	787	589	2,404	1,027	2,342	Peach	3,672	904	1,638	1,585	1,970
Bryan	560	361	1,426	857	1,453	Pickens	1,367	1,659	1,392	1,930	1,955
Bulloch	1,748	2,133	3,953	2,129	4,823	Pierce	368	446	2,446	982	1,981
Burke	1,676	1,416	1,802	1,208	3,034	Pike	632	345	1,442	946	1,064
Butts	959	584	1,490	1,534	1,261	Polk	2,007	1,729	4,240	4,553	3,288
Calhoun	697	234	979	289	1,066	Pulaski	514	595	1,569	955	1,762
Camden	1,146	751	1,988	1,693	1,802	Putnam	972	594	1,177	1,018	1,196
Candler	587	552	1,624	795	1,710	Quitman	198	90	459	230	377
Carroll	2,326	3,135	6,509	4,794	4,984	Rabun	590	680	1,407	1,796	1,551
Catoosa	901	2,043	6,449	2,922	4,143	Randolph	1,028	502	1,438	962	1,656
Charlton	455	332	1,157	574	1,179	Richmond	1,490	959	1,532	13,455	21,481
Chatham	18,178	18,013	17,206	23,176	33,141	Rockdale	1,213	1,195	2,215	1,972	1,503
Chatahoochee	148	70	303	191	243	Schley	309	164	619	377	577
Chattahoochee	1,255	1,047	3,024	3,986	1,476	Screven	1,411	916	1,830	1,446	2,260
Cherokee	1,434	2,675	3,351	3,189	3,398	Seminole	369	201	1,922	427	1,294
Clarke	5,543	5,800	3,452	7,519	4,875	Spalding	2,949	3,077	4,953	5,466	4,763
Clay	516	133	608	360	544	Stephens	1,035	1,295	2,802	3,483	1,371
Clayton	3,489	8,182	11,601	5,869	10,489	Stewart	489	233	932	373	1,037
Clinch	334	304	1,142	706	1,084	Sumter	1,701	1,383	3,489	1,727	3,774
Cobb	8,755	18,649	17,805	16,647	20,863	Talbot	510	317	688	627	679
Coffee	1,331	1,241	3,785	2,719	4,392	Tallapoosa	678	232	508	628	337
Colquitt	1,119	1,882	6,325	2,563	6,493	Tattnall	957	852	3,405	1,648	3,264
Columbia	905	1,636	2,207	1,428	2,575	Taylor	390	1,626	1,626	1,097	1,372
Cook	603	521	2,438	1,337	2,058	Telfair	992	616	2,367	1,872	1,914
Coweta	1,204	2,442	3,781	3,742	3,656	Terrell	1,275	545	1,798	569	1,921
Crawford	489	246	886	723	937	Thomas	2,583	2,261	5,039	3,257	6,306
Crisp	1,017	935	3,271	1,756	3,337	Tift	1,187	1,692	3,942	2,286	4,650
Dade	282	613	2,460	1,227	1,378	Toombs	896	1,397	3,405	1,685	3,543
Dawson	246	509	845	932	639	Towns	770	1,492	589	1,289	1,140
Decatur	1,729	749	4,576	2,011	5,060	Treutlen	341	474	1,081	1,331	722
De Kalb	27,796	52,485	23,954	37,154	49,409	Troup	2,896	3,239	6,232	6,032	5,277
Dodge	1,230	1,055	3,406	2,376	3,285	Turner	412	419	1,845	719	1,672
Dooly	879	454	1,803	1,471	1,662	Twigs	974	336	1,167	786	1,178
Dougherty	3,831	5,611	9,317	5,248	12,776	Union	1,480	1,394	3,579	3,275	3,103
Douglas	1,241	1,848	4,159	2,501	3,315	Walker	1,930	3,664	8,725	5,454	5,939
Early	785	327	2,797	771	2,398	Walton	1,552	1,399	4,047	2,350	2,874
Effingham	635	769	2,561	680	2,679	Ware	2,255	2,047	5,895	5,189	4,948
Elbert	1,216	914	3,252	3,172	1,887	Warren	582	406	767	384	1,070
Emanuel	1,508	1,297	3,307	2,279	3,311	Washington	1,443	1,247	2,029	1,830	2,296
Evans	492	543	1,475	799	1,572	Wayne	980	1,313	3,422	2,182	3,619
Fannin	1,134	3,096	1,095	2,834	3,433	Webster	147	72	494	144	457
Fayette	551	867	1,888	896	1,349	Wheeler	488	251	934	980	849
Floyd	4,036	7,470	10,001	8,750	9,849	White	435	762	1,157	1,520	840
Forsyth	647	1,389	2,397	1,682	1,471	Whitfield	2,723	4,823	3,954	7,350	4,564
Franklin	766	600	2,691	2,758	864	Wilcox	953	873	1,709	1,437	1,652
Fulton	77,847	64,453	36,995	93,540	73,150	Wilkinson	829	685	1,870	963	2,172
Gilmer	690	2,074	3,333	1,334	2,167	Worth	719	638	3,048	862	3,157
Glassecock	47	185	233	134	836						
Glynn	3,247	3,725	5,341	5,712	7,341						
Gordon	1,161	1,815	3,077	3,260	2,317						
Grady	1,425	561	3,817	1,887	2,983						
Greene	1,635	652	1,223	2,698	1,093						
Gwinnett	3,226	5,350	8,909	6,705	6,823						
Habersham	1,070	1,611	3,008	3,412	1,595						
Hall	3,160	4,902	5,530	8,003	4,296						
Hancock	2,165	351	1,104	1,074	925						
Harrison	771	1,621	3,251	2,166	3,129						
Harris	1,072	1,919	3,251	940	3,429						
Hart	979	586	3,208	2,142	1,165						
Heard	356	303	1,153	1,061	807						
Henry	2,317	2,017	3,604	3,583	3,125						
Houston	2,831	4,285	7,339	4,258	6,532						
Irwil	474	430	1,955	1,740	2,017						
Jackson	1,537	1,139	3,473	3,953	1,664						
Jasper	835	456	926	848	1,075						
Jeff Davis	376	577	1,958	745	1,875						
Jefferson	1,879	1,227	2,040	1,253	2,950						
Jenkins	704	574	1,249	908	1,509						
Johnson	446	381	1,559	1,076	1,840						
Jones	1,105	693	1,770	1,380	1,805						
Lamar	790	575	1,440	1,548	1,570						
Lanier	277	241	1,024	661	719						
Laurens	3,451	2,738	6,649	3,828	5,295						
Lee	673	389	1,201	244	1,041						
Liberty	1,572	592	1,365	2,212	1,458						
Lincoln	491	408	1,270	353	943						
Long	574	156	1,037	1,336	246						
Lowndes	2,402	3,073	5,679	4,363	6,811						
Lumpkin	396	687	1,048	1,189	855						
Macon	854	598	1,559	1,076	1,723						
Madison	621	600	2,529	2,341	1,900						
Marion	247	186	849	365	719						
McDuffie	991	1,324	1,709	1,124	2,657						

GEORGIA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 107,162; Harding, Rep., 43,720; Deb. Soc., 465.

1924 (Pres.), Davis, Dem., 123,200; Coolidge, Rep., 30,300; LaFollette, Prog., 12,691; Faris, Proh., 231; Nations, Amer., 155.

1928 (Pres.), Smith, Dem., 129,602; Hoover, Rep., 63,498; Hoover (anti-Smith, Dems.), 35,871; Hoover total, 99,369; Thomas, Soc., 124; Foster, Com., 64.

1932 (Pres.), Roosevelt, Dem., 234,118; Hoover, Rep., 19,863; Upshaw, Proh., 1,125; Thomas, Soc., 461; Foster, Com., 23.

1936 (Pres.), Roosevelt, Dem., 255,364; Landon, Rep., 36,942; Colvin, Proh., 660; Lemke, Union, 141; Thomas, Soc., 68.

1940 (Pres.), Roosevelt, Dem., 265,194; Wilkie, Rep., 23,934; Ind. Dem., 22,428; total, 46,362; Babson, Proh., 983.

1944 (Pres.), Roosevelt, Dem., 268,187; Dewey, Rep., 56,506; Watson, Proh., 36.

1948 (Pres.), Truman, Dem., 254,646; Dewey, Rep., 76,691; Thurmond, States' Rights, 85,055; Wallace, Prog., 1,636; Watson, Proh., 732.

1952 (Pres.), Eisenhower, Rep., 198,979; Stevenson, Dem., 456,823; Liberty Party, 1.

1956 (Pres.), Stevenson, Dem., 444,388; Eisenhower, Rep., 222,778; Andrews, Ind., (Write-in), 1,754.

1960 (Pres.), Kennedy, Dem., 458,638; Nixon, Rep., 274,472; Write-in, 239.

1964 (Pres.), Johnson, Dem., 522,557; Goldwater, Rep., 616,600.

1968 (Pres.), Nixon, Rep., 365,722; Humphrey, Dem., 333,062; Wallace, 3rd party, 535,389.

Indiana (cont'd)

1,175,120; Decker, Proh., 6,746; Hass, Soc. Lab., 1,136.
 1964 (Pres.), Johnson, Dem., 1,170,848; Goldwater, Rep., 911,118; Munn, Proh., 8,266; Hass, Soc. Lab., 1,374.
 1968 (Pres.), Nixon, Rep., 1,057,784; Humphrey, Dem., 806,259; Wallace, 3rd party, 243,030; scattered, 6,124.

Iowa

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Adair	1,558	2,785	234	2,851	1,953
Adams	1,096	1,868	260	1,941	1,321
Allamakee	2,250	4,449	407	3,504	3,691
Appanoose	3,005	3,497	540	4,960	2,872
Audubon	1,720	2,592	198	3,011	1,871
Benton	3,944	5,016	596	6,614	3,453
Black Hawk	20,997	25,591	2,611	30,716	19,774
Boone	5,217	5,258	517	7,699	3,543
Bremer	2,481	5,604	323	5,045	3,880
Buchanan	3,670	4,541	457	5,213	3,747
Buena Vista	3,051	5,177	384	5,245	3,462
Butler	1,673	4,701	252	3,370	3,462
Calhoun	2,261	3,715	356	4,407	2,422
Carroll	4,809	3,927	412	7,807	2,387
Cass	2,136	5,223	370	4,006	4,182
Cedar	2,551	4,494	410	4,617	3,106
Cerro Gordo	8,553	10,662	1,019	13,156	7,884
Cherokee	2,707	4,436	340	4,336	3,180
Chickasaw	2,971	3,067	286	4,454	2,632
Clarke	1,655	2,499	286	2,559	1,546
Clay	2,840	4,235	369	4,631	2,909
Clayton	3,168	5,133	541	5,624	3,923
Clinton	9,489	11,902	1,233	14,267	8,219
Crawford	2,832	4,286	539	5,024	2,999
Dallas	5,062	5,549	640	7,447	3,763
Davis	1,904	2,016	350	2,966	1,424
Decatur	2,063	2,246	249	3,331	1,542
Delaware	2,760	6,650	412	4,623	3,427
Des Moines	10,158	8,458	1,281	13,894	5,830
Dickinson	2,286	3,472	302	3,490	2,443
Dubuque	18,664	19,197	1,701	23,695	10,104
Emmett	2,163	3,448	224	3,487	2,611
Fayette	4,030	6,929	634	6,900	5,567
Floyd	2,971	4,792	390	5,317	3,721
Franklin	1,777	3,605	239	3,582	2,452
Freemont	1,584	2,385	398	2,703	2,044
Greene	2,208	3,208	269	3,828	2,141
Grundy	1,675	4,664	293	3,582	3,215
Guthrie	2,065	3,349	290	3,962	2,169
Hamilton	3,055	4,607	301	5,195	3,127
Hancock	3,229	3,544	245	3,857	2,269
Hardin	2,131	6,355	407	4,559	3,828
Harrison	2,410	3,867	525	4,575	3,203
Henry	2,532	4,613	503	4,223	3,247
Howard	2,427	3,141	247	3,841	2,360
Humboldt	1,940	3,239	217	3,376	2,250
Ida	1,463	2,753	208	2,905	1,977
Iowa	2,586	4,115	351	4,261	2,828
Jackson	3,412	4,533	482	5,130	3,066
Jasper	6,556	7,903	732	10,216	5,321
Jefferson	2,411	4,130	377	4,135	2,755
Johnson	13,541	11,884	736	14,717	8,660
Jones	2,414	4,511	475	5,511	3,154
Keokuk	2,807	3,588	328	4,790	2,597
Kossuth	4,392	5,530	283	6,893	3,776
Lee	7,967	8,822	1,232	12,244	6,321
Linn	29,579	30,865	3,182	40,106	21,845
Louisa	1,632	2,529	323	2,624	1,845
Lucas	1,942	2,543	290	3,310	1,935
Lyon	1,403	4,198	151	2,747	3,185
Madison	2,187	3,151	328	3,518	2,250
Mahaska	3,721	5,689	592	6,986	3,787
Marion	4,613	5,691	583	7,911	3,903
Marshall	6,362	8,402	819	9,815	6,323
Mills	1,215	2,533	243	2,463	2,424
Mitchell	2,103	3,913	179	4,868	2,208
Monona	2,184	2,980	405	3,971	2,208
Monroe	2,225	2,143	298	3,186	1,588
Montgomery	1,892	4,155	425	3,489	3,101
Muscatine	4,726	7,361	643	8,020	5,547
O'Brien	2,146	5,594	322	4,295	4,336
Osceola	1,421	2,581	160	2,498	1,798
Page	1,227	5,307	634	4,402	4,775
Palo Alto	2,874	3,114	234	4,441	2,206
Plymouth	3,239	4,236	557	5,691	4,920
Pocahontas	2,363	2,939	254	3,984	2,079
Polk	52,644	52,241	9,523	74,194	37,289
Pottawamette	9,485	16,038	2,838	17,569	14,208
Poweshiek	3,251	4,470	362	5,213	3,109
Ringgold	1,247	1,986	256	2,260	1,571
Sac	2,207	4,182	280	4,358	2,937
Scott	24,646	25,777	4,143	31,526	19,488
Shelby	2,395	3,386	319	4,148	2,928
Sioux	2,181	10,010	326	4,233	8,078
Story	4,556	13,327	728	12,329	8,188
Tama	3,789	4,956	472	6,057	3,543
Taylor	1,501	2,765	368	2,780	2,162
Union	2,137	3,365	324	3,751	2,502

Iowa (cont'd)

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Van Buren	1,356	2,334	239	2,555	1,700
Wapello	9,375	7,825	1,355	13,971	5,524
Warren	4,613	5,619	919	6,639	3,679
Washington	2,679	4,899	349	4,587	3,315
Wayne	1,723	2,553	283	3,062	1,994
Webster	8,570	9,358	966	13,005	6,576
Winnebago	2,168	3,543	344	5,811	3,941
Winneshiek	3,364	5,005	218	26,841	17,347
Woodbury	18,337	21,663	211	2,936	1,777
Worth	1,815	2,383	239	4,998	2,831
Wright	2,959	4,291	239	4,998	2,831

Totals... 477,445 616,776 66,258 733,030 449,148

IOWA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 227,921; Harding, Rep., 634,674; Watkins, Proh., 4,197; Debs, Soc., 16,981; Christensen, Farm-Lab., 10,321.
 1924 (Pres.), Coolidge, Rep., 537,635; LaFollette, Prog., 272,243; Davis, Dem., 162,600; Foster, Workers, 4,037.
 1928 (Pres.), Hoover, Rep., 623,818; Smith, Dem., 378,936; Thomas, Soc., 2,960; Webb, Farm-Lab., 3,088; Foster, Com., 328; Reynolds, Dem., 1,230.
 1932 (Pres.), Roosevelt, Dem., 598,019; Hoover, Rep., 414,433; Thomas, Soc., 20,467; Upshaw, Proh., 2,111; Coxey, Farm-Lab., 1,094; Foster, Com., 559.
 1936 (Pres.), Roosevelt, Dem., 621,756; Landon, Rep., 487,977; Lemke, Union, 29,687; Thomas, Soc., 1,373; Colvin, Proh., 1,182; Browder, Com., 506; Aiken, Soc. Lab., 252.
 1940 (Pres.), Roosevelt, Dem., 578,800; Willkie, Rep., 632,370; Babson, Proh., 2,284; Browder, Com., 1,524; Aiken, Soc. Lab., 452.
 1944 (Pres.), Roosevelt, Dem., 499,876; Dewey, Rep., 547,267; Watson, Proh., 3,752; Thomas, Soc., 1,511; Teichert, Soc. Lab., 193.
 1948 (Pres.), Truman, Dem., 522,380; Dewey, Rep., 494,018; Wallace, Prog., 12,125; Teichert, Soc. Lab., 4,274; Watson, Proh., 3,382; Thomas, Soc., 1,829; Dobbs, Soc. Workers, 256.
 1952 (Pres.), Eisenhower, Rep., 808,906; Stevenson, Dem., 451,513; Hallinan, Prog., 5,085; Hamblen, Proh., 2,882; Hoopes, Soc., 219; Hass, Soc. Lab., 139; Scattering, 29.
 1956 (Pres.), Eisenhower, Rep., 729,187; Stevenson, Dem., 501,858; Andrews (A.C.P. of Iowa), 3,202; Hoopes, Soc., 192; Hass, Soc. Lab., 125.
 1960 (Pres.), Kennedy, Dem., 550,565; Nixon, Rep., 722,381; Hass, Soc. Lab., 230; Write-in, 634.
 1964 (Pres.), Johnson, Dem., 733,030; Goldwater, Rep., 449,148; Hass, Soc. Lab., 182; DeBerry, Soc. Worker, 159; Munn, Proh., 1,902; Scattering, 118.
 1968 (Pres.), Nixon, Rep., 616,776; Humphrey, Dem., 477,445; Wallace, 3rd party, 66,258; scattering, 806.

Kansas

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Allen	1,997	3,520	497	3,369	2,841
Anderson	1,242	2,168	397	2,058	1,692
Atchison	3,318	6,843	643	5,037	3,147
Barber	1,027	2,023	282	1,784	1,758
Barton	4,464	6,600	1,017	7,340	4,826
Bourbon	2,241	3,985	743	3,980	3,290
Brown	1,199	3,748	463	2,386	3,213
Butler	6,052	7,893	1,655	9,061	6,364
Chase	462	1,038	154	886	902
Chautauqua	478	1,337	329	1,163	1,463
Chester	3,930	4,211	1,054	5,720	3,730
Cheyenne	412	1,418	172	886	1,147
Clark	446	920	210	881	777
Clay	936	3,385	454	1,806	3,330
Cloud	2,132	3,242	412	3,311	2,680
Coffey	933	2,223	367	1,594	1,998
Comanche	451	906	85	818	694
Cowley	5,019	8,071	1,751	7,591	7,092
Crawford	7,132	7,294	1,774	10,282	6,286
Decatur	652	1,654	206	1,314	1,382
Dickinson	2,399	5,511	675	4,070	4,704
Doniphan	458	2,402	425	1,856	1,952
Douglas	2,173	3,372	697	4,116	7,825
Edwards	832	1,357	182	1,427	932
Elk	503	1,357	182	1,427	932
Ellis	3,829	3,924	555	5,553	4,267
Ellsworth	1,060	1,776	246	2,118	1,406
Finney	2,120	3,295	486	3,639	2,201
Ford	3,191	4,645	935	5,221	3,481
Franklin	2,524	4,875	825	4,410	3,725
Geary	2,228	2,954	625	3,119	2,259
Gove	538	1,018	164	1,022	774

Kansas (cont'd)					
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Graham.....	597	1,308	243	1,193	1,194
Grant.....	615	1,121	217	1,023	723
Gray.....	617	852	148	1,136	648
Greely.....	227	465	82	469	387
Greenwood..	1,122	2,937	385	2,048	2,717
Hamilton....	410	751	170	726	685
Harper.....	1,015	2,351	288	1,813	1,969
Harvey.....	3,349	6,682	789	5,306	4,979
Haskell.....	476	762	285	820	570
Hodgeman....	387	756	130	821	607
Jackson.....	1,225	2,678	501	1,971	2,334
Jefferson....	1,355	2,781	929	2,066	2,890
Jewell.....	703	1,703	215	1,601	1,895
Johnson....	24,656	51,078	6,221	31,213	37,672
Kearny.....	423	721	95	737	563
Kingman....	1,201	2,318	319	2,226	1,917
Kiowa.....	491	1,484	123	970	1,135
Lafayette....	3,973	5,478	1,286	6,208	4,761
Lane.....	305	781	112	773	586
Leavenworth	5,593	7,109	2,010	7,479	5,544
Lincoln.....	583	1,723	217	1,316	1,373
Linn.....	893	2,250	419	1,725	1,939
Logan.....	411	1,121	221	957	967
Lyon.....	4,020	6,587	807	6,197	5,184
McDonald....	1,494	2,827	303	2,792	2,566
Marshall....	1,949	3,835	731	3,334	3,432
McPherson..	2,881	6,430	534	5,173	4,483
Meade.....	569	1,481	191	1,179	1,290
Miami.....	2,739	3,614	1,023	4,620	2,907
Mitchell....	1,199	2,486	299	1,898	1,951
Montgomery	5,206	9,695	2,455	8,853	8,437
Morris.....	976	1,938	313	1,605	1,683
Morton.....	369	589	200	938	609
Nemaha.....	1,925	3,008	628	3,260	2,391
Neosho.....	2,724	3,950	784	4,795	3,458
Ness.....	769	1,562	192	1,034	1,145
Norton.....	841	2,543	188	1,449	2,245
Osage.....	1,864	3,157	792	2,737	2,681
Osborne....	793	2,073	301	1,659	1,700
Ottawa.....	777	1,740	253	1,535	1,491
Pawnee.....	1,418	2,037	300	2,577	1,468
Phillips....	844	2,567	340	1,804	2,164
Pottawatomie	1,363	3,267	490	2,432	2,606
Pratt.....	1,490	2,670	435	2,594	2,493
Rawlins....	553	1,438	286	959	1,292
Republic....	9,877	18,808	1,710	14,936	8,829
Rice.....	1,187	2,846	222	2,426	2,414
Riley.....	2,198	3,297	386	3,665	2,390
Rooks.....	4,258	8,296	772	5,907	6,396
Rush.....	1,012	2,252	307	1,923	1,985
Russell....	884	1,471	217	1,778	1,098
Saline.....	1,361	3,177	290	2,505	2,435
Scott.....	6,285	9,327	1,259	9,725	6,533
Sedgewick..	500	1,385	193	1,016	1,143
Seward.....	42,649	58,153	11,691	66,372	52,592
Shawnee....	1,291	3,065	550	2,520	2,910
Shawnee....	20,777	29,649	6,577	30,626	25,736
Sheridan....	1,623	3,002	428	2,038	808
Sherman....	954	1,803	388	1,522	1,463
Smith.....	943	2,563	283	1,809	2,026
Stafford....	1,205	1,851	253	2,087	1,516
Stanton....	287	541	61	500	459
Stevens....	528	1,157	296	1,006	992
Sumner....	3,582	5,630	1,116	5,574	4,760
Thomas.....	1,074	1,971	241	1,793	1,528
Trego.....	623	1,211	225	1,177	974
Wabaunsee..	695	1,979	402	1,287	1,839
Wagoner....	431	608	144	496	516
Washington.	1,131	3,177	332	2,015	2,654
Wichita....	364	757	130	662	529
Wilson.....	1,276	3,340	660	2,592	2,919
Woodson....	639	1,449	221	1,128	1,279
Wyandotte..	33,309	22,180	11,301	43,442	20,553
Totals.....	294,443	461,772	86,489	464,028	386,579

KANSAS VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 185,464; Harding, Rep., 369,268; Debs, Soc., 15,511.
1924 (Pres.), Coolidge, Rep., 407,671; Davis, Dem., 156,319; LaFollette, Prog., 98,461.
1928 (Pres.), Hoover, Rep., 513,672; Smith, Dem., 193,003; Thomas, Soc., 6,206; Foster, Com., 320.
1932 (Pres.), Roosevelt, Dem., 424,204; Hoover, Rep., 349,498; Thomas, Soc., 18,276.
1936 (Pres.), Roosevelt, Dem., 464,520; Landon, Rep., 397,727; Thomas, Soc., 2,766; Lemke, Union, 494.
1940 (Pres.), Roosevelt, Dem., 364,725; Willkie, Rep., 489,169; Babson, Proh., 4,056; Thomas, Soc., 2,347.
1944 (Pres.), Roosevelt, Dem., 287,458; Dewey, Rep., 442,096; Watson, Proh., 2,609; Thomas, Soc., 1,613.
1948 (Pres.), Truman, Dem., 351,902; Dewey, Rep., 423,039; Watson, Proh., 6,468; Wallace, Prog., 4,603; Thomas, Soc., 2,807.
1952 (Pres.), Eisenhower, Rep., 616,302; Stevenson,

Kansas (cont'd)
Dem., 273,296; Hamblen, Proh., 6,038; Hoopes, Soc., 530.
1956 (Pres.), Eisenhower, Rep., 566,878; Stevenson, Dem., 296,317; Holtwick, Proh., 3,048.
1960 (Pres.), Kennedy, Dem., 363,213; Nixon, Rep., 561,474; Decker, Proh., 4,138.
1964 (Pres.), Johnson, Dem., 464,028; Goldwater, Rep., 386,579; Munn, Proh., 5,393; Hass, Soc. Labor, 1,901.
1968 (Pres.), Nixon, Rep., 461,772; Humphrey, Dem., 294,443; Wallace, 3rd party, 86,489.

Kentucky

Kentucky					
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Adair.....	1,362	3,239	856	2,854	3,052
Allen.....	927	2,952	905	2,023	2,309
Anderson....	1,334	1,594	657	2,491	1,085
Ballard.....	1,632	4,568	1,197	2,867	519
Barren.....	3,494	4,205	2,140	6,420	2,936
Bath.....	1,394	1,277	657	2,571	1,009
Bell.....	4,138	4,909	1,200	6,979	4,185
Boone.....	2,725	4,081	2,240	5,077	3,430
Bourbon....	2,566	1,848	1,023	4,093	1,222
Boyd.....	744	8,118	2,351	14,436	6,941
Boyle.....	2,663	2,715	1,556	4,976	1,972
Bracken....	1,067	1,115	548	1,958	686
Breathitt....	2,933	1,332	444	4,714	691
Breckinridge	1,979	2,683	1,014	3,733	2,167
Bullitt.....	2,135	1,965	2,180	3,900	1,417
Butler.....	691	2,637	635	1,555	2,420
Caldwell....	1,436	2,139	1,426	2,831	1,738
Calloway....	3,811	2,619	2,094	7,290	1,576
Campbell....	9,639	13,422	4,680	16,012	12,209
Carlisle....	1,145	479	807	1,565	282
Carroll.....	1,765	868	514	2,592	461
Carter.....	2,806	3,137	890	4,136	2,821
Casey.....	879	3,698	649	1,875	3,457
Christian....	4,281	3,788	4,527	8,727	3,882
Clark.....	2,367	2,700	1,824	4,205	2,019
Clay.....	1,147	4,608	356	3,098	3,223
Clinton....	568	2,572	280	994	2,351
Crittenden..	838	1,941	748	1,627	1,863
Cumberland..	646	2,116	355	1,348	794
Daviess....	9,831	10,074	5,004	15,253	1,350
DeMontson..	679	2,288	516	1,022	8,603
Elliot.....	1,359	514	271	2,026	1,323
Estill.....	1,265	2,236	675	2,105	1,066
Fayette....	16,529	24,138	7,728	25,317	18,739
Fleming....	1,372	2,174	611	2,678	1,668
Floyd.....	8,310	3,598	1,080	11,644	2,352
Franklin....	6,296	3,966	2,630	10,130	320
Fulton.....	1,204	1,079	1,526	2,493	2,169
Gallatin....	685	413	304	1,246	1,267
Garrard....	1,169	1,386	675	2,092	1,828
Gartman....	1,085	2,205	941	2,461	1,068
Graves.....	5,052	3,851	3,601	9,958	2,389
Grayson....	3,507	3,699	668	7,920	974
Green.....	4,689	4,677	1,365	2,160	2,201
Greenup....	4,694	4,533	1,314	6,680	4,045
Hancock....	882	1,049	419	1,423	756
Hardin.....	4,332	5,057	3,745	7,460	3,744
Harlan.....	6,387	4,572	2,099	9,394	4,025
Harrison....	2,373	1,637	839	4,179	1,054
Hart.....	1,658	2,817	1,002	3,313	1,961
Henderson..	4,927	3,373	2,124	8,022	734
Henry.....	1,978	1,271	711	3,521	2,838
Hickman....	880	623	1,154	2,149	613
Hodkins....	4,397	3,632	3,592	7,034	3,328
Hopkins....	3,04	3,054	277	920	2,654
Jefferson....	90,252	95,941	35,561	146,023	80,951
Jessamine..	1,334	2,338	1,440	2,485	1,968
Johnson....	2,118	4,049	331	3,053	3,075
Kenton.....	14,656	17,263	7,612	23,103	15,630
Knott.....	3,335	1,098	430	4,739	482
Knox.....	2,244	4,382	944	4,150	3,583
Larue.....	1,241	1,861	776	2,742	1,195
Laurel.....	1,756	6,161	1,216	3,633	5,008
Lawrence....	1,825	1,947	476	2,703	1,745
Lee.....	674	1,339	285	1,376	162
Leslie.....	813	2,550	232	795	1,971
Letcher....	3,446	3,142	874	5,420	2,632
Lewis.....	1,086	2,760	491	2,047	2,230
Lincoln....	1,702	2,534	1,086	3,307	1,958
Livingston..	1,272	1,079	953	2,147	821
Logan.....	3,339	3,402	1,881	6,234	2,232
Lyon.....	719	580	618	1,412	583
Madison....	3,884	5,325	2,558	6,877	4,266
Magoffin....	1,927	1,967	229	2,498	1,327
Marion.....	2,359	1,555	814	4,265	1,075
Marshall....	3,301	2,432	2,182	5,968	1,676
Martin.....	759	1,943	136	1,694	567
Mason.....	2,772	2,661	1,131	4,502	2,430
McCracken.	9,741	5,887	5,809	16,178	4,547
McCreary..	759	2,680	479	1,428	2,233
McLean....	1,373	1,372	1,055	2,576	1,173
Meade.....	1,857	1,333	863	3,076	1,050
Menifee....	554	509	247	1,076	318
Mercer.....	1,950	2,432	1,227	3,564	1,737

Kentucky (cont'd)

1968

1964

County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Metcalf...	697	4,086	550	1,967	1,272
Monroe...	680	3,977	550	1,713	3,293
Montgomery...	1,408	2,115	980	3,039	1,541
Morgan...	2,179	1,305	373	3,293	549
Muhlenberg...	3,688	3,853	2,299	6,421	3,300
Nelson...	3,574	2,409	1,114	5,586	1,683
Nicholas...	911	725	413	1,742	625
Ohio...	1,695	3,504	1,260	3,303	2,977
Oldham...	1,399	1,655	937	2,622	1,253
Owen...	1,608	827	697	2,980	401
Owsley...	303	1,417	157	571	1,168
Pendleton...	1,156	1,614	760	2,495	1,313
Perry...	4,611	3,993	983	6,728	3,213
Pike...	11,585	8,777	1,868	14,140	7,073
Powell...	934	1,157	625	1,622	999
Pulaski...	2,822	5,079	1,707	5,840	7,384
Robertson...	406	416	734	381	2,820
Rockcastle...	868	3,072	644	1,354	1,554
Rowan...	1,898	2,017	541	2,824	2,527
Russell...	961	3,035	718	1,729	1,385
Scott...	1,868	1,753	1,142	3,289	1,331
Shelby...	2,579	2,287	1,185	4,933	1,385
Simpson...	1,045	511	406	3,168	969
Spencer...	564	733	448	1,422	522
Taylor...	1,367	3,032	1,554	3,082	2,592
Todd...	1,082	1,433	1,932	2,738	1,330
Trigg...	1,330	1,100	1,180	2,790	1,919
Trimble...	1,045	511	406	1,881	291
Union...	2,596	1,371	1,084	3,934	1,229
Warren...	5,200	8,084	4,355	9,887	5,917
Washington...	1,644	1,828	658	2,790	1,569
Wayne...	1,467	3,055	475	2,737	2,382
Webster...	2,114	1,446	1,337	3,741	1,211
Whitley...	2,134	5,639	1,650	4,782	4,775
Wolfe...	1,151	744	277	2,018	569
Woodford...	1,646	1,901	894	2,974	1,216

Totals... 395,097 458,905 190,493 669,659 372,977

KENTUCKY VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 456,497; Harding, Rep., 452,480; Watkins, Proh., 3,325; Debs, Soc., 6,409.
1924 (Pres.), Coolidge, Rep., 398,966; Davis, Dem., 374,855; LaFollette, Prog., 38,465; Johns, Soc. Lab., 1,499; Nations, Amer., 1,299; Wallace Comm. Land, 248.
1928 (Pres.), Hoover, Rep., 558,064; Smith, Dem., 381,070; Thomas, Soc., 837; Reynolds, Soc. Lab., 340; Foster, Com., 293.
1932 (Pres.), Roosevelt, Dem., 580,574; Hoover, Rep., 394,716; Upshaw, Proh., 2,252; Thomas, Soc., 3,853; Reynolds, Soc. Lab., 1,396; Foster, Com., 272.
1936 (Pres.), Roosevelt, Dem., 541,944; Landon, Rep., 369,702; Lemke, Union, 12,501; Colvin, Proh., 929; Thomas, Soc., 627; Aiken, Soc. Lab., 294; Browder, Com., 204.
1940 (Pres.), Roosevelt, Dem., 557,222; Willkie, Rep., 410,384; Babson, Proh., 1,443; Thomas, Soc., 1,014.
1944 (Pres.), Roosevelt, Dem., 472,589; Dewey, Rep., 392,448; Watson, Proh., 2,023; Thomas, Soc., 535; Telchert, Soc. Lab., 326.
1948 (Pres.), Truman, Dem., 466,756; Dewey, Rep., 341,210; Thurmond, States' Rights, 10,411; Wallace, Prog., 1,567; Thomas, Soc., 1,284; Watson, Proh., 1,245; Telchert, Soc. Lab., 185.
1952 (Pres.), Eisenhower, Rep., 495,029; Stevenson, Dem., 495,729; Hembler, Proh., 1,161; Haas, Soc. Lab., 893; Hallinan, Proh., 336.
1956 (Pres.), Eisenhower, Rep., 572,192; Stevenson, Dem., 476,453; Byrd, States' Rights, 2,657; Holtwick, Proh., 2,145; Hass, Soc. Lab., 358.
1960 (Pres.), Kennedy, Dem., 521,855; Nixon, Rep., 602,607.
1964 (Pres.), Johnson, Dem., 669,659; Goldwater, Rep., 372,977; John Kasper, Nat'l States Rights, 3,469.
1968 (Pres.), Nixon, Rep., 458,905; Humphrey, Dem., 395,097; Wallace, 3rd party, 190,493.

Louisiana

1968

1964

County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Acadia...	4,123	3,185	9,833	9,463	6,706
Allen...	1,986	1,011	4,289	3,787	2,704
Ascension...	3,199	1,334	6,001	4,829	3,197
Assumption...	2,085	1,223	2,898	3,056	2,112
Avoyelles...	2,973	2,459	6,760	5,102	4,874
Beauregard...	1,646	1,437	4,039	3,049	3,349
Bienvenue...	1,768	851	3,466	855	3,740
Bossier...	2,689	3,727	9,217	1,937	9,822
Caddo...	17,511	21,242	28,430	10,158	42,197
Calcasieu...	14,751	9,500	22,279	23,285	17,046

Louisiana (cont'd)

1968

1964

County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Caldwell...	606	490	2,364	609	2,534
Cameron...	467	469	1,759	1,576	871
Catahoula...	771	757	2,677	560	2,887
Calbourn...	1,503	1,116	3,318	482	3,171
Concordia...	2,012	981	4,529	809	4,022
De Soto...	3,184	960	4,097	1,254	3,954
E. Baton Rouge...	21,772	21,770	35,951	26,152	36,964
East Carroll...	1,926	746	1,699	263	1,486
E. Feliciana...	1,402	464	2,225	486	1,900
Evangeline...	2,658	1,547	7,636	6,163	3,975
Franklin...	691	1,052	5,394	759	5,470
Grant...	941	1,106	3,470	1,454	3,292
Iberia...	5,511	5,448	8,071	8,141	8,196
Iberville...	3,796	1,252	4,273	4,445	4,432
Jefferson...	1,530	1,061	3,979	1,552	4,521
Jefferson...	20,433	29,732	41,650	31,804	37,161
Jeff. Davis...	2,563	2,180	4,814	4,966	3,673
Lafayette...	7,983	10,669	11,723	14,487	12,398
Lafourche...	5,422	4,742	10,157	12,045	6,164
La Salle...	629	1,040	3,328	864	4,319
Lincoln...	2,070	2,645	4,125	1,714	5,766
Livingston...	1,400	947	9,907	3,509	5,508
Madison...	2,357	603	2,298	417	2,061
Morehouse...	1,793	1,763	5,377	891	5,625
Natchitoches...	3,801	2,326	5,238	2,975	5,625
Orleans...	72,693	48,225	58,884	82,045	81,049
Ouachita...	5,174	9,354	14,009	4,174	21,024
Plaquemines...	1,155	972	6,437	775	4,904
Pte. Coupee...	3,141	857	3,512	2,247	2,327
Rapides...	8,816	10,228	16,275	9,992	18,122
Red River...	749	407	2,305	334	2,235
Richland...	1,017	1,031	4,415	747	4,498
Sabine...	1,163	1,153	4,638	2,081	4,165
St. Bernard...	2,488	3,436	13,058	6,175	8,055
St. Charles...	3,070	1,675	4,383	5,085	1,419
St. Helena...	1,351	219	1,802	706	1,457
St. James...	2,929	773	2,744	4,214	1,457
St. John...	3,242	933	3,240	3,558	1,694
St. Landry...	8,835	3,339	12,354	11,807	10,920
St. Martin...	3,321	1,625	4,759	4,675	2,793
St. Mary...	5,312	4,586	6,761	7,327	5,530
Tangipahoa...	4,486	4,474	11,479	6,694	7,883
Tensas...	5,006	2,930	13,090	7,169	9,732
Terrebonne...	845	503	1,281	192	1,655
Union...	4,590	5,190	8,514	8,577	6,729
Vermilion...	1,338	1,117	4,297	1,155	4,534
Vernon...	3,748	3,352	7,829	9,204	4,984
Washington...	1,286	1,409	5,026	3,564	6,066
Webster...	3,016	1,688	11,070	8,255	7,438
W. Baton Rouge...	2,782	2,495	8,646	1,755	8,177
Rouge...	1,994	667	2,534	1,892	1,835
West Carroll...	388	583	3,579	395	3,017
W. Feliciana...	12,404	2,992	10,468	223	897
Winn...	1,230	1,050	4,015	1,193	4,366

Totals... 317,814 259,688 536,779 387,068 509,225

LOUISIANA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 87,619; Harding, Rep., 38,538.
1924 (Pres.), Davis, Dem., 93,218; Coolidge, Rep., 24,670; LaFollette, Prog., 4,063.
1928 (Pres.), Smith, Dem., 164,655; Hoover, Rep., 51,160.
1932 (Pres.), Roosevelt, Dem., 249,418; Hoover, Rep., 18,863.
1936 (Pres.), Roosevelt, Dem., 292,894; Landon, Rep., 36,791.
1940 (Pres.), Roosevelt, Dem., 319,751; Willkie, Rep., 52,446.
1944 (Pres.), Roosevelt, Dem., 281,564; Dewey, Rep., 67,750.
1948 (Pres.), Thurmond, States' Rights, 204,290; Truman, Dem., 136,344; Dewey, Rep., 72,657; Wallace, Prog., 3,035.
1952 (Pres.), Eisenhower, Rep., 306,925; Stevenson, Dem., 345,027.
1956 (Pres.), Eisenhower, Rep., 329,047; Stevenson, Dem., 243,977; Andrews, States' Rights, 44,520.
1960 (Pres.), Kennedy, Dem., 407,339; Nixon, Rep., 230,980; States' Rights (unpledged) 169,572.
1964 (Pres.), Johnson, Dem., 387,068; Goldwater, Rep., 509,225.
1968 (Pres.), Nixon, Rep., 259,688; Humphrey, Dem., 317,814; Wallace, 3rd party, 536,779.

Maine

1968

1964

County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Androscog'ts...	26,819	10,390	524	30,080	7,441
Aroostook...	15,024	13,920	273	17,552	9,994

Maine (cont'd)		1968		1964	
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Cumberland...	44,728	32,272	1,074	50,844	22,365
Franklin...	4,307	4,127	159	5,784	2,887
Hancock...	4,979	8,956	324	7,415	6,304
Kennebec...	21,769	16,120	532	24,813	11,307
Knox...	1,272	1,831	69	7,022	4,404
Lincoln...	3,621	5,659	231	5,099	3,984
Oxford...	10,870	8,095	377	13,616	5,340
Penobscot...	24,320	20,005	663	28,766	14,449
Piscataquis...	3,519	3,245	158	4,781	2,473
Sagadahoc...	5,553	4,180	170	7,006	2,733
Somerset...	8,210	6,485	316	10,694	4,541
Waldo...	3,513	4,784	227	5,397	3,324
Washington...	5,528	5,532	215	9,312	3,816
York...	28,818	18,959	911	34,083	13,339
Totals...	212,950	164,56	6,232	262,264	118,701

MAINE VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 58,961; Harding, Rep., 136,355; Watkins, Proh., 1; Debs, Soc., 2,214.	
1924 (Pres.), Coolidge, Rep., 138,440; Davis, Dem., 41,964; LaFollette, Prog., 11,382; Johns, Soc. Lab., 406.	
1928 (Pres.), Hoover, Rep., 179,923; Smith, Dem., 81,179; Thomas, Soc., 1,068.	
1932 (Pres.), Roosevelt, Dem., 128,907; Hoover, Rep., 166,631; Thomas, Soc., 2,439; Reynolds, Soc. Lab., 255; Foster, Comm., 162.	
1936 (Pres.), Landon, Rep., 168,823; Roosevelt, Dem., 126,333; Lemke, Union, 7,581; Thomas, Soc., 783; Colvin, Proh., 334; Browder, Comm., 257; Aiken, Soc. Lab., 129.	
1940 (Pres.), Roosevelt, Dem., 156,478; Willkie, Rep., 185,951; Browder, Comm., 411.	
1944 (Pres.), Roosevelt, Dem., 140,631; Dewey, Rep., 155,434; Teichert, Soc. Lab., 335.	
1948 (Pres.), Truman, Dem., 111,916; Dewey, Rep., 150,234; Wallace, Prog., 1,884; Thomas, Soc., 547; Teichert, Soc. Lab., 206.	
1952 (Pres.), Eisenhower, Rep., 232,353; Stevenson, Dem., 118,806; Hallinan, Prog., 332; Hass, Soc., Lab., 156; Hoopes, Soc., 138; Scattered, 1.	
1956 (Pres.), Eisenhower, Rep., 249,238; Stevenson, Dem., 102,468.	
1960 (Pres.), Kennedy, Dem., 181,159; Nixon, Rep., 240,608.	
1964 (Pres.), Johnson, Dem., 262,264; Goldwater, Rep., 118,701.	
1968 (Pres.), Nixon, Rep., 164,560; Humphrey, Dem., 212,950; Wallace, 3rd party, 6,232.	

Maryland

		1968		1964	
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Allegany...	13,227	13,561	5,172	20,425	12,384
A. Arundel...	24,907	35,582	15,523	37,981	26,725
Balto. Co.	80,798	108,930	29,283	117,153	77,870
Balto. City...	175,989	80,538	33,022	240,716	76,089
Calvert...	2,032	1,946	1,471	3,335	1,765
Caroline...	1,654	3,053	1,386	3,710	2,696
Carroll...	4,658	11,888	3,085	8,451	8,332
Cecil...	4,442	6,282	3,182	7,854	5,330
Charles...	4,267	4,493	3,178	6,546	3,455
Chesester...	2,714	4,183	3,270	4,564	5,327
Frederick...	8,316	15,084	4,348	14,548	9,264
Garrett...	1,933	4,021	818	3,515	3,624
Harford...	9,914	15,799	4,978	13,550	9,968
Howard...	5,752	9,957	2,796	8,185	6,833
Kent...	2,243	3,145	1,146	4,113	2,008
Montgomery...	84,213	78,948	14,514	103,113	52,554
Pr. George's...	71,524	73,269	32,867	81,806	46,413
St. Mary's...	1,969	2,888	1,298	4,052	1,955
St. Mary's...	3,280	3,348	2,547	5,831	2,878
Somerset...	2,373	3,541	1,889	4,527	3,155
Talbot...	2,532	4,713	1,352	4,871	3,693
Washington...	11,266	15,257	6,737	19,858	12,756
Wicomico...	5,190	8,352	4,272	8,695	7,448
Worcester...	2,046	3,541	1,871	3,713	2,973
Totals...	527,245	508,329	179,998	730,912	385,495

MARYLAND VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 180,626; Harding, Rep., 236,117; Debs, Soc., 8,876; Christensen, 3rd Party, 1,645; Cox, Lab., 1,178.	
1924 (Pres.), Coolidge, Rep., 162,414; Davis, Dem., 148,072; LaFollette, Prog., 47,157; Johns, Soc. Lab., 987.	
1928 (Pres.), Hoover, Rep., 301,479; Smith, Dem., 223,626; Thomas, Soc., 1,701; Reynolds, Soc. Lab., 906; Foster, Comm., 636.	
1932 (Pres.), Roosevelt, Dem., 314,314; Hoover, Rep., 184,184; Thomas, Soc., 10,489; Reynolds,	

Maryland (cont'd)		1968		1964	
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Soc. Lab., 1,036; Foster, Comm., 1,031.					
1936 (Pres.), Roosevelt, Dem., 389,612; Landon, Rep., 231,435; Thomas, Soc., 1,629; Aiken, Soc. Lab., 1,305; Browder, Comm., 915.					
1940 (Pres.), Roosevelt, Dem., 384,546; Willkie, Rep., 269,534; Thomas, Soc., 4,093; Browder, Comm., 1,274; Aiken, Lab., 657.					
1944 (Pres.), Roosevelt, Dem., 315,490; Dewey, Rep., 292,949.					
1948 (Pres.), Truman, Dem., 286,521; Dewey, Rep., 294,814; Wallace, Prog., 9,983; Thomas, Soc., 2,941; Thurmond, States' Rights, 2,476; Wright, Write-in, 2,294.					
1952 (Pres.), Eisenhower, Rep., 499,424; Stevenson, Dem., 395,337; Hallinan, Prog., 7,313.					
1956 (Pres.), Eisenhower, Rep., 559,738; Stevenson, Dem., 372,613.					
1960 (Pres.), Kennedy, Dem., 565,808; Nixon, Rep., 489,538.					
1964 (Pres.), Johnson, Dem., 730,912; Goldwater, Rep., 385,495; Write-in, 50.					
1968 (Pres.), Nixon, Rep., 508,329; Humphrey, Dem., 527,245; Wallace, 3rd party, 179,998.					

Massachusetts

		1968		1964	
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Barnstable...	16,480	24,182	1,235	20,101	15,133
Berkshire...	41,509	24,110	2,766	48,839	15,160
Bristol...	119,160	56,638	6,983	146,885	39,230
Dukes...	1,540	1,576	75	2,187	1,015
Essex...	171,896	10,433	9,226	210,135	71,653
Franklin...	12,326	12,326	913	17,106	8,344
Hampden...	110,535	54,723	9,652	133,085	44,299
Hampshire...	28,217	17,823	2,354	32,058	11,385
Middlesex...	366,550	170,078	13,153	439,790	134,729
Nantucket...	744	991	52	1,197	587
Norfolk...	158,149	108,173	11,015	186,488	68,612
Plymouth...	67,536	54,548	5,249	82,007	37,941
Suffolk...	202,368	48,992	15,063	257,161	40,251
Worcester...	165,670	87,883	7,820	209,383	61,388
Totals...	1,458,058	762,477	85,556	1,786,422	549,727

MASSACHUSETTS VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 276,691; Harding, Rep., 681,153; Debs, Soc., 32,267.	
1924 (Pres.), Coolidge, Rep., 703,489; Davis, Dem., 280,884; LaFollette, Prog., 141,225; Foster, Workers, 2,637; Johns, Soc. Lab., 1,668.	
1928 (Pres.), Smith, Dem., 792,758; Hoover, Rep., 775,566; Thomas, Soc., 6,262; Foster, Comm., 2,464; Reynolds, Soc. Lab., 773.	
1932 (Pres.), Roosevelt, Dem., 800,148; Hoover, Rep., 736,959; Thomas, Soc., 34,305; Foster, Comm., 4,821; Reynolds, Soc. Lab., 2,668; Upshaw, Proh., 1,142.	
1936 (Pres.), Roosevelt, Dem., 942,716; Landon, Rep., 768,613; Lemke, Union, 118,639; Thomas, Soc., 5,111; Browder, Comm., 2,930; Aiken, Soc. Lab., 1,305; Colvin, Proh., 1,032.	
1940 (Pres.), Roosevelt, Dem., 1,076,522; Willkie, Rep., 939,700; Thomas, Soc., 4,091; Browder, Comm., 3,806; Aiken, Soc. Lab., 1,492; Babson, Proh., 1,370.	
1944 (Pres.), Roosevelt, Dem., 1,035,296; Dewey, Rep., 921,350; Teichert, Soc. Lab., 2,780; Watson, Proh., 973.	
1948 (Pres.), Truman, Dem., 1,151,788; Dewey, Rep., 909,370; Wallace, Prog., 38,157; Teichert, Soc. Lab., 5,535; Watson, Proh., 1,663.	
1952 (Pres.), Eisenhower, Rep., 1,292,325; Stevenson, Dem., 1,083,525; Hallinan, Prog., 4,636; Hass, Soc. Lab., 1,957; Hamblen, Proh., 886; Scattered, 69; Blanks, 41,150.	
1956 (Pres.), Eisenhower, Rep., 1,393,197; Stevenson, Dem., 948,190; Hass, Soc. Lab., 5,573; Holtwick, Proh., 1,205; Others, 341.	
1960 (Pres.), Kennedy, Dem., 1,487,174; Nixon, Rep., 976,750; Hass, Soc. Lab., 3,892; Decker, Proh., 1,633; Others, 31; Blank and void, 26,024.	
1964 (Pres.), Johnson, Dem., 1,786,422; Goldwater, Rep., 549,727; Hass, Soc. Lab., 4,755; Munn, Proh., 3,735; scattered 159; Blank, 48,104.	
1968 (Pres.), Nixon, Rep., 762,477; Humphrey, Dem., 1,458,058; Wallace, 3rd party, 85,556.	

Michigan

		1968		1964	
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Alcona...	833	1,313	263	1,611	1,199
Alger...	1,927	1,400	174	2,743	1,010

Michigan (cont'd)

County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Allegan	7,818	15,736	2,452	11,934	11,223
Alpena	3,558	6,610	512	7,508	3,954
Antrim	1,690	3,002	342	2,684	1,412
Arenac	1,572	2,089	298	2,436	1,173
Baraga	1,680	1,508	116	2,568	1,160
Barry	5,088	8,227	1,598	8,102	5,509
Bay	20,301	17,620	2,170	29,754	11,896
Benzie	1,152	2,238	219	1,983	1,674
Berrien	21,275	32,021	9,175	33,653	26,387
Branch	4,518	7,070	1,037	7,858	5,110
Calhoun	25,256	23,468	5,887	32,939	18,987
Cass	5,616	6,997	2,256	8,789	5,925
Charlevoix	2,446	3,697	557	7,757	2,664
Cheboygan	2,608	3,162	607	4,028	2,342
Chippewa	4,207	5,284	745	6,537	4,098
Clare	1,981	3,419	619	2,927	2,258
Clinton	5,329	9,082	1,495	8,932	5,891
Crawford	545	1,066	187	1,464	696
Delta	6,625	5,005	664	10,046	4,434
Dickinson	6,284	5,862	532	12,590	3,365
Eaton	8,347	14,185	2,272	12,590	8,919
Emmet	2,624	4,405	446	1,587	2,731
Genesee	69,521	56,041	22,566	100,346	48,311
Gladwin	1,668	2,840	511	2,725	1,941
Gogebic	5,839	4,140	434	7,945	3,350
Gov. Tr'v'se	4,741	8,960	801	7,475	6,198
Gratiot	4,040	8,404	949	7,383	5,369
Hillsdale	3,793	8,507	1,107	6,564	6,420
Houghton	6,988	6,639	385	9,761	5,024
Huron	3,608	8,743	92	7,349	6,263
Ingham	34,252	41,579	5,621	53,685	32,965
Ionia	6,055	8,625	1,740	10,362	5,698
Iosco	2,633	4,068	744	4,336	2,704
Iron	4,130	3,292	340	6,011	2,399
Isabella	4,060	6,467	637	7,040	4,672
Jackson	17,147	25,158	5,146	28,219	20,944
Kalamazoo	26,437	39,796	7,398	40,789	27,105
Kalkaska	751	1,152	288	1,220	862
Kent	61,589	85,614	11,354	86,860	66,831
Keweenaw	602	1,025	65	860	370
Lake	1,483	1,094	202	1,978	794
Lapeer	5,737	8,867	2,761	8,595	6,010
Leelanau	1,562	2,798	292	3,369	2,074
Leelanaw	10,552	16,275	2,197	16,815	11,381
Livingston	5,223	6,843	1,815	9,698	6,723
Luce	823	1,383	88	1,459	871
Mackinac	1,751	2,507	317	2,748	1,967
Macomb	113,460	61,125	28,923	131,450	44,684
Manistee	3,641	3,989	613	5,520	2,918
Marquette	11,086	8,750	784	14,045	6,615
Mason	1,395	1,726	208	5,993	3,842
Mcosta	2,738	7,381	625	4,214	3,454
Menominee	4,877	4,600	630	7,119	3,545
Midland	7,473	14,483	1,851	12,587	9,040
Missaukee	736	2,161	290	1,288	1,786
Monroe	18,866	15,683	4,867	26,528	11,999
Montcalm	5,299	8,293	1,245	8,970	5,181
M'nt'm'ncy	810	1,279	260	1,369	863
Muskegon	21,561	25,035	4,782	36,769	22,146
Newaygo	3,046	6,134	925	5,457	4,931
Oakland	154,526	156,538	32,550	182,797	114,025
Ocean	1,828	3,644	723	3,773	2,958
Ogemaw	2,642	2,526	445	2,812	1,609
Ontonagon	2,462	2,300	777	3,485	1,658
Oscoda	1,509	3,765	583	2,891	2,779
Oscoda	563	1,124	159	930	784
Otsego	2,856	1,846	236	2,245	1,214
Ottawa	12,259	33,356	3,409	20,151	24,512
Presque Isle	2,300	2,565	385	3,565	1,770
Roscommon	1,639	2,635	430	2,345	1,722
Saginaw	29,950	34,304	6,098	45,309	28,146
St. Clair	16,147	21,066	5,249	24,662	17,011
St. Joseph	5,404	10,426	1,696	9,284	7,307
Sanilac	3,075	9,113	1,683	6,266	7,590
Schoolcraft	1,868	1,745	205	2,675	1,737
Shusawsee	8,674	11,450	2,374	13,676	7,986
Tiscola	4,698	10,446	1,652	9,374	7,509
Van Buren	7,294	10,664	2,554	11,336	8,120
Wastenaw	32,225	35,554	7,412	42,089	25,595
Wayne	651,020	266,737	104,368	831,674	260,901
Wexford	2,832	4,364	517	4,414	3,016
Totals	1,567,310	1,330,749	320,344	2,136,615	1,060,152

MICHIGAN VOTE SINCE 1920

1920 (Pres.)	Cox, Dem., 233,450; Harding, Rep., 762,865; Watkins, Proh., 9,646; Debs, Soc., 28,947; Christensen, Farm-Lab., 10,372.
1924 (Pres.)	Coolidge, Rep., 874,631; Davis, Dem., 152,238; LaFollette, Prog., 122,014; Paris, Proh., 6,085; Johns, Soc. Lab., 5,330.
1928 (Pres.)	Hoover, Rep., 965,396; Smith, Dem., 2,881; Proh., 7,728; Soc. Lab., 799.
1932 (Pres.)	Roosevelt, Dem., 871,700; Hoover, Rep., 739,894; Thomas, Soc., 39,205; Foster, Com., 9,318; Upshaw, Proh., 2,893; Reynolds, Soc. Lab., 1,041; Harvey, Lib., 217.

Michigan (cont'd)

1936 (Pres.)	Roosevelt, Dem., 1,016,794; Landon, Rep., 699,733; Lemke, Union, 75,795; Thomas, Soc., 8,208; Browder, Com., 3,384; Aiken, Soc. Lab., 600; Colvin, Proh., 579.
1940 (Pres.)	Roosevelt, Dem., 1,032,991; Willkie, Rep., 1,039,917; Thomas, Soc., 7,593; Browder, Com., 2,834; Babson, Proh., 1,795; Aiken, Soc. Lab., 795.
1944 (Pres.)	Roosevelt, Dem., 1,106,899; Dewey, Rep., 1,084,423; Watson, Proh., 6,503; Thomas, Soc., 4,598; Smith, America First, 1,530; Teichert, Soc. Lab., 1,264.
1948 (Pres.)	Truman, Dem., 1,003,448; Dewey, Rep., 1,038,595; Wallace, Prog., 46,515; Watson, Proh., 13,052; Thomas, Soc., 6,063; Teichert, Soc. Lab., 1,263; Dobbs, Soc. Workers, 672.
1952 (Pres.)	Eisenhower, Rep., 1,551,529; Stevenson, Dem., 1,230,657; Hamblen, Proh., 10,331; Hallinan, Prog., 3,922; Hass, Soc. Lab., 1,495; Dobbs, Soc. Workers, 655; Scattered, 3.
1956 (Pres.)	Eisenhower, Rep., 1,713,647; Stevenson, Dem., 1,359,898; Holtwick, Prog., 6,923.
1960 (Pres.)	Kennedy, Dem., 1,687,269; Nixon, Rep., 1,620,428; Dobbs, Soc. Workers, 4,347; Decker, Proh., 2,029; Daly, Tax Cut, 1,767; Hass, Soc. Lab., 1,718; Ind. America, 539.
1964 (Pres.)	Eisenhower, Dem., 2,136,615; Goldwater, Rep., 1,060,152; DeBerry, Soc. Worker, 3,817; listed, 669; Scattered, 145.
1968 (Pres.)	Nixon, Dem., 1,330,749; Humphrey, Dem., 1,567,310; Wallace, 3rd party, 320,344; scattered, 3,981.

Minnesota

County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Altkin	3,094	3,094	286	3,874	2,000
Anoka	30,556	16,358	3,073	31,714	13,201
Becker	4,875	4,728	568	6,453	3,751
Bentlram	5,034	3,912	599	5,967	3,184
Benton	4,025	3,470	514	4,679	2,818
Big Stone	2,119	1,645	176	2,831	1,331
Blue Earth	9,254	9,571	686	10,687	8,009
Brown	4,585	7,039	703	6,069	5,851
Carlton	3,016	3,016	444	9,552	2,740
Carver	4,590	6,649	528	5,123	5,424
Cass	3,569	3,888	443	4,635	3,110
Chippewa	3,701	3,195	243	4,347	2,806
Chisago	4,102	3,053	492	4,347	2,525
Clear	7,987	7,910	640	10,161	6,085
Clearwater	2,046	1,284	217	2,596	1,137
Cook	777	853	96	976	764
Cottonwood	3,046	4,050	293	4,090	3,423
Crow Wing	7,411	6,887	672	9,197	5,131
Dakota	28,416	19,290	2,142	28,391	13,586
Dodge	4,337	3,064	201	3,138	2,474
Douglas	4,826	3,662	536	6,040	4,122
Fairbault	4,335	5,088	879	5,946	4,817
Fillmore	3,918	6,257	426	8,813	4,824
Freeborn	8,671	7,315	558	10,554	6,136
Goodhue	7,220	8,283	451	9,035	6,539
Grant	1,982	1,929	179	2,831	1,734
Hennepin	105,357	99,986	7,204	241,020	154,736
Houston	2,703	4,450	521	3,885	3,433
Hubbard	1,920	2,720	304	2,553	2,283
Isanti	3,439	2,429	451	4,026	1,982
Itasca	10,612	4,808	780	12,054	4,137
Jackson	3,515	2,886	359	4,576	2,441
Kanabec	2,154	1,847	220	2,666	1,348
Kandiyohi	7,639	5,086	658	9,108	4,011
Kittson	1,894	1,436	179	2,966	1,153
Koochichewi	4,697	2,104	299	5,878	1,602
LacQuiParle	2,937	2,672	212	3,944	2,236
Lake	4,266	1,351	263	4,704	1,205
L'ok o Woods	875	607	69	1,266	480
Le Sueur	5,094	4,189	292	6,117	3,191
Lincoln	2,109	1,732	187	3,024	1,393
Lyon	5,317	4,331	306	6,649	3,165
McLeod	1,508	8,933	576	5,755	5,545
Mahnomen	1,508	8,933	576	5,755	5,545
Marshall	3,161	2,367	418	1,967	648
Martin	4,271	7,115	580	5,575	6,529
Meeker	4,213	4,044	438	2,270	3,099
Millie Lacs	3,494	2,990	399	4,369	2,474
Morrison	6,111	4,511	612	7,492	3,515
Mower	11,022	7,736	692	13,573	6,510
Murray	2,662	2,906	316	3,822	2,325
Nicollet	4,244	4,671	312	5,121	3,605
Nobles	5,171	4,451	477	6,431	3,517
Norman	2,824	1,981	200	3,631	1,662
Olustee	13,417	17,292	1,103	16,195	12,699
Otter Tail	7,400	12,183	892	9,997	10,942
Pennington	2,998	2,247	212	3,894	1,630
Pine	4,044	2,591	463	5,123	2,279
Pipestone	2,234	3,241	260	3,365	2,481
Polk	8,380	6,074	700	11,052	5,039
Pope	2,592	2,504	265	3,549	2,213

Minn. (cont'd)		1964				
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Ramsey	122,568	64,068	8,543	133,948	56,898	
Red Lake	1,467	718	130	1,861	573	
Redwood	3,680	5,134	462	4,722	4,546	
Renville	4,535	4,821	543	6,072	4,340	
Rice	7,785	7,037	477	9,299	5,518	
Rock	2,084	3,056	232	2,896	2,389	
Roseau	2,649	2,048	326	3,636	1,651	
St. Louis	72,267	25,981	3,255	79,529	25,246	
Scott	6,656	4,632	540	7,248	3,311	
Shelburne	3,481	2,737	369	3,787	2,132	
Sibley	2,540	4,250	361	3,577	3,854	
Stearns	15,990	15,422	2,081	19,063	13,009	
Steele	4,631	6,193	358	6,022	4,882	
Stevens	2,247	2,560	246	2,910	2,232	
Swift	3,716	2,476	476	4,380	2,132	
Todd	3,992	4,883	572	5,673	4,006	
Traverse	1,669	1,277	137	2,247	1,073	
Wabasha	3,452	4,081	346	4,367	3,133	
Wadena	2,198	2,912	269	2,908	2,418	
Waseca	3,057	4,292	244	3,633	3,570	
Washington	16,449	10,921	1,527	18,108	8,850	
Watsonwan	2,701	3,446	278	3,615	2,823	
Wilkin	1,946	2,037	181	2,751	1,636	
Winona	8,627	7,998	781	11,397	6,345	
Wright	8,793	6,321	627	8,687	5,476	
Yellow Med.	3,587	3,060	406	4,707	2,751	
Totals	857,738	658,643	68,931	991,117	559,242	

MINNESOTA VOTE SINCE 1920

- 1920 (Pres.), Cox, Dem., 142,994; Harding, Rep., 519,421; Watkins, Proh., 11,489; Debs, Soc., 56,106.
- 1924 (Pres.), Coolidge, Rep., 420,759; LaFollette, Prog., 339,192; Davis, Dem., 55,913; Foster, Workers, 4,427; Johns, Soc. Lab., 1,355.
- 1928 (Pres.), Hoover, Rep., 560,977; Smith, Dem., 396,451; Thomas, Soc., 6,774; Foster, Com., 4,853; Industrial, 1,921.
- 1932 (Pres.), Roosevelt, Dem., 600,806; Hoover, Rep., 363,959; Thomas, Soc., 25,476; Foster, Com., 6,101; Coxey, Farm-Lab., 5,731; Reynolds, Ind., 770.
- 1936 (Pres.), Roosevelt, Dem., 698,811; Landon, Rep., 350,461; Lemke, Union, 74,296; Thomas, Soc., 2,872; Browder, Com., 2,574; Aiken, Soc., 961.
- 1940 (Pres.), Roosevelt, Dem., 644,196; Wilkie, Rep., 596,274; Thomas, Soc., 5,454; Browder, Com., 2,711; Aiken, Ind., 2,553.
- 1944 (Pres.), Roosevelt, Dem., 589,864; Dewey, Rep., 527,416; Thomas, Soc., 5,073; Teichert, Ind. Gov't, 3,176.
- 1948 (Pres.), Truman, Dem., 692,966; Dewey, Rep., 483,617; Wallace, Prog., 27,866; Thomas, Soc., 4,646; Teichert, Soc. Lab., 2,525; Dobbs, Soc. Workers, 606.
- 1952 (Pres.), Eisenhower, Rep., 763,211; Stevenson, Dem., 608,458; Hallinan, Prog., 2,666; Hass, Soc. Lab., 2,383; Hamblen, Proh., 2,147; Dobbs, Soc. Workers, 618.
- 1956 (Pres.), Eisenhower, Rep., 719,302; Stevenson, Dem., 617,525; Hass, Soc. Lab. (Ind. Gov.), 2,080; Dobbs, Soc. Workers, 1,098.
- 1960 (Pres.), Kennedy, Dem., 779,933; Nixon, Rep., 757,915; Dobbs, Soc. Workers, 3,077; Industrial Gov., 962.
- 1964 (Pres.), Johnson, Dem., 991,117; Goldwater, Rep., 559,624; DeBerry, Soc. Workers, 1,177; Hass, Industrial Gov., 2,542.
- 1968 (Pres.), Nixon, Rep., 658,643; Humphrey, Dem., 857,738; Wallace, 3rd party, 68,931; scattered, 2,443.

Mississippi

1968		1964				
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Adams	5,271	1,475	6,812	1,093	5,900	
Alcorn	1,122	1,760	6,304	1,917	3,376	
Amite	1,533	393	3,206	103	2,742	
Attala	1,688	599	4,776	263	4,409	
Benton	853	185	1,630	236	934	
Bolivar	4,696	1,790	5,018	731	4,680	
Calhoun	276	394	4,823	294	3,224	
Carroll	925	138	2,131	98	2,043	
Chickasaw	720	381	4,062	279	3,138	
Choctaw	2,117	211	2,543	150	2,096	
Clabornne	2,129	230	1,143	84	1,226	
Clarke	878	298	4,214	253	3,591	
Clay	1,438	510	3,654	226	2,848	
Coahoma	5,308	1,884	3,556	964	4,172	
Copiah	2,724	704	4,951	239	4,506	

Miss. (cont'd)		1964				
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Covington	691	445	3,668	392	3,033	
De Soto	1,898	1,092	5,346	461	2,928	
Forrest	2,957	3,294	9,975	1,128	9,291	
Franklin	732	231	2,429	81	2,211	
George	214	171	3,992	242	2,797	
Greene	449	132	2,744	216	1,851	
Grenada	2,050	718	4,335	155	3,643	
Hancock	904	1,065	4,072	1,501	2,548	
Harrison	4,670	6,542	18,157	5,393	19,350	
Hinds	14,880	13,488	32,366	5,058	36,801	
Holmes	3,881	520	3,008	110	3,115	
Humphreys	1,219	258	2,151	84	1,863	
Issaquena	527	44	534	34	456	
Itawamba	417	569	5,204	1,127	2,140	
Jackson	2,236	2,942	15,261	2,371	11,357	
Jasper	887	373	3,100	236	2,994	
Jefferson	2,121	144	1,112	69	1,258	
Jeff. Davis	1,465	297	2,614	235	2,351	
Jones	2,476	3,242	12,276	1,981	12,123	
Kemper	655	167	2,530	191	2,185	
Lafayette	1,578	1,235	3,329	720	3,202	
Lamar	351	546	4,422	334	3,372	
Lauderdale	3,195	2,328	14,842	1,583	13,291	
Lawrence	740	329	2,825	236	2,373	
Leake	1,295	453	4,568	170	4,343	
Lee	1,912	522	9,232	2,409	5,165	
Leflore	4,386	1,514	5,732	380	5,869	
Lincoln	1,585	1,057	7,276	437	7,750	
Lowndes	2,229	1,968	6,829	533	6,135	
Madison	4,225	812	3,833	251	3,283	
Marion	1,722	763	5,848	505	5,469	
Marshall	2,907	577	2,794	342	2,250	
Monroe	1,506	1,167	7,856	985	5,627	
Montg'm'y	896	475	2,988	149	3,181	
Neshoba	867	531	6,417	293	5,431	
Newton	799	542	5,561	238	4,735	
Noxubee	1,387	232	2,048	270	1,980	
Oktibbeha	1,826	1,276	4,127	390	4,795	
Panola	723	1,098	4,133	413	4,002	
Pearl River	2,26	1,298	6,050	735	4,009	
Perry	439	227	2,541	279	1,775	
Pike	2,848	1,428	5,711	543	6,418	
Pontotoc	599	733	4,798	702	2,699	
Prentiss	440	723	5,055	1,013	2,289	
Quitman	1,499	434	2,454	336	2,065	
Rankin	1,979	1,126	9,238	332	7,541	
Scott	1,064	635	5,091	238	4,729	
Sharkey	972	275	1,187	128	1,116	
Simmons	1,070	873	4,024	271	4,941	
Smith	352	437	4,367	238	4,045	
Stone	342	258	2,140	179	1,776	
Sunflower	2,360	1,021	3,881	251	4,127	
Tal'atchie	722	300	218	255	3,126	
Tate	1,162	605	2,823	283	2,390	
Tippah	660	599	4,622	974	2,482	
Tishomingo	335	617	456	977	1,934	
Tunica	1,133	413	783	99	945	
Union	594	965	5,198	1,237	2,939	
Wal'hal	1,233	387	3,189	154	3,014	
Warren	4,503	2,392	6,523	1,631	7,409	
Washington	5,527	3,496	6,280	2,004	5,611	
Wayne	739	247	4,081	276	3,539	
Webster	299	321	3,494	237	2,884	
Wilkinson	2,175	270	1,499	103	1,473	
Winston	911	508	4,635	237	3,922	
Yalobusha	865	559	2,688	259	2,385	
Yazoo	2,165	950	4,945	204	4,801	
Totals	149,419	88,214	414,402	52,618	356,528	

MISSISSIPPI VOTE SINCE 1920

- 1920 (Pres.), Cox, Dem., 69,277; Harding, Rep., 11,576; Debs, Soc., 1,639.
- 1924 (Pres.), Davis, Dem., 100,475; Coolidge, Rep., 8,546; LaFollette, Prog., 3,494.
- 1928 (Pres.) Smith, Dem., 124,539; Hoover, Rep., 27,153.
- 1932 (Pres.), Roosevelt, Dem., 140,168; Hoover, Rep., 5,180; Thomas, Soc., 688.
- 1936 (Pres.), Roosevelt, Dem., 157,318; Landon, Rep., Howard faction, 2,760; Rowlands faction, 1,675; total, 4,435; Thomas, Soc., 329.
- 1940 (Pres.), Roosevelt, Dem., 168,252; Wilkie, Ind. Rep., 4,550; Rep., 2,814; total, 7,364; Thomas, Soc., 103.
- 1944 (Pres.), Roosevelt, Dem., 158,515; Dewey, Rep., 3,742; Reg. Dem., 9,964; Ind. Rep., 7,859.
- 1948 (Pres.), Thurmond, States' Rights, 167,538; Truman, Dem., 19,384; Dewey, Rep., 5,043; Wallace, Prog., 225.
- 1952 (Pres.), Eisenhower, Ind. vote pledged to Rep. candidate, 112,965; Stevenson, Dem., 172,566.
- 1956 (Pres.), Stevenson, Dem., 144,488; Eisenhower, Rep., 56,372; Black and Tan Grand Old Party, 4,313; total, 60,685; Byrd, Independent, 42,966.
- 1960 (Pres.), Democratic unpledged electors, 116,248; Kennedy, Dem., 108,362; Nixon, Rep., 73,561.
- *Mississippi's victorious slate of 8 unpledged

Mississippi (cont'd)

Democratic electors cast their votes for Sen. Harry F. Byrd (D.-Va.).
 1964 (Pres.) Johnson, Dem., 52,618; Goldwater, Rep., 356,528.
 1968 (Pres.) Nixon, Rep., 88,214; Humphrey, Dem., 149,419; Wallace, 3rd party, 414,402.

Missouri

County	1968			1964		
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Adair	2,645	4,624	592	4,235	3,573	
Andrew	2,005	3,398	350	3,211	2,594	
Atchison	1,759	2,259	340	2,870	1,653	
Andrain	4,806	5,005	1,024	7,387	3,316	
Barry	3,397	5,537	758	5,307	4,437	
Barton	1,832	2,928	499	3,173	2,332	
Bates	3,370	4,087	801	5,162	3,514	
Benton	1,345	2,899	498	2,030	2,477	
Bollinger	1,693	2,283	588	2,792	2,125	
Boone	3,768	11,844	2,015	14,758	7,695	
Buchanan	15,949	16,168	2,755	24,164	11,501	
Butler	4,386	6,312	2,755	7,710	5,616	
Caldwell	1,490	2,631	430	2,475	2,125	
Callaway	3,772	4,225	1,273	5,916	2,983	
Camden	1,646	3,700	641	5,522	2,607	
Cape Girar.	6,654	10,237	2,360	11,431	8,776	
Carroll	2,473	3,680	645	4,069	2,994	
Carter	738	861	289	1,232	761	
Cass	4,468	5,271	1,938	6,658	3,665	
Cedar	1,218	2,935	430	2,247	2,478	
Chariton	2,373	2,404	509	3,862	1,932	
Christian	1,586	2,019	633	2,646	3,232	
Clark	1,489	2,111	341	2,223	1,660	
Clay	17,386	19,299	6,881	23,993	13,997	
Clinton	2,503	2,671	600	3,598	1,800	
Cole	5,876	11,473	1,608	8,127	10,068	
Cooper	2,797	4,115	479	4,201	3,530	
Crawford	2,108	3,555	671	3,444	2,660	
Dade	917	2,270	417	1,641	1,931	
Dallas	1,257	2,835	465	1,983	2,268	
Davess	1,589	2,330	323	2,739	1,874	
DeKalb	1,452	2,112	285	2,347	1,679	
Dent	1,789	2,238	457	2,860	1,788	
Douglas	978	2,836	312	1,593	2,280	
Dunklin	5,063	4,359	2,903	8,467	3,465	
Franklin	7,566	9,324	1,950	13,464	8,313	
Gasconade	1,130	4,398	353	2,136	3,672	
Gentry	2,189	2,435	208	3,198	1,677	
Greene	19,669	32,638	6,751	30,130	23,989	
Grundy	1,976	3,213	419	3,363	2,411	
Harrison	1,688	3,092	412	2,787	2,516	
Henry	3,514	3,824	682	5,761	3,083	
Hickory	537	1,484	209	854	1,157	
Holt	1,211	2,030	379	1,871	1,726	
Howard	2,332	1,825	507	3,507	1,339	
Howell	1,792	5,631	1,449	4,968	4,632	
Iron	1,755	491	2,730	1,050		
Jackson	112,154	90,986	28,780	161,290	78,766	
Jasper	10,667	16,794	3,166	18,455	15,481	
Jefferson	13,230	11,709	6,104	18,916	7,887	
Johnson	3,484	4,834	1,018	6,412	4,348	
Knox	1,257	1,562	350	2,085	1,305	
Laclede	2,948	4,849	848	4,517	3,848	
Lafayette	4,372	6,404	983	7,400	5,493	
Lawrence	3,710	6,834	898	6,383	6,047	
Lewis	2,067	2,038	537	3,281	1,239	
Lincoln	3,993	3,190	1,291	4,993	2,271	
Linn	3,933	3,795	513	5,735	2,883	
Livingston	3,455	3,809	518	5,320	2,703	
McDonald	2,177	3,013	678	3,489	3,055	
Macon	3,474	3,816	821	5,789	2,837	
Madison	1,521	2,164	615	2,718	1,756	
Maries	1,185	1,438	403	2,063	1,183	
Marion	5,420	4,737	1,225	8,314	3,605	
Mercer	783	1,406	125	1,284	1,040	
Miller	1,727	4,425	725	2,858	3,784	
Mississippi	2,257	1,419	1,565	4,015	1,665	
Monroe	1,687	3,204	586	2,624	2,758	
Monte	2,776	1,349	516	4,103	928	
Montg'm'y	1,901	2,903	623	3,298	2,610	
Morgan	1,649	2,924	504	2,468	2,742	
N. Madrid	4,195	2,317	2,984	7,415	2,583	
Newton	5,085	7,442	1,490	8,139	5,660	
Nodaway	4,494	4,736	635	6,690	3,789	
Oregon	1,676	1,163	625	2,908	3,922	
Osage	1,927	3,595	445	2,608	2,712	
Park	607	1,970	304	1,064	1,540	
Pemiscot	2,562	2,166	2,970	5,083	2,658	
Perry	1,958	3,858	462	3,456	2,837	
Pettis	6,329	6,738	1,539	9,887	5,409	
Phelps	4,218	5,779	1,055	5,776	7,755	
Pike	3,191	3,068	802	5,273	1,944	
Platte	4,685	4,836	1,815	3,353	3,288	
Polk	2,170	4,145	614	3,353	3,059	
Pulaski	2,303	2,555	718	3,386	1,856	
Putnam	952	1,971	169	1,484	1,547	
Rails	1,900	1,175	478	2,847	736	
Randolph	4,811	3,582	893	6,988	2,485	
Ray	3,484	2,535	1,062	5,189	1,734	
Reynolds	1,624	1,970	559	1,835	530	

Missouri (cont'd)

County	1968			1964		
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Ripley	1,438	1,972	675	2,688	1,684	
St. Charles	10,374	13,533	5,752	14,530	9,020	
St. Clair	1,496	2,301	411	2,593	1,961	
St. Francois	6,379	7,501	1,387	10,567	5,690	
Ste. Genev.	2,207	1,937	440	3,768	1,316	
St. Louis	165,325	187,022	39,103	213,658	134,963	
St. Louis Cy.	143,217	58,202	19,474	207,958	59,604	
Saline	4,633	4,841	535	7,308	3,635	
Schuyler	969	1,291	168	1,449	1,072	
Scotland	1,340	1,554	211	2,187	1,215	
Shannon	4,313	3,850	2,464	7,512	3,212	
Shelby	1,216	1,048	446	2,312	904	
Stoddard	2,045	1,693	358	3,156	1,212	
Stone	1,096	2,992	1,751	5,944	3,014	
Sullivan	1,907	2,332	451	1,855	2,377	
Taney	1,219	3,289	424	2,695	2,052	
Texas	3,104	4,035	981	4,934	2,902	
Vernon	3,557	3,590	787	5,958	3,077	
Warren	1,033	2,669	565	1,903	2,323	
Washington	2,290	2,540	778	3,908	2,286	
Wayne	1,714	2,136	643	3,005	2,019	
Webster	2,547	4,118	572	3,824	3,341	
Worth	853	924	126	1,373	831	
Wright	1,337	3,576	487	3,292	3,466	
Totals	790,661	812,470	204,375	1,164,344	653,535	

MISSOURI VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 574,799; Harding, Rep., 727,162; Watkins, Proh., 5,142; Dixes, Soc., 20,242; Christensen, F.-Lab., 3,291.
 1924 (Pres.), Coolidge, Rep., 648,486; Davis, Dem., 572,753; LaFollette, Prog., 84,160; Paris, Proh., 1,418; Johns, Soc. Lab., 908; Wallace, Comm. Lab., 259.
 1928 (Pres.), Hoover, Rep., 834,080; Smith, Dem., 662,562; Thomas, Soc., 3,739; Reynolds, Soc. Lab., 340.
 1932 (Pres.), Roosevelt, Dem., 1,025,406; Hoover, Rep., 566,713; Thomas, Soc., 16,374; Upshaw, Proh., 2,429; Foster, Comm., 568; Reynolds, Soc. Lab., 404.
 1936 (Pres.), Roosevelt, Dem., 1,111,403; Landon, Rep., 697,891; Lemke, Union, 14,630; Thomas, Soc., 3,454; Colvin, Proh., 908; Browder, Comm., 417; Aiken, Soc. Lab., 292.
 1940 (Pres.), Roosevelt, Dem., 958,476; Wilkie, Rep., 871,009; Thomas, Soc., 2,226; Babson, Proh., 1,809; Aiken, Soc. Lab., 209.
 1944 (Pres.), Roosevelt, Dem., 807,357; Dewey, Rep., 761,175; Thomas, Soc., 1,750; Watson, Proh., 1,175; Reichert, Soc. Lab., 221.
 1948 (Pres.), Truman, Dem., 917,315; Dewey, Rep., 655,039; Wallace, Prog., 3,998; Thomas, Soc., 2,222.
 1952 (Pres.), Eisenhower, Rep., 959,429; Stevenson, Dem., 929,830; Hallinan, Prog., 987; Hamblen, Proh., 885; MacArthur, Christian Nationalist, 302; America First, 233; Hoopes, Soc., 227; Hass, Soc. Lab., 169.
 1956 (Pres.), Stevenson, Dem., 918,273; Eisenhower, Rep., 914,299.
 1960 (Pres.), Kennedy, Dem., 972,201; Nixon, Rep., 962,221.
 1964 (Pres.), Johnson, Dem., 1,164,344; Goldwater, Rep., 653,535.
 1968 (Pres.), Nixon, Rep., 812,470; Humphrey, Dem., 790,661; Wallace, 3rd party, 204,375.

Montana

County	1968			1964		
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Beaverhead	368	935	205	1,469	1,754	
Big Horn	897	1,398	167	2,509	1,481	
Blaine	837	1,044	129	1,742	961	
Broadwater	439	671	108	595	609	
Carbon	1,352	1,972	288	2,098	1,535	
Carter	289	624	110	453	576	
Chouteau	12,172	10,114	1,319	17,609	8,986	
Chautauq	1,216	1,695	247	1,827	1,414	
Custer	1,760	2,831	275	2,790	2,302	
Daniels	688	826	69	987	742	
Dawson	1,687	2,537	217	2,691	1,938	
Deer Lodge	4,208	1,554	310	4,835	1,415	
Fallon	477	990	97	765	827	
Fergus	1,793	2,711	533	3,300	2,980	
Flathead	4,400	5,891	1,225	8,015	6,325	
Gallatin	3,392	6,929	617	5,600	5,621	
Gardiner	79	265	65	384	509	
Glacier	1,723	1,643	295	2,218	1,458	
Gold'n Val'y	62	171	181	435	252	

Montana (cont'd)						Nebraska (cont'd)					
1968						1968					
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Granite.....	502	626	135	658	527	Cherry.....	536	1,989	206	1,428	2,244
Hill.....	3,386	2,970	305	4,491	2,101	Cheyenne....	920	2,534	386	2,689	3,129
Jefferson.....	820	796	152	967	662	Clay.....	898	2,167	176	2,001	1,879
Judith Basin..	616	814	106	822	678	Colfax.....	889	2,183	305	2,207	1,972
Lake.....	415	778	200	3,148	2,828	Cuming.....	890	3,107	284	2,265	3,064
Lewis & Clark..	4,560	6,702	632	7,506	6,155	Custer.....	1,342	4,072	379	3,475	3,916
Liberty.....	390	675	83	619	533	Dakota.....	1,478	2,227	268	2,654	1,906
Lincoln.....	910	808	217	3,140	1,554	Dawes.....	689	2,391	252	1,569	2,518
Madison.....	511	959	188	1,125	1,276	Dawson.....	1,522	4,943	358	3,790	4,577
McConaughy...	589	733	82	891	615	Deuel.....	229	920	76	1,533	1,992
McGagher.....	218	543	102	405	506	Dixon.....	862	1,973	171	1,912	1,845
Mineral.....	367	329	88	901	368	Dodge.....	3,618	7,703	782	6,731	6,812
Missoula.....	5,985	5,512	1,000	12,900	8,065	Douglas.....	49,591	65,669	15,158	77,480	61,613
Musselshell....	795	958	111	1,189	823	Dundy.....	244	950	117	712	911
Park.....	1,825	3,033	460	2,824	2,619	Fillmore....	1,261	2,120	186	2,497	1,936
Petroleum.....	108	211	36	210	190	Franklin....	606	1,384	140	1,409	1,241
Phillips.....	1,100	1,353	177	1,612	1,242	Frontier....	305	1,093	134	841	1,090
Pondera.....	1,149	1,531	205	1,759	1,110	Furnas.....	1,330	1,017	132	1,669	2,011
Powder Riv....	258	699	118	449	649	Gage.....	3,590	5,229	560	6,411	4,035
Powell.....	270	317	48	1,896	1,140	Garden.....	205	1,047	94	559	1,106
Prairie.....	270	640	30	488	555	Garfield....	174	741	59	483	761
Ravalli.....	1,824	2,830	598	3,300	2,350	Gosper.....	215	737	57	612	547
Richland.....	1,399	2,381	228	3,300	2,784	Grant.....	77	291	17	199	304
Roosevelt.....	1,334	1,524	104	2,463	1,612	Greeley....	694	840	138	1,305	775
Rosebud.....	416	703	124	1,212	1,105	Hall.....	4,349	7,995	767	8,273	6,715
Sanders.....	230	1,115	193	1,836	1,163	Hamilton....	878	2,453	130	1,886	2,105
Sheridan.....	1,275	1,471	115	1,905	837	Harlan.....	549	1,312	197	1,195	1,283
Silver Bow....	12,595	5,471	1,117	15,751	4,873	Hayes.....	122	472	70	362	503
Stillwater.....	686	1,347	177	1,130	1,140	Hitchcock..	355	1,080	170	946	1,149
Sweet Grass...	336	1,043	100	653	856	Holt.....	1,206	3,171	415	2,739	3,194
Teton.....	1,228	1,697	179	1,808	1,388	Hooker.....	36	321	10	137	335
Toole.....	1,048	1,408	249	1,649	1,223	Howard.....	969	1,219	180	2,025	1,019
Treasure.....	188	298	41	285	251	Jefferson....	1,458	2,637	251	2,804	2,275
Valley.....	1,927	2,289	393	3,032	2,077	Johnson....	4,589	722	205	1,554	1,647
Wheatland....	525	673	101	790	583	Kearney....	796	1,735	176	1,767	1,352
Wibaux.....	252	347	56	427	308	Keith.....	660	1,999	167	1,784	1,927
Yellowstone...	10,718	17,360	1,899	17,446	15,571	Keya Paha..	105	491	45	320	506
Totals	99,538	117,272	16,383	164,246	113,632	Kimball....	381	1,394	229	1,242	1,573

MONTANA VOTE SINCE 1920

1920 (Pres.), Cox, Dem. F. 57,372; Harding, Rep., 109,430; Christensen, F. Lab., 12,204.
1924 (Pres.), Coolidge, Rep., 74,138; LaFollette, Prog., 61,105; Davis, Dem., 33,805; Foster, Workers, 357; Johns, Soc. Lab., 247.
1928 (Pres.), Hoover, Rep., 113,300; Smith, Dem., 78,578; Thomas, Soc., 1,667; Foster, Com., 563.
1932 (Pres.), Roosevelt, Dem., 127,286; Hoover, Rep., 78,078; Thomas, Soc., 7,891; Foster, Com., 1,775; Harvey, Lib., 1,449.
1936 (Pres.), Roosevelt, Dem., 159,690; Landon, Rep., 63,598; Lemke, Union, 5,549; Thomas, Soc., 1,066; Browder, Com., 385; Colvin, Proh., 224.
1940 (Pres.), Roosevelt, Dem., 145,698; Wilkie, Rep., 99,579; Thomas, Soc., 1,443; Babson, Proh., 664; Browder, Com., 489.
1944 (Pres.), Roosevelt, Dem., 112,556; Dewey, Rep., 93,163; Thomas, Soc., 1,296; Watson, Proh., 340.
1948 (Pres.), Truman, Dem., 119,071; Dewey, Rep., 96,770; Wallace, Prog., 7,313; Thomas, Soc., 695; Watson, Proh., 429.
1952 (Pres.), Eisenhower, Rep., 157,394; Stevenson, Dem., 106,213; Hallinan, Prog., 723; Hamblen, Proh., 548; Hoopes, Soc., 159.
1956 (Pres.), Eisenhower, Rep., 154,933; Stevenson, Dem., 116,238.
1960 (Pres.), Kennedy, Dem., 134,891; Nixon, Rep., 141,841; Decker, Proh., 456; Dobbs, Soc. Workers, 391.
1964 (Pres.), Johnson, Dem., 164,246; Goldwater, Rep., 113,032; Kasper, Nat'l States Rights, 519; Munn, Proh., 499; DeBerry, Soc. Worker, 332.
1968 (Pres.), Nixon, Rep., 117,272; Humphrey, Dem., 99,538; Wallace, 3rd party, 16,383.

Nebraska

1968						1964					
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Adams.....	3,219	6,449	572	6,441	5,586	Cherry.....	536	1,989	206	1,428	2,244
Antelope.....	905	2,676	348	2,004	2,566	Cheyenne....	920	2,534	386	2,689	3,129
Arthur.....	43	205	15	126	243	Clay.....	898	2,167	176	2,001	1,879
Banner.....	63	330	68	196	357	Colfax.....	889	2,183	305	2,207	1,972
Blaine.....	69	330	24	195	326	Cuming.....	890	3,107	284	2,265	3,064
Boone.....	916	2,091	281	1,905	1,893	Custer.....	1,342	4,072	379	3,475	3,916
Box Butte....	978	2,532	233	1,968	2,725	Dakota.....	1,478	2,227	268	2,654	1,906
Boyd.....	416	1,174	238	408	1,100	Dawes.....	689	2,391	252	1,569	2,518
Brown.....	344	1,258	155	885	1,272	Dawson.....	1,522	4,943	358	3,790	4,577
Buffalo.....	2,765	6,451	686	5,436	5,425	Deuel.....	229	920	76	1,533	1,992
Burt.....	893	2,507	244	2,074	2,459	Dixon.....	862	1,973	171	1,912	1,845
Butler.....	1,501	1,563	315	2,293	1,642	Dodge.....	3,618	7,703	782	6,731	6,812
Cass.....	1,697	3,042	586	3,975	2,947	Douglas.....	49,591	65,669	15,158	77,480	61,613
Cedar.....	1,397	2,746	328	3,104	2,299	Dundy.....	244	950	117	712	911
Chase.....	344	1,102	186	907	1,081	Fillmore....	1,261	2,120	186	2,497	1,936

Totals.....163,592 301,312 42,288 307,307 276,847

NEBRASKA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 119,608; Harding, Rep., 247,498; Watkins, Proh., 5,947; Debs, Soc., 9,600.
1924 (Pres.), Coolidge, Rep., 218,585; Davis, Dem., 137,289; LaFollette, Prog., 106,701; Faris, Proh., 1,594.
1928 (Pres.), Hoover, Rep., 349,745; Smith, Dem., 197,959; Thomas, Soc., 3,434.
1932 (Pres.), Roosevelt, Dem., 359,082; Hoover, Rep., 201,177; Thomas, Soc., 9,876.
1936 (Pres.), Roosevelt, Dem., 347,454; Landon, Rep., 248,731; Lemke, Union, 12,847.
1940 (Pres.), Roosevelt, Dem., 263,677; Wilkie, Rep., 352,201.
1944 (Pres.), Roosevelt, Dem., 233,246; Dewey, Rep., 329,880.
1948 (Pres.), Truman, Dem., 224,165; Dewey, Rep., 264,774.

Nebraska (cont'd)

1952 (Pres.), Eisenhower, Rep., 421,603; Stevenson, Dem., 188,037.
 1956 (Pres.), Eisenhower, Rep., 378,108; Stevenson, Dem., 199,029.
 1960 (Pres.), Kennedy, Dem., 232,542; Nixon, Rep., 380,553.
 1964 (Pres.), Johnson, Dem., 307,307; Goldwater, Rep., 276,847.
 1968 (Pres.), Nixon, Rep., 301,312; Humphrey, Dem., 163,592; Wallace, 3rd party, 42,288.

Nevada

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Churchill	1,211	1,953	575	1,565	1,607
Clark	32,173	30,005	9,960	40,760	23,921
Douglas	670	1,790	327	1,010	1,127
Elko	1,686	2,986	559	2,785	1,856
Esmeralda	118	138	97	187	131
Eureka	149	277	64	285	243
Humboldt	885	1,282	353	1,421	1,106
Lander	302	461	147	391	338
Lincoln	414	655	144	785	440
Lyon	939	1,526	444	1,327	1,397
Mineral	1,242	927	700	1,440	927
Nye	699	476	500	1,276	822
Ormsby	1,170	3,159	662	2,129	1,997
Pershing	466	567	180	738	486
Storey	182	222	50	261	172
Washoe	14,662	23,467	4,933	20,170	18,350
White Pine	2,062	1,570	376	2,609	1,174
Totals	58,999	71,961	20,071	79,339	56,094

NEVADA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 9,851; Harding, Rep., 15,479; Debs, Soc., 1,864.
 1924 (Pres.), Coolidge, Rep., 11,243; LaFollette, Prog., 9,769; Davis, Dem., 5,909.
 1928 (Pres.), Hoover, Rep., 18,327; Smith, Dem., 14,090.
 1932 (Pres.), Roosevelt, Dem., 28,756; Hoover, Rep., 13,674.
 1936 (Pres.), Roosevelt, Dem., 31,925; Landon, Rep., 11,923.
 1940 (Pres.), Roosevelt, Dem., 31,945; Willkie, Rep., 21,229.
 1944 (Pres.), Roosevelt, Dem., 29,623; Dewey, Rep., 24,611.
 1948 (Pres.), Truman, Dem., 31,291; Dewey, Rep., 29,357; Wallace, Prog., 1,469.
 1952 (Pres.), Eisenhower, Rep., 50,502; Stevenson, Dem., 31,688.
 1956 (Pres.), Eisenhower, Rep., 56,049; Stevenson, Dem., 40,640.
 1960 (Pres.), Kennedy, Dem., 54,880; Nixon, Rep., 52,387.
 1964 (Pres.), Johnson, Dem., 79,339; Goldwater, Rep., 56,094.
 1968 (Pres.), Nixon, Rep., 71,961; Humphrey, Dem., 58,999; Wallace, 3rd party, 20,071.

New Hampshire

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Belknap	4,942	8,612	454	8,024	5,908
Carroll	2,163	6,795	348	4,058	4,957
Cheshire	9,145	10,702	441	13,626	5,958
Cous	8,261	6,222	399	11,956	4,863
Grafton	7,813	12,881	727	12,566	8,161
Hillborough	45,423	42,406	4,231	58,237	29,503
Merrimaek	12,711	19,289	1,201	19,818	12,564
Rockingham	21,195	28,842	2,333	27,256	19,498
Strafford	13,129	12,437	659	17,737	8,342
Sullivan	5,817	6,994	389	8,787	3,975
Totals	130,589	154,903	11,173	182,065	102,029

NEW HAMPSHIRE VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 62,662; Harding, Rep., 85,196; Debs, Soc., 1,234.
 1924 (Pres.), Coolidge, Rep., 98,575; Davis, Dem., 57,201; LaFollette, Prog., 8,993.
 1928 (Pres.), Hoover, Rep., 115,404; Smith, Dem., 80,715; Thomas, Soc., 455; Foster, Com., 173.
 1932 (Pres.), Roosevelt, Dem., 100,680; Hoover, Rep., 103,629; Thomas, Soc., 947; Foster, Com., 264.
 1936 (Pres.), Roosevelt, Dem., 108,460; Landon, Rep., 104,642; Lemke, Union, 4,819; Browde, Com., 193.

New Hampshire (cont'd)

1940 (Pres.), Roosevelt, Dem., 125,292; Willkie, Rep., 110,127.
 1944 (Pres.), Roosevelt, Dem., 119,663; Dewey, Rep., 109,916; Thomas, Soc., 46.
 1948 (Pres.), Truman, Dem., 107,995; Dewey, Rep., 121,299; Wallace, Prog., 1,970; Thomas, Soc., 86; Teichert, Soc. Lab., 83; Thurmond, States' Rights, 7.
 1952 (Pres.), Eisenhower, Rep., 166,287; Stevenson, Dem., 108,663.
 1956 (Pres.), Eisenhower, Rep., 176,519; Stevenson, Dem., 90,364; Andrews, Const., 111.
 1960 (Pres.), Kennedy, Dem., 137,772; Nixon, Rep., 157,989.
 1964 (Pres.), Johnson, Dem., 182,065; Goldwater, Rep., 104,029.
 1968 (Pres.), Nixon, Rep., 154,903; Humphrey, Dem., 130,589; Wallace, 3rd party, 11,173; scattered, 525.

New Jersey

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Atlantic	35,581	32,807	7,528	50,945	25,626
Bergen	162,182	224,911	23,663	234,849	157,899
Burlington	41,651	46,177	11,635	57,638	31,215
Camden	87,347	77,642	23,111	124,020	60,844
Cape May	9,666	14,970	3,498	14,943	11,390
Cumberland	21,661	18,388	5,359	33,593	12,611
Essex	185,440	140,084	26,823	277,042	116,172
Gloucester	27,438	30,596	10,626	40,305	23,702
Hudson	124,939	91,324	23,138	200,051	69,515
Hunterdon	8,755	15,851	2,749	15,091	10,173
Mercer	63,218	45,354	16,104	86,985	35,081
Middlesex	103,339	96,513	24,136	151,196	63,370
Monmouth	69,669	87,311	13,047	95,320	51,367
Morris	52,398	85,512	9,659	73,684	55,024
Ocean	25,909	41,995	8,520	36,892	25,985
Passaic	74,342	72,662	16,617	113,919	63,114
Salem	11,172	11,407	3,647	17,846	8,462
Somerset	27,580	42,459	7,331	43,655	28,448
Sussex	8,325	18,043	2,843	13,349	11,836
Union	109,674	110,309	19,963	164,989	82,999
Warren	12,822	13,950	2,197	19,755	8,822
Totals	1,264,206	1,325,465	262,164	1,867,671	963,843

NEW JERSEY VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 258,229; Harding, Rep., 611,670; Watkins, Proh., 4,711; Debs, Soc., 27,217; Christensen, Farm Lab., 2,173.
 1924 (Pres.), Coolidge, Rep., 676,277; Davis, Dem., 298,043; LaFollette, Prog., 109,028; Faris, Proh., 1,660; Foster, Workers, 1,560; Johns, Soc. Lab., 358.
 1928 (Pres.), Smith, Dem., 616,517; Hoover, Rep., 926,050; Foster, Com., 1,257; Reynolds, Soc. Lab., 500.
 1932 (Pres.), Roosevelt, Dem., 806,630; Hoover, Rep., 775,684; Thomas, Soc., 42,998; Foster, Com., 2,915; Reynolds, Soc. Lab., 1,062; Upshaw, Proh., 774.
 1936 (Pres.), Roosevelt, Dem., 1,083,549; Landon, Rep., 719,421; Lemke, Union, 9,405; Thomas, Soc., 3,895; Browder, Com., 1,590; Colvin, Proh., 916; Aiken, Soc. Lab., 346.
 1940 (Pres.), Roosevelt, Dem., 1,016,404; Willkie, Rep., 944,876; Browder, Com., 8,814; Thomas, Soc., 2,823; Babson, Proh., 851; Aiken, Soc. Lab., 446.
 1944 (Pres.), Roosevelt, Dem., 987,874; Dewey, Rep., 961,335; Teichert, Soc. Lab., 6,939; Watson, Nat'l Proh., 4,255; Thomas, Soc., 3,385.
 1948 (Pres.), Truman, Dem., 895,455; Dewey, Rep., 981,124; Wallace, Prog., 42,683; Watson, Proh., 10,593; Thomas, Soc., 10,521; Dobbs, Soc. Workers, 5,825; Teichert, Soc. Lab., 3,354.
 1952 (Pres.), Eisenhower, Rep., 1,373,613; Stevenson, Dem., 1,015,902; Hoopes, Soc., 8,593; Hass, Soc. Lab., 5,815; Hallinan, Prog., 5,589; Krajewski, Peor Man's, 4,203; Dobbs, Soc. Workers, 3,850; Hamblen, Proh., 989.
 1956 (Pres.), Eisenhower, Rep., 1,606,942; Stevenson, Dem., 850,337; Holtwick, Proh., 9,147; Hass, Soc. Lab., 6,736; Andrews, Conservative, 5,317; Dobbs, Soc. Workers, 4,004; Krajewski, American Third Party, 1,829.
 1960 (Pres.), Kennedy, Dem., 1,385,415; Nixon, Rep., 1,363,324; Dobbs, Soc. Workers, 11,402; Lee, Conservative, 8,708; Hass, Soc. Lab., 4,263.
 1964 (Pres.), Johnson, Dem., 1,867,671; Goldwater, Rep., 963,843; DeBerry, Soc. Workers, 8,181; Hass, Soc. Labor, 7,075.
 1968 (Pres.), Nixon, Rep., 1,325,465; Humphrey, Dem., 1,264,206; Wallace, 3rd party, 262,164; scattered, 23,683.

New Mexico

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Bernalillo...	40,456	55,553	4,886	55,036	42,583
Catron.....	273	686	128	624	584
Chaves.....	3,612	8,866	1,423	8,650	8,419
Colfax.....	2,477	2,212	262	3,367	1,636
Curry.....	2,915	5,583	1,750	5,228	5,120
De Baca.....	345	658	130	674	559
Doña Ana...	7,633	10,797	1,461	10,748	7,280
Eddy.....	6,088	7,160	1,672	11,216	6,747
Grant.....	3,817	2,907	793	5,253	2,042
Guadalupe...	1,041	1,089	60	1,649	1,058
Harding.....	287	423	37	431	473
Hidalgo.....	678	606	257	995	628
Lea.....	4,746	7,405	3,020	8,862	7,033
Lincoln.....	803	2,003	287	1,565	1,761
Los Alamos...	2,556	3,447	268	3,767	1,895
Luna.....	1,438	1,932	490	2,286	1,665
McKinley...	4,491	4,376	547	6,913	2,965
Mora.....	1,069	1,106	35	1,509	1,014
Otero.....	3,998	4,942	1,700	6,035	3,498
Quay.....	1,399	2,123	567	2,333	2,161
Rio Arriba...	4,798	3,939	269	6,787	2,906
Roosevelt...	1,547	3,254	738	2,875	2,732
Sandoval...	2,598	1,944	126	3,332	1,077
San Juan...	5,032	7,748	2,302	6,901	6,808
San Miguel...	4,069	4,008	160	5,767	2,714
Santa Fe....	9,544	9,307	492	12,616	5,834
Sierra.....	930	1,624	281	1,633	1,501
Socorro.....	1,869	2,211	172	2,397	1,774
Taos.....	2,992	3,113	116	4,204	2,006
Torrance...	1,374	1,316	188	1,446	1,183
Valencia...	654	1,199	267	1,159	1,232
Union.....	5,415	5,572	708	7,757	3,950
Totals...	130,444	168,558	25,592	194,017	131,838

NEW MEXICO VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 46,668; Harding, Rep., 57,634; Christensen, F. Lab., 1,097.
1924 (Pres.), Coolidge, Rep., 54,745; Davis, Dem., 48,542; LaFollette, Prog., 9,543.
1928 (Pres.), Hoover, Rep., 69,645; Smith, Dem., 48,211; Foster, Com., 158.
1932 (Pres.), Roosevelt, Dem., 95,089; Hoover, Rep., 54,217; Thomas, Soc., 1,776; Harvey, Lib., 389; Foster, Com., 135.
1936 (Pres.), Roosevelt, Dem., 105,838; Landon, Rep., 81,710; Lemke, Union, 942; Thomas, Soc., 343; Browder, Com., 43.
1940 (Pres.), Roosevelt, Dem., 103,699; Wilkie, Rep., 79,315.
1944 (Pres.), Roosevelt, Dem., 81,389; Dewey, Rep., 70,688; Watson, Proh., 148.
1948 (Pres.), Truman, Dem., 105,464; Dewey, Rep., 80,303; Wallace, Prog., 1,037; Watson, Proh., 137; Thomas, Soc., 83; Teichert, Soc. Lab., 49.
1952 (Pres.), Eisenhower, Rep., 132,170; Stevenson, Dem., 105,661; Hamblen, Proh., 297; Hallinan, Ind. Prog., 225; MacArthur, Christian National, 220; Hass, Soc. Lab., 35.
1956 (Pres.), Eisenhower, Rep., 146,788; Stevenson, Dem., 106,098; Holtwick, Proh., 607; Andrews, Ind., 364; Hass, Soc. Lab., 69.
1960 (Pres.), Kennedy, Dem., 156,027; Nixon, Rep., 153,733; Decker, Proh., 777; Hass, Soc. Lab., 570.
1964 (Pres.), Johnson, Dem., 194,017; Goldwater, Rep., 131,838; Hass, Soc. Labor, 1,217; Munn, Proh., 543.
1968 (Pres.), Nixon, Rep., 168,658; Humphrey, Dem., 130,444; Wallace, 3rd party, 25,592.

New York

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D-L*)	Goldwater (R)
Albany.....	76,452	52,219	4,946	114,827	32,224
Allegany.....	4,911	10,957	821	10,329	7,688
Broome.....	36,852	46,501	4,348	59,021	32,048
Cattaraugus...	12,356	16,395	1,595	21,994	10,907
Cayuga.....	14,541	16,084	1,808	24,090	11,453
Chautauqua...	26,416	28,477	3,194	42,924	19,069
Chemung.....	15,801	20,586	2,793	26,332	14,716
Chenango.....	5,714	11,852	675	11,653	7,293
Columbia...	10,383	11,781	901	18,398	7,078
Columbia...	7,332	13,836	1,362	14,316	9,023
Cortland.....	5,752	10,301	726	11,110	6,149
Delaware.....	5,366	12,341	1,123	11,686	8,359
Dutchess.....	30,985	44,881	5,615	50,179	29,503
Erie.....	244,449	163,067	32,457	344,910	125,962
Essex.....	3,932	9,291	773	10,739	5,837

New York (cont'd)

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Franklin....	6,624	8,126	262	12,467	4,846
Fulton.....	8,831	11,781	978	15,846	7,278
Genesee.....	9,534	12,420	1,126	15,713	8,114
Greene.....	6,183	9,997	827	10,034	7,842
Hamilton....	765	2,120	162	1,603	1,269
Herkimer....	10,711	14,913	1,352	20,136	10,159
Jefferson....	13,305	18,182	819	25,175	10,718
Lewis.....	3,179	5,459	368	6,584	3,185
Livingston...	6,781	11,234	756	13,451	7,120
Madison....	6,953	15,542	1,068	14,313	8,858
Monroe.....	142,003	142,902	10,663	205,226	80,099
Montgom'y...	11,563	12,470	1,123	19,370	8,471
Niagara.....	41,307	38,679	6,247	67,260	28,663
Oneida.....	44,154	51,968	5,582	73,359	39,737
Onondaga...	82,494	93,168	8,394	128,630	63,205
Ontario.....	11,000	16,717	1,055	19,922	10,847
Orange.....	27,241	44,795	6,280	48,244	30,610
Orleans.....	4,883	8,760	635	9,304	5,567
Oswego.....	14,448	19,763	1,885	24,788	12,415
Otsego.....	7,752	13,267	1,075	15,190	8,643
Putnam.....	8,178	12,623	2,076	12,636	9,219
Rensselaer...	30,618	34,487	3,415	51,171	20,814
Rockland...	39,146	42,508	5,260	46,173	26,187
St. Lawrence	15,361	20,532	2,026	29,173	12,092
Saratoga...	17,188	25,185	2,009	29,264	13,364
Schenec'dy...	34,526	33,036	3,175	51,892	21,848
Schoharie...	4,229	6,224	705	7,187	4,193
Schuyler....	2,032	4,049	515	4,326	2,925
Seneca.....	5,151	6,966	568	8,890	4,473
Steuben....	12,163	24,199	2,199	24,634	15,988
Sullivan....	9,207	11,349	744	16,728	8,006
Tioga.....	5,156	10,158	1,060	10,411	7,147
Tompkins...	10,359	13,793	1,211	16,103	9,070
Ulster.....	20,056	33,770	3,965	35,486	23,749
Warren.....	4,042	12,925	792	12,772	7,834
Washington	6,612	12,535	916	13,826	8,160
Wayne.....	8,793	17,025	1,165	18,729	10,586
Wyoming....	4,431	8,407	770	8,866	6,099
Yates.....	2,113	5,513	389	4,983	3,675
Outside					
N. Y. C....	1,203,266	1,354,359	145,724	1,922,602	899,394
Nassau.....	279,184	329,674	30,197	382,590	248,886
Suffolk.....	117,002	208,483	29,976	180,598	144,350
Westchester	172,344	201,017	21,386	243,723	149,052
N. Y.					
Suburban	567,998	741,562	81,517	806,911	542,288
Bronx.....	275,851	141,368	21,819	403,014	135,780
Kings.....	488,649	246,251	33,531	684,839	229,291
New York...	370,574	135,795	13,077	503,848	120,125
Queens....	414,853	308,737	44,399	541,418	274,351
Richmond...	34,829	54,671	9,073	50,624	42,330
Greater					
N. Y. C....	1,584,756	886,822	121,899	2,183,643	801,877
Totals...	3,356,999	2,980,420	348,205	4,913,156	2,243,559
Dem. Total				4,570,724	
Liberal...				342,432	

*Democratic and Liberal.

NEW YORK VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 731,238; Harding, Rep., 1,871,167; Watkins, Proh., 19,653; Debs, Soc., 203,201; Christensen, F. Lab., 18,413.
1924 (Pres.), Davis, Dem., 950,796; Coolidge, Rep., 1,820,058; LaFollette, Prog., 268,510; LaFollette, Soc., 198,783; Johns, Soc. Lab., 9,928; Foster, Workers, 8,228.
1928 (Pres.), Hoover, Rep., 2,193,344; Smith, Dem., 2,089,863; Thomas, Soc., 107,332; Reynolds, Soc. Lab., 4,206; Foster, Com., 10,884.
1932 (Pres.), Roosevelt, Dem., 2,534,959; Hoover, Rep., 1,937,963; Thomas, Soc., 177,397; Foster, Com., 27,956; Reynolds, Soc. Lab., 10,339.
1936 (Pres.), Roosevelt, Dem., 3,018,298; American Lab., 274,924; total, 3,293,222; Landon, Rep., 2,180,670; Thomas, Soc., 86,879; Browder, Com., 35,609.
1940 (Pres.), Roosevelt, Dem., 2,834,500; American Lab., 417,418; total 3,251,918; Wilkie, Rep., 3,027,478; Thomas, Soc., 18,950; Babson, Proh., 3,250.
1944 (Pres.), Roosevelt, Dem., 2,478,598; American Lab., 496,405; Liberal, 329,325; total, 3,304,238; Dewey, Rep., 2,987,647; Teichert, Ind. Gov't, 14,352; Thomas, Soc., 10,553.
1948 (Pres.), Truman, Dem., 2,557,642; Liberal, 222,562; total, 2,780,204; Dewey, Rep., 2,841,163; Wallace, Amer. Lab., 509,595; Thomas, Soc., 40,879; Teichert, Ind. Gov't, 2,729; Dobbs, Soc. Workers 2,675.
1952 (Pres.), Eisenhower, Rep., 3,952,815; Stevenson, Dem., 2,687,890; Liberal, 416,711; total,

New York (cont'd)

3,104,601; Hallinan, American Lab., 64,211; Hoopes, Soc., 2,664; Dobbs, Soc. Workers, 2,212; Hass, Ind. Gov't, 1,560; Scattering, 178; Blank and void, 87,813.

1956 (Pres.), Eisenhower, Rep., 4,340,340; Stevenson, Dem., 2,458,212; Liberal, 292,557; total, 2,750,769. Write-in votes for Andrews, 1,027; Werdell, 492; Hass, 150; Hoopes, 82; Others, 476.

1960 (Pres.), Kennedy, Dem., 3,423,909; Liberal, 406,176; total, 3,830,085. Nixon, Rep., 3,446,419; Dobbs, Soc. Workers, 14,319; Scattering, 256; Blank and void, 88,896.

1964 (Pres.) Johnson, Dem., 4,913,156; Goldwater, Rep., 2,243,559; Hass, Soc. Labor, 6,085; DeBerry, Soc. Worker, 3,215; Scattering, 189; Blank and Void, 151,383.

1968 (Pres.), Nixon, Rep., 2,980,420; Humphrey, Dem., 3,356,999; Wallace, 3rd party, 348,205; scattered, 18,131.

North Carolina

County	1968				
	Humphrey (D)	Nixon (R)	Wallace (I)	John-son (D)	Gold-water (R)
Alamance...	8,241	12,310	13,139	15,397	15,177
Alexander...	1,834	4,379	2,203	3,722	3,760
Alleghany...	1,102	1,095	904	2,368	1,573
Anson...	2,969	1,991	3,571	4,114	1,721
Ashe...	3,426	4,894	888	4,965	4,191
Avery...	631	3,197	690	1,523	2,653
Beaufort...	3,232	2,669	5,686	6,090	3,595
Bertie...	3,207	811	3,108	3,332	931
Bladen...	2,754	1,746	3,897	4,516	2,169
Brunswick...	2,972	2,404	3,358	4,240	3,721
Buncombe...	14,624	21,031	11,889	31,623	10,372
Burke...	5,704	11,068	5,892	12,815	10,081
Cabarrus...	5,535	13,226	6,538	11,921	13,178
Caldwell...	4,746	10,433	5,093	10,843	8,733
Camden...	707	180	1,100	870	534
Carteret...	3,762	4,593	3,061	6,231	4,289
Caswell...	2,137	1,036	2,851	2,513	1,793
Catawba...	6,974	18,393	7,285	15,814	17,116
Chatham...	3,532	3,845	3,239	5,295	4,111
Cherokee...	2,402	3,768	915	3,823	3,106
Chowan...	1,201	798	1,696	1,696	787
Clay...	847	1,390	293	1,457	1,286
Cleveland...	5,661	7,298	9,649	10,836	7,874
Columbus...	1,243	3,881	6,693	9,004	4,471
Craven...	2,230	1,991	6,509	7,422	4,691
Cumberland...	9,938	9,143	6,539	13,864	9,093
Curruck...	738	963	1,471	1,455	741
Dare...	700	1,035	844	1,476	867
Davidson...	7,594	16,678	11,544	13,735	17,292
Davie...	1,502	3,866	2,515	3,086	4,460
Duplin...	3,451	2,724	6,082	7,169	3,821
Durham...	16,563	12,705	13,542	22,871	15,264
Edgecombe...	5,243	3,198	5,861	7,334	3,932
Forsyth...	20,281	31,623	15,681	31,615	30,276
Franklin...	2,855	1,375	5,525	4,554	2,097
Gaston...	10,100	15,741	13,873	20,197	17,129
Gates...	1,451	1,220	1,220	1,702	556
Graham...	1,061	1,570	363	1,737	1,398
Granville...	2,638	1,837	4,071	4,596	2,624
Greene...	1,560	650	2,906	2,712	901
Gulfport...	25,604	38,996	19,751	39,969	35,635
Halifax...	4,927	3,148	7,116	8,952	4,757
Harnett...	4,007	5,184	6,531	7,477	5,883
Haywood...	5,703	6,205	3,898	10,664	5,575
Henderson...	3,053	9,334	3,861	6,066	8,780
Hertford...	3,275	1,125	2,203	3,953	991
Hoke...	2,185	812	1,545	2,254	779
Hyde...	769	40	833	1,127	514
Iredell...	4,878	10,557	9,021	11,291	12,892
Jackson...	2,956	3,717	1,089	4,905	3,183
Johnston...	4,192	6,764	9,212	10,326	7,523
Jones...	1,225	361	1,789	2,129	776
Lee...	2,524	2,586	3,711	4,730	2,753
Lenoir...	3,853	3,844	8,036	7,617	5,617
Lincoln...	1,044	6,188	3,161	7,304	5,869
Macon...	2,070	3,295	1,162	3,774	2,900
Madison...	2,201	3,130	1,034	3,829	3,346
Martin...	3,118	1,221	3,818	4,821	1,511
McDowell...	2,548	4,749	3,018	4,812	16,582
Mecklenb'g...	31,102	56,325	20,673	69,124	31,309
Mitchell...	1,419	877	903	1,736	1,366
Montgom'y...	2,110	3,070	2,259	3,933	3,385
Moore...	3,583	5,422	3,263	6,384	5,162
Nash...	5,283	4,602	9,239	9,163	6,396
New Han'cr...	7,759	10,023	9,291	12,584	12,110
Northampton...	4,072	869	2,986	5,046	1,187
Onslow...	3,281	3,444	5,512	5,955	3,771
Orange...	8,366	6,097	3,845	9,206	5,785
Pamlico...	1,289	745	1,447	1,864	1,046
Pasquotank...	2,561	1,139	3,597	4,299	2,980
Pender...	1,912	1,007	7,240	9,121	1,911
Perquimans...	1,021	168	1,551	1,834	911
Person...	2,644	2,138	4,065	4,710	2,162
Pitt...	7,696	5,745	9,167	11,317	5,119
Polk...	1,523	2,559	1,484	3,017	2,765
Randolph...	5,351	13,159	6,892	10,639	13,739

No. Carolina (cont'd)

1968

1964

County	Humphrey (D)	Nixon (R)	Wallace (I)	John-son (D)	Gold-water (R)
Richmond...	4,257	2,865	5,457	8,516	3,123
Robeson...	8,248	4,526	6,441	13,796	9,061
Rockingham...	8,064	8,065	9,324	11,432	3,593
Rowan...	15,707	9,220	14,034	14,034	14,034
Rutherford...	4,622	7,785	4,476	9,541	7,115
Sampson...	4,797	6,597	4,527	8,067	7,634
Scotland...	2,252	1,717	2,016	3,844	1,229
Stanly...	4,199	9,428	4,706	7,931	8,924
Stokes...	2,374	4,781	3,410	4,898	4,664
Surry...	5,088	9,638	4,103	9,810	7,977
Swain...	1,227	1,494	537	2,294	1,534
Transylvania...	2,210	4,033	2,865	4,483	3,547
Tyrol...	291	291	415	996	374
Union...	3,630	5,590	4,761	7,208	4,229
Vance...	3,852	2,252	5,244	5,186	3,452
Wake...	20,479	28,928	17,250	31,653	22,542
Warren...	2,293	796	2,294	2,849	1,909
Washington...	1,898	1,016	1,866	2,505	1,144
Watauga...	2,952	5,081	1,060	4,031	3,932
Wayne...	5,338	5,678	8,709	9,791	7,555
Wilkes...	4,497	11,195	2,876	9,176	11,014
Wilson...	4,173	4,053	7,903	7,238	5,002
Yadkin...	1,443	5,885	2,397	6,638	5,860
Yancey...	2,215	2,448	752	3,714	2,004

Totals... 464,113 627,192 496,188 800,139 624,844

NORTH CAROLINA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 305,447; Harding, Rep., 232,848; Watkins, Proh., 17; Debs, Soc., 446.

1924 (Pres.), Davis, Dem., 284,270; Coolidge, Rep., 191,753; LaFollette, Prog., 6,651; Paris, Proh., 13.

1928 (Pres.), Hoover, Rep., 348,923; Smith, Dem., 286,227.

1932 (Pres.), Roosevelt, Dem., 497,566; Hoover, Rep., 208,344; Thomas, Soc., 5,591.

1936 (Pres.), Roosevelt, Dem., 616,141; Landon, Rep., 223,283; Thomas, Soc., 21; Browder, Com., 11; Lemke, Union, 2.

1940 (Pres.), Roosevelt, Dem., 609,015; Wilkie, Rep., 213,633.

1944 (Pres.), Roosevelt, Dem., 527,399; Dewey, Rep., 263,155.

1948 (Pres.), Truman, Dem., 459,070; Dewey, Rep., 258,572; Thurmond, States' Rights, 69,652; Wallace, Prog., 3,915.

1952 (Pres.), Eisenhower, Rep., 558,107; Stevenson, Dem., 652,803.

1956 (Pres.), Eisenhower, Rep., 575,062; Stevenson, Dem., 590,530.

1960 (Pres.), Kennedy, Dem., 713,136; Nixon, Rep., 655,420.

1964 (Pres.), Johnson, Dem., 800,139; Goldwater, Rep., 624,844.

1968 (Pres.), Nixon, Rep., 627,192; Humphrey, Dem., 464,113; Wallace, 3rd party, 496,188.

North Dakota

County	1968				
	Humphrey (D)	Nixon (R)	Wallace (I)	John-son (D)	Gold-water (R)
Adams...	641	1,020	116	1,010	877
Barnes...	2,623	3,831	348	4,007	2,987
Benson...	1,772	1,707	164	2,566	1,489
Billings...	174	395	69	348	340
Boottreau...	1,520	2,631	230	2,546	2,060
Bowman...	559	927	156	1,070	756
Burke...	808	1,239	132	1,454	974
Burdleigh...	5,130	1,661	818	8,120	7,239
Cass...	10,819	12,410	1,167	15,675	12,972
Cavalier...	1,631	1,553	257	2,810	1,417
Dickey...	1,098	2,087	161	1,818	1,808
Divide...	914	1,032	102	1,498	779
Dunn...	772	1,207	169	1,351	1,079
Eddy...	893	1,018	76	1,337	747
Emmons...	756	1,991	311	1,556	1,759
Foster...	897	1,119	123	1,315	927
Golden Val.	348	735	115	602	732
Grand Forks...	7,695	9,802	1,342	10,710	7,367
Grant...	488	1,618	157	1,063	1,121
Griggs...	1,008	1,110	109	1,505	1,885
Hettinger...	638	1,424	163	1,275	1,188
Kidder...	518	1,204	192	1,047	1,108
La Moure...	1,269	2,008	189	2,145	1,604
Logan...	459	1,116	135	951	1,187
McHenry...	1,595	2,226	281	2,643	1,728
McIntosh...	342	2,258	129	950	1,891
McKenzie...	935	1,625	164	1,584	1,352
McLean...	2,650	2,764	216	3,439	2,204
Mercer...	730	2,639	169	1,310	1,510
Mountrail...	3,136	1,465	189	5,173	2,955
Mountrail...	1,662	1,494	221	2,548	1,181
Nelson...	1,477	1,526	157	2,186	1,104
Oliver...	269	616	85	548	169
Pembina...	1,686	2,574	335	3,198	1,961

No. Dakota (cont'd)		1968		1964	
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Pierce	1,048	1,700	229	1,893	1,178
Ransom	2,384	3,189	269	3,572	2,409
Ransom	1,256	1,943	153	2,063	1,617
Renville	880	851	84	1,356	640
Richland	3,098	4,224	443	4,525	3,425
Rollette	1,870	1,211	172	2,566	892
Sargent	1,308	1,386	154	1,840	1,189
Sheridan	350	1,295	79	724	1,187
Sioux	525	482	58	695	314
Slope	238	379	64	456	329
Stark	2,577	4,365	500	4,270	2,838
Steele	991	952	88	1,404	796
Stutsman	3,532	5,122	477	5,463	3,990
Towner	990	1,109	124	1,628	788
Trall	1,740	2,692	243	2,614	2,312
Walsh	2,948	3,410	453	4,911	2,454
Ward	7,105	9,079	896	10,871	6,798
Wells	1,265	2,266	247	2,314	1,875
Williams	3,263	3,980	483	5,352	3,076
Totals	94,319	138,667	14,244	149,784	108,207

NORTH DAKOTA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 37,422; Harding, Rep., 160,072; Debs, Soc., 8,282.
1924 (Pres.), Coolidge, Rep., 94,931; LaFollette, Prog., 89,922; Davis, Dem., 13,858; Foster, Workers, 370.
1928 (Pres.), Hoover, Rep., 131,441; Smith, Dem., 106,648; Thomas, Soc., 842; Foster, Com., 936.
1932 (Pres.), Roosevelt, Dem., 178,350; Hoover, Rep., 71,772; Harvey, Lib., 1,817; Thomas, Soc., 3,521; Foster, Com., 830.
1936 (Pres.), Roosevelt, Dem., 163,148; Landon, Rep., 72,751; Lemke, Union, 36,708; Thomas, Soc., 552; Browder, Com., 360; Colvin, Proh., 197.
1940 (Pres.), Roosevelt, Dem., 124,036; Willkie, Rep., 154,590; Thomas, Soc., 1,279; Knuttson, Com., 545; Babson, Proh., 325.
1944 (Pres.), Roosevelt, Dem., 100,144; Dewey, Rep., 118,535; Thomas, Soc., 943; Watson, Proh., 549.
1948 (Pres.), Truman, Dem., 95,812; Dewey, Rep., 115,139; Wallace, Prog., 8,391; Thomas, Soc., 1,000; Thurmond, States' Rights, 374.
1952 (Pres.), Eisenhower, Rep., 191,712; Stevenson, Dem., 76,694; MacArthur, Christian Nationalist, 1,075; Hallinan, Prog., 344; Hamblen, Proh., 302.
1956 (Pres.), Eisenhower, Rep., 156,766; Stevenson, Dem., 96,742; Andrews, American, 483.
1960 (Pres.), Kennedy, Dem., 123,963; Nixon, Rep., 154,310; Dobbs, Soc. Workers, 158.
1964 (Pres.), Johnson, Dem., 149,784; Goldwater, Rep., 108,207; DeBerry, Soc. Worker, 224; Munn, Proh., 74.
1968 (Pres.), Nixon, Rep., 138,667; Humphrey, Rep., 94,319; Wallace, 3rd party, 14,244; scattered, 198.

Ohio (cont'd)		1968		1964	
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Hamilton	133,359	182,440	46,243	199,127	161,179
Hancock	6,912	15,030	2,656	11,547	11,610
Hardin	4,180	6,963	1,794	7,324	5,679
Harrison	3,593	3,532	1,874	5,159	2,928
Henry	3,256	6,970	799	5,845	5,094
Highland	3,831	6,495	2,208	7,281	5,985
Hocking	3,701	4,001	1,004	5,951	2,858
Holmes	1,898	3,350	479	3,559	2,106
Huron	5,495	8,044	1,451	10,780	7,655
Jackson	4,023	6,044	1,048	7,056	4,949
Jefferson	12,926	3,386	33,039	11,784	11,784
Knox	5,729	9,070	1,696	11,222	7,258
Lake	27,930	28,454	9,120	38,552	23,282
Lawrence	8,672	9,782	2,470	12,635	7,757
Licking	15,041	19,673	5,402	23,364	15,096
Logan	4,790	8,462	1,647	8,484	6,683
Lorain	42,607	34,141	8,119	55,755	26,683
Lucas	91,477	69,883	17,234	128,110	57,782
Madison	2,880	5,882	1,631	5,264	4,945
Mahoning	68,464	42,996	12,189	90,934	33,775
Marion	8,648	12,987	2,771	14,400	10,050
Medina	9,195	14,089	3,587	17,729	10,221
Meigs	2,835	5,628	775	5,133	3,973
Mercer	6,801	3,313	1,100	10,081	4,373
Miami	13,228	16,997	3,348	19,379	12,935
Monroe	3,109	2,683	567	4,776	1,944
Montgomery	95,201	84,000	26,095	126,633	71,979
Morgan	1,794	3,032	450	3,053	2,281
Morrow	2,195	4,901	1,509	4,572	4,194
Muskingum	13,100	15,267	3,378	20,792	11,635
Noble	1,726	2,615	587	2,925	2,630
Ottawa	6,319	7,150	1,647	9,618	5,259
Paulding	2,716	4,074	907	4,456	3,254
Perry	4,812	4,817	1,088	7,816	3,895
Pickaway	3,536	6,090	2,296	7,310	5,317
Pike	3,445	3,247	1,427	5,331	2,567
Portage	16,340	15,061	5,889	23,308	10,842
Preble	3,807	6,546	2,173	7,574	5,839
Putnam	3,530	7,189	1,380	7,014	5,221
Richland	14,987	23,484	5,301	24,799	18,833
Ross	6,873	11,277	4,087	12,704	9,623
Sandusky	8,581	11,696	1,745	13,481	8,254
Scioto	13,835	15,214	3,167	21,559	13,465
Seneca	8,966	12,030	2,066	14,518	9,536
Shelby	9,479	7,248	1,499	10,404	5,900
Stark	57,714	68,414	16,855	88,704	53,632
Summit	99,977	82,591	26,182	142,319	68,000
Trumbull	40,365	32,876	9,275	54,342	27,059
Tuscarawas	15,632	14,306	2,740	23,623	9,962
Union	2,431	6,415	1,392	4,985	5,504
Van Wert	4,359	7,850	1,329	7,695	6,194
Vinton	1,608	2,219	414	2,618	1,919
Warren	6,855	12,755	5,685	12,406	10,982
Washington	6,922	11,888	1,697	11,193	8,873
Wayne	8,591	15,156	1,924	14,806	9,890
Williams	4,501	8,059	970	7,547	5,900
Wood	10,887	16,210	2,947	16,304	12,142
Wyandot	2,923	5,265	910	5,273	4,139
Totals	1,692,213	1,785,318	468,591	2,498,331	1,470,865

Ohio

		1968		1964	
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Adams	2,685	3,978	1,049	5,005	3,702
Allen	10,808	23,956	4,198	18,990	19,897
Ashtabula	4,547	9,744	1,321	8,493	7,308
Ashtabula	16,736	17,052	2,751	24,104	13,183
Athens	7,350	7,736	1,207	10,633	6,211
Auglaize	5,550	9,368	1,527	8,632	7,954
Belmont	22,673	11,322	2,475	28,180	9,693
Brown	3,621	4,700	2,307	6,983	3,904
Butler	23,649	35,962	14,208	42,278	31,413
Carroll	3,119	4,634	1,091	5,050	3,655
Champaign	4,294	6,963	1,651	7,138	5,588
Clark	24,029	23,748	6,714	34,275	19,112
Clermont	9,041	15,506	7,868	16,523	13,367
Clinton	2,978	6,259	1,829	6,514	6,082
Columbiana	19,384	19,952	3,876	28,706	15,827
Coshocton	5,012	7,254	1,279	8,382	5,965
Crawford	6,736	11,903	2,373	11,968	8,970
Cuyahoga	358,488	235,769	71,014	492,911	196,436
Darke	7,360	10,922	2,013	12,433	8,581
Defiance	6,226	7,353	925	8,707	5,048
Delaware	4,056	9,029	2,557	8,080	8,395
Franklin	1,390	13,023	2,437	15,965	9,981
Fairfield	9,540	14,785	4,127	17,811	14,480
Payette	2,964	5,235	1,962	6,128	4,567
Franklin	101,112	148,884	37,470	154,527	131,345
Fulton	3,338	7,816	1,033	5,604	5,973
Gallia	2,660	5,139	1,039	4,740	4,408
Geauga	7,864	11,795	3,230	12,212	9,423
Greene	14,922	17,012	5,869	21,276	14,571
Guernsey	5,814	7,342	1,692	9,503	6,429

OHIO VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 780,037; Harding, Rep., 1,182,022; Watkins, Prog., 294; Debs, Soc., 57,147.
1924 (Pres.), Coolidge, Rep., 1,176,130; Davis, Dem., 477,888; LaFollette, Prog., 357,948; Johnson, Soc. Lab., 3,025; Wallace, Comm. Land., 1,246.
1928 (Pres.), Hoover, Rep., 1,627,546; Smith, Dem., 864,210; Thomas, Soc., 8,683; Foster, Com., 2,836; Reynolds, Soc. Lab., 1,515; Varney, Proh., 3,556.
1932 (Pres.), Roosevelt, Dem., 1,301,695; Hoover, Rep., 1,227,679; Thomas, Soc., 64,094; Upshaw, Proh., 7,421; Foster, Com., 7,221; Reynolds, Soc. Lab., 1,968.
1936 (Pres.), Roosevelt, Dem., 1,747,122; Landon, Rep., 1,127,709; Lemke, Union, 132,212; Browder, Com., 5,251; Thomas, Soc., 1,171; Aiken, Soc. Lab., 14.
1940 (Pres.), Roosevelt, Dem., 1,733,139; Willkie, Rep., 1,586,773.
1944 (Pres.), Roosevelt, Dem., 1,570,763; Dewey, Rep., 1,582,293.
1948 (Pres.), Truman, Dem., 1,452,791; Dewey, Rep., 1,445,684; Wallace, Prog., 37,596.
1952 (Pres.), Eisenhower, Rep., 2,100,391; Stevenson, Dem., 1,600,367.
1956 (Pres.), Eisenhower, Rep., 2,262,610; Stevenson, Dem., 1,439,655.
1960 (Pres.), Kennedy, Dem., 1,944,248; Nixon, Rep., 2,217,611.
1964 (Pres.), Johnson, Dem., 2,498,331; Goldwater, Rep., 1,470,865.
1968 (Pres.), Nixon, Rep., 1,785,318; Humphrey, Dem., 1,692,213; Wallace, 3rd party, 468,591.

Oklahoma

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Adair.....	1,549	2,877	1,000	3,003	2,859
Alfalfa.....	864	2,232	310	1,730	2,450
Atoka.....	1,400	1,131	1,613	2,459	1,424
Beaver.....	624	2,114	339	1,508	1,982
Beckham.....	2,354	2,935	1,550	4,115	2,557
Blaine.....	1,285	3,046	732	2,384	2,741
Bryan.....	2,215	2,727	2,204	5,934	2,652
Caddo.....	4,232	4,712	2,525	7,447	3,721
Canadian.....	3,577	5,891	1,858	7,747	5,193
Carter.....	5,807	5,127	3,414	10,645	4,986
Cherokee.....	2,554	3,971	1,866	4,449	3,467
Choctaw.....	2,268	1,414	1,751	3,969	1,718
Cimarron.....	436	1,121	527	878	1,225
Cleveland.....	8,425	12,132	4,415	11,599	9,656
Coal.....	963	669	625	1,613	721
Comanche.....	8,081	9,238	5,879	13,585	7,936
Cotton.....	2,192	1,016	905	2,216	1,123
Craig.....	1,098	2,686	1,229	3,838	2,541
Creek.....	5,151	6,934	3,913	9,836	6,355
Custer.....	2,717	4,709	936	4,464	3,362
Delaware.....	2,129	3,168	1,402	3,702	2,743
Dewey.....	773	1,508	540	1,617	1,438
Ellis.....	533	1,601	426	1,120	1,452
Garfield.....	5,631	13,925	2,836	10,175	12,297
Garvin.....	3,844	3,786	2,670	7,013	3,470
Grady.....	4,760	4,242	2,117	7,593	3,569
Grant.....	1,047	2,403	437	2,120	1,992
Greer.....	1,419	1,225	830	2,671	1,247
Harmon.....	1,097	684	403	1,665	602
Harper.....	517	1,482	353	1,240	1,379
Haskell.....	1,563	1,516	1,013	2,542	1,355
Hughes.....	2,578	1,997	1,170	4,477	1,692
Jackson.....	3,371	2,247	1,786	5,894	2,366
Jefferson.....	1,628	780	701	2,555	811
Johnston.....	1,216	1,048	974	2,370	1,065
Kay.....	6,131	12,651	2,145	11,296	12,033
Kingsfisher.....	1,226	3,558	720	2,512	3,117
Klowa.....	2,219	2,418	977	3,686	2,206
Latimer.....	523	311	233	2,297	849
LeFlore.....	3,880	3,870	3,189	7,105	3,904
Lincoln.....	3,044	3,855	1,969	5,046	3,854
Logan.....	2,508	3,967	1,687	4,279	1,863
Love.....	831	677	766	1,633	663
McCain.....	1,842	2,047	1,647	3,638	1,638
McCurain.....	2,944	2,793	2,878	5,982	2,981
McIntosh.....	1,759	1,532	4,254	3,497	1,428
Major.....	594	2,550	357	1,291	2,436
Marshall.....	1,191	1,209	986	2,318	1,101
Mayes.....	2,858	4,220	2,421	5,421	4,157
Murray.....	1,773	1,454	1,027	3,083	1,236
Muskogee.....	9,021	8,707	4,596	16,330	8,508
Noble.....	1,412	2,911	618	2,713	2,157
Nowata.....	1,315	2,160	1,114	2,644	1,142
Okfuskee.....	1,777	1,686	981	2,945	1,629
Oklahoma.....	58,719	89,515	32,544	90,641	83,660
Okmulgee.....	6,089	4,709	8,728	10,195	4,704
Osage.....	3,919	5,499	2,408	7,395	5,695
Ottawa.....	4,820	5,000	1,421	7,589	4,090
Pawnee.....	1,343	2,437	990	2,389	2,278
Payne.....	4,492	7,949	2,123	8,906	7,936
Pittsburg.....	6,112	3,978	3,730	9,903	3,555
Pontotoc.....	4,291	4,161	2,425	7,449	4,166
Pottawatomie.....	6,731	6,899	3,873	10,884	6,841
Pushmataha.....	1,232	1,225	1,287	2,563	1,332
Roger Mills.....	720	1,102	601	1,345	926
Rogers.....	2,665	4,631	3,141	5,449	4,202
Seminole.....	3,889	3,711	2,142	6,582	3,676
Sequoyah.....	2,618	2,797	2,158	4,304	2,846
Stephens.....	5,244	5,508	3,570	9,272	5,323
Texas.....	1,176	3,729	946	2,500	3,339
Tillman.....	1,771	1,748	1,372	3,354	2,001
Tulsa.....	32,748	81,476	28,443	61,484	76,770
Wagoner.....	2,183	3,187	2,262	3,957	2,840
Washington.....	4,641	12,812	3,091	8,571	12,382
Washita.....	1,771	2,592	858	3,338	2,147
Woods.....	1,549	3,557	517	2,730	2,886
Woodward.....	1,444	3,748	663	2,934	3,094
Totals.....	297,243	442,693	197,167	519,834	412,665

OKLAHOMA VOTE SINCE 1920

- 1920 (Pres.), Cox, Dem., 215,808; Harding, Rep., 243,464; Debs, Soc., 25,679.
 1924 (Pres.), Davis, Dem., 259,798; Coolidge, Rep., 226,242; LaFollette, Prog., 41,141; Johns, Soc. Lab., 5,234.
 1928 (Pres.), Hoover, Rep., 394,064; Smith, Dem., 219,174; Thomas, Soc., 3,924; Farm-Lab., 1,283.
 1932 (Pres.), Roosevelt, Dem., 515,468; Hoover, Rep., 188,165.
 1936 (Pres.), Roosevelt, Dem., 501,069; Landon, Rep., 245,122; Thomas, Soc., 2,221; Colvin, Prog., 1,328.
 1940 (Pres.), Roosevelt, Dem., 474,313; Willkie, Rep., 348,872; Babson, Prog., 3,027.

Oklahoma (cont'd)

- 1944 (Pres.), Roosevelt, Dem., 401,549; Dewey, Rep., 319,424; Watson, Prog., 1,663.
 1948 (Pres.), Truman, Dem., 452,782; Dewey, Rep., 268,817.
 1952 (Pres.), Eisenhower, Rep., 518,045; Stevenson, Dem., 430,939.
 1956 (Pres.), Eisenhower, Rep., 473,769; Stevenson, Dem., 385,581.
 1960 (Pres.), Kennedy, Dem., 370,111; Nixon, Rep., 533,039.
 1964 (Pres.), Johnson, Dem., 519,834; Goldwater, Rep., 412,665.
 1968 (Pres.), Nixon, Rep., 442,693; Humphrey, Dem., 297,243; Wallace, 3rd party, 197,167.

Oregon

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Baker.....	2,464	3,311	480	3,903	2,670
Benton.....	6,538	11,654	749	8,971	7,250
Clackamas.....	26,770	30,413	3,371	35,711	21,299
Clatsop.....	6,243	5,810	651	8,371	4,023
Columbia.....	6,064	4,208	728	7,728	2,489
Coos.....	10,710	8,033	1,882	16,109	5,932
Crook.....	1,611	1,727	256	2,419	1,161
Curry.....	1,934	2,323	436	3,195	1,467
Deschutes.....	4,859	5,599	738	6,947	3,148
Douglas.....	9,186	13,339	3,584	15,909	9,806
Gilliam.....	436	619	65	775	442
Grant.....	934	1,632	239	1,877	1,149
Harney.....	1,036	1,612	196	1,877	1,172
Hood River.....	2,385	2,597	413	3,564	1,786
Jackson.....	12,764	19,575	2,469	19,486	14,598
Jefferson.....	1,160	1,659	180	1,739	1,197
Josephine.....	4,351	8,456	1,800	6,857	6,918
Klamath.....	5,629	9,604	1,735	9,066	8,530
Lake.....	730	1,538	229	1,419	1,304
Lane.....	32,940	36,905	5,420	49,785	24,139
Lincoln.....	5,009	5,031	659	7,101	3,200
Linn.....	10,022	12,604	1,648	14,926	8,382
Malheur.....	2,021	5,447	822	3,798	4,177
Marion.....	22,322	30,295	2,425	32,091	18,897
Morrow.....	797	1,068	102	1,470	627
Multnomah.....	124,629	106,810	11,053	161,040	81,683
Polk.....	4,961	6,997	591	7,292	4,319
Sherman.....	384	646	59	859	494
Tillamook.....	3,609	3,261	394	5,246	2,318
Umatilla.....	6,402	8,975	956	10,689	6,138
Union.....	3,409	3,796	521	4,929	2,553
Wallowa.....	1,006	1,527	194	1,790	1,055
Wasco.....	3,918	3,842	514	5,890	2,695
Washington.....	22,943	34,184	2,566	29,081	20,813
Wheeler.....	292	443	27	468	340
Yamhill.....	5,487	7,936	819	8,949	5,508
Totals.....	355,875	403,491	49,151	501,017	282,779

OREGON VOTE SINCE 1920

- 1920 (Pres.), Cox, Dem., 80,019; Harding, Rep., 143,582; Watkins, Prog., 3,595; Debs, Soc., 9,801.
 1924 (Pres.), Coolidge, Rep., 142,579; LaFollette, Prog., 68,403; Davis, Dem., 67,589; Johns, Soc. Lab., 917.
 1928 (Pres.), Hoover, Rep., 205,341; Smith, Dem., 109,223; Thomas, Soc., 2,720; Reynolds, Soc. Labor, 1,564; Foster, Com., 1,094.
 1932 (Pres.), Roosevelt, Dem., 213,871; Hoover, Rep., 136,019; Thomas, Soc., 15,450; Reynolds, Rep., 1,730; Foster, Com., 1,681.
 1936 (Pres.), Roosevelt, Dem., 266,793; Landon, Rep., 122,706; Lemke, Union, 21,831; Thomas, Soc., 2,143; Aiken, Soc. Lab., 500; Browder, Com., 104; Colvin, Prog., 4.
 1940 (Pres.), Roosevelt, Dem., 258,415; Willkie, Rep., 219,555; Aiken, Soc. Lab., 2,487; Thomas, Soc., 398; Browder, Com., 191; Babson, Prog., 154.
 1944 (Pres.), Roosevelt, Dem., 248,535; Dewey, Rep., 225,365; Thomas, Soc., 3,785; Watson, Prog., 2,362.
 1948 (Pres.), Truman, Dem., 243,147; Dewey, Rep., 260,904; Wallace, Prog., 14,978; Thomas, Soc., 5,031.
 1952 (Pres.), Eisenhower, Rep., 420,815; Stevenson, Dem., 270,579; Hallinan, Ind., 3,665.
 1956 (Pres.), Eisenhower, Rep., 406,393; Stevenson, Dem., 329,204.
 1960 (Pres.), Kennedy, Dem., 367,402; Nixon, Rep., 408,060.
 1964 (Pres.), Johnson, Dem., 501,017; Goldwater, Rep., 282,779; Write-In, 2,509.
 1968 (Pres.), Nixon, Rep., 403,491; Humphrey, Dem., 355,875; Wallace, 3rd party, 49,151.

Pennsylvania

County	1968			1964		
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Adams	5,940	10,875	1,392	11,148	8,617	
Allegheny	354,917	250,061	79,441	475,207	241,707	
Armstrong	13,712	13,529	2,152	21,098	10,618	
Beaver	44,720	27,271	7,811	60,492	23,174	
Bedford	4,656	10,053	1,230	9,165	7,968	
Berks	49,138	51,143	7,707	73,444	36,726	
Blair	15,499	26,578	3,750	26,157	24,301	
Bradford	6,207	11,890	1,286	10,714	10,434	
Bucks	56,056	66,412	16,648	78,287	50,243	
Butler	19,026	20,800	4,032	27,267	17,360	
Cambria	40,295	32,082	4,196	55,183	26,281	
Cameron	1,059	1,725	144	1,904	1,376	
Carbon	10,366	9,396	891	15,416	7,309	
Centre	10,827	15,269	1,321	16,556	9,481	
Chester	6,599	12,077	2,253	47,940	40,280	
Clarion	5,292	7,862	918	9,235	6,143	
Clearfield	12,131	13,740	2,075	19,211	11,338	
Clinton	6,178	6,305	579	10,038	4,298	
Columbia	7,135	10,134	1,511	13,885	8,982	
Crawford	11,093	14,349	1,735	18,212	10,664	
Cumberland	15,034	31,837	4,773	26,633	23,685	
Dauphin	24,801	47,033	7,339	46,119	42,718	
Delaware	104,112	128,997	24,488	147,189	111,189	
Elk	6,697	5,960	911	10,455	4,354	
Erle	50,056	40,433	4,540	72,944	31,393	
Fayette	32,568	17,884	6,087	45,155	16,127	
Forest	644	1,121	123	1,249	900	
Franklin	11,106	18,312	4,420	19,331	13,525	
Galtop	1,049	2,221	592	1,747	1,747	
Greene	8,051	4,763	1,027	11,412	3,896	
Huntingdon	4,038	7,959	921	7,435	6,571	
Indiana	11,973	14,349	2,061	17,568	11,706	
Jefferson	6,669	9,820	1,204	10,851	8,373	
Juniata	2,274	3,884	492	4,138	3,087	
Lackawanna	56,576	36,997	2,916	88,131	31,272	
Lancaster	27,077	62,162	7,313	53,041	52,243	
Lawrence	20,567	17,620	3,518	29,092	15,998	
Lebanon	9,274	21,003	2,488	15,882	17,891	
Lehigh	43,003	45,717	3,827	60,377	32,245	
Luzerne	76,328	54,398	6,341	106,397	43,895	
Lycoming	16,068	22,543	2,588	25,879	19,011	
McKean	6,116	9,985	667	10,950	7,948	
Mifflin	22,378	27,762	2,961	32,199	18,533	
Monroe	5,537	7,762	821	8,811	6,006	
Montg'm'y	99,992	136,239	14,988	135,657	102,714	
Montour	2,181	3,153	420	3,683	2,527	
North'm'pt'n	41,748	30,788	3,028	58,818	21,048	
North'ber'l'd	16,720	21,567	2,373	28,082	17,046	
Perry	2,869	6,468	1,192	6,054	5,364	
Philadelphia	518,751	249,742	62,391	670,645	239,733	
Pike	1,548	3,474	396	2,753	2,651	
Potter	1,806	3,767	431	3,652	3,232	
Schuylkill	34,154	35,624	4,131	50,560	26,386	
Snyder	680	2,641	277	4,169	5,195	
Somerset	11,918	17,338	1,045	17,338	14,817	
Stirling	8,938	11,307	1,699	11,344	11,344	
Susqueh'na	4,178	8,126	840	8,698	6,567	
Tioga	8,977	3,410	1,027	7,415	7,064	
Union	2,078	6,205	554	4,262	4,944	
Venango	8,136	11,702	1,102	13,065	9,873	
Warren	6,216	8,484	641	10,598	5,965	
Washington	43,572	20,462	7,860	63,482	24,127	
Wayne	2,500	6,356	607	5,781	6,512	
Westmorel'd	75,404	47,167	13,066	107,131	41,493	
Wyoming	2,297	4,917	489	4,268	3,864	
York	32,646	50,148	7,884	58,787	33,677	
Totals	2,168,970	1,934,924	360,438	3,130,954	1,673,657	

PENNSYLVANIA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 503,202; Harding, Rep., 1,218,215; Watkins, Proh., 42,612; Debs, Soc., 70,021; Christensen, Lab., 15,642.
1924 (Pres.), Coolidge, Rep., 1,401,481; Davis, Dem., 409,192; LaFollette, Soc., 93,441; Labor, 214,126; Nations, Amer., 13,035; Faris, Proh., 9,779; Foster, Workers, 2,735.
1928 (Pres.), Hoover, Rep., 2,055,382; Smith, Dem., 1,067,586; Thomas, Soc., 18,647; Foster, Labor, (Workers, 2,687; Com., 2,039), 4,726.
1932 (Pres.), Roosevelt, Dem., 1,295,948; Hoover, Rep., 1,453,540; Thomas, Soc., 91,119; Upshaw, Proh., 11,319; Foster, Com., 5,658; Cox, Jobless, 725; Reynolds, Indust., 659.
1936 (Pres.), Roosevelt, Dem., 2,353,788; Landon, Rep., 1,690,300; Lemke, Royal Oak, 67,467; Thomas, Soc., 14,375; Colvin, Proh., 6,691; Browder, Com., 4,060; Aiken, Ind., Lab., 1,424.
1940 (Pres.), Roosevelt, Dem., 2,171,035; Wilkie, Rep., 1,889,848; Thomas, Soc., 10,967; Browder, Com., 4,519; Aiken, Ind., Gov., 1,518.
1944 (Pres.), Roosevelt, Dem., 1,940,479; Dewey, Rep., 1,835,054; Thomas, Soc., 11,721; Watson,

Pennsylvania (cont'd)

Proh., 5,750; Teichert, Ind. Gov., 1,789.
1948 (Pres.), Truman, Dem., 1,752,426; Dewey, Rep., 1,902,197; Wallace, Proh., 55,161; Thomas, Soc., 11,325; Watson, Proh., 10,338; Dobbs, Militant Workers, 2,133; Teichert, Ind. Gov., 1,461.
1952 (Pres.), Eisenhower, Rep., 2,415,789; Stevenson, Dem., 2,146,269; Hamblen, Proh., 8,771; Hallinan, Proh., 4,200; Hoopes, Soc. Lab., 7,447; Dobbs, Militant Workers, 1,502; Hass, Ind. Gov., 1,347; Scattered, 155.
1956 (Pres.), Eisenhower, Rep., 2,585,252; Stevenson, Dem., 1,931,759; Hass, Soc. Lab., 7,447; Dobbs, Militant Workers, 2,035.
1960 (Pres.), Kennedy, Dem., 2,556,282; Nixon, Rep., 2,439,956; Hass, Soc. Lab., 7,185; Dobbs, Soc. Workers, 2,678; Scatterin', 440.
1964 (Pres.), Johnson, Dem., 3,130,954; Goldwater, Rep., 1,673,657; De Berry, Soc. Worker, 10,456; Hass, Soc. Labor, 5,092; Scatterin', 2,531.
1968 (Pres.), Nixon, Rep., 1,934,924; Humphrey, Dem., 2,168,970; Wallace, 3rd party, 360,438.

Rhode Island

County	1968			1964		
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Bristol	11,161	6,912	457	14,306	4,466	
Kent	165,372	67,484	10,017	44,476	12,297	
Newport	12,954	10,499	1,185	19,972	7,078	
Providence	34,530	21,446	2,406	219,465	43,432	
Washington	15,480	9,588	902	17,434	7,342	
Totals	239,497	115,929	14,967	315,463	74,615	

RHODE ISLAND VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 55,062; Harding, Rep., 107,463; Watkins, Proh., 510; Debs, Soc., 4,351.
1924 (Pres.), Coolidge, Rep., 125,286; Davis, Dem., 76,606; LaFollette, Proh., 7,628; Foster, Workers, 280; Johns, Soc. Lab., 268.
1928 (Pres.), Smith, Dem., 118,973; Hoover, Rep., 117,522; Reynolds, Soc. Lab., 416; Foster, Com., 283.
1932 (Pres.), Roosevelt, Dem., 146,604; Hoover, Rep., 115,266; Thomas, Soc., 3,138; Foster, Com., 546; Reynolds, Soc. Lab., 433; Upshaw, Proh., 183.
1936 (Pres.), Roosevelt, Dem., 165,238; Landon, Rep., 125,031; Lemke, Union, 19,569; Aiken, Soc. Lab., 929; Browder, Com., 411.
1940 (Pres.), Roosevelt, Dem., 182,182; Wilkie, Rep., 138,653; Browder, Com., 239; Babson, Proh., 74.
1944 (Pres.), Roosevelt, Dem., 175,356; Dewey, Rep., 123,487; Watson, Proh., 433.
1948 (Pres.), Truman, Dem., 188,736; Dewey, Rep., 135,787; Wallace, Proh., 2,619; Thomas, Soc., 429; Teichert, Soc. Lab., 331.
1952 (Pres.), Eisenhower, Rep., 210,935; Stevenson, Dem., 203,293; Hallinan, Proh., 187; Hass, Soc. Lab., 83.
1956 (Pres.), Eisenhower, Rep., 225,819; Stevenson, Dem., 161,790.
1960 (Pres.), Kennedy, Dem., 258,032; Nixon, Rep., 147,502.
1964 (Pres.), Johnson, Dem., 315,463; Goldwater, Rep., 74,615.
1968 (Pres.), Nixon, Rep., 115,929; Humphrey, Dem., 239,497; Wallace, 3rd party, 14,967.

South Carolina

County	1968			1964		
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	
Abbeville	1,425	1,213	3,201	2,689	1,448	
Aiken	6,325	12,309	8,754	7,622	17,467	
Anderson	1,548	1,012	829	1,740	1,740	
Charleston	3,792	4,131	10,689	11,670	8,398	
Bamberg	1,845	1,327	1,618	1,419	2,366	
Barnwell	1,716	1,849	2,357	1,382	3,670	
Beaufort	3,565	2,179	1,192	2,747	3,432	
Berkeley	5,134	4,021	4,810	3,537	6,100	
Calhoun	1,214	881	978	612	1,591	
Charleston	18,019	23,939	13,037	14,564	32,509	
Cherokee	2,012	2,953	5,607	4,258	3,627	
Chester	2,865	2,862	2,762	3,882	2,915	
Chesterfield	3,180	2,564	4,324	4,634	2,449	
Clarendon	3,606	2,201	2,097	832	2,960	
Colleton	2,488	2,766	2,544	2,051	4,637	
Darlington	4,102	8,796	3,826	5,010	6,717	
Dillon	2,211	2,396	2,322	2,773	2,742	
Dorchester	4,030	3,316	3,509	1,604	5,059	
Edgefield	1,225	1,698	1,007	824	2,489	

So. Carolina (cont'd) 1968						So. Dakota (cont'd) 1968						1964					
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Fairfield....	3,011	1,619	1,336	2,628	1,997	Faulk.....	819	997	204	1,225	974	Faulk.....	819	997	204	1,225	974
Florence....	8,522	12,059	9,399	7,157	10,346	Grant.....	1,889	2,259	211	2,583	1,854	Grant.....	1,889	2,259	211	2,583	1,854
Georgetown..	4,110	3,269	2,642	3,423	4,705	Gregory....	1,267	1,810	251	1,995	1,644	Gregory....	1,267	1,810	251	1,995	1,644
Greenville..	12,928	31,652	15,241	17,275	29,358	Haakon.....	377	759	109	662	795	Haakon.....	377	759	109	662	795
Greenwood..	3,936	5,188	6,225	5,479	5,653	Hamlin.....	1,147	1,649	129	1,561	1,466	Hamlin.....	1,147	1,649	129	1,561	1,466
Hampton....	2,105	1,670	1,375	1,439	2,259	Hand.....	1,136	1,650	226	1,563	1,466	Hand.....	1,136	1,650	226	1,563	1,466
Horry.....	3,933	6,341	6,860	5,444	8,293	Hanson.....	826	901	72	1,563	1,466	Hanson.....	826	901	72	1,563	1,466
Jasper.....	1,411	633	1,091	1,002	1,593	Harding....	266	564	65	487	489	Harding....	266	564	65	487	489
Kershaw....	2,538	4,078	3,960	3,168	5,617	Hughes.....	1,668	3,204	343	2,606	2,732	Hughes.....	1,668	3,204	343	2,606	2,732
Lancaster..	3,151	4,874	4,886	4,970	4,742	Hutchinson	1,412	3,503	175	2,189	2,834	Hutchinson	1,412	3,503	175	2,189	2,834
Laurens....	2,997	4,756	4,182	4,365	5,081	Hyde.....	499	708	113	736	666	Hyde.....	499	708	113	736	666
Lee.....	2,150	1,218	2,113	1,156	2,489	Jackson....	267	481	98	480	448	Jackson....	267	481	98	480	448
Lexington..	3,892	11,626	8,274	4,807	12,041	Jerauld....	745	1,002	56	999	857	Jerauld....	745	1,002	56	999	857
Marion.....	2,816	2,499	1,477	2,046	3,197	Jones.....	358	562	88	548	415	Jones.....	358	562	88	548	415
Marlboro... McCormick..	2,303 1,059	2,139 464	2,145 759	2,422 498	1,864 939	Kingsbury..	1,491	2,298	146	2,005	2,126	Kingsbury..	1,491	2,298	146	2,005	2,126
Newberry... Oconee.....	2,485 1,983	4,726 2,610	3,607 4,689	3,222 5,560	5,571 2,712	Lake.....	1,491	2,298	146	2,005	2,126	Lake.....	1,491	2,298	146	2,005	2,126
Orangeburg. Pickens....	8,959 2,014	5,142 6,872	7,343 4,321	5,607 3,506	10,456 5,882	Lawrence... Lincoln....	2,425 1,961	2,876 3,259	188 335	2,988 3,468	2,417 3,743	Lawrence... Lincoln....	2,425 1,961	2,876 3,259	188 335	2,988 3,468	2,417 3,743
Richland... Saluda.....	18,277 1,209	26,215 541	7,154 2,135	17,939 1,409	27,306 2,524	Lyman..... Marshall... McCook....	643 1,518 1,653	1,063 1,476 1,959	131 130 188	1,057 2,181 723	892 1,756 1,891	Lyman..... Marshall... McCook....	643 1,518 1,653	1,063 1,476 1,959	131 130 188	1,057 2,181 723	892 1,756 1,891
Spartanburg Sumter.....	11,392 6,374	17,760 5,764	16,738 4,754	3,715 7,729	7,729 3,815	McPherson. Meade..... Mellette....	389 1,522 407	1,975 2,392 611	126 343 79	2,063 2,323 658	1,833 2,140 525	McPherson. Meade..... Mellette....	389 1,522 407	1,975 2,392 611	126 343 79	2,063 2,323 658	1,833 2,140 525
Union.....	2,271	3,011	4,590	3,892	7,292	Miner.....	1,255	1,045	92	1,679	945	Miner.....	1,255	1,045	92	1,679	945
Williamsburg	5,106	3,029	2,652	2,248	7,292	Minnehaha.	16,334	19,984	1,175	20,929	16,766	Minnehaha.	16,334	19,984	1,175	20,929	16,766
York.....	5,651	7,400	6,653	8,346	7,292	Moody.....	1,614	1,689	157	2,301	1,461	Moody.....	1,614	1,689	157	2,301	1,461
						Pennington.	7,249	9,682	1,166	9,881	8,926	Pennington.	7,249	9,682	1,166	9,881	8,926
						Perkins....	869	1,498				Perkins....	869	1,498			
Totals.....	196,889	260,558	211,754	215,700	309,048												

Totals 196,889 260,558 211,754 215,700 309,048

SOUTH CAROLINA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 64,170; Harding, Rep., 2,244; Debs, Soc., 26.	
1924 (Pres.), Davis, Dem., 49,008; Coolidge, Rep., 1,123; LaFollette, Prog., 620.	
1928 (Pres.), Smith, Dem., 62,700; Anti-Smith, 2,670; Hoover, Rep., 3,188; Thomas, Soc., 44.	
1932 (Pres.), Roosevelt, Dem., 102,347; Hoover, Rep., 1,978; Thomas, Soc., 82.	
1936 (Pres.), Roosevelt, Dem., 113,791; Landon, Rep., Tolbert faction (953), Hambricht faction (693), total, 1,646.	
1940 (Pres.), Roosevelt, Dem., 95,470; Willkie, Rep., 1,727.	
1944 (Pres.), Roosevelt, Dem., 90,601; Dewey, Rep., 4,547; Southern Democrats, 7,799; Watson, Proh., 365; Rep. (Tolbert faction), 63.	
1948 (Pres.), Thurmond, States' Rights, 102,607; Truman, Dem., 34,423; Dewey, Rep., 5,386; Wallace, Prog., 154; Thomas, Soc., 1.	
1952 (Pres.), Eisenhower ran on two tickets. Under State law vote cast for two Eisenhower slates of electors could not be combined. Eisenhower, Ind., 158,289; Rep., 9,793; total, 168,082; Stevenson, Dem., 173,044; Hamblen, Proh., 4.	
1956 (Pres.), Stevenson, Dem., 136,372; Byrd, Ind., 88,509; Eisenhower, Rep., 75,700; Andrews, Ind., 2.	
1960 (Pres.), Kennedy, Dem., 198,129; Nixon, Rep., 188,558; Write-in, 1.	
1964 (Pres.), Johnson, Dem., 215,700; Goldwater, Rep., 309,048; Write-ins: Nixon, 1; Wallace, 5; Powell, 1; Thurmond, 1.	
1968 (Pres.), Nixon, Rep., 260,558; Humphrey, Dem., 196,889; Wallace, 3rd party, 211,754.	

South Dakota

1968						1964				
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)
Aurora.....	1,060	1,033	130	1,555	871	Aurora.....	1,060	1,033	130	1,555
Beadle.....	5,338	4,214	288	5,968	4,051	Beadle.....	5,338	4,214	288	5,968
Bennett....	457	665	111	775	624	Bennett....	457	665	111	775
Bon Homme..	1,773	2,411	209	2,494	1,784	Bon Homme..	1,773	2,411	209	2,494
Brookings... Brown.....	3,202 729	4,674 6,665	205 560	4,191 9,107	3,692 5,524	Brookings... Brown.....	3,202 729	4,674 6,665	205 560	4,191 9,107
Brule.....	1,425	1,249	153	2,205	968	Brule.....	1,425	1,249	153	2,205
Buffalo....	265	261	28	501	278	Buffalo....	265	261	28	501
Butte.....	1,017	2,091	196	1,863	1,877	Butte.....	1,017	2,091	196	1,863
Campbell... Chas. Mix... Clark.....	245 2,369 1,325	1,216 2,099 1,596	73 207 118	411 3,488 1,771	1,162 1,625 1,511	Campbell... Chas. Mix... Clark.....	245 2,369 1,325	1,216 2,099 1,596	73 207 118	411 3,488 1,771
Clay.....	2,006	2,299	131	2,599	1,802	Clay.....	2,006	2,299	131	2,599
Codington.. Corson..... Custer.....	4,235 821 727	3,929 1,108 1,143	279 80 194	3,563 1,328 1,176	3,593 1,034 1,142	Codington.. Corson..... Custer.....	4,235 821 727	3,929 1,108 1,143	279 80 194	3,563 1,328 1,176
Davison.... Day.....	3,244 2,463	3,574 2,061	251 182	4,861 3,235	2,789 1,914	Davison.... Day.....	3,244 2,463	3,574 2,061	251 182	4,861 3,235
Deuel..... Dewey.....	1,076 721	1,398 941	151 123	1,524 259	981 1,317	Deuel..... Dewey.....	1,076 721	1,398 941	151 123	1,524 259
Douglas.... Edmunds.... Fall River..	592 1,225 965	1,613 1,534 1,843	77 181 286	1,149 1,708 1,706	1,180 1,442 2,026	Douglas.... Edmunds.... Fall River..	592 1,225 965	1,613 1,534 1,843	77 181 286	1,149 1,708 1,706

SOUTH DAKOTA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 35,938; Harding, Rep., 110,692; Watkins, Proh., 900; F. Lab., 34,707.	
1924 (Pres.), Coolidge, Rep., 101,299; LaFollette, Prog., 75,355; Davis, Dem., 27,214.	
1928 (Pres.), Hoover, Rep., 157,660; Smith, Dem., 102,660; Thomas, Soc., 443; Foster, Com., 232; Farm-Lab., 927.	
1932 (Pres.), Roosevelt, Dem., 183,515; Hoover, Rep., 99,212; Harvey, Lib., 3,333; Thomas, Soc., 1,551; Upshaw, Proh., 463; Foster, Com., 364.	
1936 (Pres.), Roosevelt, Dem., 160,137; Landon, Rep., 125,977; Lemke, Union, 10,338.	
1940 (Pres.), Roosevelt, Dem., 131,862; Willkie, Rep., 177,065.	
1944 (Pres.), Roosevelt, Dem., 96,711; Dewey, Rep., 135,365.	
1948 (Pres.), Truman, Dem., 117,653; Dewey, Rep., 129,651; Wallace, Prog., 2,801.	
1952 (Pres.), Eisenhower, Rep., 203,857; Stevenson, Dem., 90,426.	
1956 (Pres.), Eisenhower, Rep., 171,569; Stevenson, Dem., 122,288.	
1960 (Pres.), Kennedy, Dem., 128,070; Nixon, Rep., 178,417.	
1964 (Pres.), Johnson, Dem., 163,010; Goldwater, Rep., 130,108.	
1968 (Pres.), Nixon, Rep., 147,438; Humphrey, Dem., 117,505; Wallace, 3rd party, 13,209.	

Tennessee

1968						1964				
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)
Anderson....	7,198	10,233	4,323	12,116	8,860	Anderson....	7,198	10,233	4,323	12,116
Bedford....	2,415	1,869	4,098	5,610	2,272	Bedford....	2,415	1,869	4,098	5,610
Benton.....	1,059	1,468	2,255	2,611	1,363	Benton.....	1,059	1,468	2,255	2,611
Bledsoe....	957	1,477	732	1,412	1,431	Bledsoe....	957	1,477	732	1,412
Blount.....	5,176	12,753	4,407	8,459	11,876	Blount.....	5,176	12,753	4,407	8,459
Bradley....	2,762	6,924	4,159	5,693	6,717	Bradley....	2,762	6,924	4,159	5,693
Campbell... Cannon.... Carroll.... Cartersham. Cheatham... Chester.... Chalborne...	2,268 809 1,932 2,160 774 849 1,392	4,024 780 3,757 9,467 2,997 1,408 3,097	1,367 1,464 3,298 3,009 2,977 2,037 884	2,367 2,190 4,056 5,326 2,750 1,763 2,581	4,232 746 3,734 8,472 803 1,767 2,852	Campbell... Cannon.... Carroll.... Cartersham. Cheatham... Chester.... Chalborne...	2,268 809 1,932 2,160 774 849 1,392	4,024 780 3,757 9,467 2,997 1,408 3,097	1,367 1,464 3,298 3,009 2,977 2,037 884	2,367 2,190 4,056 5,326 2,750 1,763 2,581

Tennessee (cont'd) 1956			1964		Tennessee (cont'd)					
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	1940 (Pres.), Roosevelt, Dem., 351,601; Willkie, Rep., 169,153; Babson, Proh., 1,606; Thomas, Soc., 463.				
Clay	667	814	451	1,196	622	1944 (Pres.), Roosevelt, Dem., 308,707; Dewey, Rep., 200,311; Watson, Proh., 882; Thomas, Soc., 892.				
Cooke	950	5,645	1,159	2,109	5,084	1948 (Pres.), Truman, Dem., 270,402; Dewey, Rep., 202,914; Thurmond, States' Rights, 73,815; Wallace, Prog., 1,864; Thomas, Soc., 1,288.				
Coffee	3,040	3,337	4,794	6,837	3,012	1952 (Pres.), Eisenhower, Rep., 446,147; Stevenson, Dem., 443,710; Hamblen, Rep., 1,432; Hallinan, Prog., 885; MacArthur, Christian Nationalist, 379.				
Crockett	703	932	2,865	1,817	1,873	1956 (Pres.), Eisenhower, Rep., 462,288; Stevenson, Dem., 456,507; Andrews, Ind., 19,820; Holtwick, Proh., 789.				
Cumberland	1,423	3,115	1,471	3,073	2,975	1960 (Pres.), Kennedy, Dem., 481,453; Nixon, Rep., 556,577; Fausb, States' Rights, 11,304; Decker, Proh., 2,458.				
Davidson	44,543	44,175	47,889	79,387	45,335	1964 (Pres.), Johnson, Dem., 635,047; Goldwater, Rep., 508,965; Write-in, 34.				
Decatur	877	1,409	1,544	1,813	1,429	1968 (Pres.), Nixon, Rep., 474,086; Humphrey, Dem., 352,834; Wallace, 3rd party, 425,237.				
DeKalb	847	1,532	1,416	2,291	1,402					
Dickson	2,034	1,291	1,575	4,724	1,281					
Dyer	2,033	2,826	5,842	4,117	4,517					
Fayette	2,236	740	2,570	2,636	2,922					
Fentress	1,871	2,026	808	1,550	1,969					
Franklin	2,489	1,700	4,939	6,029	2,262					
Gibson	3,962	4,093	7,233	8,119	4,614					
Giles	2,203	1,264	3,966	4,940	1,378					
Grainger	761	2,788	596	1,309	2,634					
Greene	2,947	7,957	2,753	5,916	6,913					
Grundy	1,307	618	1,642	2,775	686					
Hamblen	2,390	6,382	2,259	4,607	5,196					
Hamilton	23,441	29,302	32,080	38,546	40,200					
Hancock	731	3,001	596	687	1,517					
Hardeman	1,709	1,171	2,924	2,675	2,450					
Hart	1,153	2,910	2,352	3,023	3,021					
Hawkins	2,213	1,217	1,798	4,191	5,712					
Haywood	1,709	6,152	2,757	2,290	2,407					
Henderson	1,230	3,591	2,086	1,955	3,133					
Henry	3,149	2,068	3,439	5,874	2,261					
Hickman	1,152	760	2,473	2,877	1,019					
Houston	636	232	941	1,572	1,442					
Humphreys	1,391	866	2,095	3,230	916					
Jackson	1,122	673	908	2,291	551					
Jefferson	1,494	5,494	1,199	2,600	4,923					
Johnson	450	3,107	375	927	2,889					
Knox	24,528	47,202	18,277	42,463	42,797					
Lake	737	409	1,262	1,667	736					
Lauderdale	2,108	1,080	3,566	3,847	1,884					
Lawrence	1,424	4,343	3,993	5,449	4,590					
Lewis	1,088	455	997	2,061	388					
Lincoln	1,848	1,167	4,214	4,861	1,728					
Loudon	1,581	4,299	1,996	3,365	4,148					
McMinn	2,889	6,098	2,535	5,207	5,624					
McNairy	1,377	2,979	2,872	2,994	3,109					
Macon	530	2,173	1,041	1,446	1,846					
Madison	5,517	6,143	9,420	10,573	10,932					
Marion	1,661	1,959	2,784	3,775	2,728					
Marshall	1,527	1,202	3,379	3,989	1,340					
Mauzy	3,401	3,048	8,148	7,716	4,605					
Melms	493	729	442	916	824					
Monroe	5,926	4,749	1,222	4,100	4,349					
Montgomery	5,538	3,248	5,638	10,178	2,414					
Moore	846	224	856	1,034	264					
Morgan	968	1,803	1,028	1,957	1,842					
Obion	2,235	2,420	4,680	5,672	2,802					
Overton	1,592	1,258	1,176	3,258	1,155					
Perry	726	519	784	1,440	514					
Pickett	405	884	199	728	935					
Polk	1,454	1,808	754	2,113	1,685					
Putnam	3,541	3,693	3,073	6,309	2,993					
Rhea	1,301	2,428	2,237	2,637	2,730					
Roane	3,258	6,033	3,898	6,108	5,735					
Robertson	2,315	1,802	3,904	5,784	1,797					
Rutherford	4,921	4,168	7,773	9,580	4,088					
Sevier	981	2,406	734	2,007	2,406					
Sevier	549	663	1,013	1,162	804					
Shelby	82,602	73,403	76,971	111,496	100,527					
Smith	1,443	1,089	1,831	2,934	1,084					
Stewart	1,041	443	1,057	2,444	441					
Sullivan	9,783	20,251	9,991	19,496	17,703					
Sunmer	4,766	4,519	7,592	9,102	3,437					
Tipton	2,071	1,422	4,943	3,821	3,073					
Trousdale	694	252	649	1,270	205					
Unicoi	910	3,327	843	2,000	2,731					
Union	527	1,956	449	1,091	1,770					
Van Buren	282	327	507	865	293					
Warren	2,046	1,858	3,814	5,027	1,754					
Washington	4,936	12,882	4,925	10,253	10,612					
Wayne	506	2,417	1,208	1,728	510					
Weakley	1,988	2,858	4,525	5,161	2,684					
White	1,584	1,423	1,750	2,987	1,199					
Williamson	2,063	2,788	4,867	5,075	2,707					
Wilson	2,916	2,736	5,648	6,267	2,707					
Totals	352,834	474,086	425,237	635,047	508,965					

TENNESSEE VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 206,558; Harding, Rep., 219,829; Debs, Soc., 2,239.

1924 (Pres.), Davis, Dem., 158,404; Coolidge, Rep., 130,882; LaFollette, Prog., 10,656; Farris, Proh., 115.

1928 (Pres.), Hoover, Rep., 195,388; Smith, Dem., 167,343; Thomas, Soc., 631; Foster, Com., 111.

1932 (Pres.), Roosevelt, Dem., 259,817; Hoover, Rep., 126,806; Upshaw, Proh., 1,995; Thomas, Soc., 1,786; Foster, Com., 234.

1936 (Pres.), Roosevelt, Dem., 327,083; Landon, Rep., 146,516; Thomas, Soc., 685; Colvin, Proh., 632; Browder, Com., 319; Lemke, Union, 296.

Texas

1956			1964		
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Anderson	3,447	2,828	3,196	4,809	3,362
Andrews	575	852	789	2,133	1,442
Angelina	5,174	4,645	6,111	8,194	5,262
Aransas	711	672	267	1,492	602
Archer	1,308	636	413	1,766	441
Armstrong	301	434	206	544	365
Atascosa	2,522	1,805	811	3,224	1,283
Austin	1,299	1,971	1,084	2,365	1,545
Bailey	820	1,174	563	1,503	1,056
Bandera	535	842	423	876	762
Bastrop	2,687	1,455	975	3,912	1,130
Baylor	1,064	657	443	1,403	389
Bee	2,957	1,995	589	3,314	1,509
Bell	11,893	5,705	3,547	14,557	2,938
Bexar	95,327	72,726	16,138	108,658	53,469
Blanco	575	577	200	1,197	290
Borden	157	117	112	266	152
Bosque	1,817	1,373	727	2,690	1,024
Bowie	5,555	5,282	6,354	10,368	7,018
Brazoria	11,439	10,631	8,026	15,917	8,477
Brazos	6,299	6,899	2,437	7,998	4,093
Brewster	958	790	342	1,251	6,358
Briscoe	528	411	219	966	342
Brooks	1,952	571	176	2,299	400
Brown	3,996	3,096	1,606	5,214	207
Burleson	1,678	841	694	2,527	617
Burnet	1,872	1,459	643	2,585	821
Caldwell	2,889	1,402	837	3,580	1,046
Calhoun	2,641	1,672	1,072	3,398	1,031
Callahan	1,437	921	737	2,178	849
Cameron	15,238	10,814	1,754	16,056	9,531
Camp	1,272	555	1,074	1,841	729
Carson	904	1,211	571	1,574	1,044
Cass	2,536	1,930	2,883	3,603	2,681
Castro	1,181	1,033	623	1,866	626
Chambers	1,217	1,061	1,329	1,921	1,023
Cherokee	3,242	2,670	3,795	5,485	3,043
Childress	1,093	1,045	621	1,977	952
Clay	1,573	936	665	2,357	659
Cochran	633	548	449	1,260	497
Coke	563	387	208	900	366
Coleman	1,449	1,507	1,153	2,670	1,434
Collin	5,923	6,494	4,063	7,833	3,341
Collinsworth	746	712	475	1,145	724
Colorado	1,976	2,296	1,163	3,650	1,918
Comal	2,338	3,676	724	3,644	2,223
Comanche	1,970	1,284	708	2,851	962
Concho	468	318	156	848	307
Cooke	2,716	3,797	1,412	4,083	3,117
Coryell	2,987	1,698	1,202	3,679	989
Cottle	792	268	266	1,122	230
Crane	498	493	712	919	637
Crockett	571	498	279	799	409
Crosby	1,574	865	401	2,278	611
Culberson	329	298	145	473	314
Dallam	588	990	430	1,058	700
Dallas	123,828	183,759	55,266	166,472	137,065
Dawson	1,521	2,091	900	3,171	1,691
Deaf Smith	1,545	2,474	791	2,094	1,793
Delta	1,037	370	475	1,619	339
Denton	7,463	8,222	3,188	9,137	4,335
De Witt	1,871	2,599	784	3,286	2,283
Dickens	811	428	295	1,324	339
Dimmit	762	487	288	1,184	501
Donley	543	816	268	1,068	708
Duval	3,978	384	121	4,432	353
Eastland	1,329	1,420	582	4,692	2,049
Ector	5,312	10,557	8,671	10,826	11,497
Edwards	148	409	82	337	371
Ellis	5,431	3,794	2,841	7,278	2,779
El Paso	32,658	30,347	5,111	35,500	20,887
Erath	2,915	2,210	941	3,851	1,642
Falls	2,990	1,395	1,364	3,933	1,212

Texas (cont'd)						Texas (cont'd)					
1968						1968					
County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)	County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Fannin.....	3,931	1,585	1,661	5,976	1,219	Nac'odoches..	3,349	3,235	3,198	4,524	2,976
Fayette.....	1,833	2,380	1,562	3,630	2,036	Navarro.....	4,571	1,810	1,887	6,811	2,139
Fisher.....	1,560	555	268	2,108	454	Newton.....	1,476	555	1,509	2,211	1,736
Floyd.....	1,306	1,465	847	2,383	1,229	Nolan.....	2,644	1,717	1,077	3,540	1,610
Foard.....	594	216	168	833	146	Nueces.....	38,449	20,330	6,769	40,426	14,048
Fort Bend.....	4,494	4,676	2,447	6,188	3,493	Ochiltree.....	432	2,138	492	920	1,814
Franklin.....	1,001	481	507	1,520	424	Oldham.....	237	320	230	397	269
Freestone.....	2,066	568	1,069	2,816	1,074	Orange.....	6,485	5,886	8,845	9,390	6,216
Frio.....	1,330	795	307	1,507	607	Palo Pinto.....	3,447	2,415	1,179	3,791	1,748
Gaines.....	1,087	1,401	1,037	2,045	1,153	Palola.....	1,708	1,586	2,650	2,608	2,818
Galveston.....	25,263	14,902	9,787	30,672	12,365	Parker.....	4,301	3,068	1,934	5,270	2,175
Garza.....	662	615	383	1,254	567	Parmer.....	833	1,539	730	1,556	1,216
Gillespie.....	725	2,945	432	2,264	1,695	Pecos.....	1,592	1,524	897	2,492	1,199
Glasscock.....	106	169	172	79	183	Polk.....	1,916	1,013	1,712	12,850	11,505
Goliad.....	690	707	156	990	549	Potter.....	7,460	11,755	481	132	1,156
Gonzales.....	1,939	1,476	1,013	3,348	1,190	Presidio.....	956	481	306	893	272
Gray.....	2,274	5,994	2,426	3,633	5,011	Rains.....	568	340	132	614	406
Grayson.....	10,379	8,043	4,612	14,207	5,500	Randall.....	4,060	11,400	3,128	6,016	7,843
Gregg.....	5,733	9,278	8,109	8,741	11,761	Reagan.....	370	454	288	614	406
Grimes.....	1,473	1,076	976	2,229	1,014	Real.....	277	290	136	487	255
Guadalupe.....	3,530	4,330	1,241	4,568	2,731	Red River.....	2,245	1,305	1,554	3,391	1,257
Hale.....	3,293	4,696	2,309	5,910	3,666	Reeves.....	1,566	1,300	748	2,340	1,251
Hall.....	1,038	753	449	1,785	667	Refugio.....	1,699	1,114	486	2,318	772
Hamilton.....	1,116	1,266	452	2,048	1,006	Roberts.....	90	311	113	198	297
Hansford.....	392	1,359	437	860	1,193	Robertson.....	2,742	894	869	3,350	895
Hardeman.....	1,145	873	531	1,835	597	Rockwall.....	778	614	582	1,305	445
Hardin.....	2,894	1,986	3,79	5,143	1,987	Runnels.....	1,448	1,707	737	2,645	1,480
Harris.....	182,552	203,967	90,270	227,819	154,401	Rusk.....	4,065	3,819	4,703	6,528	5,488
Harrison.....	4,345	3,013	4,708	6,351	5,568	Sabine.....	1,078	455	935	1,801	428
Hartley.....	299	597	264	565	437	San Augustino..	817	506	1,137	1,173	760
Haskell.....	1,888	713	610	2,903	612	San Jacinto.....	1,235	381	693	1,680	343
Hayes.....	3,546	2,013	643	3,780	1,279	San Patricio..	6,375	3,266	1,761	7,176	2,188
Hemphill.....	400	699	201	649	563	San Saba.....	1,140	535	465	1,859	418
Henderson.....	3,119	2,310	2,497	4,697	1,988	Schleicher.....	378	396	178	514	388
Hidalgo.....	20,087	14,457	2,569	22,110	11,563	Scurry.....	2,031	1,712	1,083	3,381	1,741
Hill.....	3,315	1,769	1,761	5,130	1,557	Shackelford.....	673	577	277	934	457
Hockley.....	2,489	2,316	1,492	4,061	1,674	Shelby.....	294	302	565	3,487	2,220
Hood.....	763	383	247	1,463	423	Sherman.....	307	723	376	462	629
Hopkins.....	2,700	1,859	1,932	4,133	1,518	Smith.....	8,897	12,079	9,595	12,474	12,960
Houston.....	1,291	2,391	2,062	3,681	1,675	Somervell.....	384	312	203	641	210
Howard.....	3,897	3,805	2,789	6,083	3,272	Starr.....	3,922	1,374	71	4,056	678
Hudspeth.....	289	285	132	438	224	Stephens.....	1,239	1,287	525	1,753	1,119
Hunt.....	4,488	4,416	3,220	6,567	3,302	Sterling.....	151	170	54	243	140
Hutchinson.....	2,416	4,813	2,909	4,625	5,358	Stonewall.....	635	213	262	978	219
Irion.....	187	211	92	354	199	Sutton.....	351	412	147	694	357
Jack.....	1,133	968	509	1,594	847	Swisher.....	1,760	1,177	623	2,410	815
Jackson.....	1,698	1,438	1,145	2,775	1,168	Tarrant.....	71,982	73,977	26,026	97,092	56,593
Jasper.....	3,436	1,859	2,906	3,600	1,919	Taylor.....	9,107	12,217	4,340	13,366	9,220
Jeff Davis.....	239	191	106	366	187	Terrell.....	201	250	149	364	294
Jefferson.....	29,039	25,833	21,808	44,584	28,771	Terry.....	1,635	1,948	864	3,034	1,428
Jim Hogg.....	1,276	223	3	1,375	152	Throckmorton...	618	317	126	883	5
Jim Wells.....	6,304	2,827	913	6,849	1,988	Titus.....	2,317	1,572	1,886	3,528	1,627
Johnson.....	5,330	4,372	2,882	6,381	3,251	Tom Green.....	6,879	9,705	3,082	9,767	6,667
Jones.....	2,370	1,676	931	3,622	1,295	Travis.....	39,685	34,309	8,798	44,058	19,838
Karnes.....	2,277	1,342	790	3,178	993	Trinity.....	1,146	636	97	1,694	763
Kaufman.....	3,311	2,431	2,350	4,766	1,922	Tyler.....	1,204	1,020	1,444	1,818	1,216
Kendall.....	538	1,569	364	970	1,200	Upshur.....	2,360	1,439	2,667	4,027	2,222
Kenedy.....	100	76	7	115	30	Uvalde.....	463	664	459	958	636
Kent.....	303	143	188	563	15	Val Verde.....	1,338	1,604	592	2,358	1,963
Kerr.....	1,878	3,692	1,073	2,894	2,706	Van Zandt.....	3,095	1,675	462	3,555	1,346
Kimble.....	463	640	264	862	520	Victoria.....	2,706	1,954	2,090	4,047	1,614
King.....	109	74	1	180	34	Walker.....	6,042	6,352	2,336	8,141	4,201
Kinney.....	333	198	7	439	155	Waller.....	2,392	1,950	1,452	2,877	1,557
Kleberg.....	4,358	2,413	592	4,568	1,652	Ward.....	1,684	950	797	2,167	980
Knox.....	1,222	580	325	1,773	439	Washington.....	1,318	1,544	1,364	2,221	1,730
Lamar.....	4,485	3,496	2,916	6,303	2,594	Webb.....	1,686	3,244	677	10,073	1,094
Lamb.....	2,267	2,595	1,460	4,318	2,022	Wharton.....	9,417	3,223	304	6,234	2,775
Lampasas.....	1,423	935	470	2,224	744	Wheeler.....	3,317	1,176	570	1,440	1,138
LaSalle.....	645	324	112	988	223	Wichita.....	15,382	11,942	6,082	19,131	8,585
Lavaca.....	2,165	1,698	1,451	4,031	1,480	Wibarger.....	1,998	1,909	1,292	3,200	1,539
Lee.....	1,283	1,075	631	1,884	923	Willacy.....	1,930	1,416	465	2,152	1,230
Leon.....	1,545	669	880	2,373	642	Williamson.....	5,528	2,923	1,669	7,430	1,766
Liberty.....	3,469	2,746	3,395	5,357	2,884	Wilson.....	2,071	843	386	3,472	718
Limestone.....	2,796	1,485	1,402	3,777	1,478	Winkler.....	938	1,391	1,248	2,059	1,617
Lipscomb.....	279	1,079	187	589	763	Wise.....	2,174	1,915	1,040	3,852	1,785
Live Oak.....	922	938	484	1,423	795	Wood.....	2,129	2,046	2,025	3,528	2,068
Llano.....	1,292	1,079	464	1,727	655	Yoakum.....	615	1,123	734	1,151	859
Loving.....	18	23	40	46	32	Young.....	2,482	1,860	1,004	3,395	1,600
Lubbock.....	15,388	25,598	9,074	22,057	17,372	Zapata.....	909	251	52	1,009	135
Lynn.....	1,333	1,005	548	2,281	745	Zavala.....	1,307	693	214	1,784	598
Madison.....	994	608	765	1,298	644	Totals.....	1,245,116	1,207,417	575,517	1,663,185	958,566
Marion.....	1,260	637	957	1,972	927						
Martin.....	390	343	539	892	402						
Mason.....	560	739	169	941	390						
Matagorda.....	3,595	3,094	1,770	4,143	2,407						
Maverick.....	1,570	771	255	2,113	545						
McCulloch.....	1,350	947	159	2,100	655						
McLennan.....	22,393	15,963	8,273	28,429	10,892						
McMullen.....	160	169	99	267	175						
Medina.....	2,754	2,216	868	3,403	1,583						
Menard.....	362	491	118	588	397						
Midland.....	4,756	12,889	5,675	8,646	11,906						
Millam.....	3,269	1,614	1,525	4,368	1,334						
Mills.....	722	645	296	1,228	495						
Mitchell.....	1,689	893	499	4,220	737						
Montague.....	2,555	1,736	914	3,746	1,106						
Montgomery.....	3,732	4,423	4,644	4,989	3,167						
Moore.....	1,359	2,183	1,258	2,393	1,762						
Morris.....	1,707	1,054	1,323	2,366	1,218						
Motley.....	397	415	295	678	324						

TEXAS VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 288,767; Harding, Rep., 114,269; Debs, Soc., 8,121; Rep. (Black and Tan), 27,247; Amer. Party, 47,968.
 1924 (Pres.), Davis, Dem., 484,605; Coolidge, Rep., 130,023; LaFollette, Prog., 42,381.
 1928 (Pres.), Hoover, Rep., 367,036; Smith, Dem., 341,032; Thomas, Soc., 722; Foster, Com., 209.
 1932 (Pres.), Roosevelt, Dem., 760,348; Hoover, Rep., 97,959; Thomas, Soc., 4,450; Harvey, Lib., 324; Foster, Com., 207; Jackson Party, 104.
 1936 (Pres.), Roosevelt, Dem., 734,485; Landon, Rep., 103,874; Lemke, Union, 3,281; Thomas,

Texas (cont'd)

Soc., 1,075; Colvin, Proh., 514; Browder, Com., 253.
1940 (Pres.), Roosevelt, Dem., 840,151; Willkie, Rep., 199,152; Babson, Proh., 925; Thomas, Soc., 728; Browder, Com., 212.
1944 (Pres.), Roosevelt, Dem., 821,605; Dewey, Rep., 191,425; Texas Regulars, 135,439; Watson, Proh., 1,017; Thomas, Soc., 594; America First, 250.
1948 (Pres.), Truman, Dem., 750,700; Dewey, Rep., 282,240; Thurmond, Stes' Rights, 106,909; Wallace, Prog., 3,764; Watson, Proh., 2,758; Thomas, Soc., 874.
1952 (Pres.), Eisenhower, Rep., 1,102,878; Stevenson, Dem., 969,228; Hamblen, Proh., 1,983; MacArthur, Christian Nationalist, 833; MacArthur, Constitution, 730; Hallinan, Prog., 294.
1956 (Pres.), Eisenhower, Rep., 1,080,619; Stevenson, Dem., 859,958; Andrews, Ind., 14,581.
1960 (Pres.), Kennedy, Dem., 1,167,932; Nixon, Rep., 1,121,699; Sullivan, Constitution, 18,169; Decker, Proh., 3,870; Write-in, 175.
1964 (Pres.), Johnson, Dem., 1,663,185; Goldwater, Rep., 958,566; Lightburn, Constitution, 5,060.
1968 (Pres.), Nixon, Rep., 1,207,417; Humphrey, Dem., 1,245,116; Wallace, 3rd party, 575,517.

Utah

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Beaver....	745	989	158	1,189	792
Box Elder....	3,093	7,767	907	5,113	6,851
Cache....	4,327	11,911	1,010	6,627	9,325
Carbon....	4,349	2,618	271	5,672	2,130
Daguerre....	97	152	42	170	12
Davis....	10,715	21,165	2,805	14,177	14,477
Duchesne....	796	1,678	236	1,320	1,251
Emery....	1,019	1,223	161	1,434	1,103
Garfield....	314	1,033	139	658	821
Grand....	707	1,435	215	1,145	1,130
Iron....	1,157	3,343	514	2,053	2,522
Juab....	906	1,199	95	1,319	926
Kane....	147	814	174	340	784
Millard....	976	2,318	220	1,462	1,973
Morgan....	551	1,022	130	835	572
Plute....	172	411	60	273	361
Rich....	133	525	39	326	435
Salt Lake....	77,258	101,557	9,389	103,926	78,118
San Juan....	680	1,393	262	993	1,371
Sanpete....	1,696	3,304	307	2,547	2,620
Sevier....	1,167	3,190	384	1,948	2,617
Summit....	961	1,787	113	1,497	1,331
Tooele....	3,885	3,199	694	5,239	2,515
Uintah....	1,150	3,039	398	2,142	2,438
Utah....	16,782	28,899	3,800	23,936	20,934
Wasatch....	939	1,612	86	1,420	1,105
Washington....	975	3,226	796	1,789	2,501
Wayne....	248	511	54	412	407
Weber....	20,102	36,078	3,491	29,666	20,262
Totals	156,077	247,398	26,980	219,628	181,785

UTAH VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 56,639; Harding, Rep., 81,555; Debs, Soc., 3,159; F.-Lab., 4,475.
1924 (Pres.), Coolidge, Rep., 77,327; Davis, Dem., 47,001; LaFollette, Prog., 33,662.
1928 (Pres.), Hoover, Rep., 94,618; Smith, Dem., 80,985; Thomas, Soc., 954; Foster, Com., 47.
1932 (Pres.), Roosevelt, Dem., 116,750; Hoover, Rep., 84,795; Thomas, Soc., 4,087; Foster, Com., 947.
1936 (Pres.), Roosevelt, Dem., 150,246; Landon, Rep., 64,555; Lemke, Union, 1,121; Thomas, Soc., 432; Browder, Com., 280; Colvin, Proh., 43.
1940 (Pres.), Roosevelt, Dem., 154,277; Willkie, Rep., 93,151; Thomas, Soc., 200; Browder, Com., 191.
1944 (Pres.), Roosevelt, Dem., 150,088; Dewey, Rep., 97,891; Thomas, Soc., 340.
1948 (Pres.), Truman, Dem., 149,151; Dewey, Rep., 124,402; Wallace, Prog., 2,679; Dobbs, Soc. Workers, 73.
1952 (Pres.), Eisenhower, Rep., 194,190; Stevenson, Dem., 135,364.
1956 (Pres.), Eisenhower, Rep., 215,631; Stevenson, Dem., 118,364.
1960 (Pres.), Kennedy, Dem., 169,248; Nixon, Rep., 205,361; Dobbs, Soc. Workers, 100.
1964 (Pres.), Johnson, Dem., 219,628; Goldwater, Rep., 181,785.
1968 (Pres.), Nixon, Rep., 247,398; Humphrey, Dem., 156,077; Wallace, 3rd party, 26,980.

Vermont

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Addison....	2,913	5,007	303	4,781	3,499
Bennington....	4,966	5,929	421	7,222	3,890
Caledonia....	3,204	4,995	254	5,730	3,266
Chittenden....	16,637	14,660	794	21,492	8,962
Essex....	1,003	1,009	58	1,673	747
Franklin....	5,997	5,217	353	8,823	3,260
Grand Isle....	730	754	72	993	506
Lamoille....	1,239	2,962	141	2,375	2,038
Orange....	1,862	4,130	209	3,917	2,723
Orleans....	2,695	4,057	274	4,892	3,029
Rutland....	9,051	10,314	764	13,244	7,167
Washington....	7,287	9,384	501	11,994	5,750
Windham....	5,332	6,916	374	8,370	4,184
Windsor....	6,990	9,794	435	12,168	5,847
Totals	70,446	85,128	4,953	107,674	54,868

VERMONT VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 20,919; Harding, Rep., 68,212; Watkins, Proh., 774.
1924 (Pres.), Coolidge, Rep., 80,498; Davis, Dem., 16,124; LaFollette, Prog., 5,964; Faris, Proh., 326.
1928 (Pres.), Hoover, Rep., 90,404; Smith, Dem., 44,440; Varney, Proh., 338.
1932 (Pres.), Roosevelt, Dem., 56,266; Hoover, Rep., 78,984; Thomas, Soc., 1,533; Foster, Com., 195.
1936 (Pres.), Landon, Rep., 81,023; Roosevelt, Dem., 62,124; Browder, Com., 405.
1940 (Pres.), Roosevelt, Dem., 64,269; Willkie, Rep., 78,371; Browder, Com., 411.
1944 (Pres.), Roosevelt, Dem., 53,820; Dewey, Rep., 71,527.
1948 (Pres.), Truman, Dem., 45,557; Dewey, Rep., 75,926; Wallace, Prog., 1,279; Thomas, Soc., 585.
1952 (Pres.), Eisenhower, Rep., 109,717; Stevenson, Dem., 43,355; Hallinan, Prog., 282; Hoopes, Soc., 185.
1956 (Pres.), Eisenhower, Rep., 110,390; Stevenson, Dem., 42,549; Scattered, 39.
1960 (Pres.), Kennedy, Dem., 69,186; Nixon, Rep., 98,131.
1964 (Pres.), Johnson, Dem., 107,674; Goldwater, Rep., 54,868.
1968 (Pres.), Nixon, Rep., 85,128; Humphrey, Dem., 70,446; Wallace, 3rd party, 4,953; scattered, 550.

Virginia

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Accomack....	2,466	3,231	3,460	3,528	3,144
Albemarle....	2,257	4,513	1,677	3,062	3,255
Alleghany....	986	1,653	1,152	1,580	1,101
Amelia....	826	859	832	884	1,348
Amherst....	1,414	2,431	2,199	2,730	2,675
App'matt'x....	756	1,764	1,512	1,339	2,444
Arlington....	26,105	28,161	6,746	33,567	20,485
Augusta....	2,028	6,313	2,483	4,039	4,327
Bath....	494	872	529	770	516
Bedford....	2,141	854	3,998	4,076	3,806
Bland....	560	938	361	851	717
Botetourt....	1,272	2,599	1,267	2,377	2,098
Brunswick....	1,910	1,141	2,084	18,833	2,560
Buckanham....	5,549	3,666	975	4,766	2,949
Buck'h'm....	984	1,026	1,181	1,152	1,547
Campbell....	1,985	5,780	4,425	3,401	5,713
Caroline....	2,165	1,629	1,084	2,064	1,166
Carroll....	1,773	4,924	959	2,517	3,617
Charles C'y....	1,467	320	176	1,023	323
Charlotte....	945	1,042	2,163	1,911	1,974
Chesterf'd....	5,714	21,992	11,493	8,376	17,486
Clarke....	768	1,127	742	1,136	1,068
Craig....	419	580	256	767	477
Culpeper....	1,239	2,229	1,217	1,886	1,775
Cumbe'r'd....	978	844	607	871	1,099
Dickenson....	3,320	3,407	634	3,485	2,143
Durwiddie....	1,552	1,451	2,245	1,782	2,040
Essex....	896	792	528	760	789
Fairfax....	44,746	57,650	14,705	48,680	30,755
Fauquier....	2,099	2,845	1,538	3,506	2,101
Floyd....	715	2,275	537	1,144	1,836
Fluvanna....	722	1,137	725	1,008	823
Franklin....	2,025	3,042	3,219	3,447	2,279
Frederick....	1,611	3,697	2,137	2,880	2,585
Giles....	2,038	2,721	1,368	3,133	1,952
Gloucester....	1,210	1,619	1,255	1,949	1,631
Goochland....	1,389	1,216	837	1,452	1,241
Grayson....	1,926	3,563	1,090	3,238	3,015
Greene....	255	856	433	460	641
Greensville....	1,367	529	1,256	2,262	2,245

Virginia (cont'd)

1968

1964

Virginia (cont'd)

County	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Halifax	2,199	2,631	1,235	2,198	3,928
Hanover	2,029	5,148	3,038	2,864	4,879
Henrico	8,500	34,218	11,700	12,779	29,286
Henry	4,235	3,946	6,800	5,235	2,844
Highland	284	619	166	476	511
Isle of Wight	1,977	1,312	2,328	2,656	1,737
James City	1,521	1,443	1,083	1,744	1,092
King George	882	568	614	1,085	644
King & Q'n	730	829	632	786	699
King Wm.	764	1,045	615	904	1,065
Lancaster	1,134	1,640	876	1,245	1,663
Lee	4,198	4,366	762	5,151	3,463
Loudoun	3,262	4,577	2,110	4,278	2,594
Louisa	1,288	1,509	1,146	1,731	1,369
Lunenburg	1,252	1,181	1,626	1,124	1,060
Madison	478	1,188	763	862	1,060
Mathews	691	2,309	773	1,137	1,149
Meklenbg's	2,677	3,607	4,022	3,328	4,976
Middlesex	575	809	655	973	1,019
Montgomery	2,700	7,098	1,719	3,872	4,604
Nansemond	4,173	2,101	3,721	4,804	2,590
Nelson	1,120	1,130	1,206	1,635	893
New Kent	765	526	609	684	677
N'th'm'ton	1,418	1,410	1,229	1,516	1,586
N'th'berl'd	1,077	1,438	968	988	1,423
Notto'way	1,529	1,614	1,673	2,138	2,353
Orange	880	1,727	1,059	1,308	1,595
Page	2,125	3,667	991	2,606	2,802
Patrik	1,953	2,608	1,876	2,406	1,468
Pittsylvania	5,340	5,041	9,367	5,228	7,120
Powhatan	1,004	722	929	969	1,182
Prince Ed.	1,567	1,857	1,224	1,512	2,545
Prince Geo.	1,272	1,559	1,920	1,502	1,790
Pr. Will'm	5,246	7,994	5,160	5,611	3,343
Pulaski	2,497	4,409	1,346	3,620	3,101
Rapp'h'nock	330	498	307	675	449
Richmond	397	878	445	636	961
Roanoke	3,903	12,440	4,746	8,808	10,714
Rockbridge	845	2,320	1,037	2,599	2,200
Rock'gham	2,111	7,729	1,809	4,205	4,155
Russell	3,564	3,857	1,369	4,330	3,012
Scott	3,138	5,345	1,510	4,720	4,533
Shenandoah	1,654	5,482	1,511	3,184	3,981
Smyth	2,631	5,297	1,809	4,113	3,830
Sp'th'm'ton	1,803	1,376	2,068	2,566	1,520
Spots'v'nia	1,647	1,676	1,589	2,097	1,261
Stafford	1,698	2,572	2,197	2,469	1,888
Surry	1,126	523	708	1,131	1,004
Sussex	1,541	1,105	1,135	1,234	1,537
Tazewell	4,729	4,424	2,017	6,081	3,231
Warren	1,513	2,242	1,479	2,494	1,886
Washington	3,243	6,663	3,090	5,070	4,146
West'm'nd	1,156	1,482	943	1,312	1,181
Wise	6,497	5,483	1,848	7,220	3,309
Wythe	1,765	3,638	1,375	2,879	2,958
York	1,409	2,519	2,576	3,385	2,992

Total Counties... 252,844 380,804 200,852 331,679 308,879

City					
Alexandria	14,351	13,265	4,131	16,828	8,825
Bristol	1,531	1,930	911	2,425	1,236
Buena Vista	387	814	641	691	459
Ch'th't'ville	3,871	5,601	1,764	5,205	4,415
Chesapeake	6,709	6,203	11,061	9,532	9,038
Clift'n'rgs	734	925	462	1,252	850
Colonial H'te	650	2,650	2,106	1,198	2,420
Davington	1,195	1,551	846	2,055	1,149
Danville	4,498	6,796	5,391	4,539	7,900
Emporia	657	812	716		
Fairfax	2,149	2,961	959	2,835	1,924
Falls Church	1,807	1,885	494	2,371	1,329
Franklin	790	1,000	510	1,257	783
Fred'cksbg	2,036	2,142	878	2,410	1,511
Galax	749	1,257	304	717	897
Hampton	11,309	10,532	10,689	13,542	8,731
Harris'nb'g	1,036	2,859	453	1,765	1,820
Hopewell	1,568	2,942	2,092	2,498	3,183
Lexington	734	1,170	177		
Lynchburg	4,335	9,913	3,649	6,758	10,044
Martinsville	2,727	2,618	1,856	2,943	1,805
N'p't News	13,786	12,565	10,115	15,296	10,584
Norfolk	28,683	22,288	14,502	32,388	18,429
Norton	555	495	215	824	372
Petersburg	10,508	6,198	6,834	4,521	3,253
Portsmouth	15,736	9,492	12,127	16,073	8,420
Radford	1,206	2,077	461	1,850	1,505
Richmond	32,856	26,375	8,539	35,662	27,196
Roanoke	9,158	16,147	5,070	15,314	13,164
Salem	1,369	3,945	1,507		
So. Boston	620	1,298	659	636	1,208
Staunton	1,729	1,134	1,054	2,705	2,969
Suffolk	1,014	1,277	1,039	1,579	1,163
Virginia B'h	10,046	16,218	10,915	12,892	10,529
Waynesboro	1,416	3,302	616	2,369	2,107
Winchester	941	1,156	217	1,151	906
Wilkesburg	1,358	2,708	770	2,254	2,180

Total, Ct's 194,831 209,711 124,575 226,359 172,455

Co's & Cit's 447,675 590,515 325,427 558,038 481,334

VIRGINIA VOTE SINCE 1920

1920 (Pres.), Cox, Dem., 141,670; Harding, Rep., 87,456; Watkins, Proh., 826; Debs, Soc., 807; Christensen, Farm-Lab., 240.
1924 (Pres.), Davis, Dem., 139,797; Coolidge, Rep., 73,359; LaFollette, Prog., 10,379; Johns, Soc. Lab., 191.
1928 (Pres.), Hoover, Rep., 164,609; Smith, Dem., 140,146; Thomas, Soc., 250; Reynolds, Soc. Lab., 180; Foster, Com., 173.
1932 (Pres.), Roosevelt, Dem., 203,979; Hoover, Rep., 89,637; Thomas, Soc., 2,382; Upshaw, Proh., 1,843; Foster, Com., 86; Cox, Ind., 15.
1936 (Pres.), Roosevelt, Dem., 234,980; Landon, Rep., 98,366; Colvin, Proh., 594; Thomas, Soc., 313; Lemke, Union, 233; Browder, Com., 98.
1940 (Pres.), Roosevelt, Dem., 235,961; Willkie, Rep., 109,363; Babson, Proh., 882; Thomas, Soc., 282; Browder, Com., 71; Aiken, Soc. Lab., 48.
1944 (Pres.), Roosevelt, Dem., 242,276; Dewey, Rep., 145,243; Watson, Proh., 459; Thomas, Soc., 417; Teichert, Soc. Lab., 90.
1948 (Pres.), Truman, Dem., 200,786; Dewey, Rep., 172,070; Thurmond, States' Rights, 43,393; Wallace, Prog., 2,047; Thomas, Soc., 726; Teichert, Soc. Lab., 234.
1952 (Pres.), Eisenhower, Rep., 349,037; Stevenson, Dem., 268,677; Hass, Soc. Lab., 1,160; Hoopes, Social Dem., 504; Hallinan, Prog., 311.
1956 (Pres.), Eisenhower, Rep., 386,459; Stevenson, Dem., 267,760; Andrews, States' Rights, 42,964; Hoopes, Soc. Dem., 444; Hass, Soc. Lab., 351.
1960 (Pres.), Kennedy, Dem., 362,327; Nixon, Rep., 404,521; Colner, Conservative, 4,204; Hass, Soc. Lab., 397.
1964 (Pres.), Johnson, Dem., 558,038; Goldwater, Rep., 481,334; Hass, Soc. Lab., 2,895.
1968 (Pres.), Nixon, Rep., 590,515; Humphrey, Dem., 447,675; Wallace, 3rd party, 325,427; scattered 1,432.

Washington

County	1968	1964	1960	1956	1952	1948	1944	1940	1936	1932	1928	1924	1920
Adams	1,162	2,318	275	2,027	2,241								
Asotin	2,495	2,902	384	3,657	1,777								
Benton	9,795	12,908	2,703	16,650	11,708								
Chelan	6,172	8,003	1,109	10,295	7,406								
Clallam	6,412	5,190	1,086	9,265	4,175								
Clark	20,077	16,092	2,076	29,341	12,300								
Columbia	683	1,056	149	1,138	1,048								
Cowlitz	12,563	9,837	1,375	17,605	6,708								
Douglas	2,538	2,934	586	3,728	2,643								
Ferry	519	535	162	931	526								
Franklin	3,620	3,678	1,130	6,375	3,615								
Garfield	598	848	140	781	751								
Grant	5,088	6,072	1,340	8,352	6,065								
Gray H'bor	11,452	6,296	1,109	17,145	5,714								
Island	2,853	3,399	559	3,946	3,442								
Jefferson	2,020	1,496	346	3,012	1,034								
King	202,957	193,402	28,409	268,216	177,598								
Kitsap	20,465	13,429	2,610	26,904	10,702								
Kittitas	3,519	3,670	474	5,383	3,200								
Klickitat	2,204	2,068	289	3,819	1,850								
Lewis	7,956	7,966	1,197	12,070	6,933								
Lincoln	1,595	2,684	289	2,299	2,011								
Mason	4,215	2,766	564	5,514	2,549								
Okanogan	3,947	3,901	945	6,554	3,931								
Pacific	3,526	2,276	326	5,056	1,789								
Pend Oreille	1,204	956	192	1,978	985								
Pierce	67,452	45,357	10,201	84,566	40,164								
San Juan	556	897	81	906	839								
Skagit	9,717	9,011	1,363	14,162	8,138								
Skamania	1,129	834	160	1,758	653								
Snohomish	40,892	32,810	6,326	55,013	25,902								
Spokane	45,872	47,039	7,519	62,092	49,387								
Stevens	2,674	3,014	831	4,296	3,302								
Thurston	12,737	11,958	2,129	17,578	9,351								
Wahkiakum	434	571	117	1,175	116								
Walla Walla	5,280	8,753	911	9,481	8,102								
Whatcom	12,539	12,769	2,067	20,297	10,900								
Whitman	4,573	6,872	620	5,760	6,765								
Yakima	17,865	24,576	3,573	29,601	22,786								

Totals 561,675 520,491 85,713 779,699 470,366

WASHINGTON VOTE SINCE 1916

1916 (Pres.), Wilson, Dem., 183,388; Hughes, Rep., 167,281; Hanly, Proh., 8,668; Benson, Soc., 22,800.
1920 (Pres.), Cox, Dem., 83,298; Harding, Rep., 223,137; Hanly, Proh., 3,790; Debs, Soc., 8,913; Christensen, Farm-Lab., 77,246.
1924 (Pres.), Coolidge, Rep., 220,224; LaFollette, Prog., 150,727; Davis, Dem., 42,842; Nations, Amer., 5,991; Johns, Soc. Lab., 1,004; Foster, Workers, 761.

Washington (cont'd)

1928 (Pres.), Hoover, Rep., 335,884; Smith, Dem., 156,772; Thomas, Soc., 2,614; Reynolds, Soc. Lab., 4,068; Foster, Com., 1,541.

1932 (Pres.), Roosevelt, Dem., 353,260; Hoover, Rep., 208,645; Harvey, Lib., 30,308; Thomas, Soc., 17,080; Foster, Com., 2,972; Upshaw, Proh., 1,540; Reynolds, Soc. Lab., 1,009.

1936 (Pres.), Roosevelt, Dem., 459,579; Landon, Rep., 206,892; Lemke, Union, 17,463; Thomas, Soc., 3,496; Browder, Com., 1,907; Pellsy, Christian, 1,598; Colvin, Proh., 1,041; Alken, Soc. Lab., 362.

1940 (Pres.), Roosevelt, Dem., 462,145; Willkie, Rep., 322,123; Thomas, Soc., 4,586; Browder, Com., 2,626; Babson, Proh., 1,686; Alken, Soc. Lab., 667.

1944 (Pres.), Roosevelt, Dem., 486,774; Dewey, Rep., 361,689; Thomas, Soc., 3,824; Watson, Proh., 2,396; Teichert, Soc. Lab., 1,645.

1948 (Pres.), Truman, Dem., 476,165; Dewey, Rep., 386,315; Wallace, Prog., 31,692; Watson, Proh., 6,117; Thomas, Soc., 3,534; Teichert, Soc. Lab., 1,133; Dobbs, Soc. Workers, 103.

1952 (Pres.), Eisenhower, Rep., 559,107; Stevenson, Dem., 492,845; McCarthy, Christian Nationalist, 7,290; Hallinan, Prog., 2,460; Hass, Soc. Lab., 633; Hoopes, Soc., 254; Dobbs, Soc. Workers, 119.

1956 (Pres.), Eisenhower, Rep., 620,430; Stevenson, Dem., 523,002; Hass, Soc. Lab., 7,457.

1960 (Pres.), Kennedy, Dem., 599,298; Nixon, Rep., 629,273; Hass, Soc. Lab., 10,895; Curtis, Constitution, 1,401; Dobbs, Soc. Workers, 705.

1964 (Pres.), Johnson, Dem., 779,699; Goldwater, Rep., 470,366; Hass, Soc. Labor, 7,772; DeBerry, Freedom Soc., 537.

1968 (Pres.), Nixon, Rep., 520,491; Humphrey, Dem., 561,675; Wallace, 3rd party, 85,713; scattered, 1,783.

West Virginia

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Barbour....	3,051	3,107	424	4,758	2,533
Berkeley....	3,507	4,811	1,665	8,628	5,457
Boone.....	6,354	2,959	913	8,609	2,467
Braxton....	3,267	2,440	384	4,787	1,867
Brooke.....	7,195	3,949	1,399	9,834	3,364
Cabell.....	18,909	19,388	4,618	28,437	16,957
Calhoun....	1,684	1,612	318	2,626	1,275
Clay.....	1,916	1,474	349	3,182	1,366
Doddridge..	844	1,861	146	1,587	1,581
Fayette....	13,723	4,818	1,218	19,900	4,051
Gilmer.....	1,581	1,401	214	2,332	1,116
Grant.....	786	2,936	256	1,494	2,464
Greenbrier.	5,550	5,094	1,465	10,112	4,549
Hampspire..	1,546	1,699	564	3,381	1,473
Hancock....	8,972	5,115	2,053	14,001	5,009
Hardy.....	1,767	1,768	490	2,996	1,308
Harrison....	17,849	13,100	1,978	25,683	9,986
Jackson....	2,549	4,019	699	5,022	4,359
Jefferson...	3,122	2,711	1,047	4,892	1,901
Kanawha....	46,352	41,784	11,517	70,511	38,383
Lewis.....	3,155	4,031	637	5,248	2,979
Lincoln....	3,668	2,875	416	5,852	3,436
Logan.....	13,535	4,700	1,838	16,999	7,776
Marion....	16,120	9,434	1,714	22,047	7,707
Marshall...	7,549	6,104	1,189	11,767	6,175
Mason.....	3,699	4,217	691	6,511	4,467
McDowell..	12,796	3,999	2,029	18,046	3,684
Mercer.....	11,314	8,580	2,897	18,298	8,905
Mineral....	3,449	3,843	950	6,344	3,801
Mingo.....	8,591	3,861	1,119	12,368	3,154
Monongalia.	4,290	3,091	482	17,356	6,473
Monroe....	2,377	2,911	531	3,367	2,385
Morgan....	1,014	2,243	461	1,820	1,866
Nicholas...	4,843	3,662	839	6,878	2,628
Ohio.....	13,096	10,936	1,880	21,178	12,006
Pendleton..	1,921	1,949	153	2,498	1,296
Pleasant....	1,522	1,534	204	2,287	1,339
Pocahontas.	1,835	1,936	422	3,317	1,716
Preston....	3,562	4,930	476	6,264	4,015
Putnam....	4,150	4,402	1,110	6,910	4,165
Raleigh....	14,585	7,055	2,414	23,606	6,952
Randolph...	4,330	3,582	705	8,012	2,984
Ritchie....	1,279	2,993	284	2,244	2,717
Roane.....	2,635	3,779	424	3,820	3,451
Summers...	2,993	1,846	683	5,037	1,962
Taylor.....	2,951	3,004	466	4,442	2,292
Tucker....	1,752	1,498	332	2,664	1,314
Tyler.....	1,125	2,590	260	2,275	2,522
Upshur....	1,878	3,816	417	3,774	3,606
Wayne.....	6,101	3,541	1,879	11,575	5,340
Webster....	2,533	1,253	73	3,755	936
Wetzel....	3,691	3,660	432	6,239	3,215
Wirt.....	819	1,050	140	1,286	809
Wood.....	8,624	11,617	2,318	21,560	14,947
Wyoming...	6,596	3,936	1,005	9,188	3,377
Totals...	334,856	269,504	64,635	538,087	253,953

WEST VIRGINIA VOTES SINCE 1920

1920 (Pres.), Cox, Dem., 220,789; Harding, Rep., 282,007; Watkins, Proh., 1,528; Debs, Soc., 5,618.

1924 (Pres.), Coolidge, Rep., 288,635; Davis, Dem., 257,232; LaFollette, Prog., 36,723; Nations, Amer., 1,072.

1928 (Pres.), Hoover, Rep., 375,551; Smith, Dem., 263,748; Thomas, Soc., 1,313; Varney, Proh., 1,703; Foster, Com., 401.

1932 (Pres.), Roosevelt, Dem., 405,124; Hoover, Rep., 330,731; Thomas, Soc., 5,133; Upshaw, Proh., 2,342; Foster, Com., 444.

1936 (Pres.), Roosevelt, Dem., 502,582; Landon, Rep., 325,358; Colvin, Proh., 1,173; Thomas, Soc., 832.

1940 (Pres.), Roosevelt, Dem., 495,662; Willkie, Rep., 372,414.

1944 (Pres.), Roosevelt, Dem., 392,777; Dewey, Rep., 322,819.

1948 (Pres.), Truman, Dem., 429,188; Dewey, Rep., 316,251; Wallace, Prog., 3,311.

1952 (Pres.), Eisenhower, Rep., 419,970; Stevenson, Dem., 453,578.

1956 (Pres.), Eisenhower, Rep., 449,297; Stevenson, Dem., 381,534.

1960 (Pres.), Kennedy, Dem., 441,786; Nixon, Rep., 395,995.

1964 (Pres.), Johnson, Dem., 538,087; Goldwater, Rep., 253,953.

1968 (Pres.), Nixon, Rep., 269,504; Humphrey, Dem., 334,856; Wallace, 3rd party, 64,635.

Wisconsin

County	1968			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Adams.....	1,614	1,691	461	2,262	1,219
Ashland....	4,147	2,567	401	5,383	2,198
Barab.....	5,183	7,526	867	8,332	5,701
Bayfield...	3,036	2,323	323	3,755	1,858
Brown.....	21,615	30,133	4,341	38,551	21,134
Buffalo....	2,122	2,992	413	3,663	2,091
Burnett....	2,010	2,056	414	2,921	1,536
Calumet....	3,609	5,792	792	5,356	3,905
Chippewa...	7,335	7,772	1,282	10,911	6,277
Clark.....	4,601	6,325	1,398	7,781	4,897
Columbia...	6,698	8,633	1,067	10,093	6,253
Crawford...	2,391	3,316	419	3,930	2,726
Dane.....	59,951	39,917	3,771	68,118	27,124
Dodge.....	8,948	14,909	1,875	15,497	10,772
Door.....	2,728	5,647	535	4,416	4,289
Douglas...	12,506	5,656	930	15,237	4,579
Dunn.....	4,392	5,415	709	6,475	3,964
Eau Claire..	12,302	11,799	1,669	15,765	8,706
Florence...	1,718	821	157	1,029	590
Fond du Lac	12,563	18,184	1,934	18,040	12,708
Forest.....	1,470	1,264	412	2,479	1,069
Grant.....	5,414	10,789	1,054	9,309	7,872
Green.....	3,501	6,502	641	5,948	5,364
Green Lake.	2,299	4,893	488	3,893	3,871
Iowa.....	2,897	4,005	509	4,620	3,275
Iron.....	1,913	1,137	262	2,514	963
Jackson....	2,293	3,172	529	3,818	2,532
Jefferson...	8,716	12,478	1,470	13,295	8,741
Juneau....	2,695	3,828	712	4,583	2,976
Kenosha...	21,427	17,088	3,486	30,522	14,766
Kewaunee...	2,622	4,467	203	4,792	2,909
La Crosse..	11,670	17,433	2,214	16,925	13,135
Lafayette...	2,853	4,084	470	4,471	3,194
Langlade...	3,064	3,712	718	5,077	2,994
Lincoln....	3,858	4,793	670	5,883	3,894
Manitowoc..	15,298	13,562	1,790	21,927	9,849
Marathon...	18,063	16,907	3,051	24,603	12,766
Marquette..	6,415	7,134	1,223	9,657	5,332
Marquette..	1,228	2,374	279	1,927	1,881
Menominee.	531	179	30	647	78
Milwaukee..	206,108	160,117	34,456	288,577	149,962
Monroe....	4,012	6,938	1,056	6,385	5,126
Oconto....	3,737	5,680	1,141	6,360	4,430
Ondega....	4,435	5,077	941	5,431	3,920
Ooutagamie.	14,222	25,080	2,956	21,566	18,595
Ozaukee....	7,246	12,155	1,505	9,517	8,581
Pepin.....	1,263	1,493	231	2,154	1,069
Pierce.....	4,783	4,990	453	6,351	3,291
Polk.....	5,179	5,583	656	7,215	3,754
Portage....	10,024	6,181	900	11,887	4,579
Price.....	2,794	3,096	621	4,289	2,408
Racine....	27,045	28,028	7,457	37,785	21,434
Richland...	2,288	4,141	485	4,315	3,224
Rock.....	20,567	25,229	3,655	28,257	20,372
Rusk.....	2,559	2,666	726	4,176	2,214
St. Croix...	6,807	6,995	735	8,864	4,565
Sauk.....	6,406	8,608	1,019	9,288	6,345
Sawyer....	2,475	4,357	435	2,475	2,012
Shawano...	3,602	8,444	1,131	6,560	6,519
Sheboygan..	20,170	17,764	1,181	26,410	12,968
Taylor.....	2,910	3,043	959	4,624	2,261
Trempealeau	3,971	4,861	747	6,320	3,264

County	1958		1964		
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Vernon.....	3,666	5,824	1,062	6,242	4,640
Vilas.....	1,798	3,339	598	2,841	2,827
Walworth....	7,505	15,040	1,755	11,746	12,225
Washburn....	2,273	2,425	384	3,181	1,865
Washington..	8,104	12,439	2,065	11,563	9,191
Waukesha....	31,947	47,557	6,921	39,796	35,502
Waupaca....	3,978	10,606	1,206	6,990	8,381
Waushara....	1,652	4,187	566	3,004	3,437
Winnebago....	18,605	25,361	3,045	23,636	21,084
Wood.....	10,921	11,795	1,695	15,378	8,388
Totals...	748,895	810,092	126,762	1,050,424	638,495

WISCONSIN VOTE SINCE 1920

- 1920 (Pres.), Cox, Dem., 113,422; Harding, Rep., 498,576; Watkins, Proh., 8,647; Debs, Soc., 85,041.
- 1924 (Pres.), LaFollette, Prog., 453,678; Coolidge, Rep., 311,614; Davis, Dem., 68,115; Foster, Workers, 3,773; Faris, Proh., 2,918; Johns, Soc. Lab., 411; Wallace, Comm. Lab., 270.
- 1928 (Pres.), Hoover, Rep., 544,205; Smith, Dem., 450,259; Thomas, Soc., 18,213; Foster, Comm., 1,528; Reynolds, Soc. Lab., 381; Varney, Proh., 2,245.
- 1932 (Pres.), Roosevelt, Dem., 707,410; Hoover, Rep., 347,741; Thomas, Soc., 53,379; Foster, Comm., 3,112; Upshaw, Proh., 2,672; Reynolds, Soc. Lab., 494.
- 1936 (Pres.), Roosevelt, Dem., 802,984; Landon, Rep., 380,828; Lemke, Union, 60,297; Thomas, Soc., 10,626; Browder, Comm., 2,197; Colvin, Proh., 1,071; Alken, Soc. Lab., 557.
- 1940 (Pres.), Roosevelt, Dem., 704,821; Willkie, Rep., 679,260; Thomas, Soc., 15,071; Browder, Comm., 2,394; Babson, Proh., 2,148; Alken, Soc. Lab., 1,882.
- 1944 (Pres.), Roosevelt, Dem., 650,413; Dewey, Rep., 674,532; Thomas, Soc., 13,205; Teichert, Soc. Lab., 1,002.
- 1948 (Pres.), Truman, Dem., 647,310; Dewey, Rep., 590,959; Wallace, Prog., 25,282; Thomas, Soc., 12,547; Teichert, Soc. Lab., 399; Dobbs, Soc. Workers, 303.
- 1952 (Pres.), Eisenhower, Rep., 979,744; Stevenson, Dem., 622,175; Hallinan, Ind., 2,174; Dobbs, Ind., 1,350; Hoopes, Ind., 1,157; Hass, Ind., 770.
- 1956 (Pres.), Eisenhower, Rep., 954,844; Stevenson, Dem., 586,768; Andrews, Ind., 6,918; Hoopes, Soc., 754; Hass, Soc. Lab., 710; Dobbs, Soc. Workers, 564.
- 1960 (Pres.), Kennedy, Dem., 830,805; Nixon, Rep., 895,175; Dobbs, Soc. Workers, 1,792; Hass, Soc. Lab., 1,310.
- 1964 (Pres.), Johnson, Dem., 1,050,424; Goldwater, Rep., 638,495; DeBerry, Soc. Worker, 1,692; Haas, Soc. Lab., 1,204.
- 1968 (Pres.), Nixon, Rep., 810,092; Humphrey, Dem., 748,895; Wallace, 3rd party, 126,762; scattered, 2,934.

County	1958			1964	
	Humphrey (D)	Nixon (R)	Wallace (I)	Johnson (D)	Goldwater (R)
Albany.....	4,079	4,422	578	6,019	2,923
Big Horn....	1,201	2,771	353	2,690	2,868
Campbell....	558	1,694	290	1,196	1,606
Carbon.....	2,725	2,532	388	4,322	2,160
Converse....	492	1,460	232	1,250	1,559
Crook.....	318	1,250	175	780	1,214
Fremont....	3,077	5,399	885	5,985	4,809
Goshen.....	1,529	2,774	468	2,749	2,604
Hot Springs..	703	1,273	170	1,380	1,228
Johnson....	398	1,737	217	852	1,640
Laramie....	9,411	9,832	1,615	16,058	8,563
Lincoln....	1,247	2,029	285	2,273	1,811
Natrona....	5,900	10,578	2,092	11,167	10,135
Niobrara....	250	1,136	104	843	1,122
Park.....	1,852	4,072	605	3,745	3,698
Platte.....	1,035	1,613	319	1,890	1,470
Sheridan....	2,671	5,163	612	4,747	4,491
Sublette....	310	1,152	226	791	900
Sweetwater..	4,101	2,731	637	5,969	1,944
Teton.....	461	1,419	169	968	1,081
Uinta.....	1,199	1,510	175	1,929	1,186
Washakie....	748	2,038	198	1,695	1,713
Weston.....	628	1,512	266	1,419	1,473
Totals...	44,893	70,093	11,059	80,718	61,998

WYOMING VOTE SINCE 1920

- 1920 (Pres.), Cox, Dem., 17,429; Harding, Rep., 35,091; Watkins, Proh., 265; Debs, Soc., 1,288; Christensen, F.-Lab., 2,180.
- 1924 (Pres.), Coolidge, Rep., 41,858; LaFollette, Prog., 25,174; Davis, Dem., 12,868.
- 1928 (Pres.), Hoover, Rep., 52,748; Smith, Dem., 29,299; Thomas, Soc., 783.
- 1932 (Pres.), Roosevelt, Dem., 54,370; Hoover, Rep., 39,583; Thomas, Soc., 2,829; Foster, Comm., 180.
- 1936 (Pres.), Roosevelt, Dem., 62,624; Landon, Rep., 38,739; Lemke, Union, 1,653; Thomas, Soc., 200; Browder, Comm., 91; Colvin, Proh., 75.
- 1940 (Pres.), Roosevelt, Dem., 59,287; Willkie, Rep., 52,633; Babson, Proh., 172; Thomas, Soc., 148.
- 1944 (Pres.), Roosevelt, Dem., 49,419; Dewey, Rep., 51,921.
- 1948 (Pres.), Truman, Dem., 52,354; Dewey, Rep., 47,947; Wallace, Prog., 931; Thomas, Soc., 137; Teichert, Soc. Lab., 56.
- 1952 (Pres.), Eisenhower, Rep., 81,047; Stevenson, Dem., 47,934; Hamblen, Proh., 194; Hoopes, Soc., 40; Hass, Soc. Lab., 36.
- 1956 (Pres.), Eisenhower, Rep., 74,573; Stevenson, Dem., 49,554.
- 1960 (Pres.), Kennedy, Dem., 63,331; Nixon, Rep., 77,451.
- 1964 (Pres.), Johnson, Dem., 80,718; Goldwater, Rep., 61,998.
- 1968 (Pres.), Nixon, Rep., 70,093; Humphrey, Dem., 44,893; Wallace, 3rd party, 11,059.

The Electoral College

The President and the Vice President of the United States are the only elective Federal officials not elected by direct vote of the people. They are elected by the members of the Electoral College, an institution that has survived since the founding of the nation despite more than 100 attempts in Congress to alter or abolish it. In the elections of 1824, 1876 and 1888 the Presidential candidate receiving the largest popular vote failed to win a majority of the electoral votes.

On Presidential election day, the first Tuesday after the first Monday in November of every fourth year, each state chooses as many electors as it has Senators and Representatives in Congress. In 1964 for the first time, as provided by the 23rd Amendment to the Constitution, the District of Columbia voted for 3 electors. Thus, with 100 Senators and 435 Representatives, there are 538 members of the Electoral College, with a majority of 270 electoral votes needed to elect the President and Vice President.

Political parties customarily nominate their lists of electors at their respective state conventions. An elector cannot be a member of Congress or any person holding Federal office.

Some states print the names of the candidates for President and Vice President at the top of

the ballot while others list only the names of the electors. In either case, the electors of the party receiving the highest vote are elected. The electors meet on the first Monday after the second Wednesday in December in their respective state capitals or in some other place prescribed by State Legislatures. By long-established custom they vote for their party nominee, thus giving all the state's electoral votes to him, although the Constitution does not require them to do so. The only constitutional requirement is that at least one of the persons each elector votes for shall not be an inhabitant of that elector's home state.

Certified and sealed lists of the votes of the electors in each state are mailed to the President of the U. S. Senate. He opens them in the presence of the members of the Senate and House of Representatives in a joint session held on Jan. 6 (the next day if that falls on a Sunday), and the electoral votes of all the states are then counted. If no candidate for President has a majority, the House of Representatives chooses a President from among the three highest candidates, with all Representatives from each state combining to cast one vote for that state. If no candidate for Vice President has a majority, the Senate chooses from the top two, Senators voting as individuals.

THE NINETY-FIRST CONGRESS, FIRST SESSION

As of Nov. 15, 1968

The Congress must meet annually on Jan. 3, unless it has, by law, appointed a different day

The Senate

Terms are for 6 years and end January 3 of the year preceding name. Annual salary \$30,000.

To be eligible for the U. S. Senate, a person must be at least 30 years of age, a citizen of the United States for at least 9 years, and a resident of the state from which he is chosen.

Democrats, 58; Republicans, 42. Total, 100. (*) Asterisk designates senior Senator.

Terms Expire	SENATORS	P. O. Address	Terms Expire	SENATORS	P. O. Address
	ALABAMA			MONTANA	
1975. James B. Allen	Dem., Gadsden		1973. Lee Metcalf	Dem., Helena	
1973. John Sparkman*	Dem., Huntsville		1971. Mike Mansfield*	Dem., Missoula	
	ALASKA			NEBRASKA	
1975. Mike Gravel	Dem., Anchorage		1973. Carl T. Curtis	Rep., Minden	
1973. E. L. (Bob) Bartlett*	Dem., Juneau		1971. Roman L. Hruska*	Rep., Omaha	
	ARIZONA			NEVADA	
1975. Barry Goldwater	Rep., Scottsdale		1975. Alan Bible*	Dem., Reno	
1971. Paul J. Fannin*	Rep., Phoenix		1971. Howard W. Cannon	Dem., Las Vegas	
	ARKANSAS			NEW HAMPSHIRE	
1975. J. William Fulbright	Dem., Fayetteville		1975. Norris Cotton*	Rep., Concord	
1973. John L. McClellan*	Dem., Camden		1973. Thomas J. McIntyre	Dem., Laconia	
	CALIFORNIA			NEW JERSEY	
1975. Alan Cranston	Dem., Los Angeles		1973. Clifford P. Case*	Rep., Rahway	
1971. George Murphy*	Rep., Beverly Hills		1971. H. A. Williams, Jr.	Dem., Westfield	
	COLORADO			NEW MEXICO	
1975. Peter H. Dominick	Rep., Englewood		1973. Clinton P. Anderson*	Dem., Albuquerque	
1973. Gordon Allott*	Rep., Lamar		1971. Joseph M. Montoya	Dem., Santa Fe	
	CONNECTICUT			NEW YORK	
1975. Abraham Ribicoff	Dem., Hartford		1975. Jacob K. Javits*	Rep., New York City	
1971. Thomas J. Dodd*	Dem., West Hartford		1971. Charles E. Goodell	Rep., Jamestown	
	DELAWARE			NORTH CAROLINA	
1973. J. Caleb Boggs	Rep., Wilmington		1975. Sam J. Ervin, Jr.*	Dem., Morganton	
1971. John J. Williams*	Rep., Millsboro		1973. B. Everett Jordan	Dem., Saxapahaw	
	FLORIDA			NORTH DAKOTA	
1975. Edward J. Gurney	Rep., Winter Park		1975. Milton R. Young*	Rep., La Moure	
1971. Spessard L. Holland*	Dem., Bartow		1971. Quentin N. Burdick	Dem., Fargo	
	GEORGIA			OHIO	
1975. Herman E. Talmadge	Dem., Lovejoy		1975. William B. Saxbe	Rep., Mechanicsburg	
1973. Richard B. Russell*	Dem., Windsor		1971. Stephen M. Young*	Dem., Shaker Heights	
	HAWAII			OKLAHOMA	
1971. Hiram L. Fong*	Rep., Honolulu		1975. Henry Bellmon	Rep., Billings	
1969. Daniel K. Inouye	Dem., Honolulu		1973. Fred R. Harris*	Dem., Lawton	
	IDAHO			OREGON	
1975. Frank Church*	Dem., Boise		1975. Robert W. Packwood	Rep., Portland	
1973. Len B. Jordan	Rep., Boise		1973. Mark O. Hatfield*	Rep., Salem	
	ILLINOIS			PENNSYLVANIA	
1975. Everett M. Dirksen*	Rep., Pekin		1975. Richard S. Schweiker	Rep., Worcester	
1973. Charles H. Percy	Rep., Kenilworth		1971. Hugh Scott*	Rep., Philadelphia	
	INDIANA			RHODE ISLAND	
1975. Birch Bayh	Dem., Indianapolis		1973. Claiborne Pell	Dem., Newport	
1971. Vance Hartke*	Dem., Evansville		1971. John O. Pastore*	Dem., Providence	
	IOWA			SOUTH CAROLINA	
1975. Harold E. Hughes	Dem., Ida Grove		1975. Ernest F. Hollings	Dem., Charleston	
1973. Jack Miller*	Rep., Sioux City		1973. Strom Thurmond*	Rep., Aiken	
	KANSAS			SOUTH DAKOTA	
1975. Robert J. Dole	Rep., Russell		1975. George McGovern	Dem., Mitchell	
1973. James B. Pearson*	Rep., Prairie Village		1973. Karl E. Mundt*	Rep., Madison	
	KENTUCKY			TENNESSEE	
1975. Marlow W. Cook	Rep., Maryhill		1973. Howard H. Baker, Jr.	Rep., Knoxville	
1973. John Sherman Cooper*	Rep., Somerset		1971. Albert Gore*	Dem., Carthage	
	LOUISIANA			TEXAS	
1975. Russell B. Long	Dem., Baton Rouge		1973. John G. Tower	Rep., Wichita Falls	
1973. Allen J. Ellender*	Dem., Houma		1971. Ralph Yarborough*	Dem., Austin	
	MAINE			UTAH	
1973. Margaret Chase Smith*	Rep., Skowhegan		1975. Wallace F. Bennett*	Rep., Salt Lake City	
1971. Edmund S. Muskie	Dem., Waterville		1971. Frank E. Moss	Dem., Salt Lake City	
	MARYLAND			VERMONT	
1975. C. McC. Mathias, Jr.	Rep., Frederick		1975. George D. Aiken*	Rep., Putney	
1971. Joseph D. Tydings*	Dem., Havre De Grace		1971. Winston L. Prouty	Rep., Newport	
	MASSACHUSETTS			VIRGINIA	
1973. Edward W. Brooke	Rep., Newton Center		1973. William B. Spong, Jr.	Dem., Portsmouth	
1971. Edward M. Kennedy*	Dem., Boston		1971. Harry F. Byrd, Jr.*	Dem., Winchester	
	MICHIGAN			WASHINGTON	
1973. Robert P. Griffin	Rep., Traverse City		1975. Warren G. Magnuson*	Dem., Seattle	
1971. Philip A. Hart*	Dem., Mackinac Is.		1971. Henry M. Jackson	Dem., Everett	
	MINNESOTA			WEST VIRGINIA	
1973. Walter F. Mondale	Dem., Minneapolis		1973. Jennings Randolph*	Dem., Elkins	
1971. Eugene J. McCarthy*	Dem., St. Paul		1971. Robert C. Byrd	Dem., Sophia	
	MISSISSIPPI			WISCONSIN	
1973. James O. Eastland*	Dem., Doddsville		1975. Gaylord Nelson	Dem., Madison	
1971. John Stennis	Dem., DeKalb		1971. William Proxmire*	Dem., Madison	
	MISSOURI			WYOMING	
1975. Thomas F. Eagleton	Dem., St. Louis		1973. Clifford P. Hansen	Rep., Jackson	
1971. Stuart Symington*	Dem., St. Louis		1971. Gale W. McGee*	Dem., Laramie	

90th Congress Senate Officials—Subject to change in 91st Congress January 1969
 President pro Tempore—Carl Hayden²
 Chaplain—Rev. Frederick Brown Harris, D.D.
 Secretary of the Senate—Francis R. Valeo
 Chief Clerk—Darrell St. Claire
 Sergeant at Arms—Robert G. Dunphy
 Majority Floor Leader—Mike Mansfield
 Majority Whip—Russell B. Long
 Majority Secretary—J. Stanley Kinnitt
 Minority Floor Leader—Everett M. Dirksen
 Minority Whip—Thomas H. Kuchel³
 Minority Secretary—J. Mark Trice

¹Recount demanded by incumbent Sen. Wayne Morse. ²Retiring. ³Defeated in primary.

The House of Representatives

As of Nov. 15, 1968

Members elected to serve to Jan. 3, 1971. Annual salary \$30,000. Speaker of House \$43,000 and \$10,000 for expenses, all taxable.

To be eligible for the House of Representatives, a person must be at least 25 years of age, a citizen of the United States for at least 7 years, and a resident of the state from which he is chosen.

(*) Served in the Ninetieth Congress. (†) Designates women members in the House.

Democrats, 243; Republicans, 192; Total 435.

Districts	Representatives	P. O. Address	Districts	Representatives	P. O. Address
ALABAMA			GEORGIA (continued)		
1	W. Jack Edwards*	Rep., Mobile	9	Phil M. Landrum*	Dem., Jasper
2	William L. Dickinson*	Rep., Montgomery	10	Robert G. Stephens, Jr.*	Dem., Athens
3	George W. Andrews*	Dem., Union Springs	HAWAII—At Large		
4	Bill Nichols*	Dem., Sylacauga		Spark M. Matsunaga*	Dem., Honolulu
5	Walter Flowers*	Dem., Tuscaloosa		Patsy T. Mink†*	Dem., Pahu
6	John H. Buchanan*	Rep., Birmingham	IDAHO		
7	Tom Bevill*	Dem., Jasper	1	James A. McClure*	Rep., Payette
8	Robert E. Jones, Jr.*	Dem., Scottsboro	2	Orval H. Hansen	Rep., Idaho Falls
ALASKA			ILLINOIS		
	Howard W. Pollock*	Rep., Anchorage	1	William L. Dawson*	Dem., Chicago
ARIZONA			2	Abner J. Mikva	Dem., Chicago
1	John J. Rhodes*	Rep., Mesa	3	William T. Murphy*	Dem., Chicago
2	Morris K. Udall*	Dem., Tucson	4	Edward J. Derwinski*	Rep., Chicago
3	Sam Steiger*	Rep., Prescott	5	John C. Kluczynski*	Dem., Chicago
ARKANSAS			6	Daniel J. Rosten*	Dem., Chicago
1	Bill Alexander	Dem., Osceola	7	Frank Annunzio*	Dem., Chicago
2	Wilbur D. Mills*	Dem., Kensett	8	Daniel Rostenkowski*	Dem., Chicago
3	John P. Hammerschmidt*	Rep., Harrison	9	Siney R. Yates*	Dem., Chicago
4	David Pryor*	Dem., Camden	10	Harold R. Collier*	Rep., Chicago
CALIFORNIA			11	Roman C. Pucinski*	Rep., Chicago
1	Don Clausen*	Rep., Crescent City	12	Robert McClory*	Rep., Lake Bluff
2	Harold T. Johnson*	Dem., Roseville	13	Donald Rumsfeld*	Rep., Glenview
3	John E. Moss*	Dem., Sacramento	14	John N. Erlenborn*	Rep., Elmhurst
4	Robert L. Leggett*	Dem., Vallejo	15	Charlotte T. Reid†*	Rep., Aurora
5	Phillip Burton*	Dem., San Francisco	16	John B. Anderson*	Rep., Rockford
6	William S. Mallard*	Rep., San Francisco	17	Leslie C. Arends*	Rep., Melvin
7	Jeffery Cohelan*	Dem., Berkeley	18	Robert H. Michel*	Rep., Peoria
8	George P. Miller	Dem., Alameda	19	Tom Railsback*	Rep., Moline
9	Don Edwards*	Dem., San Jose	20	Paul Findley*	Rep., Pittsfield
10	Charles S. Gubser*	Rep., Gilroy	21	Kenneth J. Gray*	Dem., West Frankfort
11	Paul N. McCloskey, Jr.*	Rep., Portola Valley	22	William L. Shirley*	Rep., Champaign
12	Burt L. Talcott*	Rep., Salinas	23	George E. Springle*	Dem., Olney
13	Charles M. Teague*	Rep., Ojai	24	Melvin Price*	Dem., St. Louis
14	Jerome R. Waldie*	Dem., Antioch	INDIANA		
15	John J. McFall*	Dem., Manteca	1	Ray J. Madden*	Dem., Gary
16	B. F. Sisk*	Dem., Fresno	2	Earl F. Landgrebe	Rep., South Bend
17	Glean M. Anderson	Dem., Torrance	3	John Brademas*	Dem., South Bend
18	R. B. (Bob) Mathias*	Rep., Visalia	4	E. Ross Adair*	Rep., Fort Wayne
19	Chet Hoffield*	Dem., Montebello	5	Richard L. Roudebush*	Rep., Noblesville
20	H. Allen Smith*	Rep., Glendale	6	William G. Bray*	Rep., Martinsville
21	Augustine F. Hawkins*	Dem., Los Angeles	7	John T. Myers*	Rep., Covington
22	James C. Corman*	Dem., Van Nuys	8	Roger H. Zion*	Rep., Evansville
23	Del Clawson*	Rep., Compton	9	Lee H. Hamilton*	Dem., Columbus
24	Glenard P. Lipscomb*	Rep., Los Angeles	10	David W. Dennis	Rep., Richmond
25	Charles E. Wiggins*	Rep., El Monte	11	Andrew Jacobs, Jr.*	Dem., Indianapolis
26	Thomas M. Rees*	Dem., Beverly Hills	IOWA		
27	Edwin Reinecke*	Rep., Tujunga	1	Fred Schwenkel*	Rep., Davenport
28	Alphonzo Bell*	Rep., Beverly Hills	2	John C. Culver*	Dem., Marion
29	George E. Brown, Jr.*	Dem., Monterey Park	3	H. R. Gross*	Rep., Waterloo
30	Edward B. Roybal*	Dem., Los Angeles	4	John Kyl*	Rep., Bloomfield
31	Charles H. Wilson*	Dem., Los Angeles	5	Neal Smith*	Dem., Altoona
32	Craig Hosmer*	Rep., Long Beach	6	Wiley Mayne*	Rep., Sioux City
33	Jerry L. Pettis*	Rep., Loma Linda	7	William J. Schlerke*	Rep., Henderson
34	Richard T. Hanna*	Dem., Fullerton	KANSAS		
35	James B. Utt*	Rep., Santa Ana	1	Keith G. Sebellus	Rep., Norton
36	Bob Wilson*	Rep., San Diego	2	Chester L. Mize*	Rep., Atchison
37	Lionel Van Deelen*	Dem., San Diego	3	Larry Winn, Jr.*	Rep., Leawood
38	John V. Tunney*	Dem., Riverside	4	Garner E. Shriver*	Rep., Wichita
COLORADO			5	Joe Skubitz*	Rep., Pittsburg
1	Byron G. Rogers*	Dem., Denver	KENTUCKY		
2	Donald G. Brotzman*	Rep., Boulder	1	Frank A. Stubblefield*	Dem., Murray
3	Frank E. Evans*	Dem., Pueblo	2	William H. Natcher*	Dem., Bowling Green
4	Wayne N. Aspinall*	Dem., Pallsade	3	William O. Cowger*	Rep., Louisville
CONNECTICUT			4	Marion G. Snyder*	Rep., Jeffersontown
1	Emilio Q. Daddario*	Dem., Hartford	5	Tim Lee Carter*	Rep., Tompkinsville
2	William L. St. Onge*	Dem., Putnam	6	John C. Watts*	Dem., Nicholasville
3	Robert N. Gialmo*	Dem., North Haven	7	Carl D. Perkins*	Dem., Hindman
4	Lowell P. Weicker, Jr.	Rep., Greenwich	LOUISIANA		
5	John S. Monagan*	Dem., Waterbury	1	F. Edward Hebert*	Dem., New Orleans
6	Thomas J. Meskill*	Rep., New Britain	2	Hale Boggs*	Dem., New Orleans
DELAWARE—At Large			3	Patrick T. Caffery	Dem., New Iberia
	William V. Roth, Jr.*	Rep., Wilmington	4	Joe D. Waggonner, Jr.*	Dem., Plain Dealing
FLORIDA			5	Otto E. Passman*	Dem., Monroe
1	Robert L. F. Sikes*	Dem., Crestview	6	John R. Rarick*	Dem., St. Francisville
2	Don Fuqua*	Dem., Altha	7	Edwin W. Edwards*	Dem., Crowley
3	Charles E. Bennett*	Dem., Jacksonville	8	Sifedy O. Long*	Dem., Jena
4	William Chappell, Jr.	Dem., Ocala	MAINE		
5	Louis Frey, Jr.	Rep., Winter Park	1	Peter N. Kyros*	Dem., Portland
6	Sam Gibbons*	Dem., Tampa	2	William D. Hathaway*	Dem., Auburn
7	James A. Haley*	Dem., Sarasota	MARYLAND		
8	William C. Craner*	Rep., St. Petersburg	1	Rogers C. B. Morton*	Rep., Easton
9	Paul G. Rogers*	Dem., West Palm Beach	2	Clarence D. Long*	Dem., Ruxton
10	J. Herbert Burke*	Rep., Hollywood	3	Edward A. Garmatz*	Dem., Baltimore
11	Claude Pepper*	Dem., Miami	4	George H. Fallon*	Dem., Baltimore
12	Dante B. Fascell*	Dem., Miami	5	Lawrence J. Hogan	Rep., Hyattsville
GEORGIA			6	J. Glenn Beall, Jr.	Rep., Frostburg
1	G. Elliott Hagan*	Dem., Sylva	7	Samuel N. Friedel*	Dem., Baltimore
2	Maston O'Neal*	Dem., Bainbridge	8	Gilbert Gude*	Rep., Bethesda
3	Jack Brinkley*	Dem., Columbus	MASSACHUSETTS		
4	Benjamin B. Blackburn*	Rep., Atlanta	1	Silvio O. Conte*	Rep., Pittsfield
5	S. Fletcher Thompson*	Rep., East Point	2	Edward P. Boland*	Dem., Springfield
6	John J. Flynn, Jr.*	Dem., Griffin	3	Philip J. Philbin*	Dem., Clinton
7	John W. Davis*	Dem., Summerville	4	Harold D. Donohue*	Dem., Worcester
8	William S. Stuckey*	Dem., Eastman	5	F. Bradford Morse*	Rep., Lowell

Districts	Representatives	P. O. Address
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MASSACHUSETTS (continued)		
6	William H. Bates*	Rep., Salem
7	Torbert H. Macdonald*	Dem., Malden
8	Thomas P. O'Neill, Jr.*	Dem., Cambridge
9	John W. McCormack*	Dem., Dorchester
10	Margaret M. Heckler†*	Rep., Wellesley
11	James A. Burke*	Dem., Milton
12	Hastings Keith*	Rep., W. Bridgewater

MICHIGAN		
1	John Conyers, Jr.*	Dem., Detroit
2	Marvin L. Esch*	Rep., Ann Arbor
3	Garry Brown*	Rep., Schoolcraft
4	Edward Hutchinson*	Rep., Fennville
5	Gerald R. Ford, Jr.*	Rep., Grand Rapids
6	Chas. E. Chamberlain*	Rep., East Lansing
7	Donald W. Reigle, Jr.*	Rep., Flint
8	James Harvey*	Rep., Saginaw
9	Guy Vander Jagt*	Rep., Cadillac
10	Elford A. Cederberg*	Rep., Bay City
11	Phillip E. Ruppe*	Rep., Houghton
12	James G. O'Hara*	Dem., Utica
13	Charles C. Diggs, Jr.*	Dem., Detroit
14	Lucien N. Nedzi*	Dem., Detroit
15	William D. Ford*	Dem., Taylor
16	John D. Dingell*	Dem., Detroit
17	Martha W. Griffiths†	Dem., Detroit
18	William S. Broomfield*	Rep., Royal Oak
19	Jack H. McDonald*	Rep., Detroit

MINNESOTA		
1	Albert H. Quie*	Rep., Dennison
2	Ancher Nelson*	Rep., Hutchinson
3	Clark MacGregor*	Rep., Plymouth Village
4	Joseph E. Karth*	Dem., St. Paul
5	Donald M. Fraser*	Dem., Minneapolis
6	John M. Zwach*	Rep., Walnut Grove
7	Odin Langen*	Rep., Kennedy
8	John A. Blatnik*	Dem., Chisholm

MISSISSIPPI		
1	Thomas G. Abernethy*	Dem., Okolona
2	Jamie L. Whitten*	Dem., Charleston
3	Charles H. Griffin*	Dem., Utica
4	G. V. Montgomery*	Dem., Meridian
5	William M. Colmer*	Dem., Pascagoula

MISSOURI		
1	William L. Clay	Dem., St. Louis
2	James W. Symington	Dem., Clayton
3	Leonor K. Sullivan†	Dem., St. Louis
4	William J. Randall*	Dem., Independence
5	Richard W. Bolling*	Dem., Kansas City
6	W. R. Hull, Jr.*	Dem., Warrenton
7	Edward G. Hall*	Rep., Springfield
8	Richard H. Ichord*	Dem., Houston
9	William L. Hungate*	Dem., Troy
10	Bill D. Burlison	Dem., Cape Girardeau

MONTANA		
1	Arnold Olsen*	Dem., Helena
2	James F. Battin*	Rep., Billings

NEBRASKA		
1	Robert V. Denney*	Rep., Fairbury
2	Glenn Cunningham*	Rep., Omaha
3	David T. Martin*	Rep., Kearney

NEVADA—At Large		
1	Walter S. Baring*	Dem., Reno

NEW HAMPSHIRE		
1	Louis C. Wyman*	Rep., Manchester
2	James C. Cleveland*	Rep., New London

NEW JERSEY		
1	John E. Hunt*	Rep., Pitman
2	C. W. Sandman, Jr.*	Rep., Cape May
3	James J. Howard*	Dem., Wall
4	Frank Thompson, Jr.*	Dem., Trenton
5	Peter H. B. Frelinghuysen*	Rep., Morristown
6	William T. Cahill*	Rep., Collingswood
7	William B. Widnall*	Rep., Saddle River
8	Charles S. Joelson*	Dem., Paterson
9	Henry Helstoski*	Dem., E. Rutherford
10	Peter W. Rodino, Jr.*	Dem., Newark
11	Joseph G. Minish*	Dem., West Orange
12	Florence P. Dwyer†	Rep., Elizabeth
13	Cornelius E. Gallagher*	Dem., Bayonne
14	Domlnick V. Daniels*	Dem., Jersey City
15	Edward J. Patten*	Dem., Jersey Amboy

NEW MEXICO		
1	Manuel Lujan, Jr.*	Rep., Albuquerque
2	Ed Foreman	Rep., Las Cruces

NEW YORK		
1	Otis G. Pike*	Dem., Riverhead
2	James R. Grover, Jr.*	Rep., Babylon
3	Lester L. Wolff*	Dem., Great Neck
4	John W. Wyder*	Rep., Garden City
5	Allard K. Lowenstein	Dem., New York City
6	Seymour Halpern*	Rep., Forest Hills
7	Joseph P. Addabbo*	Dem., Ozone Park
8	Benj. S. Rosenthal*	Dem., Elmhurst
9	James J. Delancy*	Dem., L. I. City
10	Emmanuel Celler*	Dem., Brooklyn
11	Frank J. Brasco*	Dem., Brooklyn
12	Shirley Chisholm†	Dem., Brooklyn
13	Bertram L. Podell*	Dem., Brooklyn
14	John J. Rooney*	Dem., Brooklyn
15	Hugh L. Carey*	Dem., Brooklyn
16	John M. Murphy*	Dem., Staten Island
17	Edward I. Koch	Dem., New York City
18	Adam C. Powell	Dem., New York City

Districts	Representatives	P. O. Address
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NEW YORK (continued)		
19	Leonard Farbsteln*	Dem., New York City
20	William Fitts Ryan*	Dem., New York City
21	James H. Scheuer*	Dem., Bronx
22	Jacob H. Gilbert*	Dem., New York City
23	Jonathan B. Bingham*	Dem., Bronx
24	Mario Blaggi	Dem., Bronx
25	Richard L. Ottinger*	Dem., Pleasantville
26	Ogden R. Reid*	Rep., Purchase
27	Martin B. McKneally	Rep., Newburgh
28	Hamilton Fish, Jr.	Rep., Millbrook
29	Daniel E. Burton*	Rep., Albany
30	Carleton J. King*	Rep., Saratoga Springs
31	Robert C. McEwen*	Rep., Ogdensburg
32	Alexander Pirnie*	Rep., New Hartford
33	Howard Robison*	Rep., Owego
34	James M. Hanley*	Dem., Syracuse
35	Samuel S. Stratton*	Dem., Amsterdam
36	Frank J. Horton*	Rep., Rochester
37	Barber B. Conable, Jr.*	Rep., Alexander
38	James F. Hastings	Rep., Allegany
39	Richard D. McCarthy*	Dem., Buffalo
40	Henry P. Smith*	Rep., N. Tonawanda
41	Thaddeus J. Dulski*	Dem., Buffalo

NORTH CAROLINA		
1	Walter B. Jones*	Dem., Farmville
2	L. H. Fountain*	Dem., Tarboro
3	David N. Henderson*	Dem., Wallace
4	Nick Galifianakis*	Dem., Durham
5	Wilmer Mizell	Rep., Winston-Salem
6	L. Richardson Preyer	Dem., Greensboro
7	John L. Lennon*	Rep., Wilmington
8	Earl B. Ruth	Rep., Salisbury
9	Charles R. Jonas*	Rep., Lincolnton
10	James T. Broyhill*	Rep., Arden
11	Roy A. Taylor*	Dem., Black Mountain

NORTH DAKOTA		
1	Mark Andrews*	Rep., Mapleton
2	Thomas S. Kleppe*	Rep., Bismarck

OHIO		
1	Robert Taft, Jr.*	Rep., Mapleton
2	Donald D. Clancy*	Rep., Cincinnati
3	Charles W. Whalen, Jr.*	Rep., Dayton
4	William M. McCulloch*	Rep., Piqua
5	Delbert L. Latta*	Rep., Bowling Green
6	William H. Harsha*	Rep., Portsmouth
7	Clarence J. Brown, Jr.*	Rep., Urbana
8	Jackson E. Betts*	Rep., Findlay
9	Thomas L. Ashley*	Dem., Waterville
10	Clarence E. Miller*	Rep., Lancaster
11	J. William Stanton*	Rep., Painesville
12	Samuel L. Devine*	Rep., Columbus
13	Charles A. Mosher*	Rep., Oberlin
14	William H. Ayres*	Rep., Akron
15	Chalmers P. Wylie*	Rep., Columbus
16	Frank T. Bow*	Rep., Canton (R.F.D.)
17	John M. Ashbrook*	Rep., Johnstown
18	Wayne L. Hayes*	Dem., Flushing
19	Michael J. Kirwan*	Dem., Youngstown
20	Michael A. Feighan*	Dem., Cleveland
21	Louis Stokes*	Dem., Shaker Heights
22	Charles A. Vanik*	Dem., Cleveland
23	William E. Minshall*	Rep., Cleveland
24	Donald E. Lukens*	Rep., Middletown

OKLAHOMA		
1	Page Belcher*	Rep., Enid
2	Ed Edmondson*	Dem., Muskogee
3	Carl Albert*	Dem., McAlester
4	Tom Steed*	Dem., Shawnee
5	John Jarman*	Dem., Oklahoma City
6	John N. Happy Camp	Rep., Waukomis

OREGON		
1	Wendell Wyatt*	Rep., Astoria
2	Al Ullman*	Dem., Baker
3	Edith Green†	Dem., Portland
4	John R. Dellenback*	Rep., Medford

PENNSYLVANIA		
1	William A. Barrett*	Dem., Philadelphia
2	Robert N. C. Nix*	Dem., Philadelphia
3	James A. Byrne*	Dem., Philadelphia
4	Joshua Ellberg*	Dem., Philadelphia
5	William J. Green*	Dem., Philadelphia
6	Gus Yatron	Rep., Reading
7	Lawrence G. Williams*	Rep., Springfield
8	Edward B. Bieker, Jr.*	Rep., Pottsville
9	G. Robert Watkins*	Rep., West Chester
10	Joseph M. McDade*	Rep., Scranton
11	Daniel J. Flood*	Dem., Wilkes-Barre
12	J. Irving Whalley*	Rep., Windber
13	R. Lawrence Coughlin	Rep., Villanova
14	William S. Moorhead*	Dem., Pittsburgh
15	Fred B. Rooney*	Dem., Bethlehem
16	Edwin D. Eshleman*	Rep., Lancaster
17	Herman T. Schneebeli*	Rep., Williamsport
18	Robert J. Corbett*	Rep., Pittsburgh
19	George A. Goodling*	Rep., Loganville
20	Joseph Gaydos*	Dem., McKeesport
21	John H. Dent*	Rep., Jeannette
22	John P. Saylor*	Rep., Gettysburg
23	Albert W. Johnson*	Rep., Smithport
24	Joseph P. Vigorito*	Dem., Erie
25	Frank M. Clark*	Dem., Bessemer
26	Thomas E. Morgan*	Dem., Fredericktown
27	James G. Fulton*	Rep., Pittsburgh

Districts	Representatives	P. O. Address	Districts	Representatives	P. O. Address
RHODE ISLAND			UTAH		
1 F. J. St. Germain*	Dem.	Woonsocket	1 Lawrence J. Burton*	Rep.	Ogden
2 Robert O. TERNAN*	Dem.	Warwick	2 Sherman P. Lloyd*	Rep.	Salt Lake City
SOUTH CAROLINA			VERMONT—At Large		
1 L. Mendel Rivers*	Dem.	Charleston	Robert T. Stafford*	Rep.	Rutland City
2 Albert Watson*	Rep.	Columbia	VIRGINIA		
3 W. J. Bryan Dorn*	Dem.	Greenwood	1 Thomas N. Downing*	Dem.	Newport News
4 James R. Mann	Dem.	Greenville	2 G. William Whitehurst*	Rep.	Norfolk
5 Thomas S. Gettys*	Dem.	Rock Hill	3 David E. Satterfield*	Dem.	Richmond
6 John L. McMillan*	Dem.	Florence	4 Watkins M. Abbott*	Dem.	Appomattox
SOUTH DAKOTA			5 W. C. Daniel	Dem.	Danville
1 Ben Reifel*	Rep.	Aberdeen	6 Richard H. Poff*	Rep.	Radford
2 E. Y. Berry*	Rep.	McLaughlin	7 John O. Marsh, Jr.*	Dem.	Strasburg
TENNESSEE			8 William L. Scott*	Rep.	Fairfax
1 James H. Quillen*	Rep.	Kingsport	9 William C. Wampler*	Rep.	Bristol
2 John J. Duncan*	Rep.	Knoxville	10 Joel T. Broynhill*	Rep.	Arlington
3 W. E. (Bill) Brock*	Rep.	Chattanooga	WASHINGTON		
4 Joe L. Evans*	Dem.	Smithville	1 Thomas M. Pelly*	Rep.	Seattle
5 Richard Fulton	Rep.	Nashville	2 Lloyd Meeds*	Dem.	Everett
6 William E. Anderson*	Dem.	Waverly	3 Julia B. Hansen*	Dem.	Cathlamet
7 Ray Blanton*	Dem.	Adamsville	4 Catherine May*	Rep.	Yakima
8 Robert A. Everett*	Dem.	Union City	5 Thomas S. Foley*	Dem.	Spokane
9 Dan Kuykendall*	Rep.	Memphis	6 Floyd V. Hicks*	Dem.	Tacoma
TEXAS			7 Brock Adams*	Dem.	Seattle
1 Wright Patman*	Dem.	Texarkana	WEST VIRGINIA		
2 John Dowdy*	Dem.	Athens	1 Robert H. Mollohan	Dem.	Fairmont
3 Jim Collins*	Rep.	Grand Prairie	2 Harley O. Staggers*	Dem.	Keyser
4 Ray Roberts*	Dem.	McKinney	3 John M. Slack, Jr.*	Dem.	Charleston
5 Earle Cabell*	Dem.	Dallas	4 Ken Hechler*	Dem.	Huntington
6 Olin E. Teague*	Dem.	College Station	5 James Kee*	Dem.	Bluefield
7 George Bush*	Rep.	Houston	WISCONSIN		
8 Bob Eckhardt*	Dem.	Houston	1 Henry C. Schadeberg*	Rep.	Burlington
9 Jack Brooks*	Dem.	Beaumont	2 Robert Kastenmeier*	Dem.	Watertown
10 J. J. Pickle*	Dem.	Austin	3 Vernon W. Thomson*	Rep.	Richland Center
11 W. R. Poage*	Dem.	Waco	4 Clement J. Zablocki*	Dem.	Milwaukee
12 James C. Wright*	Dem.	Ft. Worth	5 Henry S. Reuss*	Dem.	Milwaukee
13 Graham B. Purcell*	Dem.	Wichita Falls	6 William A. Steiger*	Rep.	Oshkosh
14 John Young*	Dem.	Corpus Christi	7 Melvin R. Laird*	Rep.	Marshfield
15 Elligio De La Garza*	Dem.	Misslon	8 John W. Byrnes*	Rep.	Green Bay
16 Richard C. White*	Dem.	El Paso	9 Glenn R. Davis*	Rep.	New Berlin
17 Omar Burleson*	Dem.	Anson	10 Alvin E. O'Konski*	Rep.	Mercer
18 Robert Price*	Rep.	Pampa	WYOMING—At Large		
19 George H. Mahon*	Dem.	Lubbock	John Wold	Rep.	Casper
20 Henry B. Gonzalez*	Dem.	San Antonio	PUERTO RICO		
21 O. C. Fisher*	Dem.	San Angelo	Resident Commissioner		
22 Bob Casey*	Dem.	Houston	Jorge Luis Cordova-Diaz		San Juan
23 Abraham Kazen, Jr.*	Dem.	Laredo			

50th Congress House Officials—Subject to

The Speaker—John W. McCormack
 Parliamentarian—Lewis Deschler
 Chaplain—Rev. Edward G. Latch, D.D.
 Majority Leader—Carl Albert
 Majority Whip—Hale Boggs

change in 91st Congress January 1969

Minority Leader—Gerald R. Ford
 Minority Whip—Leslie C. Arends
 Clerk of the House—W. Pat Jennings
 Sergeant at Arms—Zeake W. Johnson, Jr.
 Doorkeeper—William M. Miller
 Postmaster—H. H. Morris

Speakers of the House of Representatives

Party designations: A, American; D, Democratic; DR, Democratic Republican; F, Federalist; R, Republican; W, Whig. *Served only one day.

Name	Party, State	Tenure	Name	Party, State	Tenure
Frederick A. C. Muhlenberg	F. Pa.	1789-1791	Galusha A. Grow	R. Pa.	1861-1863
Jonathan Trumbull	F. Conn.	1791-1793	Schuyler Colfax	R. Ind.	1863-1869
Frederick A. C. Muhlenberg	F. Pa.	1793-1795	*Theodore M. Pomeroy	R. N. Y.	1869-1869
Jonathan Dayton	F. N. J.	1795-1799	James G. Blaine	R. Me.	1869-1875
Theodore Sedgwick	F. Mass.	1799-1801	Michael C. Kerr	D. Ind.	1875-1876
Nathaniel Macon	DR, N. C.	1801-1807	Samuel J. Randall	D. Pa.	1876-1881
Joseph B. Varnum	DR, Mass.	1807-1811	Joseph W. Kelfer	R. Ohio	1881-1883
Henry Clay	DR, Ky.	1811-1814	John G. Carlisle	D. Ky.	1883-1889
Langdon Cheves	DR, S. C.	1814-1815	Thomas B. Reed	R. Me.	1889-1891
Henry Clay	DR, Ky.	1815-1820	Charles F. Crisp	D. Ga.	1891-1895
John W. Taylor	DR, N. Y.	1820-1821	Thomas B. Reed	R. Me.	1895-1899
Phillip P. Barbour	DR, Va.	1821-1823	David B. Henderson	R. Iowa	1899-1903
Henry Clay	DR, Ky.	1823-1825	Joseph G. Cannon	R. Ill.	1903-1911
John W. Taylor	D. N. Y.	1825-1827	Champ Clark	D. Mo.	1911-1919
Andrew Stevenson	D. Va.	1827-1834	Frederick H. Gillett	R. Mass.	1919-1925
John Bell	D. Tenn.	1834-1835	Nicholas Longworth	R. Ohio	1925-1931
James K. Polk	D. Tenn.	1835-1839	Henry F. Rainey	D. Tex.	1931-1933
Robert M. T. Hunter	D. Va.	1839-1841	Joseph W. Byrnes	D. Ill.	1933-1935
John White	W. Ky.	1841-1843	Sam Rayburn	D. Tenn.	1935-1936
John W. Jones	D. Va.	1843-1845	William B. Bankhead	D. Ala.	1936-1940
John W. Davis	D. Ind.	1845-1847	Sam Rayburn	D. Tex.	1940-1947
Robert C. Winthrop	W. Mass.	1847-1849	Joseph W. Martin, Jr.	R. Mass.	1947-1949
Howell Cobb	D. Ga.	1849-1851	Sam Rayburn	D. Tex.	1949-1953
Linn Boyd	D. Ky.	1851-1855	Joseph W. Martin, Jr.	R. Mass.	1953-1955
Nathaniel P. Banks	A. Mass.	1856-1857	Sam Rayburn	D. Tex.	1955-1961
James L. Orr	D. S. C.	1857-1859	John W. McCormack	D. Mass.	1962-
William Pennington	R. N. J.	1860-1861			

Wallace Tops 3rd Party Candidates Numerically But Not Percentage-Wise

George C. Wallace, running for President in 1968 as a 3rd party candidate, garnered more votes than any other such candidate ever did. But he did not top the percentages of the total vote rolled up by some earlier 3rd spot runners.

His high numerical total was achieved mainly because he was on the ballot in 50 states and because 1968 saw more voters at the polls than any previous Presidential election.

In 1912, former President Theodore Roosevelt, Progressive, won 27.4% of the popular vote and 88 electoral votes; in 1924, Robert M. La Follette, Progressive, had 17% and 13 electoral votes; in 1948, Strom Thurmond, States' Rights, took 2.4% and 39 electoral votes while Henry A. Wallace also got 2.4% but no electoral votes; in 1968, George Wallace won 13.2% and 45 electoral votes.

GOVERNORS AND STATE GOVERNMENT OFFICIALS

State	Capital	Governor	Party	Term Years	Term Expires	Annual Salary
Alabama.....	Montgomery.....	Albert P. Brewer.....	Dem.	4	Jan. 1971	\$25,000
Alaska.....	Juneau.....	Walter J. Hickel.....	Rep.	4	Jan. 1971	27,500
Arizona.....	Phoenix.....	John R. Williams.....	Rep.	2	Jan. 1971	22,500
Arkansas.....	Little Rock.....	Winthrop Rockefeller.....	Rep.	2	Jan. 1971	10,000
California.....	Sacramento.....	Ronald Reagan.....	Rep.	4	Jan. 1971	44,100
Colorado.....	Denver.....	John A. Love.....	Rep.	4	Jan. 1971	20,000
Connecticut.....	Hartford.....	John N. Dempsey.....	Dem.	4	Jan. 1971	35,000
Delaware.....	Dover.....	Russell W. Peterson.....	Rep.	4	Jan. 1973	25,000
Florida.....	Tallahassee.....	Claude R. Kirk, Jr.....	Rep.	4	Jan. 1971	36,000
Georgia.....	Atlanta.....	Lester G. Maddox.....	Dem.	4	Jan. 1971	42,500
Hawaii.....	Honolulu.....	John A. Burns.....	Dem.	4	Jan. 1971	33,500
Idaho.....	Boise.....	Don Samuelson.....	Rep.	4	Jan. 1971	17,500
Illinois.....	Springfield.....	Richard B. Ogilvie.....	Rep.	4	Jan. 1973	45,000
Indiana.....	Indianapolis.....	Edgar D. Whitcomb.....	Rep.	4	Jan. 1973	25,000
Iowa.....	Des Moines.....	Robert D. Ray.....	Rep.	4	Jan. 1971	30,000
Kansas.....	Topeka.....	Robert B. Docking.....	Dem.	2	Jan. 1971	20,000
Kentucky.....	Frankfort.....	Loyle E. Nunn.....	Rep.	4	Dec. 1971	30,000
Louisiana.....	Baton Rouge.....	John J. McKeithen.....	Dem.	4	May 1972	20,000
Maine.....	Augusta.....	Kenneth M. Curtis.....	Dem.	4	Jan. 1971	20,000
Maryland.....	Annapolis.....	Spiro T. Agnew*.....	Rep.	4	Jan. 1971	25,000
Massachusetts.....	Boston.....	John A. Volpe.....	Rep.	4	Jan. 1971	35,000
Michigan.....	Lansing.....	George W. Romney.....	Rep.	4	Jan. 1971	40,000
Minnesota.....	St. Paul.....	Harold LeVander.....	Rep.	4	Jan. 1971	27,500
Mississippi.....	Jackson.....	John Bell Williams.....	Dem.	4	Jan. 1972	25,000
Missouri.....	Jefferson City.....	Warren E. Hearnes.....	Dem.	4	Jan. 1973	37,500
Montana.....	Helena.....	Forrest H. Anderson.....	Dem.	4	Jan. 1973	23,250
Nebraska.....	Lincoln.....	Norbert T. Tiemann.....	Rep.	4	Jan. 1971	18,000
Nevada.....	Carson City.....	Paul Laxalt.....	Rep.	2	Jan. 1971	25,000
New Hampshire.....	Concord.....	Walter R. Peterson, Jr.....	Rep.	2	Jan. 1971	30,000
New Jersey.....	Trenton.....	Richard J. Hughes.....	Dem.	4	Jan. 1970	35,000
New Mexico.....	Santa Fe.....	David E. Cargo.....	Rep.	2	Jan. 1971	17,500
New York.....	Albany.....	Nelson A. Rockefeller.....	Dem.	4	Jan. 1971	50,000
North Carolina.....	Raleigh.....	Robert W. Scott.....	Dem.	4	Jan. 1973	35,000
North Dakota.....	Bismarck.....	William L. Guy.....	Dem.	4	Jan. 1973	18,000
Ohio.....	Columbus.....	James A. Rhodes.....	Rep.	4	Jan. 1971	40,000
Oklahoma.....	Oklahoma City.....	Dewey F. Bartlett.....	Rep.	4	Jan. 1971	25,000
Oregon.....	Salem.....	Tom McCall.....	Rep.	4	Jan. 1971	25,000
Pennsylvania.....	Harrisburg.....	Raymond P. Shafer.....	Rep.	4	Jan. 1971	45,000
Rhode Island.....	Providence.....	Frank Licht.....	Dem.	2	Jan. 1971	30,000
South Carolina.....	Columbia.....	Robert E. Mc Nair.....	Dem.	4	Jan. 1971	25,000
South Dakota.....	Pierre.....	Frank Farrar.....	Rep.	2	Jan. 1971	18,000
Tennessee.....	Nashville.....	Buford Ellington.....	Dem.	4	Jan. 1971	18,500
Texas.....	Austin.....	Preston Smith.....	Dem.	2	Jan. 1971	40,000
Utah.....	Salt Lake City.....	Calvin L. Rampton.....	Dem.	4	Jan. 1973	18,000
Vermont.....	Montpelier.....	Deane C. Davis.....	Rep.	2	Jan. 1971	25,000
Virginia.....	Richmond.....	Mills E. Godwin, Jr.....	Dem.	4	Jan. 1970	30,000
Washington.....	Olympia.....	Daniel J. Evans.....	Rep.	4	Jan. 1973	32,500
West Virginia.....	Charleston.....	Arch A. Moore.....	Rep.	4	Jan. 1973	25,000
Wisconsin.....	Madison.....	Warren P. Knowles.....	Rep.	2	Jan. 1971	25,000
Wyoming.....	Cheyenne.....	Stanley K. Hathaway.....	Rep.	4	Jan. 1971	20,000
Possessions						
American Samoa.....	Pago Pago.....	Owen S. Aspinall.....	Dem.	(a)		24,500
Guam.....	Agana.....	Manuel F. L. Guerrero.....	Dem.	4	Mar. 1971	25,890
Puerto Rico.....	San Juan.....	Luis Ferré.....	Prog.	4	Jan. 1973	25,000
Virgin Islands.....	Charlotte Amalie.....	Ralph M. Palewonsky.....	Dem.	(†)		28,000

*Successor picked by Legislature Jan. 1969; (a) Appointed by Interior Dept.; (†) Appointed by President.

Governments of States and Possessions

Compiled by World Almanac from statistics supplied by the Secretaries of State.

Below appears the makeup of each state's government as constituted after 1968 elections except in Arkansas, Illinois, Maine, New Hampshire, North Dakota, Tennessee, and Vermont. In those states, as well as American Samoa and Puerto Rico, an asterisk indicates that information may be outdated because of elections or new appointments. All the governors are listed as after 1968 elections.

Alabama

Governor—Albert P. Brewer, D., \$25,000.
Lt. Governor—Vacant, \$32 per legislative day,
plus annual salary of \$300 per month.
Sec. of State—Mabel S. Amos, D., \$15,000.
Atty. General—MacDonald Gallion, D., \$18,000.
Treasurer—Mrs. Agnes Baggett, D., \$15,000.
Auditor—Melba Thi Allen, D., \$15,000.
Supt. of Educ.—Ernest Stone, D., \$15,000.
Comm. of Agric.—Richard Beard, D., \$15,000.

LEGISLATURE

Meets odd years, 1st Tues. in May, at Montgomery. Members receive \$30 per day during legislative sessions, annual salary of \$300 per month, plus 10¢ per mile travel allowance (one round trip between home and Capitol).

Senate—Dem., 34; Rep., 1. Total, 35.

House—Dem., 106. Total, 106.

Alaska

Governor—Walter J. Hickel, R., \$27,000.
Sec. of State—Keith Miller, R., \$23,700.
Administration—Robert W. Ward, \$23,700.
Education—Dr. Clifford R. Hartman, \$23,700.
Health & Welfare—J. Scott McDonald, \$23,700.
Law—G. Kent Edwards, \$23,700.

LEGISLATURE

Meets annually, in January at Juneau, for as long as may be necessary. First session in odd years. Members receive \$6,000 per year plus \$35 per day while in session, \$500 allowance for secretarial services, plus one round trip first class airfare from residence to Juneau.

Senate—Rep., 11; Dem., 9. Total, 20.

House—Dem., 22; Rep., 18. Total, 40.

Arizona

Governor—John R. Williams, R., \$22,500.
Sec. of State—Wesley Bolin, D., \$13,000.
Atty. General—Gary Nelson, R., \$16,800.
Treasurer—Morris A. Herring, R., \$10,800.

LEGISLATURE

Meets annually, in January, at Phoenix. Members receive \$1,800 for each regular session, plus expenses and travel allowance; \$20 per day for special sessions.

Senate—Dem., 13; Rep., 17. Total, 30.

House—Dem., 26; Rep., 34. Total, 60.

Arkansas

Governor—Winthrop Rockefeller, R., \$10,000.
*Lt. Governor—Footsie Britt, R., \$2,500.
*Sec. of State—Kelly Bryant, D., \$5,000.
*Auditor—Jimmy Jones, D., \$5,000.
*Atty. General—Joseph Purcell, D., \$6,000.
*Treasurer—Mrs. Nancy J. Hall, D., \$5,000.

GENERAL ASSEMBLY

Meets odd year, in January, at Little Rock. Members receive \$2,400 for each two-year period, \$20 a day while in session, plus 5¢ a mile travel expense.

*Senate—Dem., 35 (total).

*House—Dem., 97; Rep., 3. Total, 100.

California

Governor—Ronald Reagan, R., \$44,100.
Lt. Governor—Robert H. Finch, R., \$25,000.
Sec. of State—Frank M. Jordan, R., \$25,000.
Controller—Houston I. Flournoy, R., \$25,000.
Atty. General—Thomas C. Lynch, D., \$32,000.
Treasurer—Ivy Baker Priest, R., \$25,000.
Supt. Public Instr.—Max Rafferty, N.P., \$25,000.

LEGISLATURE

Meets in annual general sessions, unlimited as to duration. Members receive \$16,000 per year plus mileage and \$21 daily expenses while in session. Daily expenses on interim business: \$25.

Senate—Dem., 20; Rep., 20. Total, 40.
Assembly—Dem., 39; Rep., 41. Total, 80.

Colorado

Governor—John A. Love, R., \$20,000.
Lt. Governor—Mark Hogan, D., \$4,800.
Sec. of State—Byron Anderson, R., \$10,000.
Auditor—John R. Proctor, R., \$18,500.
Atty. General—Duke W. Dunbar, R., \$15,000.
Treasurer—Virginia Blue, R., \$10,000.

GENERAL ASSEMBLY

Meets annually, in January, at Denver. Members receive \$3,600 annually plus \$25 per session day with a maximum of 140 days in two years.
Senate—Dem., 11; Rep., 24. Total, 35.
House—Dem., 27; Rep., 38. Total, 65.

Connecticut

Governor—John N. Dempsey, D., \$35,000.
Lt. Governor—A. R. Frassinelli, D., \$10,000.
Sec. of State—Mrs. Ella T. Grasso, D., \$15,000.
Treasurer—Gerald A. Lamb, D., \$15,000.
Comptroller—Louis I. Gladstone, D., \$15,000.
Atty. General—Robert K. Killian, D., \$20,000.

GENERAL ASSEMBLY

Meets odd years, in January, at Hartford. Members receive \$3,250 salary plus \$750 for expenses per term and travel allowance of 10¢ per mile.
Senate—Dem., 24; Rep., 12. Total, 36.
House—Dem., 110; Rep., 67. Total, 177.

Delaware

Governor—Russell W. Peterson, R., \$25,000.
Lt. Governor—Eugene D. Bookhammer, R., \$9,000.
Auditor—George Cripps, R., \$12,000.
Atty. General—David P. Buckson, R., \$15,000.
Treasurer—Daniel J. Ross, R., \$12,000.

GENERAL ASSEMBLY

Meets annually at Dover, odd years in January, even years in February. Members receive \$6,000 per year.
Senate—Dem., 6; Rep., 13. Total, 19.
House—Dem., 13; Rep., 26. Total, 39.

Florida

Governor—Claude R. Kirk, Jr., R., \$36,000.
Sec. of State—Tom Adams, D., \$3,000.
Comptroller—Fred O. Dickinson, Jr., D., \$29,000.
Atty. General—Earl Faircloth, Jr., D., \$29,000.
Treasurer—Broward Williams, D., \$29,000.
Supt. Publ. Instr.—Floyd T. Christian, D., \$29,000.
Comm. of Agric.—Doyle Conner, D., \$29,000.

LEGISLATURE

Meets annually, in April, at Tallahassee. Members receive \$1,200 per year plus \$300 expense allowance per month during session.
Senate—Dem., 32; Rep., 16. Total, 48.
House—Dem., 77; Rep., 42. Total, 119.

Georgia

Governor—Lester G. Maddox, D., \$42,500.
Lt. Governor—George T. Smith, D., \$20,000.
Sec. of State—Ben W. Fortson, Jr., D., \$22,500.
Comptroller General—James L. Bentley, Jr., R., \$22,500.
Atty. General—Arthur K. Bolton, D., \$26,000.

GENERAL ASSEMBLY

Meets annually, at Atlanta. Members receive \$4,200 per year, and during session an additional \$25 per day for expenses.
Senate—Dem., 48; Rep., 6; Ind., 1; Run-off, 1. Total, 56.
House—Dem., 168; Rep., 28; Run-off, 1. Total, 195.

Hawaii

Governor—John A. Burns, D., \$33,500.
Lt. Governor—Thomas P. Gill, D., \$27,500.
Comptroller—Kelan Kim, D., \$13,000-\$22,000.
Atty. General—Bert T. Kobayashi, D., \$18,500-\$25,000.
Dir. of Finance—Andrew T. F. Ing, D., \$18,500-\$25,000.
Supt. of Education—Ralph H. Kiyosaki, Ind., \$18,500-\$25,000.
Dir. of Health—Dr. Walter B. Quisenberry, D., \$18,500-\$25,000.
Governor determines specific salary.
Bd. of Education sets specific salary.

LEGISLATURE

Meets annually, in January, at Honolulu. Members receive \$12,000 per year plus allowance for expenses.
Senate—Dem., 16; Rep., 9. Total, 25.
House—Dem., 39; Rep., 12. Total, 51.

Idaho

Governor—Don Samuelson, R., \$17,500.
Lt. Governor—Jack M. Murphy, R., \$3,600, plus \$30 per day expenses sessions of legislature. In

absence of Governor acts in his stead and draws regular pay of Governor.

Sec. of State—Pete T. Cenarrusa, R., \$12,500.
Treasurer—Marjorie Ruth Moon, D., \$12,500.
Atty. General—Allan G. Shepard, R., \$12,500.
Auditor—Joe R. Williams, D., \$12,500.
Supt. Publ. Instr.—D. F. Engelking, D., \$12,500.

LEGISLATURE

Meets annually, on second Monday in January, at Boise. Members receive \$10 per day served, plus \$25 per day expenses.
Senate—Rep., 22; Dem., 13. Total, 35.
House—Rep., 39; Dem., 31. Total, 70.

Illinois

Governor—Richard B. Ogilvie, R., \$45,000.
Lieut. Governor—Paul Simon, D., \$16,000.
Sec. of State—Paul Powell, D., \$20,000.
Auditor—Michael J. Howlett, D., \$20,000.
Atty. General—William J. Scott, R., \$20,000.
Treasurer—Adlai E. Stevenson, 3rd., D., \$30,000.
Supt. Public Instr.—Ray Page, R., \$30,000.

GENERAL ASSEMBLY

Meets odd years, in January, at Springfield. Members receive \$18,000 for the biennium.
*Senate—Rep., 38; Dem., 20. Total, 58.
*House—Rep., 99; Dem., 78. Total, 177.

Indiana

Governor—Edgar D. Whitcomb, R., \$25,000.
Lt. Governor—Richard E. Folz, R., \$16,500.
\$1,800 per year as President of Senate, plus \$5 per day during legislative sessions.
Sec. of State—William N. Salin, R., \$16,500.
Auditor—Trudy S. Etherton, R., \$16,500.
Atty. General—Theodore L. Sendak, R., \$18,000.
Treasurer—John K. Snyder, R., \$16,500.
Supt. Publ. Instr.—Richard D. Wells, R., \$18,000.

GENERAL ASSEMBLY

Meets odd years, in January, at Indianapolis. Members receive \$1,800 per year, and \$4 per mile for one round trip per week.
Senate—Rep., 35; Dem., 15. Total, 50.
House—Rep., 73; Dem., 27. Total, 100.

Iowa

Governor—Robert D. Ray, R., \$30,000.
Lt. Governor—Roger W. Jepsen, R., \$80 per day while in session.
Sec. of State—Melvin D. Synhorst, R., \$16,000.
Auditor—Lloyd R. Smith, R., \$16,000.
Atty. General—Richard C. Turner, R., \$21,000.
Treasurer—Maurice E. Baringer, R., \$16,000.
Sec. of Agriculture—L. B. Liddy, R., \$16,000.

GENERAL ASSEMBLY

Meets annually, in January, at Des Moines. Members receive \$40 per day for the session.
Senate—Dem., 16; Rep., 45. Total, 61.
House—Dem., 38; Rep., 86. Total, 124.

Kansas

Governor—Robert Docking, D., \$20,000.
Lt. Governor—James H. De Coursey, Jr., D., \$8,000.
Sec. of State—Mrs. E. M. Shanahan, R., \$12,650.
Auditor—Clay E. Hedrick, R., \$12,650.
Atty. General—Kent Frizzell, R., \$17,500.
Treasurer—Walter H. Perry, R., \$12,650.
Comm. of Insurance—Frank Sullivan, R., \$16,500.

LEGISLATURE

Meets annually in January, at Topeka. Members receive \$10 a day plus \$25 a day expenses, total not to exceed \$3,150 for a regular or \$1,050 for a special or budget session; also an expense allowance between sessions and mileage.
Senate—Rep., 32; Dem., 8. Total, 40.
House—Rep., 87; Dem., 38. Total, 125.

Kentucky

Governor—Louie B. Nunn, R., \$30,000.
Lt. Gov.—Wendell Ford, D., \$20,000, plus additional compensation when acting in place of Governor.
Sec. of State—Elmer Begley, R., \$18,000.
Auditor—Clyde Conley, R., \$18,000.
Atty. Gen.—John Breckinridge, Jr., \$20,000.
Treasurer—Thelma Stovall, D., \$18,000.
Supt. Public Instr.—Wendell Butler, D., \$20,000.
Comm. of Agric.—Robert Miller, R., \$18,000.

GENERAL ASSEMBLY

Meets even years, in January, at Frankfort. Members receive \$25 per day during session; presiding officers, \$30. All members also receive \$25 per day for expenses.
Senate—Dem., 24; Rep., 14. Total, 38.
House—Dem., 57; Rep., 43. Total, 100.

Louisiana

Governor—John J. McKeithen, D., \$20,000.
Lt. Governor—C. C. Aycock, D., \$18,500.
Sec. of State—Wade O. Martin, Jr., D., \$18,700.
Atty. General—J. P. F. Gremlillon, D., \$18,700.
Treasurer—Mary Evelyn Parker, D., \$14,850.
Supt. of Education—William J. Dodd, D., \$18,700.

LEGISLATURE

Meets even years (60 calendar days) and odd years (30 calendar days) in May, at Baton Rouge. Members receive \$50 per day and mileage during the 60 days session of 10c a mile for 8 round trips. When the Legislature is not in session, members receive \$250 per month as an expense allowance.

Senate—Dem., 39 (total).
House—Dem., 105 (total).

Maine

Governor—Kenneth Curtis, D., \$20,000.
Sec. of State—Joseph T. Edgar, R.
Atty. General—James S. Erwin, R.
Commissioner of Finance—Maurice F. Williams.
Auditor—Armand G. Sansoucy.

LEGISLATURE

Meets odd years, in Jan., at Augusta. Members receive \$2,000 per session; presiding officials, \$2,300.
*Senate—Dem., 10; Rep., 24. Total, 34.
*House—Dem., 55; Rep., 96. Total, 151.

Maryland

Governor—Spiro T. Agnew, R., \$25,000.
Note—Legislature to choose successor to Vice President-elect Agnew in January, 1969.
Sec. of State—C. Stanley Blair, R., \$12,000.
Auditor—Howard F. Wiedy, R., \$16,000.
Comptroller—Louis L. Goldstein, D., \$20,000.
Atty. General—Francis B. Burch, D., \$20,000.
Treasurer—John A. Luetkemeyer, D., \$2,500.

GENERAL ASSEMBLY

Meets 70 days annually on the 3rd Wednesday in January, at Annapolis. Members receive \$2,400 per year; Speaker of House and President of Senate, each \$2,650 per year.
Senate—Dem., 35; Rep., 8. Total, 43.
House—Dem., 117; Rep., 25. Total, 142.

Massachusetts

Governor—John A. Volpe, R., \$35,000.
Lt. Governor—Francis W. Sargent, R., \$20,000.
Sec. of the Commonwealth—John F. X. Davoren, D., \$20,000.
Atty. General—Elliot L. Richardson, R., \$25,000.
Auditor—Thaddeus Buczko, D., \$20,000.
Treasurer—Robert O. Crane, D., \$20,000.

GENERAL COURT (LEGISLATURE)

Meets each January in Boston. Salaries indefinite pending action of new Legislature.
Senate—Dem., 27; Rep., 13. Total, 40.
House—Dem., 173; Rep., 67. Total, 240.

Michigan

Governor—George W. Romney, R., \$40,000.
Lt. Governor—William H. Milliken, R., \$22,500.
Sec. of State—James M. Hare, D., \$30,000.
Atty. General—Frank J. Kelley, D., \$30,000.

LEGISLATURE

Meets annually, in January, at Lansing. Members receive \$12,500 per year plus \$2,500 expense allowance.
Senate—Rep., 20; Dem., 18. Total, 38.
House—Rep., 53; Dem., 57. Total, 110.

Minnesota

Governor—Harold LeVander, R., \$27,500.
Lt. Governor—James B. Goetz, R., \$9,600.
Sec. of State—Joseph L. Donovan, DFL, \$20,500.
Auditor—Stafford King, R., \$20,500.
Atty. General—Douglas M. Head, R., \$22,000.
Treasurer—Val Bjornson, R., \$20,500.
(Democratic-Farmer-Labor is the legal name of the Democratic Party in Minnesota.)

LEGISLATURE

Meets odd years, in January, at St. Paul. Members receive \$4,800 per year plus expense allowance during session.
Senate—67, elected without party designation.
House—135, elected without party designation.

Mississippi

Governor—John Bell Williams, D., \$25,000.
Lt. Gov.—Charles Sullivan, D., \$8,500 per regular legislative session, plus expense allowance.
Sec. of State—Heber Ladner, D., \$16,000.
Auditor—W. H. (Hamp) King, D., \$16,000.
Atty. Gen.—Joe T. Patterson, D., \$16,500.
Treasurer—Evelyn Gandy, D., \$16,000.
Supt. Public Educ.—Garvin Johnson, D., \$16,000.

LEGISLATURE

Meets annually in January, at Jackson. Members receive \$5,000 per regular session, plus travel allowance and \$100 per month while not in session.
Senate—Dem., 52; Rep., 0. Total, 52.
House—Dem., 122; Rep., 0. Total, 122.

Missouri

Governor—Warren E. Hearnes, D., \$37,500.
Lt. Governor—William S. Morris, D., \$16,000.
Sec. of State—James C. Kirkpatrick, D., \$20,000.
Auditor—Haskell Holman, D., \$20,000.

Atty. General—John C. Danforth, R., \$25,000.
Treasurer—M. E. Morris, D., \$20,000.

GENERAL ASSEMBLY

Meets odd years, in January, at Jefferson City. Members receive \$4,800 per year and \$10 per day for expenses plus mileage allowance.
Senate—Dem., 23; Rep., 11. Total, 34.
House—Dem., 109; Rep., 54. Total, 163.

Montana

Governor—Forrest H. Anderson, D., \$23,250.
Lt. Governor—Thomas L. Judge, D., 60 days Legislative pay at \$25.00 per day, plus \$15 per day for expenses; average governor's pay while serving as governor.
Sec. of State—Frank Murray, D., \$10,500.
Auditor—E. V. (Sonny) Omholt, R., \$10,500.
Atty. General—Bob Woodahl, R., \$15,500.
Treasurer—Alex B. Stephenson, R., \$10,500.
Supt. Public Instr.—Dolores Colburn, D., \$13,750.

LEGISLATIVE ASSEMBLY

Meets odd years, in January, at Helena. Members receive \$20 per day plus \$15 per day for expenses while in session.
Senate—Dem., 30; Rep., 25. Total, 55.
House—Dem., 46; Rep., 58. Total, 104.

Nebraska

Governor—Norbert T. Tiemann, R., \$18,000.
Lt. Governor—John E. Everroad, R., \$6,000.
Sec. of State—Frank Marsh, R., \$12,500.
Auditor—Ray C. Johnson, R., \$12,500.
Atty. General—Clarence A. Meyer, R., \$16,000.
Treasurer—Wayne Swanson, R., \$12,500.

LEGISLATURE

Meets odd years in January, at Lincoln. Members receive salary of not more than \$200 per month plus traveling expenses for one round trip to and from session.
Unicameral body composed of 49 members who are elected on a nonpartisan ballot and are classed as Senators.

Nevada

Governor—Paul Laxalt, R., \$25,000.
Lt. Governor—Ed Fike, R., \$4,500 plus \$40 per day when acting as Governor and President of the Senate during legislative sessions.
Sec. of State—John Koonitz, D., \$15,000.
Controller—Wilson McGowen, R., \$15,000.
Atty. General—Harvey Dickerson, D., \$18,000.
Treasurer—Michael Mirabelli, D., \$15,000.

LEGISLATURE

Meets odd years in January, at Carson City. Newly elected members receive \$40 per day for 60 days (20 days for special sessions). Holdover senators \$25 per day with same limitations. All members receive per diem of \$25 per day for 60 days (20 days special session) and \$15 per day in excess of these limitations. Travel allowance of 10¢ per mile.
Senate—Dem., 11; Rep., 9. Total, 20.
Assembly—Dem., 18; Rep., 22. Total, 40.

New Hampshire

Governor—Walter R. Peterson, Jr., R., \$30,000.
*Sec. of State—Robert L. Stark, R., \$13,500—\$15,000 (A).
*Comptroller—Leonard S. Hill, D., \$16,000—\$17,500 (A).
*Atty. General—George S. Pappagianis, D., \$16,000—\$17,500 (A).

(A) Salary depends on number of years served.
GENERAL COURT (LEGISLATURE)
Meets odd years, in January, at Concord. Members receive \$200; presiding officers \$250.
Senate—Rep., 15; Dem., 9. Total, 24.
House—Rep., 255; Dem., 145. Total, 400.

New Jersey

Governor—Richard J. Hughes, D., \$35,000.
Sec. of State—Robert J. Burkhardt, D., \$23,000.
Atty. Gen.—Arthur J. Sills, D., \$25,000.
Treasurer—John A. Kervick, D., \$25,000.
Auditor—George B. Harper, R., \$12,000.

LEGISLATURE

Meets annually, in January, at Trenton. Members receive \$7,500 per year, except President of Senate and Speaker of Assembly who receive ½ more by virtue of their office.
Senate—Dem., 9; Rep., 31. Total, 40.
Assembly—Dem., 22; Rep., 58. Total, 80.

New Mexico

Governor—David F. Cargo, R., \$17,500.
Lt. Governor—E. Lee Francis, R., \$40 per day when presiding over Senate.
Sec. of State—Ernestine D. Evans, D., \$12,500.
Auditor—Harold G. Thompson, R., \$7,200.
Atty. General—James A. Maloney, D., \$17,500.

Treasurer—Jesse D. Kornegay, D., \$12,500.
Comm. Public Lands—Alex J. Armijo, D., \$15,000.

LEGISLATURE

Meets in January, at Santa Fe, odd years for 60 days, even years for 30 days. Members receive \$20 per day while in session.

Senate—Dem., 25; Rep., 17. Total, 42.

House—Dem., 44; Rep., 26. Total, 70.

North Carolina

Governor—Nelson A. Rockefeller, R., \$50,000.
Lt. Governor—Malcolm Wilson, R., \$30,000.
Sec. of State—John P. Lomenzo, R., \$34,765.
Comptroller—Arthur Levitt, D., \$40,000.
Atty. General—Louis J. Lefkowitz, R., \$40,000.

LEGISLATURE

Meets annually, in January, at Albany. Members receive \$15,000 per year.

Senate—Rep., 33; Dem., 24. Total, 57.

Assembly—Rep., 76; Dem., 72; Con., 2. Total, 150.

North Dakota

Governor—Robert W. Scott, D., \$35,000.
Lt. Governor—H. Pat Taylor, Jr., D., \$5,000 per year, plus \$20 per day not to exceed 120 days per regular session, \$4,000 per year expense allowance.
Sec. of State—Thad Eure, D., \$20,000.
Auditor—Henry L. Bridges, D., \$20,000.
Atty. General—Robert Morgan, D., \$20,000.
Treasurer—Edwin Gill, D., \$20,000.
Supt. Public Instr.—Craig Phillips, D., \$20,000.

GENERAL ASSEMBLY

Meets odd years in January, at Raleigh. Members receive \$15 per day not to exceed 120 days, and subsistence and travel allowances while in session.

Senate—Dem., 38; Rep., 12. Total, 50.

House—Dem., 91; Rep., 29. Total, 120.

Ohio

Governor—William L. Guy, D., \$18,000 plus \$6,000 per year expense allowance.
*Lt. Governor—Charles Tighe, D., \$1,600.
*Sec. of State—Ben Meier, R., \$6,000.
*Auditor—Curtis Olson, R., \$6,000.
Atty. General—Helgi Johannesson, R., \$8,500.
*Treasurer—Walter Christensen, D., \$6,000.
*Supt. Public Instruction—M. F. Peterson, N-P., \$7,200. All state officers receive \$5,000 per year for expenses except the Lt. Gov. who receives \$400 for expenses.

LEGISLATIVE ASSEMBLY

Meets odd years, in January at Bismarck. Members receive \$5 per day, plus \$25 per day expense allowance while in session, plus \$35 per month when not in session.

*Senate—Rep., 44; Dem., 5. Total, 49.

*House—Rep., 83; Dem., 15. Total, 98.

Ohio

Governor—James A. Rhodes, R., \$40,000.
Lt. Governor—John W. Brown, R., \$17,000.
Sec. of State—Ted W. Brown, R., \$25,000.
Auditor—Roger Cloud, R., \$25,000.
Treasurer—John D. Herbert, R., \$25,000.
Supt. Public Instr.—Martin W. Essex, \$25,000.

GENERAL ASSEMBLY

Meets annually, in January, at Columbus. Second session commencing not later than Mar. 15 of year following each regular session. Members receive \$12,750 per year plus travel allowance.

Senate—Rep., 21; Dem., 12. Total, 33.

House—Rep., 64; Dem., 35. Total, 99.

Oklahoma

Governor—Dewey Bartlett, R., \$25,000.
Lt. Governor—George Nigh, D., \$9,000.
Sec. of State—John Rogers, D., \$12,600.
Auditor—Joe Bailey Cobb, D., \$9,200.
Atty. General—G. T. Blankenship, R., \$16,500.
Treasurer—Leo Winters, D., \$12,600.
Supt. Public Instr.—Dr. D. D. Creech, R., \$16,500.

LEGISLATURE

Meets each year in January, at Oklahoma City. Members receive the sum of \$8,400 per annum.

Senate—Dem., 38; Rep., 10. Total, 48.

House—Dem., 76; Rep., 23. Total, 99.

Oregon

Governor—Tom McCall, R., \$25,000.
Sec. of State—Clay Myers, R., \$21,000.
Atty. General—Lee Johnson, R., \$20,000.
Treasurer—Robert W. Straub, D., \$21,000.
Supt. Public Instr.—Dale Parnell, (N-P) \$20,000.

LEGISLATIVE ASSEMBLY

Meets odd years, in January, at Salem. Members receive \$250 monthly and \$20 expenses per day during any session.

Senate—Dem., 16; Rep., 14. Total, 30.

House—Dem., 22; Rep., 38. Total, 60.

Pennsylvania

Governor—Raymond P. Shafer, R., \$45,000.
Lt. Governor—Raymond Broderick, R., \$32,500.
Sec. of State—Joseph J. Kelley, Jr., \$25,000.
Auditor of State—Mrs. Grace M. Sloan, D., \$32,500.

Atty. General—William Sennett, R., \$32,500.

Treasurer—Thomas Z. Minehart, D., \$32,500.

GENERAL ASSEMBLY

Meets annually, in January, at Harrisburg. Members receive \$7,200 per year plus \$4,800 for expenses.

Senate—Rep., 27; Dem., 23. Total, 50.

House—Rep., 95; Dem., 108. Total, 203.

Rhode Island

Governor—Frank Licht, D., \$30,000.
Lt. Governor—J. Joseph Garrahy, D., \$12,000.
Sec. of State—August P. La France, D., \$18,000.
Atty. General—Herbert F. DeSimone, R., \$22,000.

Treasurer—Raymond H. Hawksley, D., \$18,000.

GENERAL ASSEMBLY

Meets annually, in Jan., at Providence. Members receive \$5 per day for 60 days (the Speaker, \$10), also travel allowance of 8c per mile.

Senate—Dem., 36; Rep., 9; In doubt, 5. Total, 50.
House—Dem., 74; Rep., 21; In doubt, 5. Total, 100.

South Carolina

Governor—Robert E. McNair, D., \$25,000.
Sec. of State—O. Frank Thornton, D., \$20,000.
Comptroller General—Henry Mills, D., \$20,000.
Atty. General—Daniel R. McLeod, D., \$20,000.
Treasurer—G. L. Patterson, Jr., D., \$20,000.
Supt. of Educ.—Cyril B. Busbee, B., \$20,000.
Comm. of Agric.—William L. Harrelson, D., \$20,000.

GENERAL ASSEMBLY

Meets annually, in January, at Columbia. Members receive \$4,000 per year plus expense allowance of \$15 per day and travel and postage allowance.

Senate—Dem., 47; Rep., 3. Total, 50.

House—Dem., 121; Rep., 3. Total, 124.

South Dakota

Governor—Frank Farrar, R., \$18,000.
Lt. Governor—James Abdur, R., \$2,400.
Sec. of State—Miss Alma Larsen, R., \$10,800.
Treasurer—Neal Strand, R., \$10,800.
Atty. General—G. rd n Mydland, R., \$14,000.
Auditor—Alice Kundert, R., \$10,800.
Comm. of Schools and Public Lands—Dr. Gordon A. Dietrich, \$10,800.

LEGISLATURE

Meets annually in January, at Pierre. Members receive \$1,800 for 45 day session in odd-numbered years, and \$1,200 for 30 day session in even-numbered years, plus 7c per mile travel allowance. For special session, \$10 per day for each day of attendance.

Senate—Rep., 27; Dem., 8. Total, 35.

House—Rep., 59; Dem., 16. Total, 75.

Tennessee

Governor—Buford Ellington, D., \$18,500.
Lt. Governor—Frank C. Gorrell, D., receives regular legislative salary.
*Sec. of State—Joe C. Carr, D., \$17,500.
*Comptroller—William Snodgrass, D., \$17,500.
*Treasurer—Charlie Wooten, D., \$17,500.
Atty. General—George F. McCanless, \$20,000.

GENERAL ASSEMBLY

Meets odd years, in January, at Nashville. Members receive \$150 per month plus expenses for each day in session (not to exceed 105 days).

Senate—Dem., 20; Rep., 13. Total, 33.

House—Dem., 49; Rep., 49; Ind., 1. Total, 99.

Texas

Governor—Preston Smith, D., \$40,000.
Lt. Governor—Ben Barnes, D., same salary as State Senator while presiding over Senate, plus living quarters; Governor's salary when acting as Governor.

Sec. of State—Roy R. Barrera, D., \$24,000.

Comptroller—Robert S. Calvert, D., \$26,000.

Atty. General—Crawford C. Martin, D., \$27,500.

Treasurer—Jesse James, D., \$26,000.

LEGISLATURE

Meets odd years, in January, at Austin. Members receive annual salary not exceeding \$4,800 plus per diem while in session and travel allowance.

Senate—Dem., 29; Rep., 2. Total, 31.

House—Dem., 142; Rep., 8. Total, 150.

Utah

Governor—Calvin L. Rampton, D., \$18,000.
Sec. of State—Clyde L. Miller, D., \$13,000.
Auditor—Sherman J. Preece, R., \$12,000.

Atty. General—Vernon B. Romney, R., \$13,000.
Treasurer—Golden L. Allen, R., \$12,000.

LEGISLATURE

Meets annually in January at Salt Lake City. While in session members receive \$25 per diem, expenses of \$15 per diem, plus mileage.
 Senate—Rep., 20; Dem., 8. Total, 28.
 House—Rep., 48; Dem., 21. Total, 69.

Vermont

Governor—Deane C. Davis, R., \$25,000.
Lt. Governor—Thomas L. Hayes, R., \$12,000.
Sec. of State—Richard C. Thomas, R., \$13,000.
Auditor—Robert T. King, R., \$15,000.
Atty. General—James L. Jeffords, R., \$19,000.
Treasurer—Frank Davis, R., \$15,000.

GENERAL ASSEMBLY

Meets odd years, in January, at Montpelier. Members receive \$150 weekly, while in session, with a limit of \$4,500 for a regular session and \$30 per day for special session, with specified expenses.
 *Senate—Rep., 22; Dem., 8. Total, 30.
 *House—Rep., 91; Dem., 54; Rep. & Dem., 2; Dem. Rep., 1; Ind., 2. Total, 150.

Virginia

Governor—Mills E. Godwin, Jr., D., \$30,000.
Lt. Governor—Fred G. Pollard, D., \$2,100 each biennial session of Legislature, plus \$3,000 per year for expenses.
Sec. of the Commonwealth—Miss Martha Bell Conway, D., \$14,500.
Atty. General—Robert Y. Button, D., \$22,000.
Treasurer—Lewis H. Vaden, D., \$17,500.
Auditor of Public Accts.—Joseph S. James, D., \$17,500.

GENERAL ASSEMBLY

Meets even years in January, at Richmond. Members receive \$2,100 per regular 60 day biennial session plus \$1,200 for expenses.
 Senate—Dem., 34; Rep., 6. Total, 40.
 House—Dem., 85; Rep., 15. Total, 100.

Washington

Governor—Daniel J. Evans, R., \$32,500.
Lt. Governor—John A. Cherberg, D., \$10,000.
Sec. of State—A. L. "Lud" Kramer, R., \$15,000.
Auditor—R. V. Graham, D., \$16,500.
Atty. General—John G. McCutcheon, D., \$23,000.
Treasurer—Robert S. O'Brien, D., \$15,000.
Supt. Public Lands—Bert Cole, D., \$16,500.
Comm. Public Lands—Bert Cole, D., \$16,500.

LEGISLATURE

Meets odd years in January, at Olympia. Members receive \$3,600 annually, plus \$25 per day while in session for subsistence and lodging.
 Senate—Dem., 27; Rep., 22. Total, 49.
 House—Dem., 43; Rep., 56. Total, 99.

West Virginia

Governor—Arch A. Moore, Jr., R., \$25,000.
Sec. of State—John D. Rockefeller IV, D., \$17,000.
Auditor—Denzil L. Gainer, D., \$18,500.
Atty. General—Chauncey Browning, Jr., D., \$18,500.
Treasurer—John H. Kelly, D., \$17,500.
Comm. Agric.—Gus R. Douglass, D., \$17,000.

LEGISLATURE

Meets annually in January, at Charleston. Members receive \$1,500 per year.
 Senate—Dem., 22; Rep., 12. Total, 34.
 House—Dem., 63; Rep., 37. Total, 100.

Wisconsin

Governor—Warren P. Knowles, R., \$25,000.
Lt. Governor—Jack B. Olson, R., \$15,000 per biennium.
Sec. of State—Robert C. Zimmerman, R., \$13,500.
***State Treasurer**—Harold W. Clemens, R., \$13,500.
Atty. General—Robert W. Warren, R., \$20,000.
Supt. of Schools—William C. Kahl N-P., \$20,000.

LEGISLATURE

Meets odd years, in January at Madison. Members receive \$8,400 annually plus \$15.00 per day expenses for attendance each day.
 Senate—Rep., 23; Dem., 10. Total, 33.
 Assembly—Rep., 52; Dem., 48. Total, 100.

Wyoming

Governor—Stanley K. Hathaway, R., \$20,000.
Sec. of State—Mrs. Thyra Thomson, R., \$15,000.
Auditor—Everett Copenhaver, R., \$15,000.
Atty. General—James E. Barrett, \$14,400.
Treasurer—Mrs. Minnie Mitchell, R., \$15,000.
Supt. Public Instr.—K. H. Roberts, R., \$15,000.

LEGISLATURE

Meets odd years in January, at Cheyenne. Mem-

bers receive \$12 per day while in session, plus \$20 per day for expenses, and \$4 a mile travel allowance.

Senate—Rep., 19; Dem., 11. Total, 30.
 House—Rep., 44; Dem., 16; Contested, 1. Total, 61.

American Samoa

Governor—Owen S. Aspinall, \$24,500.
***Secretary**—Alvin R. Mangnall, \$15,150.
***Special Assistant to the Governor**—Mundey Johnston.

***Directors:** (Salaries \$10,000 to \$18,000).
Agriculture—Thomas G. Hatakeyama.
Administrative Services—M. W. Bales.
Education—Dr. Roy D. Cobb.
Legal Affairs and Public Safety—Charles H. Habernigg.
Medical Services—Dr. Allen Service.
Port Administrator—Fred J. Urrle.
Public Safety Commissioner—Vacant.
Secretary of Samoan Affairs—High Chief Le'iatu, T.
Public Works—A. P. Pratt.

LEGISLATURE

Composed of a Senate of 19 members and a House of Representatives of 20 members. Meets annually, in March, at Fagatoga. Members receive \$600 annually, plus \$15 per day on special session called by the Governor on budget hearings, these hearings not to exceed 10 days.

Guam

Governor—Manuel F. L. Guerrero, \$25,890.
Sec. of Guam—Denver Dickerson, \$22,085.
Directors: (Salaries \$11,750 to \$17,750).
Agriculture—Francisco B. Aguon.
Atty. General—Paul Abbate.
Chief Commissioner—Vicente Q. Sanchez.
Commerce—Paul Souder.
Education—L. F. Martin.
Finance—Joquin Guerrero.
Labor and Personnel—Charles F. Toves.
Land Management—Frank I. San Nicolas.
Public Health and Welfare—Dr. Robert G. Atwood.
Public Safety—Major Jose C. Quintanilla.
Public Works—Fred M. Poole.
Washington Rep.—Antonio B. Won Pat.
 \$25,000 (elected at large).

LEGISLATURE

Meets annually at Agaña. Salary \$6,000 per annum.

Puerto Rico

Governor—Luis Ferré, N-P., 25,000.
***Secretaries of:**
Agriculture—Miguel Hernandez Agosto, \$19,000.
Commerce—Geraro Baquero, \$19,000.
Education—Angel Quintero Alfaro, \$19,000.
Health—Manuel A. Torres Aguilar, M.D., \$19,000.
Justice—Jose C. Aponte, \$19,000.
Labor—Alfredo Nazario, \$19,000.
Public Works—Francisco Lizardi, \$19,000.
Treasure—Guillermo Irlizarry, \$19,500.
Treasury—Jorge Font Saldana, 19,000.

LEGISLATIVE ASSEMBLY

Composed of a Senate of 32 members and a House of Representatives of 64 members. Meets annually, in January, at San Juan, members receive \$5,400 plus expense and travel allowances while in session.

Virgin Islands

Governor—Ralph M. Palewonsky, \$28,000.
Government Secretary—Cyril E. King, \$25,000.
Comptroller—C. Loring Jetton, \$24,393.
Atty. General—Francisco Corneio, \$23,075.
Budget Director—Magdalena Bryan, \$23,075.

Commissioners:

Agriculture—Walter I. M. Hodge, \$17,511.
Commerce—Dr. Albert Prendergast, \$21,098.
Education—Dr. Arthur Richards, \$20,439.
Finance—Reuben Wheatley, \$17,511.
Health—Dr. Roy A. Anduze, \$20,439.
Housing & Community Renewal—Elmo D. Roebuck, \$18,641.
Labor—Melville Stevens, \$18,641.
Property & Procurement—Mario Lewis, \$19,711.
Public Safety—Otis L. Felix, \$19,206.
Public Works—James W. Huston, \$23,075.
Social Welfare—Macon M. Berryman, \$19,771.

LEGISLATURE

Unicameral Legislature of 15 members meets each year in January for 60 days, at Charlotte Amalie. Each member receives \$9,000 annually, plus allowance for expenses and travel.

Mayors and City Managers of Larger United States Cities

AS OF JANUARY, 1969

*Asterisk before name denotes city manager. All others are mayors. For mayors, dates are those of expiration of term, for city managers, they are dates of appointment.

D., Democrat; R., Republican; Ind., Independent; N-P, Non-Partisan.

City	Mayor or (*) City Manager	Term	City	Mayor or (*) City Manager	Term
Ablene, Tex.	*H. P. Clifton.	1963, July	Concord, N. H.	*James E. Henchey	1968, Feb.
Abington, Pa.	*Fred F. Schaefer	1958, June	Corpus Christi	*R. Marvin Townsend	1968, Jan.
Akron, Ohio	John S. Ballard, R.	1971, Dec.	Costa Mesa, Cal.	*Arthur R. McKenzie	1965, Aug.
Alameda, Calif.	*H. D. Weller	1957, Oct.	Council Bluffs, Ia.	*M. Don Harmon	1968, Feb.
Albany, Ga.	*S. A. Roos	1961, Aug.	Covington, Ky.	*Robert F. Wray	1968, Jan.
Albany, N. Y.	E. Corning, 2d, D.	1969, Dec.	Cranston, R. I.	James DiPrete, Jr. R.	1971, Jan.
Albuquerque	*Richard Wilson	1968, Aug.	Cuyahoga Falls, Ohio	D. R. Ackerman R.	1969, Dec.
Alexandria, La.	W. G. Bowdon, Jr., D.	1969, June	Dallas, Tex.	*W. S. McDonald	1966, July
Alexandria, Va.	*Albert M. Har, Jr.	1962, June	Daly City, Calif.	*Edward Frank	1960, Mar.
Alhambra, Calif.	*Harry S. Scott	1968, Sept.	Danville, Ill.	Albert Gardner, R.	1971, Apr.
Allen Park, Mich.	Leo L. Paluch, D.	1969, Apr.	Danville, Va.	*Frank A. Faison	1967, Feb.
Allentown, Pa.	Ray B. Bracy, D.	1970, Jan.	Davenport, Ia.	John H. Jebens, R.	1969, Dec.
Alton, Ill.	C. Wiseman, Jr., D.	1969, May	Dayton, Ohio	*Graham Watt	1967, Mar.
Altounga, Pa.	William H. Prosser, R.	1972, Jan.	Daytona Beh., Fla.	*Charles E. Jackson	1966, Aug.
Amarillo, Tex.	*John S. Stiff	1963, Sept.	Dearborn, Mich.	O. L. Hubbard, N-P.	1971, Jan.
Amherst, N. Y.	Harry Jones, R.	1970, Jan.	Decatur, Ill.	*W. Robert Semple	1967, Nov.
Anaheim, Calif.	*Keith A. Murdoch	1958, Nov.	Denver, Colo.	T. G. Curriegan, D.	1971, July
Anchorage, Alaska	*Robert E. Sharp	1968, Apr.	Des Moines, Ia.	Tom Chenoweth	1964, July
Anderson, S. C.	*Richard A. Bollin	1968, Aug.	Des Plaines, Ill.	Herbert Behrel, N-P.	1969, Apr.
Ann Arbor, Mich.	*G. C. Larcom, Jr.	1956, Apr.	Detroit, Mich.	J. P. Cavanagh, N-P.	1970, Jan.
Appleton, Wis.	*G. L. Buckner, N-P.	1972, Apr.	Dubuque, Ia.	*Gilbert D. Chavenelle	1960, June
Arcadia, Calif.	*Lyman H. Cozad	1966, Sept.	Duluth, Minn.	Ben Boo, N-P.	1971, Apr.
Arlington, Mass.	*Donald R. Marquis	1966, Nov.	Durham, N. C.	*I. Harding Hughes, Jr.	1963, Feb.
Arlington, Tex.	*Herman J. Veselka	1967, Jan.	E. Cleveland, O.	*G. T. Apthorp	1962, Aug.
Arlington, Va.	*Bert Johnson	1962, Dec.	E. Detroit, Mich.	*Chas. H. Beaubien	1951, July
Asheville, N. C.	*P. E. Horton, 3rd	1968, Sept.	E. Hartford, Conn.	E. G. Atwood, R.	1969, Nov.
Atlanta, Ga.	Ivan Allen Jr., N-P.	1969, Dec.	E. Orange	J. W. Kelly, Jr., D.	1969, Dec.
Atlantic City	R. S. Jackson, R.	1972, May	E. Point, Ga.	R. E. Brown, R.	1972, Dec.
Auburn, N. Y.	*Bruce L. Clifford	1966, Aug.	E. Providence, R. I.	*Pete A. Pakey	1967, Sept.
Augusta, Ga.	Geo. Sancken, Jr., N-P	1970, Jan.	E. St. Louis, Ill.	Alvin G. Fields, N-P.	1971, Apr.
Aurora, Colo.	*Robert C. Wright	1969, Apr.	Eau Claire, Wis.	*Walter C. Kane	1968, Jan.
Aurora, Ill.	*Robert A. McCoy	1969, Apr.	Edison, N. J.	A. M. Yelencsics, D.	1969, Dec.
Austin, Tex.	*Robert H. Tinsman	1967, Sept.	El Cajon, Calif.	*Robt. M. Applegate	1958, Sept.
Bakersfield, Cal.	*Harold E. Bergen	1966, Apr.	Elgin, Ill.	*Robert L. Brunton	1962, Jan.
Baltimore, Md.	T. J. Alessandro, D.	1971, Dec.	Elizabeth, N. J.	Thomas G. Dunn, D.	1972, Dec.
Bangor, Me.	*Merle F. Goff	1966, Dec.	Elkhart, Ind.	John W. Weaver, R.	1971, Dec.
Baton Rouge, La.	W. W. Dumas, D.	1972, Dec.	Elmhurst, Ill.	*Robert T. Palmer	1953, Aug.
Bay City, Mich.	W. W. Larry Collins	1968, Oct.	Elmira, N. Y.	*Lawrence E. Eyles	1968, July
Bayonne, N. J.	*F. G. Fitzpatrick, D.	1970, June	El Paso, Tex.	J. F. Williams, N-P.	1969, Apr.
Beaumont, Tex.	*O. C. Galloway	1968, June	Elyria, O.	L. P. Reichlin, D.	1971, Dec.
Belleville, Ill.	Chas. E. Nichols, N-P.	1969, Apr.	Enid, Okla.	*Waldo M. Porr	1961, Sept.
Bellevue, N. J.	Kenneth Smith, D.	1972, May	Erie, Pa.	Louis J. Tullio, D.	1970, Jan.
Berkeley, Calif.	*William G. Hanley	1967, Feb.	Euclid, Ohio	Kenneth J. Sims, N-P.	1971, Nov.
Berwyn, Ill.	*George Dolezal, R.	1969, Apr.	Eugene, Ore.	*Hugh McKinley	1960, Oct.
Bethlehem, Pa.	H. G. Payrow, Jr., R.	1970, June	Evanston, Ill.	*Wayne F. Anderson	1962, Oct.
Beverly, Mass.	James Vitale, D.	1969, Dec.	Evansville, Ind.	Frank McDonald, D.	1971, Dec.
Binghamton, N.Y.	J. W. Esworth, R.	1969, Dec.	Everett, Wash.	A. F. Alexander, N-P.	1970, Apr.
Biloxi, Miss.	Daniel Gulice, D.	1969, July	Fairfield, Conn.	J. J. Sullivan, D.	1969, Nov.
Birmingham, Ala.	George Selbels, R.	1971, Dec.	Fair Lawn, N. J.	*George Pellack	1960, June
Bloomfield, N. J.	*H. Joseph North	1967, Oct.	Fargo, N. Dak.	H. I. Lashkows, D.	1970, Apr.
Bloomington, Ill.	*S. W. McAllister	1966, July	Fayetteville, N. C.	*Gilbert W. Ray	1971, Dec.
Bloomington, Minn.	*John Pidgeon	1967, Dec.	Florissant, Mo.	James J. Eagen D.	1971, Apr.
Boston, Mass.	Kivyn White, D.	1972, Dec.	Flint, Mich.	*Thomas Kay	1963, Mar.
Boulder, Colo.	*Ted Tedesco	1967, June	Ft. Lauderdale	*Robert H. Bubler	1963, Mar.
Bridgeport, Ct.	Hugh C. Curran, D.	1969, Nov.	Ft. Smith, Ark.	Jack Freeze, N-P.	1970, Dec.
Bristol, Conn.	Henry J. Wojtusik, D.	1969, Dec.	Ft. Wayne, Ind.	Harold S. Zels, R.	1971, Dec.
Brockton, Mass.	John E. Sullivan, D.	1969, Dec.	Ft. Worth, Tex.	*Howard McMahan	1967, May
Brookline, Mass.	Board of Selectmen		Framingham, Mass.	Board of Selectmen	
Brownsville, Tex.	*A. B. Westbrook	1962, Jan.	Fresno, Calif.	*Neil Goedhard	1968, May
Buena Park, Calif.	*George M. Bahner	1966, May	Fullerton, Calif.	*W. F. Cornett, Jr.	1966, Oct.
Buffalo, N. Y.	Frank A. Sedita, D.	1969, Dec.	Gadsden, Ala.	L. L. Gilliland, R.	1970, Sept.
Burbank, Calif.	*Joseph N. Baker	1968, Mar.	Galesburg, Ill.	*Thomas B. Herring	1960, Nov.
Burlington, Vt.	Francis J. Cain, D.	1969, Apr.	Galveston, Tex.	*John Unverferth	1967, July
Cambridge, Mass.	*Robert C. McGillo	1966, Jan.	Gardena, Calif.	*John Gormley	1966, Aug.
Camden, N. J.	Alfred R. Pierce, D.	1969, July	Garden Grove, Calif.	*Dudley N. Lapham	1961, Oct.
Canton, Ohio	Stanley A. Cimich, R.	1971, Dec.	Garfield Hgts., O.	F. W. Petranec, D.	1969, Dec.
Casper, Wyo.	*Henry Rolfe, Jr.	1959, Jan.	Garland, Tex.	*C. E. Duckworth	1965, Jan.
Cedar Rapids, Ia.	Frank A. Bosh, N-P.	1969, Dec.	Gary, Ind.	R. G. Hatcher, D.	1971, Nov.
Champaign, Ill.	*Warren B. Browning	1962, Oct.	Gastonia, N. C.	*Peter F. Lydens	1966, Sept.
Charleston, S. C.	J. Palmer Gaillard, D.	1971, Dec.	Glendale, Calif.	*C. E. Perkas	1952, Apr.
Charleston, W. Va.	Elmer H. Dodson, R.	1971, Apr.	Gr. Rapids, Mich.	*Julius H. Orr	1968, Apr.
Charlotte, N. C.	*William J. Veeder	1959, Aug.	Gratiy City, Ill.	Donald Partney, D.	1969, Apr.
Chattanooga	Ralph H. Kelley, D.	1971, Apr.	Great Falls, Mont.	J. J. McLaughlin, D.	1969, May
Chester, Pa.	John Nacrelli, R.	1969, Dec.	Green Bay, Wisc.	Don A. Tilleman, N-P.	1971, Apr.
Chesapeake, Va.	*D. A. DeGulio, Jr.	1969, Oct.	Greensboro, N. C.	*John Turner	1968, May
Chicago, Ill.	Richard J. Daley, D.	1971, Apr.	Greenville, Miss.	Patrick Dunne, D.	1972, Jan.
Chicopee, Mass.	Richard Demers, D.	1969, Dec.	Greenville, S. C.	*Aaron Marsh	1967, Apr.
Chula Vista, Calif.	*Fred A. Ross	1963, Aug.	Greenwich, Ct.	John F. Taintor, R.	1969, Dec.
Cicero, Ill.	John Karner, R.	1972, Apr.	Hagerstown, Md.	Herman L. Mills, R.	1969, Apr.
Cincinnati, Ohio	*Richard L. Krabach	1968, June	Hamden, Conn.	William Adams, Jr. D.	1970, Jan.
Cleveland, Ohio	Carl B. Stokes, D.	1969, Nov.	Hamilton, Ohio	*C. R. Lukens	1964, Feb.
Cleveland Hights	*William C. Lashman	1964, Oct.	Hammond, Ind.	Joseph E. Kien, D.	1971, Dec.
Clifton, N. J.	*William Holster	1956, Dec.	Hampton, Va.	*C. E. Johnson	1956, May
Colo. Spgs., Colo.	*George H. Fellows	1966, Oct.	Harlingen, Tex.	*John Clary	1968, Mar.
Columbia, Mo.	*Don F. Allard	1962, Feb.	Harrisburg, Pa.	Albert H. Straub R.	1972, Jan.
Columbia, S. C.	*Carol C. Burnett	1968, Sept.	Hartford, Conn.	*Ellisha C. Freedman	1963, May
Columbia, Ga.	*Ralph A. Sayers	1960, June	Haverhill, Mass.	James Waldron, N-P.	1969, Dec.
Columbus, Ohio	M. Sensesbrenner, D.	1972, Jan.	Hayward, Calif.	*Raymond E. Doran	1960, Apr.
Commerce, Calif.	*Lawrence O'Rourke	1960, Mar.			
Compton, Calif.	*James C. Johnson	1968, Sept.			
Concord, Calif.	*F. A. Stewart	1960, Apr.			

City	Mayor or (*) City Manager	Term	City	Mayor or (*) City Manager	Term
Hialeah, Fla.	Henry Milander, N-P.	1969, Nov.	New Kensington, Pa.	Lenus H. Hilleman, D.	1970, Jan.
High Point, N. C.	*Harold R. Cheek.	1960, Mar.	New Orleans, La.	Victor H. Schiro, D.	1970, May
Highland Park, Mich.	Robert Blackwell, R.	1971, Nov.	New Rochelle, N. Y.	*Murray Fuerst.	1965, Feb.
Hollywood, Fla.	*Joseph W. Watson.	1952, June	New York, N. Y.	John V. Lindsay, R.	1969, Dec.
Holyoke, Mass.	William Taupier, D.	1970, Jan.	Newark, N. J.	Hugh Addonizio, N-P.	1970, July
Honolulu, Hawaii	Frank F. Fast, D.	1973, Jan.	Newark, Ohio	J. H. Alexander, R.	1972, Jan.
Houston, Tex.	Louie Welch, N-P.	1970, Jan.	Newport, R. I.	*B. Cowles Malory.	1968, Feb.
Huntington, W. Va.	*Edward A. Ewing.	1964, Feb.	Newport News, Va.	*W. E. Lawson, Jr.	1965, Sept.
Huntsville, Ala.	Joe W. Davis, N-P.	1972, Oct.	Newton, Mass.	Monte Basbas, N-P.	1969, Dec.
Hutchinson, Kan.	*George W. Pyle.	1967, Aug.	Niagara Falls, N. Y.	*Donald J. O'Hara.	1967, Jan.
Independence, Mo.	*Lyle Alberg.	1968, Sept.	Norfolk, Va.	*Thos. F. Maxwell.	1956, Feb.
Indianapolis, Ind.	Richard Lugar, R.	1972, Jan.	Norman, Okla.	*Jerry M. Smith.	1968, Feb.
Inglewood, Calif.	*Douglas W. Ayres.	1968, Apr.	Norwalk, Calif.	*M. D. McKeown.	1968, Sept.
Inster, Mich.	*Ralph A. DeSantis.	1966, Aug.	Norwalk, Conn.	Frank N. Zullo, D.	1969, Nov.
Iowa City, Iowa.	*Frank R. Smiley.	1967, Feb.	Norwich, Conn.	*Thomas H. Hissom.	1967, July
Irvine, Tex.	*Morris M. Howard.	1960, Apr.	Oak Park, Ill.	*Harris Stevens.	1962, June
Irrington, N. J.	Harry Stevenson, N-P.	1970, July	Oak Pk, Mich.	*Donald F. McIntyre.	1967, Aug.
Jackson, Miss.	*Paul L. White.	1965, Jan.	Oakland, Calif.	*Jerome Keithley.	1966, Jan.
Jackson, Miss.	Allen Thompson, D.	1969, July	Oak Ridge, Tenn.	*Carlton E. McMullin.	1962, Apr.
Jacksonville, Fla.	Hans Tanzler, Jr., D.	1971, June	Odessa, Tex.	*Ronald J. Neighbors.	1968, Nov.
Jamesstown, N. Y.	Charles Magnuson, R.	1969, Dec.	Ogden, Utah	*Samuel B. Hood.	1962, Feb.
Janesville, Wis.	*Karl A. Samek.	1967, Sept.	Okla. City, Okla.	*Robert Oldland.	1967, Sept.
Jersey City, N. J.	T. J. Whelan, N-P.	1969, July	Omaha, Nebr.	A. W. Sorensen, N-P.	1969, May
Johnstown, Pa.	K. O. Tompkins, R.	1972, Jan.	Ontario, Calif.	*H. K. Hunter.	1966, Jan.
Joplin, Mo.	*Robert E. Metzinger.	1968, Mar.	Orange, N. J.	John F. Monica, R.	1971, June
Kalamazoo, Mich.	*James Caplinger.	1968, July	Oriando, Fla.	Carl Langford N-P.	1972, Oct.
Kan. City, Kan.	J. H. McDowell, N-P.	1972, Apr.	Oshkosh, Wis.	*Angus Crawford.	1966, Feb.
Kan. City, Mo.	*John L. Taylor.	1968, Feb.	Owensboro, Ky.	*Max N. Rhoads.	1969, Aug.
Kearny, N. J.	Joseph M. Healey, D.	1968, Dec.	Oxnard, Calif.	*Paul E. Wollen.	1953, Feb.
Kenosha, Wis.	*John R. Serpe.	1966, June	Palo Alto, Calif.	*George E. Morgan.	1966, Feb.
Kettering, O.	*Ervin L. Welch.	1954, Dec.	Parkersburg, W. Va.	Glen B. Gainer, Jr. D.	1971, Apr.
Key West, Fla.	*Charles C. Ryan.	1968, May	Parma, Ohio	John Petruska, D.	1971, Dec.
Knoxville, Tenn.	Leonard Rogers, D.	1971, Dec.	Pasadena, Calif.	*John D. Phillips.	1966, Oct.
Kokomo, Ind.	John W. Miller, R.	1971, Dec.	Pasadena, Tex.	Clyde Doyal, D.	1969, Apr.
LaCrosse, Wis.	Warren Loveland, N-P.	1969, Apr.	Passaic, N. J.	*Theodore Janescek.	1967, Sept.
Lafayette, La.	J. R. Bertrand, D.	1972, May	Paterson, N. J.	Lawrence Kramer, R.	1969, Nov.
Lake Chas., La.	James Sudduth, D.	1969, June	Pawtucket, R. I.	Robt. F. Burns, N-P.	1970, Jan.
Lakeland, Fla.	*Robert V. Youkey.	1960, Jan.	Pensacola, Fla.	*William H. Law, Jr.	1965, Oct.
Lakewood, Cal.	*Marshall W. Julian.	1962, Jan.	Peoria, Ill.	*Leonard H. Caro.	1964, Apr.
Lakewood, Ohio	Robert M. Lawther, R.	1971, Dec.	Perth Amboy, N. J.	James Flynn, Jr., D.	1970, May
Lancaster, Pa.	T. J. Monaghan, D.	1969, Dec.	Petersburg, Va.	*Roy F. Ash.	1950, Jan.
Lansing, Mich.	Max Murnighan, N-P.	1969, Apr.	Philadelphia, Pa.	James H. J. Tate, D.	1972, Dec.
Laredo, Tex.	J. C. Martin, Jr., N-P.	1969, May	Phoenix, Ariz.	*Robert Coop.	1964, Jan.
Las Vegas, Nev.	*Arthur R. Trease.	1964, Nov.	Pico Rivera, Cal.	*Robert B. Carleson.	1965, Jan.
Lawton, Okla.	Wayne Gilley, D.	1969, May	Pine Bluff, Ark.	A. T. Franks, N-P.	1968, Dec.
Lexington, Ky.	*John B. Cook, Jr.	1952, May	Pittsburg, Pa.	Joseph M. Barr, D.	1969, Dec.
Lewiston, Me.	John Bellevue, D.	1970, Jan.	Plainfield, N. J.	Frank Blatz, Jr., R.	1970, Jan.
Lima, Ohio.	C. P. Morris, N-P.	1969, Nov.	Pomona, Calif.	*Frederick W. Sharp.	1949, Aug.
Lincoln, Nebr.	Sam Schwartzkop, N-P.	1971, May	Pontiac, Mich.	*Joseph A. Warren.	1964, Aug.
Lincoln Park, Mich.	Robt. DeMars, D.	1969, Apr.	Port Arthur, Tex.	*George E. Dibrell.	1962, Oct.
Linden, N. J.	John Gregorio, D.	1970, Dec.	Port Huron, Mich.	*Gerald R. Bouchard.	1965, Apr.
Little Rock, Ark.	*E. Jack Murphy (act)	1968, Sept.	Portland, Me.	*John Menario.	1967, June
Livonia, Mich.	Harvey Moelke, R.	1970, Apr.	Portland, Ore.	Terry Schruink, N-P.	1973, Jan.
Long Beach, Cal.	*John R. Mansell.	1961, Mar.	Portsmouth, O.	*Huxley Kennedy.	1967, Feb.
Longview, Tex.	*Harry G. Mosley.	1952, July	Portsmouth, Va.	*A. P. Johnson, Jr.	1958, Sept.
Los Angeles, Cal.	Samuel W. Yorty, N-P.	1969, June	Poughkeepsie, N. Y.	*James Mulcare.	1968, Sept.
Louisville, Ky.	K. A. Schmied, R.	1969, Dec.	Providence, R. I.	J. A. Doorley, Jr., D.	1971, Jan.
Lowell, Mass.	*Charles Gallagher.	1966, Dec.	Provo, Utah	Verl G. Dixon, R.	1969, Dec.
Lubbock, Tex.	*Thomas A. Furelter.	1966, Jan.	Pueblo, Colo.	*George H. Fellows.	1959, July
Lynchburg, Va.	*W. R. Blackwell.	1967, Feb.	Quincy, Ill.	Wes W. Olson, R.	1969, Apr.
Lynn, Mass.	*Robert D. Morrison.	1949, Sept.	Quincy, Mass.	James McIntyre, R.	1970, Jan.
Madison, Wis.	Irving E. Kane, N-P.	1970, Jan.	Racine, Wis.	William H. Beyer, N-P.	1969, Apr.
Malden, Mass.	Otto Festge, N-P.	1969, Apr.	Raleigh, N. C.	*William H. Carper.	1950, Sept.
Manchester, Ct.	Walter Kelliher, N-P.	1969, Dec.	Rapid City, S. D.	Henry Baker, N-P.	1969, May
Mansfield, Ohio	*Robt. B. Weiss.	1966, Jan.	Reading, Pa.	V. R. H. Yarnell, D.	1972, Jan.
Marion, Ohio	Robert Lemley, D.	1971, Dec.	Redondo Beach, Calif.	*F. E. Hopkins.	1954, June
McKeesport, Pa.	Eugene Yazel, R.	1971, Dec.	Redwood City, Calif.	*Howard C. Ullrich.	1965, Dec.
Medford, Mass.	Albert Elko, D.	1969, Dec.	Reno, Nev.	*Joe E. Latimore.	1960, Oct.
Memphis, Tenn.	*Howard H. Reed.	1962, May	Revere, Mass.	G. V. Coletta, D.	1969, Dec.
Meridian, Miss.	Henry Loeb, N-P.	1971, Dec.	Richfield, Minn.	*Wayne Burggraaf.	1968, Dec.
Mesa, Ariz.	Joel W. Forrester.	1959, July	Richmond, Calif.	*Kenneth Smith.	1967, Sept.
Mesa, Ariz.	*J. A. Petrie.	1952, June	Richmond, Va.	*Alan Klepper.	1967, Sept.
Miami, Fla.	*M. L. Reese.	1966, Mar.	Riverside, Calif.	*John B. Wentz.	1963, Dec.
Miami Bch., Fla.	*J. C. Duffield.	1967, Sept.	Roanoke, Va.	*Julian F. Hirst.	1966, Oct.
Middletown, O.	*Dan W. Kothe.	1964, June	Rochester, Minn.	Alex. P. Smekta, N-P.	1969, Apr.
Midland, Tex.	*James W. Brown.	1964, Nov.	Rochester, N. Y.	*Seymour Scher.	1965, Dec.
Midwest City, Okla.	*W. D. Baker.	1966, May	Rock Island, Ill.	*Raymond P. Botch.	1961, Jan.
Milford, Conn.	Alan Jepson, D.	1969, Nov.	Rockford, Ill.	B. T. Schleicher, R.	1969, Apr.
Milwaukee, Wis.	Henry W. Maier, N-P.	1972, Apr.	Rome, N. Y.	Wm. A. Valentine, R.	1971, Dec.
Minneapolis, Minn.	Arthur Naftalin D.	1969, July	Roseville, Mich.	*James Bottomley.	1968, July
Mobile, Ala.	Lambert Mims.	1969, Oct.	Roswell, N. M.	*H. E. McMinn.	1964, May
Modesto, Calif.	*John C. Keefe.	1963, Apr.	Royal Oak, Mich.	*Bruce W. Love.	1961, June
Moline, Ill.	James F. Arndt, R.	1969, May	Sacramento, Cal.	*E. A. Fairbairn.	1964, July
Monroe, La.	W. L. Howard, D.	1972, July	Saginaw, Mich.	*H. H. Potthoff, Jr.	1961, July
Monterey Park, Cal.	*William Woollett, Jr.	1965, Aug.	St. Clair Shores, Mich.	*Donald J. Harm.	1962, Jan.
Montgomery, Ala.	Earl D. James, D.	1971, Oct.	St. Joseph, Mo.	D. A. Merrifield, N-P.	1970, Apr.
Mt. Vernon, N. Y.	August Pettrillo, R.	1971, Dec.	St. Louis, Mo.	A. J. Cervantes, D.	1969, Apr.
Muncie, Ind.	Paul Cooley, D.	1971, Dec.	St. Louis Park, Minn.	*Chris Cherches.	1969, Dec.
Muskegon, Mich.	*George F. Liddle.	1942, May	St. Paul, Minn.	Thomas R. Byrne, D.	1970, June
Muskogee, Okla.	*Vacant.		St. Petersburg, Fla.	*Lynn H. Andrews.	1961, Nov.
Nashua, N. H.	Dennis Sullivan, N-P.	1969, Dec.	Salem, Mass.	F. X. Collins, N-P.	1970, Jan.
Nashville, Tenn.	C. Beverly Briley, D.	1971, Aug.	Salem, Ore.	*Robert S. Moore.	1968, Aug.
New Bedford, Mass.	E. F. Harrington, D.	1969, Dec.	Sallina, Kan.	*Norris D. Olson.	1964, May
New Britain, Conn.	Paul J. Manafort, R.	1969, Nov.	Salt Lake City, Utah	J. Braeken Lee, R.	1971, Jan.
New Brunswick, N. J.	Patricia Q. Sheehan, N-P.	1971, May	San Angelo, Tex.	*H. D. Howard.	1958, July
New Haven, Ct.	Richard C. Lee, D.	1969, Dec.			

City	Mayor or (*) City Manager	Term	City	Mayor or (*) City Manager	Term
San Antonio, Tex.	*Gerald Henckel, J. R.	1967, Dec.	Troy, N. Y.	*Sidney C. Smith.....	1967, May
San Bernardino, Calif.	Al C. Ballard, D.	1969, May	Tucson, Ariz.	*Roger O'Mara.....	1966, Sept.
San Diego, Calif.	*Walter Hahn, Jr.	1966, Dec.	Tulsa, Okla.	J. M. Hewgley, Jr., R.	1970, Apr.
San Francisco	Joseph Alloto, D.	1972, Jan.	Tuscaloosa, Ala.	G. Van Tassel, D.	1969, Oct.
San Jose, Calif.	*Anthony P. Hamann.	1950, Mar.	Tyler, Tex.	*Robert Hayes.....	1967, Dec.
San Leandro	*Wesley McClure.	1948, May	Union, N. J.	F. E. Blertuempfel, R.	1969, Dec.
San Mateo, Calif.	*Arthur B. Sullivan.	1946, Jan.	University City, Mo.	*Chas. T. Henry.....	1959, Jan.
Santa Ana, Calif.	*Carl J. Thornton.	1951, Aug.	Utica, N. Y.	Dominick Assaro, D.	1969, Nov.
Santa Barbara	*Clifford Petrie.	1968, Jan.	Vallejo, Calif.	*D. R. Sollenberger.	1967, June
Santa Monica, Calif.	*Perry Scott.....	1964, Oct.	Valley Stream, N. Y.	Charles J. Monica, R.	1970, Apr.
Santa Rosa, Calif.	*George McInturn.	1961, Sept.	Vineland, N. J.	Henry Garton, R.	1972, June
Savannah, Ga.	*Percy B. Floyd.	1967, May	Waco, Tex.	*Elmer A. Roberts.	1968, July
Scottsdale, Ariz.	*W. V. Donaldson.		Warren, Mich.	Ted Bates, R.	1969, Apr.
Scranton, Pa.	J. J. Walsh, D.	1968, July	Warwick, R. I.	Philip Noel, D.	1970, Jan.
Seattle, Wash.	J. D. Braman, N-P.	1965, Apr.	Wash., D. C.	Bd. of Commissioners	
Shaker Heights, O.	Paul K. Jones, R.	1970, Jan.	Waterbury, Ct.	George P. Harlamon, R.	1969, Dec.
Sheboygan, Wis.	J. R. Browne, R.	1970, Dec.	Waterloo, Ia.	Lloyd Turner, N-P.	1970, Jan.
Shreveport, La.	Clyde E. Fant, D.	1969, Apr.	Watertown, Mass.	Board of Selectmen	
Sioux City, Ia.	*Burt M. W. D.	1970, Nov.	Waukegan, Ill.	Robert Sabonjian, N-P	1969, May
Sioux Falls, S. D.	M. E. Schlirmer, N-P.	1967, July	Wauwatosa, Wis.	Ervin A. Meier, N-P.	1972, Apr.
Skokie, Ill.	*Gordon E. Thorn.	1969, May	West Allis, Wis.	Arnold Klentz, N-P.	1972, Apr.
Somerville, Mass.	J. F. Brennan, D.	1966, Oct.	W. Covina, Cal.	*George Allassa.....	1958, May
South Bend, Ind.	Lloyd M. Allen, R.	1969, Dec.	W. Hartford, Ct.	*Richard H. Custer.	1962, Aug.
So. Gate, Calif.	*Carl H. Zeise.	1971, Dec.	W. Haven, Conn.	A. F. Zarnowski, R.	1969, Dec.
So. San Francisco Calif.	*Vacant.	1966, Oct.	W. New York, N. J.	J. R. Armellino, D.	1971, May
Spartanburg, S. C.	*Lott T. Rogers.	1958, Oct.	W. Orange, N. J.	Louis P. Falcone, N-P.	1970, June
Spokane, Wash.	*F. Sylvain Fulwiler.	1963, Aug.	W. Palm Beach, Fla.	*William H. Tyre.	1966, Aug.
Springfield, Ill.	Nelson Howarth, N-P.	1969, Dec.	Wheeling, W. Va.	*Thomas W. Lewis.	1968, Oct.
Springfield, Mass.	F. H. Freedman, R.	1966, May	White Plains, N. Y.	Richard S. Hendey, R.	1969, Dec.
Springfield, Mo.	*A. D. Burkhalter.	1968, Nov.	Wichita, Kan.	*Ralph Wulz.....	1968, Sept.
Springfield, Ohio	*Alfred Stodasz.	1969, Dec.	Wichita, Falls, Tex.	*L. Jack Davis.....	1963, Jan.
Stamford, Conn.	Bruno Giordano, D.	1963, Jan.	Wilkes-Barre, Pa.	*F. E. Wegner.....	1968, Apr.
Stockton, Calif.	*Frank Fargo.	1963, Aug.	Wilmington, Del.	Hal Haskell, R.	1973, Jan.
Stratford, Conn.	*Richard E. Blake.	1967, Aug.	Wilmington, N.C.	*E. C. Brandon, Jr.	1962, May
Sunnyvale, Calif.	*John E. Dever.	1969, Dec.	Winston-Salem.	*John A. Gold.	1951, Aug.
Syracuse, N. Y.	Wm. F. Walsh, R.	1956, June	Woodbridge, N. J.	*George Micholic.	1968, Feb.
Tacoma, Wash.	*David D. Rowlands.	1952, Feb.	Woodsboro, R. I.	A. Edgar Lusser, N-P.	1969, Apr.
Tallahassee, Fla.	*Arvah B. Hopkins.	1971, Sept.	Worcester, Mass.	*Francis J. McGrath.	1951, Apr.
Tampa, Fla.	Dick Greco, Jr., D.	1969, Dec.	Wyoming, Mich.	*Charles Thompson.	1966, Nov.
Taunton, Mass.	B. A. Friedman, N-P.	1959, Mar.	Yakima, Wash.	*Craig McMicken.	1967, Sept.
Teaneck, N. J.	*Werner H. Schmid.	1971, Dec.	Yonkers, N. Y.	*Elder Gunter.	1968, Aug.
Terre Haute, Ind.	Leland Harrison, R.	1968, Apr.	York, Pa.	John L. Snyder, R.	1970, Jan.
Toledo, Ohio	*William J. Gross.	1969, Apr.	Youngstown, O.	Anthony B. Flask, D.	1969, Dec.
Topeka, Kan.	Charles Wright, N-P.	1964, Feb.	Zanesville, Ohio.	*Samuel Grey.....	1962, Dec.
Torrance, Calif.	*Edward J. Ferraro.	1970, July			
Trenton, N. J.	C. J. Armentl, N-P.				

Qualifications for Voting by States

Data as of June 30, 1968

A voter must be at least 21 years of age (18 in Georgia and Kentucky, 19 in Alaska, 20 in Hawaii), a citizen; not a convict. Most states require registration. The Voting Rights Act of 1965 suspended literacy tests and other devices to determine qualification of voters in any state or county that had them in force on Nov. 1, 1964, and where less than 50% of the voting age population was registered on that date or voted in the Presidential election.

State	Previous Residence Required in			State	Previous Residence Required in		
	State	County	Precinct		State	County	Precinct
Alabama.....	1 yr.	6 mos.	3 mos.	Montana.....	1 yr.	30 days	30 days
Alaska.....	(b) 1 yr.		(a) 30 days	Nebraska.....	(b) 6 mos.	40 days	10 days
Arizona.....	1 yr.	30 days	30 days	Nevada.....	6 mos.	30 days	10 days
Arkansas.....	1 yr.	6 mos.	30 days	New Hampshire	6 mos.	6 mos.	6 mos.
California.....	(b) 1 yr.	90 days	54 days	New Mexico.....	6 mos.	40 days	30 days
Colorado.....	(b) 1 yr.	90 days	20 days	New York.....	1 yr.	90 days	30 days
Connecticut.....	(b) 6 mos.	(c) 3 mos.	30 days	North Carolina.	(b) 3 mos.	3 mos.	3 mos.
Delaware.....	1 yr.			North Dakota.....	(b) 1 yr.	90 days	30 days
Dist. of Col.	1 yr.			Ohio.....	(b) 1 yr.	40 days	40 days
Florida.....	1 yr.	6 mos.		Oklahoma.....	6 mos.	2 mos.	20 days
Georgia.....	1 yr.	6 mos.		Oregon.....	(b) 6 mos.		
Hawaii.....	1 yr.		3 mos.	Pennsylvania.....	90 days		
Idaho.....	(b) 6 mos.	30 days	30 days	Rhode Island.....	1 yr.		(f) 6 mos.
Illinois.....	(b) 1 yr.	90 days	30 days	Rhode Island.....	1 yr.	6 mos.	3 mos.
Indiana.....	6 mos.	(d) 60 days	30 days	South Carolina.	1 yr.	90 days	30 days
Iowa.....	6 mos.	60 days	10 days	South Dakota.....	1 yr.	3 mos.	
Kansas.....	(b) 6 mos.	30 days	30 days	Tennessee.....	1 yr.	3 mos.	
Kentucky.....	1 yr.	6 mos.	60 days	Texas.....	1 yr.	6 mos.	
Louisiana.....	1 yr.	6 mos.	(e) 3 mos.	Utah.....	1 yr.	4 mos.	60 days
Maine.....	6 mos.		(f) 3 mos.	Vermont.....	1 yr.	90 days	90 days
Maryland.....	1 yr.	6 mos.		Virginia.....	1 yr.	6 mos.	30 days
Massachusetts.....	1 yr.		(f) 6 mos.	Washington.....	(b) 1 yr.	30 days	30 days
Michigan.....	6 mos.		30 days	West Virginia.....	1 yr.	60 days	30 days
Minnesota.....	(b) 6 mos.		(g) 30 days	Wisconsin.....	6 mos.		10 days
Mississippi.....	2 yrs.	1 yr.	(h) 1 yr.	Wyoming.....	1 yr.	60 days	10 days
Missouri.....	(b) 1 yr.	60 days	60 days				

(a) Election district. (b) Residence requirement reduced for qualified voters from another state when voting for President and Vice President. (c) Town. (d) Township. (e) 4 months in municipality for municipal elections. (f) Municipality. (g) With certain exceptions. (h) 6 months for ordained ministers and their wives if minister is in charge of a church.

POST OFFICES IN UNITED STATES

As of June 30, 1968 there was a total of 32,261 post offices throughout the United States and Possessions. Of this number 4,953 were First Class; 7,357 Second Class; 12,912 Third Class, and 7,039 Fourth Class.

POSTAL INFORMATION

United States Domestic Rates

FIRST CLASS

Letters written, and matter sealed against inspection, 6¢ for each ounce or fraction. U. S. Postal cards: single 5¢; double 10¢; private postal cards, same.

Exception: Drop letters when deposited for local delivery at offices not having letter-carrier service and not collected or delivered by rural or star route carriers may be sent at other than the first class rate.

First class includes written matter, namely letters, postal cards, post cards (private mailing cards) and all other matter wholly or partly in writing, whether sealed or unsealed, except manuscripts for books, periodical articles and music, manuscript copy accompanying proofsheets or corrected proofsheets of the same and the writing authorized by law on matter of other classes. Also matter sealed or closed against inspection. Bills and statements of accounts.

GREETING CARDS

Under the new regulations in effect January 1968 greeting cards (unsealed) and other single-piece mailings cost 6¢ for the first 2 ounces and 2¢ for each additional ounce or fraction.

AIRMAIL

Air postal or post card 8¢ each, letters and packages (up to 7 ounces) 10¢ an ounce. Airmail other than cards weight under 2 ounces, 10¢ per ounce plus 2¢ per piece, weight over 2 ounces, 10¢ an ounce plus 5¢ per piece. Over 7 ounces air parcel post rates plus 5¢ per piece. This is in the U. S. its territories and possessions, also to Armed Forces outside the U. S. when addressed APO or FPO, New York, N. Y., San Francisco, Calif. or Seattle, Wash. May be certified, registered, sent C.O.D. or special delivery.

SECOND CLASS

Single copy mailings by general public 5¢ for first 2 ounces and 1¢ for each additional ounce. There are special rates for publications, newspapers and bulk mailing, consult local postmasters for rates and permit.

THIRD CLASS

Third Class (limit up to but not including 16 ounces): Mailable matter not in 1st and 2nd classes.

Single mailing: Greeting cards (unsealed), small parcels, printed matter, booklets and catalogs, 6¢ the first 2 ounces and 2 cents for each additional ounce or fraction.

Bulk material: Books, catalogs of 24 pages or more, seeds, cuttings, bulbs, roots, scions and plants; 16¢ for first pound and 16 cents for each additional pound or fraction.

Other matter: Newsletters, shoppers' guides, advertising circulars: 22 cents a pound. Subject to a minimum rate for which Post Office should be consulted. Separate rates for some nonprofit organi-

zations. Bulk mailing fee, \$30 per calendar year. Apply to postmaster for permit.

PARCEL POST—FOURTH CLASS

Fourth Class or Parcel Post (16 ounces and over): Merchandise, printed matter, etc., may be sealed.

On parcels weighing less than 10 lbs. and measuring more than 84 inches, but not more than 100 inches in length and girth combined, the minimum postage charge shall be the zone charge applicable to a 10-pound parcel.

PRIORITY MAIL

First-class mail of more than 13 ounces and airmail of more than 7 ounces have been merged into a "Priority Mail (Heavy Pieces)" service. First-class and airmail weighing up to one pound is charged 80¢ as Priority Mail regardless of its domestic destination. The most expeditious handling and transportation available will be used for fastest delivery.

FORWARDING ADDRESSES

The law that increased postal rates established the return address service for all classes of mail. (First time for first-class mail.) The mailer, in order to obtain a forwarding address, must endorse the envelope or cover "Address Correction Requested." The destination post office then will determine whether a forwarding address has been left on file and provide it for a fee of 10¢.

SPECIAL HANDLING

Fourth class parcels will be handled and delivered as expeditiously as practicable (but not special delivery) upon payment, in addition to the regular postage: Up to 2 lbs., 25¢; over 2 lbs. and up to 10 lbs., 35¢; over 10 lbs., 50¢. Such parcels must be endorsed, Special Handling.

SPECIAL DELIVERY

First class mail, up to 2 lbs., 30¢; over 2 lbs. and up to 10 lbs., 45¢; over 10 lbs., 60¢. 2nd, 3rd and 4th class mail up to 2 lbs., 55¢; over 2 lbs. and up to 10 lbs., 65¢; over 10 lbs., 80¢.

AIR MAIL PARCEL POST

Air Parcel Post (over 7 ounces to 70 lbs.): Packages not to exceed 100 inches in length and girth combined, including written and other matter of the first class, whether sealed or unsealed, fractions of a pound being charged as a full pound. Ten cents an ounce or fraction for all domestic air mail up to and including 7 ounces regardless of distance or zone.

Rates according to zone apply between the U. S. and Puerto Rico and Virgin Isles.

Parcels weighing less than 10 pounds, measuring over 84 inches but not exceeding 100 inches in length and girth combined are chargeable with a minimum rate equal to that for a 10 pound parcel for the zone to which addressed.

Air Mail Parcel Post

Zones	To 1 lb.	1½	2	2½	3	3½	4	4½	5	Each lb. or fract. over 5
1, 2, 3.....	\$0.80	\$0.98	\$1.16	\$1.40	\$1.64	\$1.88	\$2.12	\$2.36	\$2.60	\$0.48
4.....	.80	1.02	1.23	1.48	1.73	1.98	2.23	2.48	2.73	.50
5.....	.80	1.07	1.34	1.62	1.90	2.18	2.46	2.74	3.02	.56
6.....	.80	1.14	1.47	1.79	2.11	2.43	2.75	3.07	3.39	.64
7.....	.80	1.18	1.55	1.91	2.27	2.63	2.99	3.35	3.71	.72
8.....	.80	1.24	1.68	2.08	2.48	2.88	3.28	3.68	4.08	.80

Registry. All mailable matter prepaid with postage at the first-class or airmail rate may be registered. The mailer is required to declare the value of mail presented for registration.

Insurance is applicable to 3rd and 4th class matter. Matter for sale addressed to prospective purchasers who have not ordered it or authorized its sending will not be insured.

C.O.D.: Unregistered—is applicable to 3rd and 4th class matter and sealed domestic mail of any class bearing postage at the 1st class rate. Such mail must be based on bona fide orders or be in conformity with agreements between senders and addressees. **Registered**—For details consult postmaster.

Certified mail service is available for any matter having no intrinsic value on which 1st class or air mail postage is paid. Receipt is furnished at time of mailing and evidence of delivery obtained. The fee is 30c in addition to postage. Return receipt, restricted delivery and special delivery are available upon payment of additional fees. No indemnity.

REGISTERED, INSURED, C. O. D., CERTIFIED

Indemnity and fees	Registration	Insurance	C.O.D.
Indemnity to \$10.	.75	.20	.60
10.01 to 15.	.75	.20	.70
15.01 to 25.	.75	.30	.70
25.01 to 50.	.75	.30	.80
50.01 to 100.	.75	.40	.90
100.01 to 150.	1.00	.50	1.00
150.01 to 200.	1.00	.60	1.00
200.01 to 400.	1.25		
400.01 to 600.	1.50		
600.01 to 800.	1.75		
800.01 to 1,000.	2.00		
		Limit \$200.	

Consult postmaster for registry rates on articles valued above \$1,000.

MONEY ORDERS

Money Orders: Must be purchased at the money order window of the post office or one of its stations. Maximum amount for which a single order may be issued, \$100.

Domestic fees: From 1c to \$10, 25c; \$10.01 to \$50, 35c; \$50.01 to \$100, 40c. Payable in the U. S., incl. Puerto Rico, Virgin Islands, Guam and Tutuila (Samoa).

Fees for sending money abroad: 1c to \$10, 45c; \$10.01 to \$50, 65c; \$50.01 to \$100, 75c.

Parcel Post Rate Schedule (Effective Oct. 19, 1968)

1lb., not exceeding	Zones							
	Local	1 & 2.	3	4	5	6	7	8
2	\$0.50	\$0.60	\$0.60	\$0.65	\$0.70	\$0.80	\$0.85	\$0.90
3	.50	.65	.70	.75	.85	.95	1.05	1.15
4	.55	.70	.75	.85	.95	1.10	1.20	1.35
5	.55	.75	.80	.90	1.05	1.25	1.40	1.60
6	.60	.80	.90	1.00	1.15	1.40	1.55	1.75
7	.65	.90	.95	1.10	1.30	1.50	1.75	1.95
8	.65	.95	1.00	1.15	1.40	1.65	1.90	2.15
9	.65	1.00	1.05	1.25	1.50	1.80	2.05	2.35
10	.65	1.05	1.15	1.35	1.65	1.90	2.25	2.55
11	.65	1.10	1.20	1.40	1.75	2.00	2.40	2.70
12	.70	1.15	1.25	1.50	1.85	2.15	2.55	2.95
13	.70	1.20	1.35	1.55	1.95	2.25	2.70	3.10
14	.75	1.25	1.40	1.65	2.05	2.40	2.85	3.25
15	.75	1.30	1.45	1.75	2.15	2.50	3.00	3.45
16	.75	1.35	1.55	1.80	2.25	2.60	3.15	3.60
17	.80	1.40	1.60	1.90	2.35	2.75	3.30	3.80
18	.80	1.45	1.65	1.95	2.45	2.85	3.45	4.00
19	.85	1.50	1.75	2.05	2.55	2.95	3.60	4.15
20	.85	1.55	1.80	2.10	2.65	3.10	3.75	4.35

(Consult postmaster for parcels over 20 pounds or measuring more than 72 inches, length and girth.)

CATALOGS

Bulk Mailings*	Zones							
	Local	1 & 2	3	4	5	6	7	8
Piece rate.....	17¢	21¢	21¢	21¢	21¢	21¢	21¢	22¢
Bulk lb. rate..	1.9¢	3.0¢	3.6¢	4.6¢	5.7¢	7.1¢	8.7¢	10.4¢

*Minimum Quantity. Each mailing must consist of 300 or more individually addressed pieces.
Individual Piece Mailings

Weight lbs.	Zones							
	Local	1 & 2	3	4	5	6	7	8
1.5	\$0.23	\$0.29	\$0.30	\$0.31	\$0.33	\$0.35	\$0.38	\$0.41
2	.24	.30	.32	.33	.36	.39	.42	.46
2.5	.25	.32	.33	.36	.39	.42	.46	.51
3	.26	.33	.35	.38	.42	.46	.51	.57
3.5	.27	.33	.37	.40	.44	.49	.55	.62
4	.28	.36	.39	.42	.47	.53	.59	.67
4.5	.29	.38	.41	.45	.50	.56	.64	.72
5	.30	.39	.42	.46	.53	.60	.68	.77
6	.32	.42	.46	.51	.59	.67	.77	.88
7	.34	.45	.50	.56	.64	.74	.85	.98
8	.36	.48	.53	.60	.70	.81	.94	1.09
9	.38	.51	.57	.65	.76	.88	1.04	1.19
10	.39	.54	.60	.69	.81	.95	1.12	1.29

Zone Mileage

1 & 2—Up to 150	4—300-600	6—1,000-1,400	8—Over 1,800
3—150-300	5—600-1,000	7—1,400-1,800	

CATALOGS

Educational Materials (Limit 70 lbs.)

Complete books with 24 or more pages, at least 22 of which are printed consisting wholly of reading matter or scholarly bibliography with no advertising other than incidental announcements of books, 16mm films, 16mm film catalogs (except when mailed to commercial theatres), printed music, printed objective test materials, sound recordings including incidental announcements of recordings, and guides or scripts for use with such recordings; manuscripts for books, periodical articles and music permanently processed educational reference charts; and certain medical information, all zones: 12¢ first lb. 6¢ each additional lb.

Library Rate (Limit 70 lbs.)

The special Library Rate of 5¢ first lb., 2¢ each additional lb. or fraction thereof, applies to the following when loaned or exchanged between schools, colleges, public libraries and certain non-profit organizations; books, printed music, bound academic theses, periodicals, sound recordings and certain other library materials. The Library Rate applies to the following when sent to or from schools, colleges, libraries and non-profit groups; 16mm films, filmstrips, transparencies, slides, microfilms, sound recordings, scientific or mathematical kits or instruments, and certain catalogs and guides. Maximum size 100 inches length and girth combined. (See your postmaster.)

INTERNATIONAL RATES FOR ORDINARY SURFACE MAIL, AIR MAIL AND SURFACE PARCEL POST (In effect May 1, 1967)

Aerogrammes—13 cents each to all countries.

Air Mail Post Cards (single)—13 cents each to all countries except Canada and Mexico (6¢).

Country	Ordinary surface mail (not over 1 oz.)	Letters and letter packages (per ½ oz.)	Air Service		Parcel Post		Surface Parcel Post		Max. wt. for parcel post (surface or air) Lbs.
			Other Articles	Each add'l 2 oz. or fraction	First 4 oz.	Each add'l 4 oz. or fraction	First 2 lbs.	Each add'l pound or fraction	
Aden.....	13¢	25¢	\$0.60	\$0.30	\$1.78	\$0.69	\$1.10	\$0.35	22
Afghanistan.....	13	25	.60	.30	2.00	.75	1.10	.35	22
Albania.....	13	20	.50	.20	2.12	.49	1.10	.35	22
Algeria.....	13	20	.50	.20	1.72	.60	1.10	.35	44
Andorra.....	13	20	.50	.20	1.77	.44	1.10	.35	44
Anguilla.....	13	15	.40	.10	1.13	.23	1.00	.30	22
Antigua.....	13	15	.40	.10	1.13	.23	1.00	.30	22
Argentina.....	13	15	.50	.20	1.56	.67	1.10	.35	44
Aruba.....	13	15	.40	.10	1.32	.28	1.10	.35	22
Ascension Isl.....	13	15	.50	.20	1.66	.75	1.10	.35	22
Australia.....	13	25	.60	.30	1.71	.46	1.10	.35	44
Austria.....	13	20	.50	.20	1.24	.35	1.10	.35	22
Azores.....	13	20	.50	.20	1.39	.16	1.00	.30	22
Bahamas.....	13	15	.40	.10	1.54	.65	1.10	.35	22
Bahrain.....	13	25	.60	.30	1.21	.32	1.00	.30	22
Barbados.....	13	15	.40	.10	1.13	.23	1.00	.30	22
Barbuda.....	13	15	.40	.10	1.53	.42	1.10	.35	44
Belgium.....	13	20	.50	.20	1.12	.22	1.00	.30	33
Bermuda.....	13	15	.40	.10	1.57	.43	1.10	.35	44
Bhutan.....	13	25	.60	.30	1.32	.28	1.00	.30	44
Bolivia.....	13	25	.60	.30	1.69	.80	1.10	.35	22
Bonaire.....	13	15	.40	.10	1.87	.49	1.10	.35	44
Botswana.....	13	25	.60	.30	1.20	.30	1.00	.30	22
Brazil.....	13	25	.60	.30	1.13	.23	1.00	.30	22
Br. Honduras.....	13	15	.40	.10	1.91	.93	1.10	.35	22
Br. Virgin Isl.....	13	15	.40	.10	1.36	.47	1.10	.35	22
Brunei.....	13	25	.60	.30	2.10	.91	1.10	.35	22
Bulgaria.....	13	25	.60	.30	1.75	.67	1.10	.35	22
Burma.....	13	25	.60	.30	1.77	.58	1.10	.35	22
Burundi.....	13	25	.60	.30	1.73	.51	1.10	.35	22
Cambodia.....	13	25	.60	.30	1.75	.67	1.10	.35	44
Cameroon.....	13	25	.60	.30	1.75	.67	1.10	.35	22
Canada.....	6	110	(25)		1.77	.58	1.10	.35	22
Cape Verde Isl.....	13	25	.60	.30	1.73	.51	1.10	.35	22
Cent. Africa Rep.....	13	25	.60	.30	1.75	.67	1.10	.35	44
Ceylon.....	13	25	.60	.30	2.12	.81	1.10	.35	22
Chad.....	13	25	.60	.30	1.75	.67	1.10	.35	44
Chile.....	13	15	.40	.10	1.85	.55	1.10	.35	22
China.....	13	25	.60	.30	1.56	.86	1.10	.35	44
China, Rep.....	13	25	.60	.30	1.82	.31	1.10	.35	44
China, Cont.....	13	25	.60	.30	1.99	.91	1.10	.35	44
Colombia.....	13	25	.60	.30	1.75	.67	1.10	.35	44
Comoro Islands.....	13	25	.60	.30	1.75	.67	1.10	.35	44
Congo (Brazza).....	13	25	.60	.30	1.75	.67	1.10	.35	44
Congo (Leopold).....	13	25	.60	.30	1.75	.67	1.10	.35	44
Corsica.....	13	20	.50	.20	1.89	.42	1.10	.35	44
Costa Rica.....	13	15	.40	.10	1.31	.26	1.00	.30	44
Cuba.....	13	15	.40	.10	1.51	.32	1.00	.30	22
Curacao.....	13	15	.40	.10	1.32	.28	1.00	.30	44
Cyprus.....	13	25	.60	.30	1.83	.64	1.10	.35	22
Czechoslovakia.....	13	25	.60	.30	1.38	.43	1.10	.35	44
Dahomey.....	13	25	.60	.30	1.60	.54	1.10	.35	44
Denmark.....	13	25	.60	.30	1.35	.45	1.10	.35	44
Dominica.....	13	15	.40	.10	1.52	.30	1.00	.30	22
Dominican R.....	13	15	.40	.10	1.42	.23	1.00	.30	44
Ecuador.....	13	25	.60	.30	1.76	.30	1.10	.35	44
El Salvador.....	13	15	.40	.10	1.40	.27	1.00	.30	44
Estonia.....	13	25	.60	.30	1.81	.60	1.10	.35	44
Ethiopia.....	13	25	.60	.30	1.80	.69	1.10	.35	44
Falkland Isl.....	13	15	.40	.10	1.90	.54	1.10	.35	22
Faroe Islands.....	13	20	.50	.20	1.35	.45	1.10	.35	44
Fernando Po.....	13	25	.60	.30	1.64	.62	1.10	.35	44
Fiji Islands.....	13	25	.60	.30	1.77	.56	1.10	.35	22
Finland.....	13	20	.50	.20	1.38	.49	1.10	.35	44
France, incl. Monaco.....	13	20	.50	.20	1.89	.42	1.10	.35	44
French Guiana.....	13	15	.40	.10	1.39	.35	1.10	.35	44
Fr. Polynesia.....	13	25	.60	.30	1.71	.48	1.10	.35	44
Fr. Somaliland.....	13	25	.60	.30	1.84	.65	1.10	.35	44
Gabon Rep.....	13	25	.60	.30	1.75	.67	1.10	.35	44
Gambia.....	13	25	.60	.30	1.52	.48	1.10	.35	22
Germany, incl. Saar.....	13	20	.50	.20	1.34	.44	1.10	.35	44
Ghana.....	13	25	.60	.30	1.85	.58	1.10	.35	22
Gibraltar.....	13	20	.50	.20	1.37	.47	1.10	.35	22
Gilbert and Ellice.....	13	25	.60	.30	1.69	.63	1.10	.35	22
Great Britain.....	13	20	.50	.20	1.32	.42	1.10	.35	22
Greece.....	13	20	.50	.20	1.66	.53	1.10	.35	22
Greenland.....	13	20	.50	.20	1.49	.59	1.10	.35	44
Grenada.....	13	15	.40	.10	1.52	.30	1.00	.30	22
Guadeloupe.....	13	15	.40	.10	1.27	.23	1.00	.30	44
Guatemala.....	13	15	.40	.10	1.59	.29	1.00	.30	44
Guinea.....	13	25	.60	.30	1.66	.61	1.10	.35	44
Guyana.....	13	15	.40	.10	1.54	.31	1.10	.35	22
Haiti.....	13	15	.40	.10	1.43	.22	1.00	.30	44
Honduras.....	13	15	.40	.10	1.35	.29	1.00	.30	22
Hong Kong.....	13	25	.60	.30	1.68	.79	1.10	.35	22
Hungary.....	13	20	.50	.20	1.37	.48	1.10	.35	44

Country	Ordinary surface mail (not over 1 oz.)	Air Service				Surface Parcel Post			Max. wt. for parcel post (surface or air) Lbs.
		Letters and letter packages (per ½ oz.)	Other Articles		Parcel Post		Each add'l pound or fraction		
			First 2 oz.	Each add'l 2 oz. or fraction	First 4 oz.	Each add'l 4 oz. or fraction		First 2 lbs.	
Iceland.....	13 ^c	20 ^c	2.50	.20	1.69	.35	1.10	.35	44
India.....	13	25	4.60	.30	1.70	.80	1.10	.35	444
Indonesia.....	13	25	.60	.30	2.21	.61	1.10	.35	22
Iran.....	13	25	.60	.30	1.70	.80	1.10	.35	44
Iraq.....	13	25	.60	.30	1.89	.60	1.10	.35	44
Ireland (Eire).....	13	20	.50	.20	1.31	.42	1.10	.35	22
Israel.....	13	25	.60	.30	1.86	.57	1.10	.35	22
Italy.....	13	320	.50	.20	1.67	.49	1.10	.35	44
Ivory Coast.....	13	25	.60	.30	1.56	.60	1.10	.35	44
Jamaica.....	13	15	.40	.10	1.50	.20	1.00	.30	22
Japan.....	13	425	4.60	.30	1.39	.50	1.10	.35	22
Jordan.....	13	25	.60	.30	1.73	.56	1.10	.35	22
Kenya.....	13	25	.60	.30	1.36	.69	1.10	.35	22
Korea.....	13	425	.60	.30	1.43	.54	1.10	.35	22
Kuwait.....	13	25	.60	.30	1.52	.63	1.10	.35	22
Laos.....	13	25	.60	.30	2.13	.86	1.10	.35	22
Latvia.....	13	325	4.60	.30	1.81	.60	1.10	.35	44
Lebanon.....	13	25	.60	.30	1.73	.56	1.10	.35	444
Leeward Isl.....	13	15	.40	.10	1.13	.23	1.00	.30	22
Lesotho.....	13	25	.60	.30	1.69	.80	1.10	.35	22
Liberia.....	13	25	.60	.30	1.42	.53	1.10	.35	22
Libya.....	13	20	.50	.20	1.71	.54	1.10	.35	44
Liechtenstein.....	13	20	.50	.20	1.52	.43	1.10	.35	44
Lithuania.....	13	325	4.60	.30	1.81	.60	1.10	.35	44
Luxembourg.....	13	20	.50	.20	1.57	.41	1.10	.35	44
Macao.....	13	25	.60	.30	2.04	.79	1.10	.35	22
Madagascar.....	13	25	.60	.30	1.96	.77	1.10	.35	44
Madeira Isl.....	13	20	2.50	.20	1.34	.45	1.10	.35	22
Malawi.....	13	25	.60	.30	1.69	.79	1.10	.35	22
Malaysia.....	13	25	.60	.30	2.05	.90	1.10	.35	22
Maldives Isl.....	13	325	2.60	.30	2.20	.52	1.10	.35	22
Mali.....	13	25	.60	.30	1.65	.49	1.10	.35	44
Malta.....	13	20	.50	.20	1.27	.23	1.00	.30	44
Martinique.....	13	15	.40	.10	1.27	.23	1.00	.30	44
Mauritania.....	13	25	.60	.30	1.50	.49	1.10	.35	44
Mauritius.....	13	25	.60	.30	1.91	.82	1.10	.35	22
Mexico ⁴	6	110	.40	.10	1.12	.22	1.00	.30	44
Montserrat.....	13	15	.40	.10	1.13	.23	1.00	.30	22
Morocco.....	13	20	.50	.20	1.67	.49	1.10	.35	44
Muscat.....	13	25	.60	.30	1.54	.65	1.10	.35	22
Nepal.....	13	325	2.60	.30	1.69	.80	1.10	.35	22
Netherlands.....	13	20	.50	.20	1.56	.42	1.10	.35	44
Neth. Antilles.....	13	15	.40	.10	1.32	.28	1.00	.30	44
Nevis.....	13	15	.40	.10	1.13	.23	1.00	.30	22
New Caledonia.....	13	25	.60	.30	1.78	.59	1.10	.35	44
New Guinea.....	13	25	.60	.30	1.73	.84	1.10	.35	22
New Hebrides.....	13	25	.60	.30	1.68	.59	1.10	.35	44
New Zealand.....	13	25	.60	.30	1.89	.67	1.10	.35	22
Nicaragua.....	13	15	.40	.10	1.32	.26	1.00	.30	44
Niger.....	13	25	.60	.30	2.19	.50	1.10	.35	44
Nigeria.....	13	25	.60	.30	2.00	.59	1.10	.35	22
Norway.....	13	20	.50	.20	1.35	.45	1.10	.35	44
Outer Mongolia.....	13	325	2.60	.30	2.20	.77	1.10	.35	22
Pakistan.....	13	25	.60	.30	1.86	.57	1.10	.35	11
Palestine.....	13	25	.60	.30	1.58	.28	1.00	.30	470
Panama.....	13	415	2.40	.10	1.73	.84	1.10	.35	22
Papua.....	13	25	.60	.30	1.57	.43	1.10	.35	44
Paraguay.....	13	15	2.50	.20	1.83	.37	1.10	.35	44
Peru.....	13	415	2.50	.20	1.93	.74	1.10	.35	444
Philippines.....	13	25	.60	.30	1.84	.65	1.10	.35	22
Pitcairn Isl.....	13	25	.60	.30	1.65	.47	1.10	.35	44
Poland.....	13	20	.50	.20	1.30	.40	1.10	.35	22
Portugal.....	13	20	.50	.20	2.18	.81	1.10	.35	22
Portuguese E. Af.....	13	25	.60	.30	2.31	1.09	1.10	.35	22
Port. Timor.....	13	25	.60	.30	1.86	.64	1.10	.35	22
Port W. Africa.....	13	25	.60	.30	1.54	.65	1.10	.35	22
Qatar.....	13	25	.60	.30	1.84	.80	1.10	.35	44
Reunion.....	13	25	.60	.30	1.69	.79	1.10	.35	22
Rhodesia.....	13	325	.60	.30	1.79	.77	1.10	.35	44
Rio Muni.....	13	320	2.50	.20	1.54	.49	1.10	.35	22
Rumania.....	13	25	.60	.30	1.75	.67	1.10	.35	22
Rwanda.....	13	325	.60	.30	1.43	.54	1.10	.35	22
Ryukyu Islands.....	13	15	.40	.10	1.32	.28	1.00	.30	44
Sabah.....	13	15	.40	.10	1.13	.23	1.00	.30	22
St. Christopher.....	13	15	.40	.10	1.32	.28	1.00	.30	44
St. Eustatius.....	13	15	.40	.10	1.91	.77	1.10	.35	22
St. Helena.....	13	15	.40	.10	1.52	.30	1.00	.30	22
St. Lucia.....	13	15	.40	.10	1.09	.22	1.00	.30	44
St. Pierre & Miquelon.....	13	15	.40	.10	1.52	.30	1.00	.30	22
St. Vincent.....	13	15	.40	.10	1.97	.88	1.10	.35	22
Santa Cruz Isl.....	13	25	.60	.30	1.97	.63	1.10	.35	22
Saudi Arabia.....	13	325	.60	.30	1.48	.47	1.10	.35	44
Senegal.....	13	25	.60	.30	1.61	.71	1.10	.35	22
Seychelles.....	13	25	.60	.30	1.96	.51	1.10	.35	22
Sierra Leone.....	13	25	.60	.30	2.05	.90	1.10	.35	22
Singapore.....	13	25	.60	.30	1.98	.88	1.10	.35	22
Solomon Isl.....	13	25	.60	.30	2.05	.72	1.10	.35	22
Somali Rep.....	13	25	4.60	.30	1.69	.80	1.10	.35	22
South Africa ⁴	13	20	.50	.20	1.77	.44	1.10	.35	444
Spain.....	13	325	.60	.30	1.78	.51	1.10	.35	44
Sp. W. Africa.....	13	25	2.60	.30	1.99	.64	1.10	.35	22
Sudan.....	13	15	.50	.20	1.42	.33	1.10	.35	44
Surinam.....	13	20	.50	.20	1.35	.45	1.10	.35	44
Sweden.....	13	20	.50	.20	1.52	.43	1.10	.35	44
Switzerland.....	13	25	.60	.30	1.57	.58	1.10	.35	444
Syria.....	13	25	.60	.30	1.52	.58	1.10	.35	444

Country	Ordinary surface mail (not over 1 oz.)	Letters and letter packages (per ½ oz.)	Air Service		Parcel Post		Surface Parcel Post		Max. wt. for parcel post (surface or air)
			Other Articles First 2 oz.	Each add'l 2 oz. or fraction	First 4 oz.	Each add'l 4 oz. or fraction	First 2 lbs.	Each add'l pound or fraction	
Tanzania.....	13¢	25¢	.60	.30	1.90	.73	1.10	.35	22
Thailand.....	13	25	.60	.30	2.08	.74	1.10	.35	22
Togo.....	13	25	.60	.30	1.64	.60	1.10	.35	44
Tonga.....	13	25	.60	.30	1.48	.59	1.10	.35	22
Trinidad, Tobago.....	13	15	.40	.10	1.51	.28	1.00	.30	22
Tristan da Cunha.....	13	25	.60	.30	1.80	.76	1.10	.35	22
Trust Territories.....	13	25	.60	.30	1.54	.65	1.10	.35	22
Tunisia.....	13	20	.50	.20	1.66	.47	1.10	.35	44
Turkey.....	13	20	.50	.20	1.44	.54	1.10	.35	44
Turks Islands.....	13	15	.40	.10	1.43	.20	1.00	.30	22
Uganda.....	13	25	.60	.30	1.86	.69	1.10	.35	22
USSR.....	13	325	4.60	.30	1.81	.60	1.10	.35	44
UAR (Egypt).....	13	420	.50	.20	1.47	.58	1.10	.35	44
Upper Volta.....	13	25	.60	.30	1.73	.55	1.10	.35	44
Uruguay.....	13	15	.50	.20	1.86	.56	1.10	.35	44
Vatican City.....	13	20	.50	.20	1.54	.46	1.10	.35	44
Venezuela.....	13	115	.50	.20	1.72	.26	1.10	.35	44
Vietnam Rep. of.....	13	25	.60	.30	2.09	.82	1.10	.35	22
North Viet.....	13	325	2.60	.30	.....	.....	.....	.....	.....
Western Samoa.....	13	25	.60	.30	1.72	.50	1.10	.35	22
Windward Isl.....	13	15	.40	.10	1.52	.30	1.00	.30	22
Yemen.....	13	25	.60	.30	.....	.....	.....	.....	.....
Yugoslavia.....	13	20	.50	.20	1.38	.49	1.10	.35	44
Zambia.....	13	25	.60	.30	1.69	.79	1.10	.35	22

¹The rate is per ounce. ²Small packets not accepted. ³Dutiable merchandise prohibited in letters or letter packages. ⁴Restrictions apply. Consult post office. ⁵The rate is 8¢ per ounce. Prepare all air packages for Canada as letter mail. ⁶The rates for surface packages of merchandise for Canada weighing up to 8 ounces are: 10¢ for 5 ounces or less, 12¢ for 6 ozs., 14¢ for 7 ozs., and 16¢ for 8 ozs. The packages are treated as A0 mail, must be mailed unsealed, and shall bear customs label Form 2976 unless the sender knows the contents are not dutiable. ⁷Surface parcel post for Canada must weigh over 8 ozs. (see ⁶). ⁸Air parcel service not available to northern region of Somal. NOTE: Parcel post service not available to all countries.

INTERNATIONAL MAILS

WEIGHT AND DIMENSIONAL LIMITS AND SURFACE RATES

For air rates see pages 929-931

Letters and letter packages. To Canada and Mexico 6¢ per ounce or fraction; to all other countries 13¢ for the first ounce and 8¢ each additional ounce or fraction. Weight limit: 4 lbs., 6 ounces. except to Canada which is 60 lbs. Maximum dimensions: Length, breadth, and thickness combined, 36 inches; greatest length, 24 inches. Dimensions vary when sent in the form of a roll. Envelopes must measure at least 4½x3 inches.

Postal cards. To Canada and Mexico 5¢ each; 10¢ with reply paid. To all other countries 8¢ each; 16¢ with reply paid. Dimensions in inches: Max. 6x4½, Min. 4½x3. Cards exceeding maximum dimensions must be paid at letter rate.

Printed matter other than books as described below. Canada and Mexico 6¢ first 2 ounces; 2 cents each additional ounce. All other countries 6¢ for the first 2 ounces, and 4¢ each additional 2 ounces or fraction. (Consult post office for special rates on second-class matter and controlled circulation publications mailed by publishers or registered news agent to foreign countries.) Weight limit: For most countries, 6 lbs., 9 ounces for prints in general and 11 lbs. for books. For exceptions, see under exceptional weight limits for printed matter. Dimensions: Same as letters.

Books and Sheet Music: The minimum rate for mailings to all foreign countries 14¢ first 2 ozs. and 1¢ for each additional 2 ozs. or fraction. Weight and dimensions, same as printed matter.

Exceptional Weight Limits for Printed Matter. Printed matter may weigh up to 22 pounds to Bolivia, Brazil, Fernando Po, Rio Muni, Spain including Balearic Islands, Canary Islands, and Spanish Offices in Northern Africa, and Spanish West Africa, and up to 33 pounds to Argentina, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, El Salvador, Uruguay and Venezuela.

INTERNATIONAL PARCEL POST

For rates see pages 929-931

General dimensional limits—Greatest length, 3½ feet; greatest length and girth combined, 6 feet.

Prohibited articles. Before sending goods abroad the mailer should satisfy himself that they will not be confiscated or returned because their importation is prohibited or restricted by the country of address. Information concerning prohibited or restricted articles appears in the Directory of International Mail, which may be consulted at any U. S. post office.

Packing. Parcels for transmission overseas should be even more carefully packed than those intended for delivery within the continental United States. Containers should be used which will be strong enough to protect the contents from the

weight of the blind. Generally mailable at same rates as apply in the domestic mail. Weight limit: 15 lbs. 6 ounces. Dimensions: Same as letters.

Samples of merchandise. Canada and Mexico 6¢ first 2 ounces; 2¢ each additional ounce. Minimum charge, 10 cents. All other countries, 6¢ first 2 ounces; 4¢ each additional 2 ounces or fraction. Minimum charge: 13 cents. Weight limits: 16 ounces to Canada and Mexico; 18 ounces to all other countries. Dimensions: Same as for letters. Samples may not contain any article having a salable value, or sent as gift for personal use.

Small packets. 6¢ each 2 ozs. or fraction. 8¢ to Canada with a weight limit of 8 ozs. Minimum charge: 26¢. Weight limit: 2 lbs., 3 ozs. Dimensions: Same as letters. Some countries do not admit small packets (See footnote ² above).

Registration. In addition to postage. For Postal Union articles, 75¢ to all countries. Registry return receipts: Requested at mailing, 13¢; after 25¢.

Special delivery. In addition to postage. Postal Union articles only: Letter, letter-packages, post cards, and air mail other articles, 30¢ up to 2 lbs.; over 2 lbs. up to 10 lbs., 45¢; over 10 lbs., 60¢. Surface other articles, 55¢ up to 2 lbs.; over 2 lbs. up to 10 lbs., 65¢; over 10 lbs., 80¢: Not available to all countries—consult post office.

Marking. An article intended for special delivery service must have affixed to the cover near the name of the country of destination "EXPRES" (Special Delivery) label, obtainable at the post office, or it may be marked on the cover boldly in red "EXPRES" (Special Delivery).

Prepayment of replies from other countries. A mailer who wishes to prepay a reply by letter from another country may do so by sending his correspondent one or more international reply coupons, which may be purchased at United States post offices. One coupon should be accepted in any country in exchange for stamps to prepay a surface letter of the first unit of weight to the U. S.

weight of other mails, from pressure and friction, climatic changes, and repeated handlings. Contents should be solidly packed in the containers, with cushioning material. When sending liquids or easily liquefiable substances surround the inner container with absorbent material.

Sealing. Registered or insured parcels must be sealed. To some countries the sealing of ordinary (unregistered and uninsured) parcels is optional, and to others compulsory. Consult post office.

Customs declarations, and other forms. A parcel post sticker, and at least one customs declaration giving a complete description of the contents are required for each parcel mailed to another country. Information and forms at post offices.

Post Office-Authorized 2-Letter State Abbreviations

Gradually replacing the traditional abbreviations for the states of the United States are the two-letter ones approved by the Post Office Department when it introduced the ZIP Code in 1963. The official list follows, including the District of Columbia, Guam, Puerto Rico and the Virgin Islands (all capital letters are used):

Alabama	AL	Kentucky	KY	Ohio	OH
Alaska	AK	Louisiana	LA	Oklahoma	OK
Arizona	AZ	Maine	ME	Oregon	OR
Arkansas	AR	Maryland	MD	Pennsylvania	PA
California	CA	Massachusetts	MA	Puerto Rico	PR
Colorado	CO	Michigan	MI	Rhode Island	RI
Connecticut	CT	Minnesota	MN	South Carolina	SC
Delaware	DE	Mississippi	MS	South Dakota	SD
Dist. of Col.	DC	Missouri	MO	Tennessee	TN
Florida	FL	Montana	MT	Texas	TX
Georgia	GA	Nebraska	NB	Utah	UT
Guam	GU	Nevada	NV	Vermont	VT
Hawaii	HI	New Hampshire	NH	Virginia	VA
Idaho	ID	New Jersey	NJ	Virgin Islands	VI
Illinois	IL	New Mexico	NM	Washington	WA
Indiana	IN	New York	NY	West Virginia	WV
Iowa	IA	North Carolina	NC	Wisconsin	WI
Kansas	KS	North Dakota	ND	Wyoming	WY

Also approved for use in addressing mail are the following abbreviations:

Alley	Ally	Drive	Drive	Plaza	Plz
Arcade	Arc	Expressway	Expy	Point	Pt
Avenue	Ave	Extended	Ext	Road	Rd
Boulevard	Blvd	Extension	Ext	Rural	R
Branch	Br	Freeway	Fwy	Square	Sq
Bypass	Byp	Gardens	Gdns	Street	St
Causeway	Cswy	Grove	Grv	Street	Ter
Center	Ctr	Heights	Hts	Terrace	Trl
Circle	Cir	Highway	Hwy	Trail	Trl
Court	Ct	Lane	Ln	Turnpike	Tpke
Courts	Cts	Manor	Mnr	Viaduct	Via
Crescent	Cres	Place	Pl	Vista	Vls

United Nations Postage Stamps Issued in 1968

UN stamps, valid for postage only on mail deposited at UN Headquarters, N. Y., may be bought at UN Headquarters, ordered by mail from the UN Postal Administration, New York, N. Y. 10017, or obtained automatically through the Customer Deposit Account Service. Revenue from sale of UN stamps for postage purposes goes to the U. S. Post Office, from philatelic sales goes to the UN.

Date	Stamp	Value	Date	Stamp	Value
Jan. 16	Secretariat	6¢	May 31	Definitive	13¢
Mar. 1	Trusteeship Council Statue by Starcke (commemorative)	6¢		Airmail postal card	6¢
	(definitive)	75¢		Airletter sheet	13¢
Apr. 18	UN Industrial Development Org. (UNIDO)	6¢	Sept. 19	World Weather Watch	6¢
	Airmail	20¢			20¢
		13¢	Nov. 22	International Year for Human Rights	6¢
		13¢			13¢

Commemorative Stamps and Regular Postal Issues

Date	Stamp	Value	From	Date	Stamp	Value	From
Commemorative 1968				July 30	Henry Ford	12¢	Dearborn
Feb. 12	Illinois Statehood	6¢	Shawneetwn.	Aug. 13	Lucy Stone	50¢	Dorchester, Mass.
Mar. 30	HemisFair '68	6¢	San Antonio	Oct. 21	John Dewey	30¢	Burlington, Vt.
May 1	Support Our Youth	6¢	Chicago	Regular Stamps, Postal Cards			
May 15	50th Ann. Air Mail	10¢	Wash., D.C.	Jan. 4	Lincoln Postal	5¢	Hodgenville, Ky.
May 17	Law and Order	6¢	Wash., D.C.	Jan. 5	Airmail stamp	10¢	San. Fran.
June 27	Register and Vote	6¢	Wash., D.C.	Feb. 28	Franklin D. Roosevelt (coil)	6¢	Wash., D.C.
July 26	Women Marines, 25 Ann.	5¢	San. Fran.	Mar. 1	Airmail Postal	8¢	N. Y. C.
Sept. 11	Walt Disney	6¢	Marceline, Mo.	Mar. 8	Oliver W. Holmes	15¢	Wash., D.C.
Sept. 20	Father Marquette	6¢	Sault Ste. Marie	Apr. 4	Airlift Postage Stamp	\$1	Seattle
Sept. 26	Daniel Boone	6¢	Frankfort, Ky.	Nov. 1	Christmas (The Annunciation)	6¢	Wash., D.C.
Oct. 1	Arkansas River Navig.	6¢	Little Rock	Nov. 22	International Airmail	20¢	N. Y. C.
Oct. 10	Left Erikson	6¢	Seattle	Special			
Oct. 15	Cherokee Strip	6¢	Ponca City, Ok.	Jan. 4	Statue of Liberty (envelope)	6¢	N. Y. C.
Oct. 24	Waterfowl Conserv.	6¢	Cleveland	Jan. 8	Airmail stamped envel.	10¢	Chicago
Nov. 4	American Indian (Nez Perce)	6¢	Wash., D.C.	Jan. 24	American Flag	6¢	Wash., D.C.
Prominent Americans				Mar. 26	Precanceled envel.	1.4¢	Springfield, Mass.
Jan. 8	Frank Lloyd Wright	2¢	Buffalo	July 4	Flag Series	6¢	Pittsburgh
Jan. 12	Thomas Jefferson	1¢	Jeffersonville, Ind.	Oct. 18	John Trumbull Painting	6¢	New Haven
Jan. 29	Thomas Paine	40¢	Phila.				

POSTAL RECEIPTS AT LARGE CITIES (Population over 400,000)

Year	Boston	Chicago	Detroit	L.A.	New York*	Phila.	St. Louis	Wash.D.C.
(Cal.)	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1964	67,297,260	219,628,157	56,575,009	99,662,948	377,810,432	74,514,383	50,001,765	49,172,236
1965	68,463,971	226,927,022	57,795,060	104,420,445	387,853,452	79,188,763	50,889,265	51,057,860
1966†	72,203,384	234,415,038	59,229,760	107,126,474	398,596,181	81,069,225	51,993,824	56,002,910
1967†	75,987,947	242,476,184	62,575,331	113,463,736	412,802,914	90,165,128	55,838,625	59,370,000
1968†	83,224,001	262,183,855	68,164,877	125,783,746	455,333,066	97,793,496	58,408,071	69,174,109

*Includes 5 boroughs. †Includes Wash., D. C., area only, not metropolitan area. ‡Fiscal year.
 Other Cities, For Fiscal Year 1968: Atlanta, \$48,946,082; Baltimore, \$36,361,028; Buffalo, \$21,299,180; Cincinnati, \$34,144,453; Cleveland, \$55,663,770; Columbus, \$29,702,992; Dallas, \$53,986,704; Denver, \$33,183,254; Houston, \$41,921,906; Indianapolis, \$34,388,442; Kansas City, \$47,498,929; Memphis, \$20,332,360; Milwaukee, \$34,676,765; Minneapolis, \$45,951,851; Newark, \$20,447,931; New Orleans, \$18,449,894; Phoenix, \$15,725,999; Pittsburgh, \$38,555,000; San Antonio, \$15,224,962; San Diego, \$15,239,454; San Francisco, \$71,647,199; Seattle, \$31,659,486.

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